

Linux



# IBM Electronic Service Agent for PowerLinux User's Guide

*Version 4 Release 2*



Linux



# IBM Electronic Service Agent for PowerLinux User's Guide

*Version 4 Release 2*

**Note**

Before using this information and the product it supports, read the information in “Notices” on page 125.

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# Contents

## About this document . . . . . v

Highlighting . . . . .	v
Case-sensitivity in Linux . . . . .	v
ISO 9000. . . . .	v

## IBM Electronic Service Agent . . . . . 1

What's new in IBM Electronic Service Agent for PowerLinux . . . . .	1
IBM Electronic Service Agent overview . . . . .	6
Accessing the IBM Electronic Support portal. . . . .	6
Problem processing overview. . . . .	7
Planning for IBM Electronic Service Agent . . . . .	8
Operating systems for IBM Electronic Service Agent. . . . .	8
Browsers for IBM Electronic Service Agent . . . . .	8
IBM Serviceable Event Provider . . . . .	9
Security . . . . .	9
Topology . . . . .	12
Installing IBM Electronic Service Agent . . . . .	15
Activating and configuring IBM Electronic Service Agent . . . . .	17
Using the activation wizard . . . . .	17
Using the activator command . . . . .	20
Configuring your service connection . . . . .	22
Testing connectivity to IBM . . . . .	25
Specifying service contact information . . . . .	26
Using IBM Electronic Service Agent . . . . .	30
Using the graphical user interface . . . . .	30
Displaying system information . . . . .	33
Displaying problem information . . . . .	35
Discovering systems . . . . .	38
Sending a test problem . . . . .	40
Running an operational test . . . . .	41
Collecting and sending service information. . . . .	42
Collecting extended error data . . . . .	43
Displaying the activity log . . . . .	43
Configuring operational settings . . . . .	44
Exporting a configuration. . . . .	45
Importing a configuration . . . . .	46
Checking status . . . . .	47
Accessing the IBM Electronic Support portal . . . . .	48
Managing IBM Electronic Service Agent . . . . .	48
Specifying service contact information . . . . .	48
Providing IBM IDs . . . . .	52
Configuring your service connection . . . . .	53
Creating the IBM Service and Support proxy . . . . .	55
Configuring SNMP Settings . . . . .	56
Configuring problem reporting. . . . .	57
Configuring service information collection . . . . .	58
Configuring performance management data collection . . . . .	59
Configuring operational tests . . . . .	60

Specifying notifications . . . . .	61
Setting the trace level . . . . .	62
Configuring resource filters . . . . .	63
Configuring error codes . . . . .	64
Configuring UAK Management settings . . . . .	65
Deactivating IBM Electronic Service Agent . . . . .	66
Unconfiguring IBM Electronic Service Agent . . . . .	69
Uninstalling IBM Electronic Service Agent . . . . .	70
Using the IBM Electronic Service Agent command line interface . . . . .	72
esacli . . . . .	72
esacli activity. . . . .	74
esacli backup. . . . .	76
esacli clusterInformation . . . . .	76
esacli connectionSettings . . . . .	77
esacli contactSettings . . . . .	80
esacli export . . . . .	83
esacli generateToken . . . . .	84
esacli help. . . . .	85
esacli ibmId . . . . .	88
esacli import . . . . .	88
esacli interfaces . . . . .	89
esacli lsentityIds . . . . .	90
esacli locationSettings . . . . .	91
esacli logSettings . . . . .	93
esacli notificationSettings . . . . .	95
esacli opNotificationSettings . . . . .	97
esacli opTestSettings . . . . .	99
esacli problem . . . . .	100
esacli problemSettings . . . . .	102
esacli resourceFilters . . . . .	103
esacli restauth . . . . .	104
esacli restore . . . . .	105
esacli resume . . . . .	106
esacli service . . . . .	107
esacli serviceSettings . . . . .	108
esacli srcFilters . . . . .	110
esacli start . . . . .	111
esacli status . . . . .	112
esacli stop . . . . .	113
esacli supportProxySettings. . . . .	114
esacli suspend . . . . .	116
esacli test. . . . .	116
esacli token . . . . .	119
Appendix - Legacy Server Connections. . . . .	120
Troubleshooting IBM Electronic Service Agent . . . . .	120
Reference information . . . . .	123
How to read syntax diagrams . . . . .	123

## Notices . . . . . 125

Trademarks . . . . .	126
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## About this document

This book provides the information necessary to install, activate, use, and manage IBM® Electronic Service Agent™ for PowerLinux™.

**Note:** For the most current information about IBM Electronic Service Agent for PowerLinux, go to the following address:

<http://publib.boulder.ibm.com/infocenter/lxinfo/v3r0m0/topic/liaao/liaaokickoff.htm>

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## Highlighting

The following highlighting conventions are used in this book:

<b>Bold</b>	Identifies commands, subroutines, keywords, files, structures, directories, and other items whose names are predefined by the system. Also identifies graphical objects such as buttons, labels, and icons that the user selects.
<i>Italics</i>	Identifies parameters whose actual names or values are to be supplied by the user.
Monospace	Identifies examples of specific data values, examples of text similar to what you might see displayed, examples of portions of program code similar to what you might write as a programmer, messages from the system, or information you must actually type.

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## Case-sensitivity in Linux

Linux operating system is case-sensitive, which means that it distinguishes between uppercase and lowercase letters. For example, you can use the **ls** command to list files. If you type **LS**, the system responds that the command is not found. Likewise, **FILEA**, **FiLea**, and **filea** are three distinct file names, even if they reside in the same directory. To avoid causing undesirable actions, always ensure that you use the correct case.

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## ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.





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## IBM Electronic Service Agent

IBM Electronic Service Agent, along with the IBM Electronic Support website, make up IBM Electronic Services.

This topic collection provides information about installing, activating, configuring, using, and troubleshooting IBM Electronic Service Agent on PowerLinux servers.

The most current version of this information is in the IBM Knowledge Center for Linux. To access this information, use the following web address:

<http://www-01.ibm.com/support/knowledgecenter/linuxonibm/liaao/liaaokickoff.htm>.

To view or download the PDF version of this topic, select the following link:

IBM Electronic Service Agent for PowerLinux

**Downloading Adobe Reader:** You need Adobe Reader installed on your system to view or print this PDF. You can download a free copy from the Adobe website ([www.adobe.com/products/acrobat/readstep.html](http://www.adobe.com/products/acrobat/readstep.html)).

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## What's new in IBM Electronic Service Agent for PowerLinux

IBM Electronic Service Agent for PowerLinux Versions 4.2 provides the new features and enhancements.

### What's new in IBM Electronic Service Agent 4.2

#### Enable or disable the transmission of EED files to IBM

Choose to enable or disable the transmission of EED files to IBM support.

#### Use solution information for Entitlement

Specify to use the hardware or software solution information for entitlement.

#### **esacli generateToken command**

To generate token for the IBM Electronic Service Agent.  Learn more...

#### **esacli token command**


To display the private token for the IBM Electronic Service Agent.  Learn more...

### What's new in IBM Electronic Service Agent 4.1


## Monitor ESS

IBM Electronic Service Agent installation package is enhanced to monitor IBM® Elastic Storage Server (ESS). ESS is a high-performance, GPFS™ network storage disk solution.


### esacli backup command

To take a backup of the configuration settings, discovered systems, and detected problems in IBM Electronic Service Agent..  Learn more...

### esacli restauth command


To enable or disable authentication of rest services through command line, with a parameter option `{-e | -d}` "**rest services list**" is defined for the **esacli restauth** command.  Learn more...

### esacli restore command

To restore the configuration settings, discovered systems, and detected problem's information for IBM Electronic Service Agent.  Learn more...

## What's new in IBM Electronic Service Agent 4.0

### Single rpm for Little-Endian & Big-Endian

IBM Electronic Service Agent installation package is enhanced to support both Little-Endian & Big-Endian.  Learn more...

## What's new in IBM Electronic Service Agent 3.5

### SysV Replacement


The operating system RHEL 7.x version and later and SUSE 12 and later uses **systemd** as a replacement for the old **SysV init** system. ESA supports service monitoring with **systemd**. For more information, see section "Checking status" on page 47.

### SNAP Replacement

For earlier versions of ESA, ESA used to collect extended error data or system configuration details through **Snap** command. From ESA 3.5, the **Snap** command is replaced by **sosreport**, which is an in-built feature for RHEL. But for SLES, you need to manually install **support config.rpm** to collect extended error data or system configuration details.

**Note:** If **sosreport** is not available, ESA checks for **Snap** command as like in the earlier versions.

### UAK Management Settings

IBM Electronic Service Agent is enhanced to configure UAK Management settings to view and update the access keys for POWER8 systems.  Learn more....

## Error Identification

When ESA reports problems for PowerKVM devices to IBM support, an additional section *Error Identification* is appended to the PMR, for a quick resolution of the issue.

## Identify the HMC controlled systems

From ESA version 3.5 and later, ESA identifies if the system is HMC controlled or not. If the system is controlled by HMC, the HMC ESA reports the problems and updates the access keys. The problem reporting and key management are disabled in the stand-alone ESA that is installed on the PowerLinux system.

## What's new in IBM Electronic Service Agent 3.4


### RHEL Big Endian & Little Endian

IBM Electronic Service Agent 3.4 for PowerLinux Little-Endian mode is supported on Red Hat Enterprise Linux Version 7.2 or higher.


### SLES Little Endian

IBM Electronic Service Agent 3.4 for PowerLinux Little-Endian mode is supported on SUSE Linux Enterprise Server 12 SP1 or higher.


## Problem Filters-Resources Settings

You can configure the set and display the range of resources that are ignored by ESA by using Problem Filters-Resources Settings page.  Learn more...

## Problem Filters-Error Codes

You can configure the system reference error codes that are ignored by ESA for problem reporting by using Problem Filters-Error Codes page.  Learn more...

## Discover bulk KVM hosts

You can add single or multiple remote systems in a single instance.  Learn more...

## User Interface modifications

The complete graphical user interface (including Activation Wizard) of IBM Electronic Service Agent is developed for an enhanced user experience.

## What's new in IBM Electronic Service Agent 3.3

### IBM server environment support

IBM Electronic Service Agent 3.3 is enhanced to support new IBM server environment that simplifies connectivity and provides enhanced security. For information on the ports to be enabled for new server environment support, see ESA for PowerLinux Security Considerations at <http://www-01.ibm.com/support/esa/security.htm>.

## **esacli lsentityIds command**

To display the entity IDs associated with the hosts through command line, with a parameter option **[-h hostname]** is defined for the **esacli lsentityIds** command.



[Learn more...](#)

## **TLS**

IBM Electronic Service Agent 3.3 is enhanced to support TLS 1.0, 1.1, and 1.2 versions.

## **What's new in IBM Electronic Service Agent 3.2**

### **Heartbeat support for PowerKVM hosts**

IBM Electronic Service Agent 3.2 is enhanced to also send the heartbeat information of the PowerKVM hosts to IBM.


### **SSLv3**

Disabled SSLv3 in IBM Electronic Service Agent 3.2 and enabled TLS 1.0

### **RHEL Little Endian**

IBM Electronic Service Agent for PowerLinux Little-Endian mode is supported on Red Hat Enterprise Linux Version 7.1 or higher.

### **SNMP Listener settings**

You can configure the SNMP listener settings on the ESA user interface. ESA listens the SNMP traps for any hardware problem that is detected on remote systems that are sent by the IBM Serviceable Event Provider.  [Learn more...](#)

### **User Interface modifications**


The following features of IBM Electronic Service Agent are developed for an enhanced user experience:

- Main menu
  - Service Information
- Settings menu
  - Service Contact
  - System Location
  - Connectivity
  - Service and Support Proxy
  - Problem Information
  - Data Collection
  - Performance Data
  - Operational Test
  - Notifications
  - Application
  - Trace Level

- Tools menu
  - Export Configuration
  - Import Configuration
  - Suspend/Resume


## What's new in IBM Electronic Service Agent 3.1

### PM data collection for PowerKVM hosts

IBM Electronic Service Agent 3.1 is enhanced to support collecting performance management data for all the discovered KVM hosts.  [Learn more...](#)


### sepccli service command

To collect performance management data for KVM hosts through command line, a new parameter option `[-h hostname]` is defined for the **sepccli service** command.


 [Learn more...](#)

## What's new in IBM Electronic Service Agent 3.0


### Little Endian support

With the release of SUSE Linux Enterprise 12, Linux runs in little-endian mode on the POWER8<sup>®</sup> architecture. To monitor POWER8 devices, IBM Electronic Service Agent is enhanced to support little-endian mode. For Electronic Service Agent to support little-endian mode, you must install ESA Little Endian package.  [Learn more...](#)

### Serviceable Event Provider




IBM Serviceable Event Provider is a no-charge software tool that is deployed on your PowerKVM host system to automatically and continuously monitor, track the hardware problems, and send traps to the registered listener.  [Learn more...](#)

### Monitor PowerKVM hosts

IBM Electronic Service Agent monitors multiple Power<sup>®</sup> hosts remotely from a PowerLinux server, which is on the same network. The remote system can be a stand-alone PowerLinux or one of the guest partition operating system that is hosted by KVM itself. The ESA is installed on this PowerLinux system and the KVM hosts can be added to it as endpoints. ESA listens to the SNMP traps that are sent by the IBM Serviceable Event Provider. The IBM Serviceable Event Provider is installed on PowerKVM systems and Electronic Service Agent initiates the remote communication to the endpoints (PowerKVM systems) to retrieve additional information.  [Learn more...](#)

### User Interface modifications

The following new features of IBM Electronic Service Agent are developed for an enhanced user experience, while maintaining the existing UI panes as is:

- **All Systems:** The **All Systems** pane displays all the systems that are discovered by the IBM Electronic Service Agent.  [Learn more...](#)
- **All Problems:** The **All Problems** pane displays all the problems for systems that are monitored by IBM Electronic Service Agent.  [Learn more....](#)
- **Discovery:** The **Discovery** pane allows you to configure or discover multiple KVM hosts on which Serviceable Event Provider is installed. The **Discovery** pane also displays the discovery log history.  [Learn more...](#)

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## IBM Electronic Service Agent overview

IBM Electronic Service Agent is a no-charge software tool that resides on your system to automatically and continuously monitor, collect, and submit hardware problem information to the IBM Electronic Support website. IBM Electronic Service Agent can also routinely collect and submit hardware, software, performance, and system configuration information, which might help IBM Support in diagnosing problems.

IBM Support representatives use system problem descriptions and service information to better diagnose issues with your systems. With early knowledge about potential problems that IBM Electronic Service Agent provides, IBM can proactively assist you in achieving higher availability and better performance.

IBM Electronic Service Agent does the following tasks for the PowerKVM hosts:

- Subscribes to the SNMP traps and listens the SNMP traps from IBM Serviceable Event Provider for the registered KVM hosts.
- Places service requests to IBM automatically if the server is under a service agreement or warranty.
- Collects and securely sends scheduled system and diagnostic inventory to an IBM database. This inventory information is available to IBM Support representatives when they are solving your problem.
- Communicates with IBM using a secure Internet connection using encryption and authentication.
- Includes the option to send email notifications when a serviceable problem is detected and service request is opened.

## Accessing the IBM Electronic Support portal

The IBM Electronic Support portal enables you to view service information reported by IBM Electronic Service Agent, search all content using advanced search capabilities, open and manage service requests, receive support content notifications by platform or individual product, and view call home problem events.

You can access the IBM Electronic Support portal at the following web addresses:

- <http://support.ibm.com>: A portfolio of tools and resources to keep your systems, software, and applications running smoothly.
- <http://www-01.ibm.com/support/electronicssupport/>: The support portal to view contracts, inventory, heartbeat, etc of your systems.

**Note:** To use some of the functions that are found on the IBM Electronic Support portal, such as viewing service information or call home events, you must provide an IBM ID.

**Related tasks:**

“Providing IBM IDs” on page 52

An IBM ID is needed to view service information that was sent to the IBM Electronic Support website by IBM Electronic Service Agent. Service information can be viewed on the IBM Electronic Support website.

## Problem processing overview

Problem processing is an important capability of IBM Electronic Service Agent. When IBM Electronic Service Agent detects a problem, there is a specific sequence of events that occur to record the problem, report the problem, resolve the problem, and close the problem.

The following shows the problem processing sequence of events, with references to procedures, settings, and information to help you manage those events.

1. IBM Electronic Service Agent detects and records a problem. To see all problems that are recorded by IBM Electronic Service Agent, see “Displaying problem information” on page 35.
2. IBM Electronic Service Agent reports the problem to the IBM.

**Note:** For all the HMC controlled systems, HMC ESA will report the problems, but not the stand-alone ESA that is installed on the Power Linux system.

3. IBM Electronic Service Agent sends service information that is related to the problem to the IBM Electronic Support website. Service information includes hardware, software, system configuration, and performance information.

To view the service information sent to the IBM Electronic Support website, go to the IBM Electronic Support website and select My systems. See “Accessing the IBM Electronic Support portal” on page 6.

4. The IBM Electronic Support website receives the problem and service information. IBM Support contacts the person that is specified as the service contact. For more information about specifying the service contact, see “Specifying service contact information” on page 26. When contacting the service contact, IBM Support either arranges an appointment to replace the part, or, if possible, attempts to resolve the problem without a visit to the customer's site.
5. After the problem is resolved, the service request is closed by IBM Support. For information about verifying that a service request assigned to a problem is closed, see “Displaying problem information” on page 35.

**Related concepts:**

“Accessing the IBM Electronic Support portal” on page 6

The IBM Electronic Support portal enables you to view service information reported by IBM Electronic Service Agent, search all content using advanced search capabilities, open and manage service requests, receive support content notifications by platform or individual product, and view call home problem events.

**Related tasks:**

“Displaying problem information” on page 35

The **All Problems** pane displays all the problems (service requests) for systems that are monitored by IBM Electronic Service Agent.

“Configuring problem reporting” on page 57

You can specify that IBM Electronic Service Agent continue to attempt to report a problem if initial transmission fails. You can enable or disable the automatic transmission of extended error data (EED) to IBM. You can also configure the frequency and number of times IBM Electronic Service Agent attempts to report a problem.

“Configuring your service connection” on page 22

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

“Specifying service contact information” on page 26

Specifying IBM Electronic Service Agent service contact information is the first step in preparing to connect to the IBM Electronic Support website.

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## Planning for IBM Electronic Service Agent

When planning for IBM Electronic Service Agent, you need to consider the operating system, browsers, security, and topology of the network you plan to support.

### Operating systems for IBM Electronic Service Agent

IBM Electronic Service Agent for PowerLinux is included in the IBM Installation Toolkit for PowerLinux.

IBM Electronic Service Agent for PowerLinux is supported on the following operating systems:

- Red Hat Enterprise Linux Version 6.0 or higher
- SUSE Linux Enterprise Server Version 11.0 or higher

**Note:** IBM Electronic Service Agent is not supported on any version of Ubuntu Linux operating system.

### Browsers for IBM Electronic Service Agent

It is recommended that you use one of the following browser to run the IBM Electronic Service Agent graphical user interface.

Browsers used as the IBM Electronic Service Agent graphical user interface might be on systems running different operating systems. Although other browsers might work when viewing the Electronic Service Agent graphical user interface, the following browsers are supported on the indicated operating systems:

- Mozilla 1.4.2 and 1.7.12 and later for use on AIX® operating systems
- Mozilla 1.7 and later for use on Red Hat Enterprise Linux (RHEL) and SUSE Linux operating systems
- Firefox v8.0 and later for use on Red Hat Enterprise Linux (RHEL) and SUSE Linux operating systems
- Microsoft Windows Internet Explorer 8 and later for use on Microsoft Windows operating system
- Firefox v10.0 and later for use on Microsoft Windows operating system



## IBM Serviceable Event Provider

IBM Electronic Service Agent communicates with all the remote hosts through SSH protocol. The PowerKVM host must have Serviceable Event Provider that is installed on it, which can detect problems and produce events when necessary. If SEP is not installed on the PowerKVM system, you must install SEP before you discover systems.

**Note:** For IBM Electronic Service Agent version 3.1 or earlier, you can install SEP version 1.0. But for IBM Electronic Service Agent version 3.2 and later, make sure to upgrade or install the IBM Serviceable Event Provider version 1.1.

## Security

When using IBM Electronic Service Agent, your information is kept private and your data is securely transmitted to IBM.

The following provides more information about the privacy of your information, the security of information you transmit to the IBM Electronic Support website, and the security of those using IBM Electronic Service Agent.

### Information privacy

The service information you provide to the IBM Electronic Support website remains private. Only authorized IBM Support personnel and those people specifically authorized by you have access to this information.

The service information that is gathered by the IBM Electronic Support website is collected from the information you entered into IBM Electronic Service Agent and the information IBM Electronic Service Agent collected from the system. It is also gathered from phone calls with the IBM Support Center, pre-sales specialists, administrative clerks, and other groups within IBM. These IBM groups have electronic access to the information so that they can prepare for and perform advanced problem determination to more efficiently serve you.

The service information collected by IBM Electronic Service Agent includes the following:

- Your support contact information, including names, phone numbers, and email addresses.
- Location information about the system on which IBM Electronic Service Agent is installed, including city, geographic region, country, building, and the phone number for the telephone that is located nearest the system.
- System failure logs, part numbers, feature codes for parts, part serial numbers, part locations, software listing, operating system applications, program temporary fixes (PTFs), the maintenance level, firmware levels, configuration values, system utilization, and performance.

Authorized IBM employees can view all service information about the system. Service information does not include the following:

- Collection or transmission of any of your company's financial, statistical, or personnel information
- Client information
- Your business plans

In addition, IBM Electronic Service Agent might provide a call-home mechanism for other IBM offerings. The call-home mechanism sends information specific to a

particular IBM offering. The information that is collected by such offerings is covered in a separate agreement for each IBM offering.

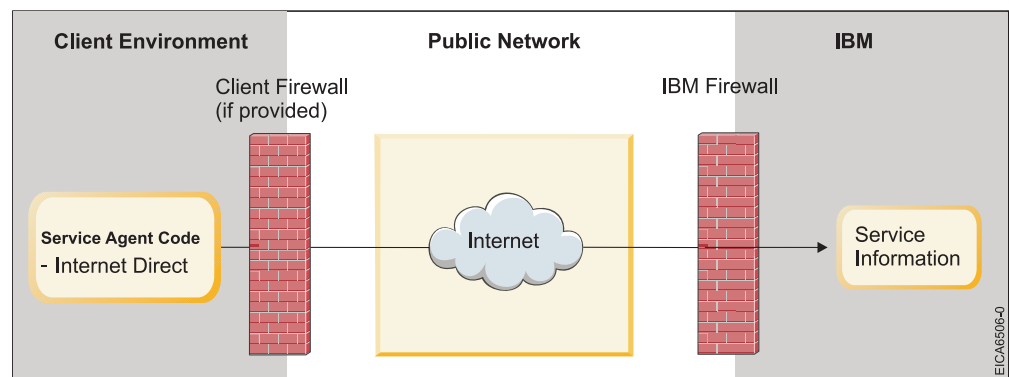
## Information transmission security

The problem information and service information you send to the IBM Electronic Support website is safe and secure.

IBM Electronic Service Agent can collect problem and service information and send it to the IBM Electronic Support website on a scheduled basis. IBM Electronic Service Agent transactions are outbound requests sent using the security of Hypertext Transfer Protocol Secure (HTTPS). These connection requests are always initiated from the customer system by IBM Electronic Service Agent. IBM Electronic Service Agent can accept incoming connections from the activator command that is used to activate the product, from the **esacli** command, and from the IBM Electronic Service Agent graphical user interface. Both the activator and **esacli** commands are run only locally on the client system. The graphical user interface connection is initiated by the client only. In all three cases, only users with superuser privileges can run the commands that establish the connections, and the connections are secured, encrypted, and completely within the client local area network.

IBM Electronic Service Agent initiates a connection with the IBM Electronic Support website and then the IBM Electronic Support website replies. The IBM Electronic Support website never initiates a connection to IBM Electronic Service Agent. During the activation and setup of IBM Electronic Service Agent, you select how IBM Electronic Service Agent communications are set up. By default, communication configuration is a direct Internet connection. You can select to keep the default, or specify to transmit information using the IBM Electronic Service Agent proxy server or another proxy server. IBM Electronic Service Agent uses the client's connectivity environment, including any firewalls that the client has established.

The following figure shows a summary of the connection into IBM. The nature of maintaining a high-level security posture dictates that IBM does not divulge in-depth details regarding the management of security or its tools, processes, and audits.



Information transmission security is important whether your connection to IBM is through a direct or proxy connection.

## Internet transmission of service information

**Note:** The Internet provider relationship and connection are the responsibility of the client.

If you select the Internet path to send your information, then the following process applies:

1. At the scheduled time, IBM Electronic Service Agent collects the information to be transmitted and queues it for transmission.
2. IBM Electronic Service Agent establishes an TLS internet connection with the IBM Electronic Support website using the system ID and password that was created previously.
3. The collected information is sent to the IBM Electronic Support website.
4. After the arrival at the IBM Electronic Support website, the information is transferred to the appropriate IBM database.

### Proxy transmission of service information

The proxy can be either a client supplied HTTP proxy or the IBM Service and Support Proxy. The proxy resides on a client system.

**Note:** The client supplied HTTP proxy is the responsibility of the client.

If you select the proxy path to send your information, then the following process applies:

1. At the scheduled time, IBM Electronic Service Agent collects the information to be transmitted and queues it for transmission.
2. Using the TLS connection between the system and the IBM Electronic Support website, IBM Electronic Service Agent establishes an TLS internet connection between the proxy and the IBM Electronic Support website. This connection is authenticated using the system ID and password previously created.
3. IBM Electronic Service Agent sends the collected information through the proxy to the IBM Electronic Support website.
4. After the information arrives at the IBM Electronic Support website, the information is transferred to the appropriate IBM database.

### IP Addresses

From version 3.3, IBM Electronic Service Agent connects to the new IBM server environment that simplifies connectivity and provides enhanced security. This server environment is fully NIST SP800-131A compliant by supporting TLS 1.2 protocol, SHA-256 or stronger hashing functions, and at least 2048-bit strength RSA keys. All Electronic Service Agent transactions to the new environment route through a single hosting environment with only a few IP addresses that are required for outbound connections. Ensure that your firewall allows connections to the new IP addresses and ports as explained in the table:

Domain name	IP Address	Port
esupport.ibm.com	129.42.56.189	443
esupport.ibm.com	129.42.54.189	443
esupport.ibm.com	129.42.60.189	443
esupport.ibm.com	2620:0:6c2:200:129:42:60:189	443
esupport.ibm.com	2620:0:6c1:200:129:42:54:189	443
esupport.ibm.com	2620:0:6c0:200:129:42:56:189	443

**Note:** If you are using ESA version 3.3 or higher, refer to section “Appendix - Legacy Server Connections” on page 120, for server connectivity information.

**Ports:** The following are the default ports that are used by IBM Electronic Service Agent:

Port number	Description
5024	Port number at which the Electronic Service Agent graphical user interface is accessible through the HTTPS protocol.
5026 <b>Note:</b> It is an optional setup.	Port number at which the Service Proxy is configured as an ECC service proxy.
5028 <b>Note:</b> It is new in Electronic Service Agent 3.0	Port number at which the firewall that must be opened for UDP traffic to receive SNMP Traps.

## User security

User and file security is provided by Linux user authorizations and privileges. Users in the Linux root group that can remotely log in to the system can use their user IDs and passwords to log in to the IBM Electronic Service Agent graphical user interface.

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

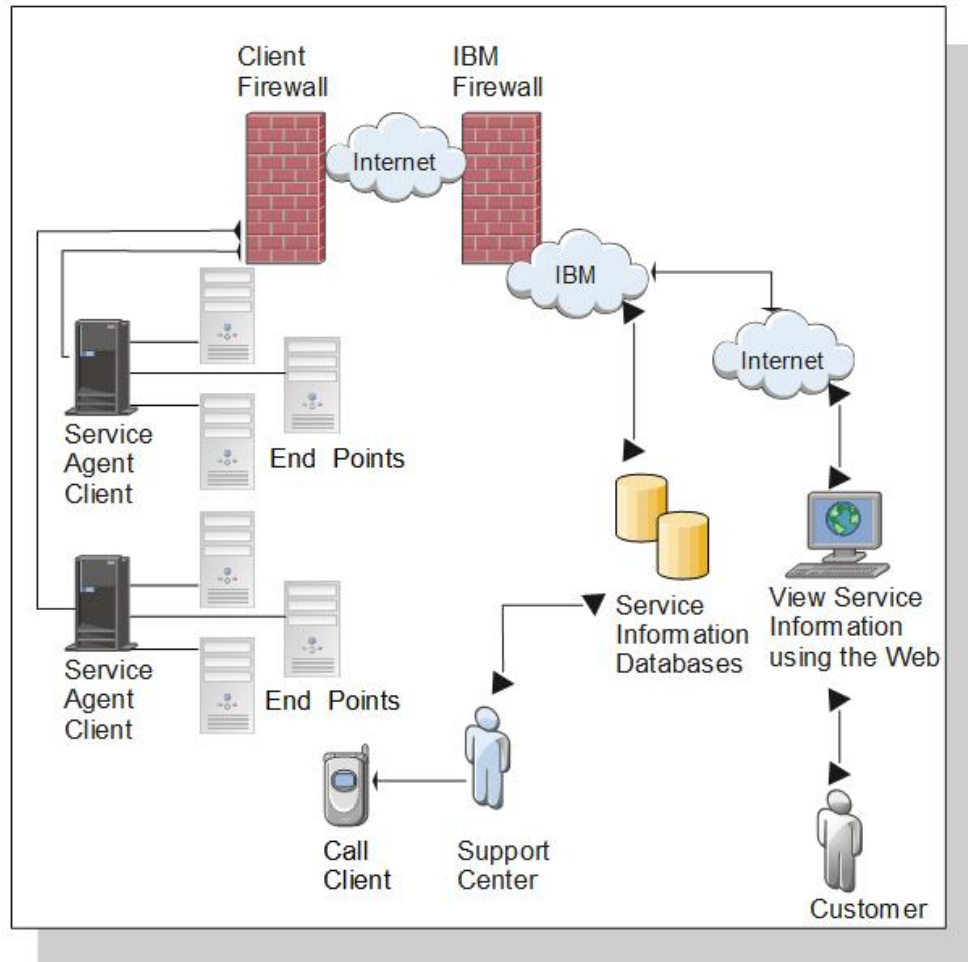
## Topology

Ensure that you consider your topology when planning for IBM Electronic Service Agent.

Your topology might consist of stand-alone IBM Electronic Service Agent clients independently connecting to the IBM Electronic Support website or IBM Electronic Service Agent clients connecting to the IBM Electronic Support website through a common exit point.

### Stand-alone client topology

1. The Service Agent client gathers the information from the hosts through SSH and transmits it to the IBM Electronic Support portal.
2. The information is transmitted to the IBM Electronic Support portal in one of the following ways:
  - Through an Internet connection to the IBM Electronic Support portal. Information is protected using existing client firewalls and the IBM firewall.
  - Through a proxy. The proxy can be either a client supplied HTTP proxy or the IBM Service and Support Proxy. Information is protected using existing client firewalls and the IBM firewall.
3. The information is stored in problem management databases and service information databases and made available to the IBM Support Center and service representative to help them assist you in diagnosing problems



## Common exit point topology

The common exit point topology consists of IBM Electronic Service Agent clients connecting through a proxy to the service and support facilities of IBM. The proxy can be either a client supplied HTTP proxy or the IBM Service and Support Proxy. Information is protected using existing client firewalls and the IBM firewall.

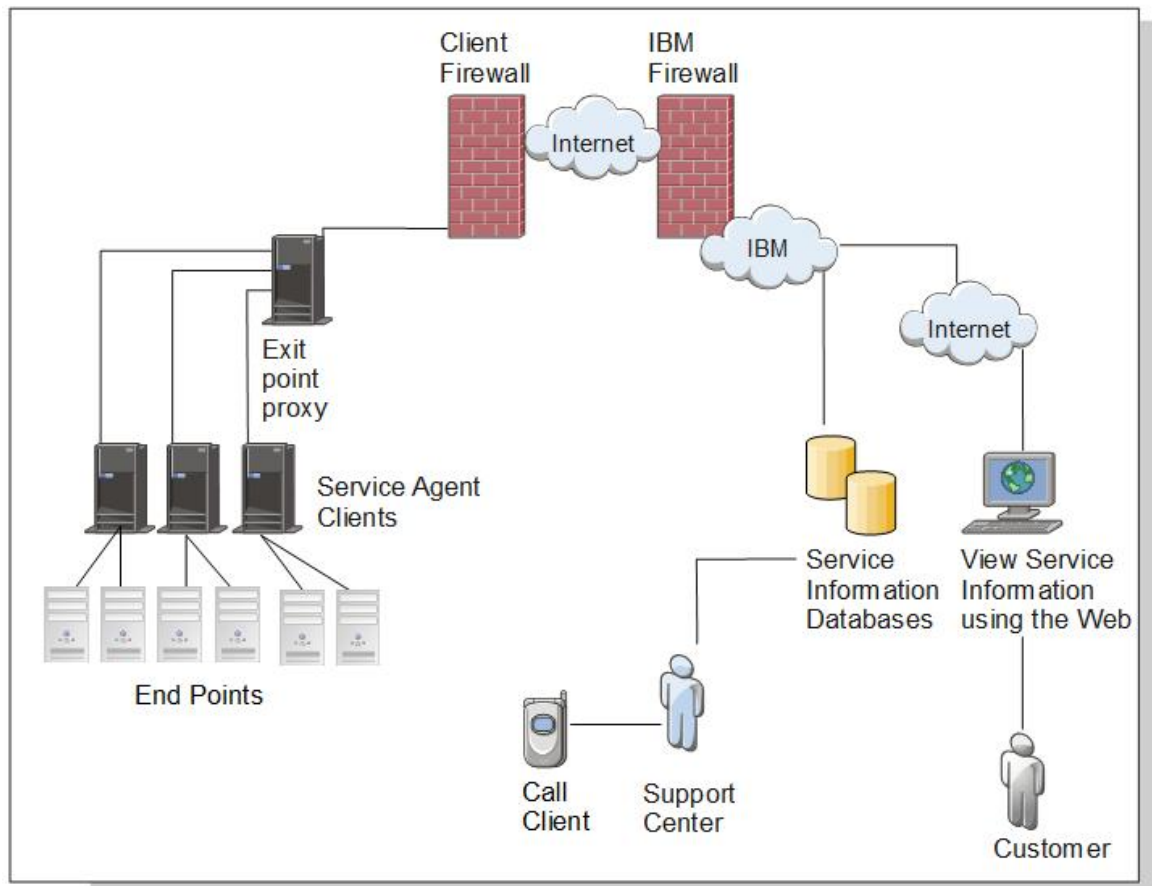
**Note:** IBM Electronic Service Agent provides remote system support to only Power KVM and ESS devices.

In the following diagram, the information transmission proceeds as follows:

1. Each IBM Electronic Service Agent client gathers the information from the hosts (AIX, Linux, IVM, KVM) for that particular client.

**Note:** Only for ESS devices, the ESS servers push the data to IBM Electronic Service Agent.

2. Each client transmits the information to the IBM Electronic Support portal through the exit point proxy.
3. The IBM Electronic Service Agent exit point transmits the information to the IBM Electronic Support portal through the proxy.
4. The information is stored in problem management databases and service information databases and made available to the IBM Support Center and service representative to help them assist you in diagnosing problems.



#### Related tasks:

“Configuring your service connection” on page 22

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

### Using IBM Electronic Service Agent in an environment with other operating systems

If the system running IBM Electronic Service Agent is in an environment with other operating systems, there are things to consider when using IBM Electronic Service Agent.

IBM Electronic Service Agent is operating system specific. Each operating system needs its own compatible version of IBM Electronic Service Agent.

To access the IBM Electronic Service Agent user guides for different operating systems, go to the IBM Electronic Support portal.

#### Related information:



Accessing the IBM Electronic Support Portal

The IBM Electronic Support portal enables you to view service information reported by IBM Electronic Service Agent, search all content using advanced search capabilities, open and manage service requests, receive support content notifications by platform or individual product, and view call home problem

events.

---

## Installing IBM Electronic Service Agent

You must install IBM Electronic Service Agent to enable problem detection, reporting, and transmission of service information to the IBM Electronic Support website.

### Before you begin

IBM Electronic Service Agent for PowerLinux is provided with IBM Installation Toolkit for PowerLinux, a collection of software that is provided by IBM for PowerLinux users. You can download the IBM Installation Toolkit for big-endian mode from the following website:

<http://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/installtools/>

You can configure the IBM PowerLinux Tools Repository for little-endian mode from the following website:

<http://www-304.ibm.com/webapp/set2/sas/f/lopdiags/yum.html>

The software is provided in the common RPM format, and this document is included with the software.

In addition, IBM Electronic Service Agent requires the following products:

- IBM Java™, version 1.7 or higher
- The open source Power Linux diagnostics package **ppc64-diag**

Both of these products, along with their prerequisites, are available with the IBM Installation Toolkit for PowerLinux.

**Note:** For ESS devices, ESA is automatically installed and activated during ESS Big Endian (with little endian support in the future) install and does not require the IBM Installation Toolkit for PowerLinux or IBM Java.

### Common Information Model (CIM)

An additional optional software capability is recommended because it enables IBM Electronic Service Agent to gather hardware and software inventory information. A Common Information Model (CIM) provider package provides detailed inventory information that assists IBM in diagnosing serviceable hardware events and configuration problems.

One package that includes CIM is the **IBM Systems Director Platform Agent for Linux on Power**, which can be downloaded from the IBM Systems Director website:

<http://www.ibm.com/systems/software/director/downloads/agents.html>

Alternatively, you can choose to obtain the open source CIM provider **OpenPegasus** from the <http://openpegasus.org> website and construct the provider directly. Detailed instructions for download, construction, installation, and configuration of OpenPegasus are available from this source.

**Tip:** Both Red Hat Enterprise Linux (RHEL) and SUSE Linux Enterprise Server (SLES) provide utilities that simplify installation of a software package with prerequisites. For RHEL, the **yum** utility installs the prerequisites of a software package before attempting to install the package itself. For SLES, the **zypper** utility provides a similar capability. You can use **yum** or **zypper** utilities to install IBM Electronic Service Agent.

### Uninstalling previous versions of IBM Electronic Service Agent

You must uninstall previous 1.x versions of IBM Electronic Service Agent before installing a new version. For the 2.x versions of IBM Electronic Service Agent, you can directly upgrade to IBM Electronic Service Agent 3.0 and later.

To determine whether a version of IBM Electronic Service Agent is already installed on a system, enter the following command:

```
rpm -qa | grep -i esagent
```

- If no information is returned, then IBM Electronic Service Agent is not installed.
- If information is returned, then IBM Electronic Service Agent is installed and must be uninstalled before installing the new version.

For information about uninstalling IBM Electronic Service Agent, see “Uninstalling IBM Electronic Service Agent” on page 70.

To upgrade to IBM Electronic Service Agent 3.0 and later versions, enter the command:

```
rpm -Uvh esagent.pLinux-<version>.ppc.rpm
```

For example, `rpm -Uvh esagent.pLinux-3.1.0-0.ppc.rpm`

### About this task

IBM Electronic Service Agent 3.0.0 and later is bi-endian, supporting both big-endian and little-endian modes. But from IBM Electronic Service Agent 4.0.0 and later, you can use the same IBM Electronic Service Agent package for both the modes. To install IBM Electronic Service Agent, follow these steps:

1. Go to the directory that contains the IBM Electronic Service Agent installation file.
2. Use your normal installation process to install IBM Electronic Service Agent. The IBM Electronic Service Agent fileset is `esagent.pLinux-<version>.noarch.rpm` where *version* is the IBM Electronic Service Agent version.

3. Enter the RPM installation command:

```
rpm -i esagent.pLinux-4.0.0-0.noarch.rpm
```

### What to do next

When the installation is complete, you must activate and configure IBM Electronic Service Agent to enable it to report problems and transmit service information to the IBM Electronic Support website. For information, see “Activating and configuring IBM Electronic Service Agent” on page 17.

#### Related concepts:

“Activating and configuring IBM Electronic Service Agent” on page 17

After installing IBM Electronic Service Agent, you must activate and configure IBM Electronic Service Agent.



“Uninstalling IBM Electronic Service Agent” on page 70

Before you uninstall IBM Electronic Service Agent, determine whether you want to save the configuration information to use for another system or later on this system.

---

## Activating and configuring IBM Electronic Service Agent

After installing IBM Electronic Service Agent, you must activate and configure IBM Electronic Service Agent.

Activating and configuring IBM Electronic Service Agent consists of the following:

1. Using an activation wizard or command to activate IBM Electronic Service Agent.
2. Configuring the service connection to IBM so that IBM Electronic Service Agent can report problems and send service information.
3. Testing the service connection to IBM.
4. Specifying contact and location information so that IBM Support representatives know the location of the system that is running IBM Electronic Service Agent and who to contact about a problem sent to the IBM Electronic Support website by IBM Electronic Service Agent.

There are two mechanisms available for activating IBM Electronic Service Agent: command activation and wizard activation. If you have many systems to activate or there is little or no variation from one system to the next, it is easy to develop a script to activate IBM Electronic Service Agent. If you have few systems to activate or if there are many variations in configuration details, there is an interactive activation wizard available through the IBM Electronic Service Agent graphical user interface.

### Using the activation wizard

If you have few systems to activate or if there are many variations in configuration details, use the interactive activation wizard that is available through the IBM Electronic Service Agent graphical user interface.

#### Before you begin

Before using the activation wizard, run the following command:

```
/opt/ibm/esa/bin/activator -C [-p port] [-w] [-Y]
```

where the **-C** (capital C) command line option activates IBM Electronic Service Agent but defers configuration until later.

In addition, there are three optional parameters.

##### **-p** *port*

The default communication port used by the IBM Electronic Service Agent graphical user interface is **5024**, however, you can replace *port* with any unused port between **1025** and **65535**, inclusive.

##### **-w**

Many Linux servers have an active firewall that blocks communication with other systems in the network. You can specify this option to enable remote access to the IBM Electronic Service Agent communication port.

**Note:** If you want to configure IBM Electronic Service Agent from a location other than the console of the server on which IBM Electronic

Service Agent is installed such as a workstation in another room, you must specify the **-w** option on the **activator** command to allow remote access to the IBM Electronic Service Agent graphical user interface.

- Y** This option specifies your acceptance of the IBM license agreement (LA) for IBM Electronic Service Agent.

By default, the license agreement is displayed when you specify the **-C** option, and you can choose whether to accept or reject the license agreement. You must accept the license agreement before activation will proceed; activation will not proceed if you reject the license agreement. Specifying the **-Y** option skips the interactive review and acceptance of the license agreement.

**Note:** To view the license agreement at any time, enter the following command:

```
/opt/ibm/esa/bin/reviewLA
```

## About this task

After you run the **activator -C** command, you can use the IBM Electronic Service Agent activation wizard to interactively complete the activation and configuration. To use the wizard to configure IBM Electronic Service Agent, follow these steps:

## Procedure

1. Open a browser and enter this web address:

```
https://hostname:5024/esa
```

where *hostname* is the fully qualified name or IP address of the system that runs IBM Electronic Service Agent.

**Note:** Port 5024 is the default port. If you activated IBM Electronic Service Agent on a different port, use that port number in the web address.

2. On the Welcome pane, log in to the IBM Electronic Service Agent graphical user interface. Any user in the **root** group can log in to the graphical user interface.
3. On the Welcome pane, click **Activate ESA** under **Main** menu. The Electronic Service Agent Activation wizard displays.

**Note:** Unless you activate ESA, all other options of the left navigation on the Welcome pane are disabled and you cannot use them.

4. On the Introduction panel, click **Next**.
5. On the Contact information panel, specify the information that you want IBM Service to use when arranging a service appointment. The person whose contact information you specify must be able to arrange physical access to the system when service is required.
6. On the Location information panel, specify the physical location of the system. The IBM Service Engineer will visit this location to service the system.
7. On the SMTP panel, specify whether you want to be notified when IBM Electronic Service Agent opens a service request with IBM. Use this panel to configure a connection to an email server (SMTP) that will forward an email notification to the email address that you specified on the Contact information panel. The username and password on this panel might be required for authentication with the SMTP server.

8. On the IBM ID panel, specify the IBM ID that is registered for this system. This IBM ID is required to access information about the system. You can use the link on this panel to register for a free IBM ID. You can also specify an alternate IBM ID with similar access to the system.
9. On the Connectivity panel, specify whether the system you are activating will connect directly to the internet or will connect through a proxy server or firewall. The default configuration is a direct connection. A proxy connection requires additional configuration. If you select **Proxy connection** option, then only you see the Proxy panel.
10. On the Proxy panel, specify an address and port for the proxy server. You may also need to specify a username and password for network authentication.
11. On the Test panel, you can specify the tests that IBM Electronic Service Agent runs during this configuration.
12. On the Summary panel, verify the information that you specified for activating IBM Electronic Service Agent. Click **Back** to make changes and click **Activate** when you are satisfied with the configuration. The Results panel displays the outcome of the activation process.
13. When you are done viewing the results, click **Finish**. The IBM Electronic Service Agent is activated and all the options on the left navigation on ESA main page are enabled.

## Results

Once you activate IBM Electronic Service Agent on this system, you can no longer see the **Activate ESA** option and you cannot use the Activation Wizard. However, you can use either the graphical user interface or the command line interface to both use and manage IBM Electronic Service Agent.

### Related concepts:

“Managing IBM Electronic Service Agent” on page 48

You can configure and manage IBM Electronic Service Agent. This includes modifying the configuration and specifying how IBM Electronic Service Agent monitors and collects problem information, and sends service information to IBM.

“Using IBM Electronic Service Agent” on page 30

You can check whether IBM Electronic Service Agent is monitoring the status of your system, view problem information and activity, export and import a configuration, and manage who is authorized to view the information that is sent to the IBM Electronic Support website.

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

## Using the activator command

If you have many systems to activate and configure or there is little or no variation from one system to the next, it is easy to develop a script to activate and configure IBM Electronic Service Agent.

### About this task

You can activate and configure IBM Electronic Service Agent with a non-interactive operation executed as a command in a shell or in a script. This activation script enables you to automate activation and configuration of IBM Electronic Service Agent. For this method of activation and configuration, one command contains all the configuration parameters used to define the contact and location for the machine.

Most of the parameters used to configure IBM Electronic Service Agent from the command line are necessary to supply contact and location information to the IBM Electronic Support website, and are therefore required. Enclose parameter arguments in quotation marks, such as 'United States' or "Great Britain". Options and operands that are enclosed in brackets ([ ]), such as [-w] or [-Y], are optional. For more information about reading syntax diagrams, see "How to read syntax diagrams" on page 123.

To activate and configure IBM Electronic Service Agent, run the following command:

```
/opt/ibm/esa/bin/activator -c -m company -n contact name -e contact mail
-t contact phone -g contact country -s system phone -u system country
-r system address -y system city -a system state -z system postal code
-b system building -i IBM ID -p port [-w] [-Y]
```

**-c** Specifies that activation and configuration are performed immediately.

**-m {*company*}**

Specifies the name of the company that owns or is responsible for the system.

**-n {*contact name*}**

Specifies the name of the person in the company that is responsible for the system.

**-e {*contact mail*}**

Specifies the email address for the contact person.

**-t {*contact phone*}**

Specifies the telephone number where the contact person can be reached. A valid telephone number can contain alphanumeric characters and must include at least 5 but not more than 30 characters. Valid United States or Canada telephone numbers must contain at least 10 but not more than 30 characters and must not contain any dashes.

**-g {*contact country*}**

Specifies the name of the region or country where the contact person is located. The country must be specified as a valid two-letter code as defined by ISO-3166.

**-s {*system phone*}**

Specifies the telephone number where the system is located. A valid phone number must include at least 5 but not more than 30 characters. A valid telephone number can contain alphanumeric characters and must include at

least 5 but not more than 30 characters. Valid United States or Canada telephone numbers must contain at least 10 but not more than 30 characters and must not contain any dashes.

**-u {system country}**

Specifies the name of the region or country where the system is located. The country must be specified as a valid two-letter code as defined by ISO-3166.

**-r {system address}**

Specifies the address where the system is located.

**-y {system city}**

Specifies the name of the city where the system is located.

**-a {system state}**

Specifies the state or province where the system is located. The state or province must be specified as a valid code as defined by ISO-3166.

**-z {system postal code}**

Specifies the postal code where the system is located.

**-b {system building}**

Specifies the building, floor, and office where the system is located.

**-i {IBM ID}**

Specifies the IBM ID to associate with the system.

**-p {port}**

Specifies the port number on which the subsystem listens for incoming client requests.

**-w** Specifies to add firewall rules that are required to access IBM Electronic Service Agent from remote systems.

**-Y** Specifies acceptance of the license agreement so the license agreement is not displayed.

**Note:** To view the license agreement at any time, enter the following command:

```
/opt/ibm/esa/bin/reviewLA
```

## Results

To display and verify the contact and location settings, enter the following command:

```
/opt/ibm/esa/bin/activator -d
```

The contact settings are displayed as a set of values that are separated by colon characters (:). For example (with line breaks added for clarity):

```
# /opt/ibm/esa/bin/activator -d
#company:name:email:country:tele_number:\
system_tele_number:system_country:system_address:system_city:\
system_state:system_zip:system_building:port
```

```
My Company:Bill Blue:billblue@mycompany.com:UNITED STATES:8005551212:\
5034421234:UNITED STATES:100 SW Blue Street:Beaverton:OR:97006:\
Bldg 2, 3rd floor, corner lab:5024
```

You can change the configuration by using the IBM Electronic Service Agent graphical user interface.

**Tip:** You can also use the **esacli contactSettings** and **esacli locationSettings** commands to change the configuration settings.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

“Specifying service contact information” on page 26

Specifying IBM Electronic Service Agent service contact information is the first step in preparing to connect to the IBM Electronic Support website.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

“esacli contactSettings” on page 80

Use the **esacli contactSettings** command to configure the service contact information.

## Configuring your service connection

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

### About this task

If you use only a default direct Internet connection, no additional configuration is needed. However, if a direct connection is not always available, you can configure IBM Electronic Service Agent to communicate with IBM using a proxy server. In fact, you can specify up to three proxy servers. IBM Electronic Service Agent uses the connections in the order they appear, so if one service connection is not configured, busy, or unavailable, the next service connection is used.

You can use the IBM Electronic Service Agent graphical user interface to configure your service connection.

**Tip:** You can also use the **esacli connectionSettings** command to configure your service connection. For information, see “esacli connectionSettings” on page 77.

To configure your service connection using the graphical user interface, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.

3. Click **Connectivity** tab.
4. Select the type of connectivity you want to create or change.
  - **Direct connect**

Connecting IBM Electronic Service Agent to the IBM Electronic Support website through a direct HTTPS Internet connection is fast and efficient. This is the default configuration.
  - **Proxy**

Connecting IBM Electronic Service Agent through the IBM Service and Support proxy or your HTTP proxy can be fast and easy from your business network, and minimizes the number of systems that are directly connected to the Internet.

If you decide to use the IBM Service and Support proxy, it should be created on an exit point system. See “Common exit point topology” on page 13 for information about using an exit point for IBM Electronic Service Agent. Then go to “Creating the IBM Service and Support proxy” on page 24 before specifying the proxy connection type.
5. To specify a proxy connection type, follow these steps:
  - a. In the **IP address or host name** field, enter the IP address of the proxy server through which you want this system to connect.
  - b. In the **Port** field, enter the port number on which the proxy server accepts connections.
  - c. In the **Destination user** field, enter the user ID to use if the proxy server requires authentication.
  - d. In the **Destination password** and **Verify password** fields, enter the password to use if the proxy server requires authentication.
  - e. Click **Add** to create or change the service configuration. IBM Electronic Service Agent uses the connections in the order they appear, so if one service connection is not configured, busy, or unavailable, the next service connection is used.
  - f. To change the order of the connections, select a connection and click **Up** or **Down** until the connections are in the desired order.
  - g. To delete a connection, select a connection and click **Remove**.
6. When you are satisfied with the connection definitions and order, click **Save Settings** to save the configuration.

**Related concepts:**

“Topology” on page 12

Ensure that you consider your topology when planning for IBM Electronic Service Agent.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### “Creating the IBM Service and Support proxy”

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

#### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli connectionSettings” on page 77

Use the **esacli connectionSettings** command to set and display information about the connections to IBM.

## Creating the IBM Service and Support proxy

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to create the IBM service and support proxy.

**Tip:** You can also use the **esacli supportProxySettings** command to create the IBM service and support proxy. For information, see “esacli supportProxySettings” on page 114.

To create the IBM service and support proxy, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Service and support proxy** tab.
4. Select **Enable Proxy**.
  - a. Enable the required available **Interfaces** to listen for connections from other systems or partitions.
  - b. Enter the port number on which the service and the support proxy server accepts connections from other systems or partitions. The default server port number is 5026.
  - c. Select **Require HTTP basic authentication** option to specify whether authentication is required for the IBM Electronic Service Agent systems or for the partitions that use this service proxy. If required, enter the user name and password to use for this authentication.
5. Click **Save Settings** to save support proxy details.

#### Related tasks:



“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

“Configuring your service connection” on page 22

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

“Testing connectivity to IBM”

When you have completed configuration of your connectivity settings, test for connectivity to IBM.

#### **Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli supportProxySettings” on page 114

Use the **esacli supportProxySettings** command to set and display information that configures the Service and Support Proxy.

“esacli interfaces” on page 89

Use the **esacli interfaces** command to list the names of the network interfaces.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## **Testing connectivity to IBM**

When you have completed configuration of your connectivity settings, test for connectivity to IBM.

### **About this task**

IBM Electronic Service Agent communicates with several IBM servers, and all connections with IBM are backed up by redundant sites. So if a primary connect point is unavailable, a connection is attempted to a backup server.

To test connectivity to IBM, run either of the following commands:

```
/opt/ibm/esa/bin/verifyConnectivity -t
```

or

```
/opt/ibm/esa/bin/esacli test -c
```

### **Results**

The system returns information similar to the following report.

#### **Example**

Performing Connectivity Verification Test

success	Edge_Bulk_Data_1	esupport.ibm.com	129.42.56.189	443
success	Edge_Bulk_Data_2	esupport.ibm.com	129.42.58.189	443

```

success Edge_Bulk_Data_3      esupport.ibm.com      129.42.60.189      443
success Edge_Bulk_Data_4      esupport.ibm.com      2620:0:6c2:200:129:42:60:189      443
success Edge_Bulk_Data_5      esupport.ibm.com      2620:0:6c2:200:129:42:58:189      443
success Edge_Bulk_Data_6      esupport.ibm.com      2620:0:6c2:200:129:42:56:189      443
6 successes
0 failures
Connectivity Verification Test Results: succeeded

```

**Note:** Specific IP addresses are subject to change.

## What to do next

If any connectivity failures are reported by the connectivity test, examine the settings of firewalls and proxy servers to ensure that a connection between IBM Electronic Service Agent and the failing connection is allowed.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
 IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Specifying service contact information

Specifying IBM Electronic Service Agent service contact information is the first step in preparing to connect to the IBM Electronic Support website.

### Before you begin

You can specify the following information:

- Service contact information
- System location information
- Application settings

### Service contact information

Specify information about the company that owns or uses the system and a contact person for that system. Information that is designated with an asterisk (\*) is required.

**Tip:** You can use the **esacli contactSettings** command to display and specify contact and location information. For information, see “esacli contactSettings” on page 80.

#### • Company Information

##### \*Company name

Company or organization that owns or uses the system.

##### Street Address Lines 1, 2, and 3

Street address of the contact person.

**City** City where the contact person is located.

##### State or province

State or province where the contact person is located. The state or province must be specified as a valid code as defined by ISO-3166.

**\*Select your country or region**

Name of the country or region in which the contact person is located.  
For example: Canada.

**Postal code**

Postal code where the contact person is located.

**Fax number**

Fax number where IBM Support can reach the contact person. Valid United States and Canada fax numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other fax numbers can include any type of character but must be 5 - 30 characters in length.

**Alternate fax number**

Alternate fax number where IBM Support can reach the contact person. Valid United States and Canada fax numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other fax numbers can include any type of character but must be 5 - 30 characters in length.

**Help desk number**

Telephone number where IBM Support can reach the Help desk at the company. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

• **Primary Contact**

**\*Contact name**

Name of the person to be contacted if IBM Support needs access to the system.

**\*Telephone number**

Telephone number where IBM Support can reach the contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**Alternate telephone number**

Alternate telephone number where IBM Support can reach the contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**\*E-mail**

Fully qualified email address for the contact person. For example: myuserid@mycompany.com.

**Alternate email**

Fully qualified alternate email address for the contact person. For example: myuserid@mycompany.com.

**Pager number**

Telephone number where IBM Support can reach the pager for the contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

- **Secondary Contact**

- \*Contact name**

- Name of the person to be contacted, if primary contact is not reachable and IBM Support needs access to the system.

- \*Telephone number**

- Telephone number where IBM Support can reach the secondary contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

- Alternate telephone number**

- Alternate telephone number where IBM Support can reach the secondary contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

- \*E-mail**

- Fully qualified email address for the secondary contact person. For example: myuserid@mycompany.com.

### **System location information**

Specify location information for the system. Information that is designated with an asterisk (\*) is required.

**Tip:** You can use the **esacli locationSettings** command to display and specify contact and location information. For information, see “esacli locationSettings” on page 91.

- \*Select your country or region**

- Name of the country or region in which the system is located. For example: Canada.

- \*State or province**

- State or province where the system is located. The state or province must be specified as a valid code as defined by ISO-3166.

- \*Postal code**

- Postal code where the system is located.

- \*City**

- City where the system is located.

- \*Street Address**

- Street address where the system is located.

- \*Building, floor, office**

- Building, floor, and office of the system.

- \*Telephone number**

- Telephone number for a location close to the system. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

### **Application settings**

Specify additional information about the system.

### Use Solution information for Entitlement

Specify to use the solution information for entitlement. If you specify to use solution information, you must specify the Type, Model, and Serial number for hardware solution or component ID, Division, and product ID for software solution.

### Port number

Port number on which IBM Electronic Service Agent listens for requests from the browser for the graphical user interface or for requests that are entered at the command prompt. The default value is 5024.

## About this task

Use one of the following methods to specify the contact information.

- Specify contact and location information during activation.  
For information, see “Activating and configuring IBM Electronic Service Agent” on page 17.
- After IBM Electronic Service Agent is activated, you can use the IBM Electronic Service Agent graphical user interface (GUI) to specify contact and location information. Select **Help** in the upper right corner of the panels if you have questions about the specific panel or the information to enter.

**Tip:** You can also use the **esacli contactSettings** command to display and specify contact and location information. For information, see “esacli contactSettings” on page 80.

To specify contact and location information, follow these steps:

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from the left navigation.
  - a. Click **Service Contact** to specify or change the contact information.
  - b. Click **System Location** to specify or change the system location information.
  - c. Click **Application** to specify additional information about the system.

### Related concepts:

“Activating and configuring IBM Electronic Service Agent” on page 17

After installing IBM Electronic Service Agent, you must activate and configure IBM Electronic Service Agent.

### Related tasks:

“Using the activator command” on page 20

If you have many systems to activate and configure or there is little or no variation from one system to the next, it is easy to develop a script to activate and configure IBM Electronic Service Agent.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux

command-line prompt.

“esacli contactSettings” on page 80

Use the **esacli contactSettings** command to configure the service contact information.

“esacli locationSettings” on page 91

Use the **esacli locationSettings** command to configure and display the system location information.

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## Using IBM Electronic Service Agent

You can check whether IBM Electronic Service Agent is monitoring the status of your system, view problem information and activity, export and import a configuration, and manage who is authorized to view the information that is sent to the IBM Electronic Support website.

### Using the graphical user interface

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

#### Before you begin

On some systems, the firewall might block access through this port unless the `-w` option was used to add a firewall rule to the default firewall configuration when you are activating IBM Electronic Service Agent. To check whether the firewall port is open for remote browsers, enter the following command:

```
/opt/ibm/esa/bin/esafirewall status
```

This command displays whether IBM Electronic Service Agent graphical user interface port has access through the firewall that is running on the system.

If the port is blocked, you can use the following command to enable access from remote systems:

```
/opt/ibm/esa/bin/esafirewall enable
```

To remove the firewall rule added by the `-w` option, use the following command:

```
/opt/ibm/esa/bin/esafirewall clear
```

#### About this task

To access and use the IBM Electronic Service Agent graphical user interface, follow these steps:

#### Procedure

1. Open a browser and enter this web address:

```
https://hostname:5024/esa
```

Where *hostname* is the name or IP address of the system that runs IBM Electronic Service Agent.

2. On the Welcome pane, log in to the IBM Electronic Service Agent graphical user interface.
3. If you receive a warning about an untrusted site certificate, accept the certificate or click **Yes** to proceed to the IBM Electronic Service Agent graphical user interface.

## Results

You can select from the following options to display or modify the IBM Electronic Service Agent operations for this system or partition.

**Note:** Select **Help** in the upper right corner of any of the panes to view specific information about the pane or the information to enter.

Once you log into the IBM Electronic Service Agent graphical user interface, click **Activate ESA** under **Main** menu.

The activation wizard takes you through the steps to activate Electronic Service Agent on your system. The activation includes specifying contact information and connectivity information to enable your system to connect to IBM support. For information, see “Activating and configuring IBM Electronic Service Agent” on page 17.

**Note:** Once you activate IBM Electronic Service Agent on this system, you can no longer see the **Activate ESA** option and you cannot use the Activation Wizard. After successful activation of IBM Electronic Service Agent, you can see the following menu options:

- **Main** menu
  - **All Systems**

The IBM Electronic Service Agent All Systems pane shows a list of systems that are discovered by IBM Electronic Service Agent. You can also view the information or list of problems for a particular system.
  - **All Problems**

The IBM Electronic Service Agent All Problems pane displays list of problems that are identified by IBM Electronic Service Agent. You can also view the information of a particular problem in detail.
  - **Discovery**

On the IBM Electronic Service Agent Discovery pane, you can configure the KVM hosts, verify the connectivity to a particular system, and view the discovery log details.
  - **Service Information**

The Service information pane displays the type of service information that is collected by IBM Electronic Service Agent and is sent to the IBM Electronic Support website. This information includes hardware, software, and system configuration information.
  - **Activity Log**

The Activity log pane displays IBM Electronic Service Agent activity for a specified time period.
- **Settings** menu.

Select from the following options to specify or modify the IBM Electronic Service Agent settings for this system or partition.

  - **Service Contact**

Use the Service Contact Settings pane to specify information about the person that an IBM Support representative can contact about a problem reported by IBM Electronic Service Agent.

- **System Location**

Use the System Location Settings pane to specify information about the physical location of the system that is being monitored by IBM Electronic Service Agent.

- **IBM ID**

Use the IBM ID Settings pane to authorize users with IBM IDs to view service information that was sent to the IBM Electronic Support website by IBM Electronic Service Agent.

- **Connectivity**

Use the Connectivity Settings pane to specify multiple connections that IBM Electronic Service Agent can use to communicate with the IBM Electronic Support website.

- **Service and Support Proxy**

Use the Service and Support Proxy Settings pane to configure this system or partition to serve as a connection point through which other systems or partitions in your network connect to the IBM Electronic Support website.

- **SNMP**

Use the SNMP Settings pane to specify the SNMP trap listener settings.

- **Problem Information**

Use the Problem Information Settings pane to enable or disable sending the extended error data automatically to IBM. By using this pane you can set the frequency and number of retry attempts to make if automatic transmission of a service request to the IBM Electronic Support website fails.

- **Service Information**

Use the Service Information Settings pane to specify and enable the type and frequency of information to collect.

- **Performance Data**

Use the Performance Data Settings pane to enable and set the time of day at which to collect performance management information.

- **Operational Test**

Use the Operational Test Settings pane to enable and specify the frequency of automatic testing of the connection to IBM. You can also use this pane to run an operational test to test the connection to the IBM Electronic Support website.

- **Notifications**

Use the Notifications Settings pane to enable sending email notifications and SNMP traps to the locations that you specify.

- **Application**

Use the Application Settings pane to specify the hardware or software solution information for the system that is being monitored by IBM Electronic Service Agent and to specify the port number IBM Electronic Service Agent uses.

- **Trace Level**

Use the Trace Level Settings pane to specify the message severity level that is recorded during IBM Electronic Service Agent activity.

- **Problem Filters-Resources**



Use the Problem Filters-Resources Settings pane to specify a resource or range of resources that can be ignored by the Electronic Service Agent problem reporting function.

- **Problem Filters-Error Codes**

Use the Problem Filters-Error Codes Settings pane to view or add the system reference codes (SRCs) that can be ignored during Electronic Service Agent problem reporting.

- **UAK Management**

Use the UAK Management Settings pane to specify the message severity level that is recorded during IBM Electronic Service Agent activity.

- **Tools menu**

- **Export Configuration**

Export IBM Electronic Service Agent configuration to use the same contact and location information and operational settings on another system, or to save the configuration for future use on the same system.

- **Import Configuration**

Import IBM Electronic Service Agent configuration to use the same contact and location information and operational settings that is used on another system.

- **Suspend/Resume**

The Display status pane shows the status of the IBM Electronic Service Agent monitoring, collecting, and reporting services. It also shows system information on which IBM Electronic Service Agent is running. You can use this pane to suspend or resume IBM Electronic Service Agent.

- **Suspend:** Problems monitoring, collecting, and sending service information is stopped when Electronic Service Agent is suspended. However, the other Electronic Service Agent graphical user interface functions continue to operate.

- **Resume:** If Electronic Service Agent is suspended, resume it to start problem monitoring, collecting, and sending service information. ESA is resumed automatically after you reboot the system or can be done through this graphical user interface function.

- **IBM Electronic Support**

Use the IBM Electronic Support pane to display and manage service requests to the IBM Electronic Support website.

## Displaying system information

The **All Systems** pane displays all the systems that are discovered by the IBM Electronic Service Agent





### Before you begin

By default, the system on which ESA is installed is automatically discovered and is displayed in the list. You can also view the **System Health** and **ESA Status** of the discovered devices.









### About this task

The **All Systems** table displays the following information:

- **Host Name** - Displays the name of the system that is discovered.

- To filter or search for a particular system that you require, enter the initial letters of the system in the **Search** field. A list of filtered systems is displayed.
- Click the system name to view the information of the system.
- **System Health** - Determines the health of the discovered device. Click the health of a system to view the problems of the particular system.
  - The  icon indicates that the discovered system is working fine.
  - The  icon indicates that the discovered system has some problems.
- **ESA Status** - Identifies if ESA can reach the system.
  - The  icon indicates that the discovered system is reachable.
  - The  icon indicates that the discovered system is not reachable.
- **System Type** - Displays the type of system. For example, AIX, Linux, Power KVM, IVM, or IBM® Elastic Storage Server (ESS) devices. The following are the various ESS device types that ESA supports:

*Table 1. ESS Devices*

ESS Device type	Icon
ESS Application	
Disk	
Disk Enclosure	
Management Server	
Node	
Physical Server	
Virtual Server	
Other	

## Procedure

1. Click **Main** menu from left navigation.
2. Click **All Systems** tab.
3. Click **Refresh** to view the updated list of systems that are discovered.
4. Click **System Info** to view the information of the selected system. For detailed system information, see Results.
5. Click **View Problems** to view the problems of the selected system. For all problems or detailed problem information, see “Displaying problem information” on page 35
6. Click **Delete System** to delete the respective system.

**Note:** If you delete a system, ESA runs the **unsubscribe** command on the SEP to remove the KVM host, and ESA can no longer receive SNMP traps from that particular KVM host.

## Results

The **System Info** pane displays with the following information:

- **Name** - Displays the host name of the system. For example, *llmjuno65b*.
- **Machine Type** - Displays the machine type of the system. For example, *8246*.
- **Machine Model** - Displays the model of the system. For example, *L2D*.
- **Serial Number** - Displays the serial number of the system. For example, *06BD4CA*.
- **Manufacturer** - Displays the manufacturer of the system. For example, *IBM*.
- **Operating System** - Displays the operating system that is running on the system. For example, *SUSE Linux Enterprise*.
- **OS Type** - Displays the type of operating system. For example, *Linux*.
- **OS Version** - Displays the version of the operation system that is running on the system. For example, *6.5*.
- **OS Additional version** - Displays the kernel version of the operation system that is running on the system. For example, *3.10.42-2004.pkvm2\_1\_1.8.ppc64*
- **IP Address** - Displays all the IP addresses that are configured to the host system. For example, *9.57.20.114*
- **Firmware** - Displays the firmware version that is installed on the system. For example, *FW770.20 (AL770\_068) (t) FW770.20 (AL770\_068) (P)*.
- **PM Enabled** - Displays if the Performance Management is enabled on the system or not. For example, *Yes* or *No*.
- **ESA Status** - Displays the status of the system, if it is reachable or not. For example, *Online* or *Offline*.
- **System ID** - Displays the unique identifier of the system. For example, *11741de0963ad0f4bc*.
- **HMC Controlled** - Displays if the device is controlled by HMC or not. For example, *Yes* or *No*.

**Note:** For KVM guest system, the following details are defined by default -

- **Machine Type** - *KVM\_GUEST*
- **Machine Model** - *EMU*
- **Serial Number** - *KVMG*

## Displaying problem information

The **All Problems** pane displays all the problems (service requests) for systems that are monitored by IBM Electronic Service Agent.

### Before you begin

The System reference codes (SRCs) indicate a storage complex hardware or software problem that can originate in hardware or in Licensed Internal Code. A storage complex component generates an error code when it detects a problem. An SRC identifies the component that detected the error code and describes the error condition. The table shows the possible SRC codes -

Table 2. System reference codes

System Reference Code	Description
5xxxxxx	Reference codes
A1xxxxxx	Service processor reference (attention) codes
AAxxxxxx	Partition firmware reference (attention) codes
B1xxxxxx	Service processor firmware reference codes
B7xxxxxx	Licensed Internal Code reference codes
BAxxxxxx	Partition firmware reference (attention) codes
DAxxxxxx	Partition firmware reference (error) codes

For a detailed list of SRC codes, see System Reference Codes.

For the problems from KVM host, the SRC number in the SNMP alert is used as the error code, while ESA is determining the duplicate events. Errors with the same SRC numbers do not generate extra serviceable events. Instead, the dupe count increments, if the original problem is still in OPEN state. The problem status is checked and updated daily when successfully submitted.

**Note:** KVM guest operating systems cannot report problems, as ESA detects the environment and disables problem reporting when installed on KVM guests.

## About this task

You can use the IBM Electronic Service Agent graphical user interface to view problems, delete problems, and update the service request status. Electronic Service Agent does not collect any error data or problem information for Admin\_notify type of events and duplicate events. The problem information and error data is collected for the problems that are meant to be transmitted to IBM support.

**Tip:** You can also use the **esacli problem** command to view problems. For information, see “esacli problem” on page 100.

To view problems, follow these steps:

## Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Main** menu from left navigation.
3. Click **All Problems** tab. The **Problems** table displays the following information:
  - **System Name** - Displays the name of the system that has problems. If you are viewing **All Problems**, then you can filter the problems for a particular system.
  - **Description** - Provides a short description of the problem identified.
  - **SRC** - Displays the alphanumeric system reference code (SRC) that is assigned to the problem by the system.
  - **Occured** - Displays the time stamp of the problem occurrence.
  - **Local Problem ID** - Displays an unique ID that identifies a problem.
  - **Problem Status** - Displays the status of the problem, if it is in *Opened*, *Closed*, *Detected*, *Failed*, or *Reported* state.

- **Service request** - Displays the system request identifier (PMR number) that is assigned to the problem by the system.
  - **Service request status** - Displays the service request status (PMR status) that is associated with problem. For example, *Open*, *Processing*, or *Closed*.
4. Select a problem in the list to take one of the following actions:
- Click **Refresh Problems** to update the service request status.
  - Click **Delete** to delete the problem.
  - Click **Details** to view the problem details. The **Problem Detail** pane displays the following information for a particular problem.

#### Problem Summary

- **Description** - Displays a short description of the problem that is identified.
- **Error Code** - Displays the alphanumeric system reference code (SRC) assigned to the problem by the system.
- **Local Problem Status** - Displays the reporting status of the problem. The status can be one of the following:
  - *Open* - No action is taken on the problem.
  - *Pending* - The problem is in the process of being sent to IBM support.
  - *Failed* - All attempts to send the problem information to IBM support is failed. No more attempts can be made.
  - *Reported* - The problem was sent to IBM support.
  - *Closed* - The problem was processed and closed.
- **Problem ID** - Displays a unique ID that identifies a problem.
- **Is Test Problem?** - Identifies if the problem is a test problem or a real problem. The test problems are the simulated problems and are automatically closed.
- **Problem Occurrence Date/Time** - Displays the time stamp at which the problem was occurred.
- **Resource Name** - Displays the name of the device against which the issue was opened.
- **Dupe Count** - Displays the count of the numbers of the error is duplicated. If the same error is repeated in the 15 minutes time frame, then the error is duplicated.

**Note:** **Dupe Count** field is displayed only if there are duplicate errors.

#### Transmission Summary

- **Service information sent to IBM support** - Displays Yes or No, if the information is not sent to IBM support.
- **Last Attempt to Send** - Displays the time stamp at which ESA tried to send the service information to IBM support.
- **Number of Attempts** - Displays the number of attempts that ESA made to send the service information to IBM support.

#### Service request information

- **Problem Severity** - Displays the severity of the problem.
- **Service Request Number** - Displays the service request identifier that is assigned to the problem by the system.

- **Service Request Status** - Displays the service request status that is associated with problem. For example, *Open*, *Processing*, or *Closed*.
- **Last Changed** - Displays the time stamp at which the service request status was last changed.

You can also send a test problem to see whether the problem is reporting correctly. For more information, see “Sending a test problem” on page 40.

#### **Related concepts:**

“Problem processing overview” on page 7

Problem processing is an important capability of IBM Electronic Service Agent. When IBM Electronic Service Agent detects a problem, there is a specific sequence of events that occur to record the problem, report the problem, resolve the problem, and close the problem.

#### **Related tasks:**

“Sending a test problem” on page 40

Send a test problem to the IBM Electronic Support website to see whether the problem reporting function is working correctly.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

#### **Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esaccli problem” on page 100

Use the **esaccli problem** command to work with problems for the IBM Electronic Service Agent instance.

## **Discovering systems**

You can configure or discover multiple hosts that can be monitored by IBM Electronic Service Agent .

### **Before you begin**

The IBM Electronic Service Agent manages multiple hosts (like AIX, Linux, Power KVM, IVM, or IBM® ESS) remotely from a PowerLinux server, which is on the same network. The Electronic Service Agent communicates with all the remote hosts through SSH protocol.

**Note:** The PowerKVM host must have Serviceable Event Provider that is installed on it, which can detect problems and produce events when necessary. If SEP is not installed on the PowerKVM system, you must install SEP before you discover systems. For information on installing Serviceable Event Provider, see Installing IBM Serviceable Event Provider. During the discovery of KVM hosts, the IBM Electronic Service Agent makes sure that the Serviceable Event Provider is installed on the KVM host and also activates the SEP, if not started already. Electronic Service Agent runs the **subscribe** command on Serviceable Event Provider, with the port number to which the SNMP traps must be sent and the name of the community to be used by the trap. ESA listens the SNMP traps at the default *public* community and 5028 port.

## About this task

When the problems are received, ESA processes them and sends to IBM support, if it is a call home problem. The serviceable events include the hardware problems that require IBM service in resolving the problems. ESA also identifies if it is a test or a real problem. For information on problem details, see “Displaying problem information” on page 35.

## Procedure

To discover the hosts, follow these steps:

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Main** menu from left navigation.
3. Click **Discovery**. You can add single or multiple remote systems in a single instance.

- a. **Discover a remote system**

- 1) Enter the **Host Name** - the host name or the IP address.
- 2) Enter the **User ID** and **Password** of the system.

- b. **Discover multiple remote systems**

- 1) **Discover from local file**: Browse the data file from the local system.
- 2) **Discover from remote file**: Enter the remote file name and path.

**Note:** Click **Data Format File** to download the template and make sure that your data is in the format specified.

4. Click **Discover Now** to add the respective system to the discovery log table and discovery. You can check the activity log for details During discovery, ESA performs the following steps -
  - a. Logs in to the host with the entered credentials.
  - b. Creates ESA-specific user name on the host -**esaadmin**

**Note:** The **esaadmin** user ID has limited admin privileges, which can run all the commands that are needed by ESA.

- c. Generates public-private key pairs that are stored on ESA and are used to access the new user IDs on the remote host. These keys are configured on hosts, such that only ESA system can log in without a password. Hence the root credentials for any host system are not stored / saved at all in this process.
- d. ESA uses **esaadmin** for any further communication with remote host.

**Note:** For ESS devices, the Spectrum Scale RAID application is responsible for controlling and monitoring the status of the storage subsystem. When Spectrum Scale RAID determines that a disk in an external storage unit is failed, it manages to move the data from the failed disk. The Spectrum Scale RAID also updates the status of the disk to "prepare for removal". When an accumulation of two disk units within the same resource group is failed, the Spectrum Scale RAID code initiates a call for service by notifying the ESA through a defined RESTful interface. The Spectrum Scale RAID code passes all of the relevant failure information to the ESA code, which then creates a Problem Management Record (PMR) with IBM Support. Each of the failed disks within the resource group has a separate Call Home for service event and resultant PMR. The PMR triggers IBM to initiate a service action and notify the client to make the

necessary arrangements for servicing the storage unit. All of the reported failed disks are repaired at the time of service.

5. Click **Clear** to clear the **Host Name**, **User ID**, and **Password** fields.

## Results

After you discover a system, the discovery log table is updated with the following system information:

- **System Name** - Displays the name of the system that is discovered. To filter or search for a particular system that you require, enter the initial letters or digits of the respective system in the **Search** field. A list of filtered systems is displayed.
- **User Id** - Displays the user ID to log in to the system.
- **Start Time** - Displays the time at which the discovery was started.
- **Updated Time** - Displays the time at which the status is last updated.
- **Status** - Displays the status of the discovery of a system.
  - **Running** - If the system while discovery.
  - **Success** - If ESA discovers the system successfully.
  - **Failed** - If ESA is unable to discover the system.
- **Status Details** - Displays the details or reason for failure. For example,
  - If the discovery is fails, the **Status Details** column displays - **Discovery Action Failed**.
  - If the discovery is successful, the **Status Details** column displays - **Discovery Completed Successfully**.

**Note:** The discovery log details will persist for 24 hours only, after which, the log details are deleted. Click **Refresh Log** to refresh the discovery log table.

## What to do next

On successful discovery of remote hosts, you can view the problems reported by each discovered system. For information on problem details, “Displaying problem information” on page 35

## Sending a test problem

Send a test problem to the IBM Electronic Support website to see whether the problem reporting function is working correctly.

### About this task

Sending a test problem to the IBM Electronic Support website is done through the IBM Electronic Service Agent graphical user interface.

**Tip:** You can also use the **esaccli test** command to create a test problem and check your connection and transmission of service information. For information, see “esaccli test” on page 116.

To send a test problem to the IBM Electronic Support website, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Main** menu from left navigation.



3. Click **All Systems** tab.
4. Select a system and click **View Problems** or you can directly click **System Health** icon of a particular system. The **Problems** page displays.
5. Click **Send Test Problem**. The message - Test problem was successfully sent! displays.
6. Click **Refresh problems** to see whether the test problem shows up in the problem summary list.

**Related tasks:**

“Displaying problem information” on page 35

The **All Problems** pane displays all the problems (service requests) for systems that are monitored by IBM Electronic Service Agent.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Running an operational test

Check to see whether your connection and the transmission of service information to the IBM Electronic Support website is working correctly.

### About this task

Checking your connection and the transmission of service information to the IBM Electronic Support website is done using the IBM Electronic Service Agent graphical user interface.

**Tip:** You can also use the **esacli test -o** command to check your connection and transmission of service information. For information, see “esacli test” on page 116.

To check your connection and the transmission of service information to the IBM Electronic Support website, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Select **Operational Test** tab.
4. Click **Run operational test**. The results of the test are displayed. You can also view the results of the test in the activity log. See Displaying the activity log.

**Related tasks:**

“Displaying the activity log” on page 43

Use the activity log to see all IBM Electronic Service Agent activity for a designated time period.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Collecting and sending service information

IBM Electronic Service Agent collects and sends service information to IBM. Service information consists of hardware, software, and system configuration information about the system that is being monitored by IBM Electronic Service Agent.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to collect and send service information to the IBM Electronic Support portal.

**Tip:** You can also use the **esacli service** command to collect and send service information to the IBM Electronic Support portal. For information, see “esacli service” on page 107.

To manually collect and send service information to the IBM Electronic Support website, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface. See “Using the graphical user interface” on page 30.
2. Click **Main** menu from left navigation.
3. Click **Service Information** tab. You can see what types of service information are collected, when they were last collected, and when they are collected next.
4. On the Service Information page, select the type of service information (Hardware, Software, or System Configuration) that you want to collect.
5. Select the systems for which you want to collect the service information.
6. Click **Collect Now**. The data collection starts and you get a message -**The data collection has been started, and will complete in approximately 2-15 minutes. Please check the activity log to view the results.** You can also run an operational test to determine whether your connection and the transmission of service information to the IBM Electronic Support portal is working correctly. For information, see “Running an operational test” on page 41.

## Results

If data is unchanged from the data that is collected in the previous collection, no data is submitted to IBM. The Activity Log page displays when the data was sent to IBM.

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

“Running an operational test” on page 41

Check to see whether your connection and the transmission of service information to the IBM Electronic Support website is working correctly.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli service” on page 107

Use the **esacli service** command to immediately send inventory to IBM.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Collecting extended error data

Extended error data is collected for every serviceable event that is sent to IBM (call home events) from the KVM host. Whenever a hardware problem is identified, ESA collects all system logs, configuration, and diagnostic information that can be used for debugging.

ESA automatically retrieves the compressed error data file, saves it locally and transmits to IBM support. ESA uses **Secure copy protocol** (SCP) to retrieve the compressed file from the KVM host. For this process, SSH must be running on both KVM host and ESA.

- After retrieving the extended error data by ESA, it is removed from the KVM host.
- After transmitting the extended error data to IBM, it is removed on the ESA installed host.

The extended error data is appended to the service requests (PMR) for diagnosing the problems.

## Displaying the activity log

Use the activity log to see all IBM Electronic Service Agent activity for a designated time period.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to display the activity log.

**Tip:** You can also use the **esacli activity** command to display the activity log. For information, see “esacli activity” on page 74.

To display the activity log, follow these steps:

### Procedure

1. Access and log on to the IBM Electronic Service Agent graphical user interface.
2. Click **Main** menu from left navigation.
3. Click **Activity Log** tab.
4. Select **Enable filter** to display a subset of the activity log based on selected date and time rather.
  - a. Select the **Beginning Date** of activities.
  - b. Select the beginning **Time** of activities.
  - c. Select the **Ending Date** of activities.
  - d. Select the ending **Time** of activities.
  - e. Click **View Logs** to get the activity log based on the date and time you selected.

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli activity” on page 74

Use the **esacli activity** command to display activity log entries for the IBM Electronic Service Agent instance.

## Configuring operational settings

You can configure operational settings for IBM Electronic Service Agent to perform the functions that are important to your service environment.

### About this task

You can configure operational settings using the IBM Electronic Service Agent graphical user interface.

**Tip:** You can also use the **esacli export** and **esacli import** commands to configure operational settings. For information, see “Configuring operational tests” on page 60.

To configure operational settings, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.

3. Click **Operational Test** tab.
4. Select the settings category for the settings that you want to configure or change. Select **Help** in the upper right corner of the panels if you have questions about the specific panel or the information to enter.

For information about IBM Electronic Service Agent settings that you can change, see “Using the graphical user interface” on page 30.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli export” on page 83

Use the **esacli export** command to export the configuration settings for the IBM Electronic Service Agent instance.

“esacli import” on page 88

Use the **esacli import** command to import the configuration settings for the IBM Electronic Service Agent instance.

## Exporting a configuration

You can export IBM Electronic Service Agent configuration information to a file so you can use the same contact and location information and operational settings on another system.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to export a configuration.

**Tip:** You can also use the **esacli export** command to export a configuration. For information, see “esacli export” on page 83.

**Note:** The export function of the IBM Electronic Service Agent graphical user interface creates a configuration file and provides a means to download the file. The **esacli export** command only creates a configuration file.

To export a configuration, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Tools** menu from left navigation.
3. Click **Export Configuration** tab.
4. Click **Export settings** to export the configuration information to a file.
5. Click **Cancel** to return to the **Main** menu.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“esacli export” on page 83

Use the **esacli export** command to export the configuration settings for the IBM Electronic Service Agent instance.

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

## Importing a configuration

You can import an IBM Electronic Service Agent configuration file so you can use the same contact and location information and operational settings as used on another system.

### Before you begin

For information about creating a configuration file, see “Exporting a configuration” on page 45.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to import a configuration file.

**Tip:** You can also use the **esacli import** command to import a configuration file. For information, see “esacli import” on page 88. You can only use the **esacli import** command to import a local configuration file.

To import a configuration, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Tools** menu from left navigation.
3. Click **Import Configuration** tab.
4. Select **Import Local file** or **Import Remote file**.
5. Enter the name of the configuration file you want to import.
6. Click **Import** to import the configuration information.

**Related tasks:**

“Exporting a configuration” on page 45

You can export IBM Electronic Service Agent configuration information to a file so you can use the same contact and location information and operational settings on another system.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“esactl import” on page 88

Use the **esactl import** command to import the configuration settings for the IBM Electronic Service Agent instance.

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

## Checking status

You can check whether IBM Electronic Service Agent is monitoring your system.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to check the status of IBM Electronic Service Agent.

**Tip:** You can also use the **esactl status** command to display the status of the IBM Electronic Service Agent instance. For information, see “esactl status” on page 112.

To use the graphical user interface to check the status of IBM Electronic Service Agent, follow these steps:

### Procedure

1. Access and log on to the IBM Electronic Service Agent graphical user interface.

**Note:** If you cannot access the IBM Electronic Service Agent graphical user interface, view the status through `/opt/ibm/esa/bin/esactl status` command. The command **systemctl status esactl.service** is showing the status as *inactive* (which is a known issue ) when you log in to the system.

Running this command only displays whether IBM Electronic Service Agent is running on the system. The graphical user interface option displays additional information and gives you the option of either suspending or resuming IBM Electronic Service Agent. For more information, see “Suspending and resuming IBM Electronic Service Agent” on page 66

2. Click **Tools** menu from left navigation.
3. Click **Suspend/Resume** tab.

The Display status panel is displayed. The Suspend/Resume panel shows whether IBM Electronic Service Agent is monitoring this system and shows the properties of the system or partition. From this panel, you can also suspend/resume IBM Electronic Service Agent.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esaccli status” on page 112

Use the **esaccli status** command to display the status of the IBM Electronic Service Agent instance.

## Accessing the IBM Electronic Support portal

The IBM Electronic Support portal enables you to view service information reported by IBM Electronic Service Agent, search all content using advanced search capabilities, open and manage service requests, receive support content notifications by platform or individual product, and view call home problem events.

You can access the IBM Electronic Support portal at the following web addresses:

- <http://support.ibm.com>: A portfolio of tools and resources to keep your systems, software, and applications running smoothly.
- <http://www-01.ibm.com/support/electronicssupport/>: The support portal to view contracts, inventory, heartbeat, etc of your systems.

**Note:** To use some of the functions that are found on the IBM Electronic Support portal, such as viewing service information or call home events, you must provide an IBM ID.

**Related tasks:**

“Providing IBM IDs” on page 52

An IBM ID is needed to view service information that was sent to the IBM Electronic Support website by IBM Electronic Service Agent. Service information can be viewed on the IBM Electronic Support website.

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## Managing IBM Electronic Service Agent

You can configure and manage IBM Electronic Service Agent. This includes modifying the configuration and specifying how IBM Electronic Service Agent monitors and collects problem information, and sends service information to IBM.

### Specifying service contact information

Specifying IBM Electronic Service Agent service contact information is the first step in preparing to connect to the IBM Electronic Support website.

#### Before you begin

You can specify the following information:

- Service contact information
- System location information



- Application settings

### Service contact information

Specify information about the company that owns or uses the system and a contact person for that system. Information that is designated with an asterisk (\*) is required.

**Tip:** You can use the **esaccli contactSettings** command to display and specify contact and location information. For information, see “esaccli contactSettings” on page 80.

- **Company Information**

- **\*Company name**

- Company or organization that owns or uses the system.

- **Street Address Lines 1, 2, and 3**

- Street address of the contact person.

- **City** City where the contact person is located.

- **State or province**

- State or province where the contact person is located. The state or province must be specified as a valid code as defined by ISO-3166.

- **\*Select your country or region**

- Name of the country or region in which the contact person is located.  
For example: Canada.

- **Postal code**

- Postal code where the contact person is located.

- **Fax number**

- Fax number where IBM Support can reach the contact person. Valid United States and Canada fax numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other fax numbers can include any type of character but must be 5 - 30 characters in length.

- **Alternate fax number**

- Alternate fax number where IBM Support can reach the contact person. Valid United States and Canada fax numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other fax numbers can include any type of character but must be 5 - 30 characters in length.

- **Help desk number**

- Telephone number where IBM Support can reach the Help desk at the company. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

- **Primary Contact**

- **\*Contact name**

- Name of the person to be contacted if IBM Support needs access to the system.

- **\*Telephone number**

- Telephone number where IBM Support can reach the contact person. Valid United States and Canada telephone numbers must be 10 - 30

alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**Alternate telephone number**

Alternate telephone number where IBM Support can reach the contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**\*E-mail**

Fully qualified email address for the contact person. For example: myuserid@mycompany.com.

**Alternate email**

Fully qualified alternate email address for the contact person. For example: myuserid@mycompany.com.

**Pager number**

Telephone number where IBM Support can reach the pager for the contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

- **Secondary Contact**

**\*Contact name**

Name of the person to be contacted, if primary contact is not reachable and IBM Support needs access to the system.

**\*Telephone number**

Telephone number where IBM Support can reach the secondary contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**Alternate telephone number**

Alternate telephone number where IBM Support can reach the secondary contact person. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**\*E-mail**

Fully qualified email address for the secondary contact person. For example: myuserid@mycompany.com.

**System location information**

Specify location information for the system. Information that is designated with an asterisk (\*) is required.

**Tip:** You can use the **esacli locationSettings** command to display and specify contact and location information. For information, see “esacli locationSettings” on page 91.

**\*Select your country or region**

Name of the country or region in which the system is located. For example: Canada.

**\*State or province**

State or province where the system is located. The state or province must be specified as a valid code as defined by ISO-3166.

**\*Postal code**

Postal code where the system is located.

**\*City** City where the system is located.

**\*Street Address**

Street address where the system is located.

**\*Building, floor, office**

Building, floor, and office of the system.

**\*Telephone number**

Telephone number for a location close to the system. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

**Application settings**

Specify additional information about the system.

**Use Solution information for Entitlement**

Specify to use the solution information for entitlement. If you specify to use solution information, you must specify the Type, Model, and Serial number for hardware solution or component ID, Division, and product ID for software solution.

**Port number**

Port number on which IBM Electronic Service Agent listens for requests from the browser for the graphical user interface or for requests that are entered at the command prompt. The default value is 5024.

**About this task**

Use one of the following methods to specify the contact information.

- Specify contact and location information during activation.  
For information, see “Activating and configuring IBM Electronic Service Agent” on page 17.
- After IBM Electronic Service Agent is activated, you can use the IBM Electronic Service Agent graphical user interface (GUI) to specify contact and location information. Select **Help** in the upper right corner of the panels if you have questions about the specific panel or the information to enter.

**Tip:** You can also use the **esacli contactSettings** command to display and specify contact and location information. For information, see “esacli contactSettings” on page 80.

To specify contact and location information, follow these steps:

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from the left navigation.

- a. Click **Service Contact** to specify or change the contact information.
- b. Click **System Location** to specify or change the system location information.
- c. Click **Application** to specify additional information about the system.

**Related concepts:**

“Activating and configuring IBM Electronic Service Agent” on page 17

After installing IBM Electronic Service Agent, you must activate and configure IBM Electronic Service Agent.

**Related tasks:**

“Using the activator command” on page 20

If you have many systems to activate and configure or there is little or no variation from one system to the next, it is easy to develop a script to activate and configure IBM Electronic Service Agent.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli contactSettings” on page 80

Use the **esacli contactSettings** command to configure the service contact information.

“esacli locationSettings” on page 91

Use the **esacli locationSettings** command to configure and display the system location information.

## Providing IBM IDs

An IBM ID is needed to view service information that was sent to the IBM Electronic Support website by IBM Electronic Service Agent. Service information can be viewed on the IBM Electronic Support website.

### Before you begin

**Important:** The first IBM ID that is sent to IBM from IBM Electronic Service Agent becomes the administrator. The administrator has the only IBM ID that has the authority to manage IBM IDs using the IBM Electronic Support website functions.

To register for a new IBM ID, go to My IBM profile website and click **Register**.

For security and privacy reasons, it is necessary that an IBM ID be associated with a specific system. Only the specified IDs are able to view the service information for that system.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to authorize users to view service information. Select **Help** in the upper right corner of the panel if you have questions about the information to enter.

**Tip:** You can also use the **esacli ibmId** command to authorize users to view service information collection. For information, see “esacli ibmId” on page 88.

To authorize users to view service information, follow these steps:

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **IBM ID** tab.
4. The **IBM IDs** field displays the list of authorized IBM IDs to send to IBM support. Select an IBM ID and click **Remove** to remove it from the list.
5. Enter the IBM ID of person authorized to view service information sent to IBM support in the **IBM ID to add** field.
6. Click **Add** to add the ID to the **IBM IDs** list.
7. Click **Send authorizations** to approve the authorization for the list of IBM IDs to view the system details.

## What to do next

To manage your IBM IDs, which includes associating new IBM IDs with a system or removing existing IBM IDs, go to the IBM Electronic Support website and click **Services administration**.

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli ibmId” on page 88

Use the **esacli ibmId** command to add IBM user IDs that can access the Electronic Service Agent support website to view status.

### Related information:



#### Accessing the IBM Electronic Support Portal

The IBM Electronic Support portal enables you to view service information reported by IBM Electronic Service Agent, search all content using advanced search capabilities, open and manage service requests, receive support content notifications by platform or individual product, and view call home problem events.

## Configuring your service connection

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

## About this task

If you use only a default direct Internet connection, no additional configuration is needed. However, if a direct connection is not always available, you can configure IBM Electronic Service Agent to communicate with IBM using a proxy server. In fact, you can specify up to three proxy servers. IBM Electronic Service Agent uses the connections in the order they appear, so if one service connection is not configured, busy, or unavailable, the next service connection is used.

You can use the IBM Electronic Service Agent graphical user interface to configure your service connection.

**Tip:** You can also use the **esacli connectionSettings** command to configure your service connection. For information, see “esacli connectionSettings” on page 77.

To configure your service connection using the graphical user interface, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Connectivity** tab.
4. Select the type of connectivity you want to create or change.
  - **Direct connect**  
Connecting IBM Electronic Service Agent to the IBM Electronic Support website through a direct HTTPS Internet connection is fast and efficient. This is the default configuration.
  - **Proxy**  
Connecting IBM Electronic Service Agent through the IBM Service and Support proxy or your HTTP proxy can be fast and easy from your business network, and minimizes the number of systems that are directly connected to the Internet.  
  
If you decide to use the IBM Service and Support proxy, it should be created on an exit point system. See “Common exit point topology” on page 13 for information about using an exit point for IBM Electronic Service Agent. Then go to “Creating the IBM Service and Support proxy” on page 24 before specifying the proxy connection type.
5. To specify a proxy connection type, follow these steps:
  - a. In the **IP address or host name** field, enter the IP address of the proxy server through which you want this system to connect.
  - b. In the **Port** field, enter the port number on which the proxy server accepts connections.
  - c. In the **Destination user** field, enter the user ID to use if the proxy server requires authentication.
  - d. In the **Destination password** and **Verify password** fields, enter the password to use if the proxy server requires authentication.
  - e. Click **Add** to create or change the service configuration. IBM Electronic Service Agent uses the connections in the order they appear, so if one service connection is not configured, busy, or unavailable, the next service connection is used.
  - f. To change the order of the connections, select a connection and click **Up** or **Down** until the connections are in the desired order.

- g. To delete a connection, select a connection and click **Remove**.
- 6. When you are satisfied with the connection definitions and order, click **Save Settings** to save the configuration.

**Related concepts:**

“Topology” on page 12

Ensure that you consider your topology when planning for IBM Electronic Service Agent.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

“Creating the IBM Service and Support proxy” on page 24

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli connectionSettings” on page 77

Use the **esacli connectionSettings** command to set and display information about the connections to IBM.

## Creating the IBM Service and Support proxy

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to create the IBM service and support proxy.

**Tip:** You can also use the **esacli supportProxySettings** command to create the IBM service and support proxy. For information, see “esacli supportProxySettings” on page 114.

To create the IBM service and support proxy, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.

3. Click **Service and support proxy** tab.
4. Select **Enable Proxy**.
  - a. Enable the required available **Interfaces** to listen for connections from other systems or partitions.
  - b. Enter the port number on which the service and the support proxy server accepts connections from other systems or partitions. The default server port number is 5026.
  - c. Select **Require HTTP basic authentication** option to specify whether authentication is required for the IBM Electronic Service Agent systems or for the partitions that use this service proxy. If required, enter the user name and password to use for this authentication.
5. Click **Save Settings** to save support proxy details.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

“Configuring your service connection” on page 22

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

“Testing connectivity to IBM” on page 25

When you have completed configuration of your connectivity settings, test for connectivity to IBM.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli supportProxySettings” on page 114

Use the **esacli supportProxySettings** command to set and display information that configures the Service and Support Proxy.

“esacli interfaces” on page 89

Use the **esacli interfaces** command to list the names of the network interfaces.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Configuring SNMP Settings

IBM Electronic Service Agent listens to the SNMP traps for any hardware problem detected on remote systems that are sent by the IBM Serviceable Event Provider.

### About this task

The Electronic Service Agent communicates with all the remote hosts through SSH protocol. The PowerKVM host must have Serviceable Event Provider that is installed on it, which can detect problems and produce events when necessary. If



SEP is not installed on the PowerKVM system, you must install SEP before you discover systems. ESA listens to the SNMP traps at the default *public* community and at 5028 port. When the SNMP traps are received, ESA processes them and sends to IBM support, if it is a call home problem. The serviceable events include the hardware problems that require IBM service in resolving the problems.

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **SNMP** tab.
4. Select **Enable SNMP Trap Listener** to enable problem detection on remote systems and receive SNMP traps.
  - a. Enter the **Listening Port**. By default, the listening port is **5026**. You can change to any other port, for example, **5055**.
  - b. Select **Clear firewall for this port** to allow ESA to change the firewall settings for the specified port. By default, this option is enabled.

**Note:** If **Clear firewall for this port** is disabled (not selected), you must change the firewall settings manually to enable problem detection.

- c. Enter the **Community** name. By default, the community is **public**.
5. Select the **Interfaces** at which ESA can listen to the SNMP traps. By default, all the interfaces are selected, but you can also select the required IP addresses.

**Note:** The Electronic Service Agent tries to connect to the available IPv4 addresses and if it is unable to connect, then ESA connects to the available IPv6 addresses.

6. Click **Save Settings** to save SNMP settings.

## Configuring problem reporting

You can specify that IBM Electronic Service Agent continue to attempt to report a problem if initial transmission fails. You can enable or disable the automatic transmission of extended error data (EED) to IBM. You can also configure the frequency and number of times IBM Electronic Service Agent attempts to report a problem.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to configure problem reporting.

**Tip:** You can also use the **esacli problemSettings** command to configure problem reporting. For information, see “*esacli problemSettings*” on page 102.

To configure this problem reporting, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings > Problem Information** from left navigation. The Problem Information Settings pane displays.
3. To disable sending the Extended Error Data (EED) automatically to IBM, check **Do not send EED files automatically** option.

4. To enable IBM Electronic Service Agent to retry problem submissions, check **Retry** option.
5. Specify the number of minutes between attempts.
6. Specify the number of retry attempts.
7. Click **Save Settings** to save your changes.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli problemSettings” on page 102

Use the **esacli problemSettings** command to set and display information about how frequently Electronic Service Agent attempts to call a problem home when it is not initially successful at calling home the problem.

## Configuring service information collection

You can specify the type of information that you want IBM Electronic Service Agent to collect, and the time and frequency for the collection.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to configure service information collection.

**Tip:** You can also use the **esacli serviceSettings** command to configure service information collection. For information, see “esacli serviceSettings” on page 108.

To configure service information collection, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Data Collection**. The Data Collection panel is displayed.
4. Specify the information that you want IBM Electronic Service Agent to collect. You can enable IBM Electronic Service Agent to collect hardware, software, and system configuration information.
5. Specify the collection time and frequency for each type of information that you want IBM Electronic Service Agent to collect.
6. Click **Save Settings** to save your selections.

**Related tasks:**

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

**Related reference:**

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli serviceSettings” on page 108

Use the **esacli serviceSettings** command to set and display information about the types of inventory that is collected and the schedule for sending that inventory to IBM.

## Configuring performance management data collection

You can enable IBM Electronic Service Agent to collect performance management data and specify the collection time.



### About this task

You can use the IBM Electronic Service Agent graphical user interface to configure performance management data collection. You can collect performance management data for system on which ESA is installed and also for all the discovered KVM host systems.

**Note:** To collect the performance management data, the Performance Management must be available on the KVM host system.

**Tip:** You can also use the **esacli serviceSettings** command to configure performance management data collection. For information, see “esacli serviceSettings” on page 108.

The table displays all the systems that are discovered by IBM Electronic Service Agent with the following details:

- **Host Name** - Displays the name of the host system that is discovered.
  - To filter or search for a particular system that you require, enter the initial letters of the system in the **Search** field. A list of filtered systems is displayed.
- **PM Configured** - Determines whether a particular system is enabled for performance management data collection.
  - The  icon indicates that the discovered system is enabled for collecting performance management data.
  - The  icon indicates that the discovered system is not enabled for collecting performance management data.

To configure performance management information collection, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Performance Data** tab. The Performance Data Settings window displays.

4. Select **Enable Performance Data Collection** option to enable IBM Electronic Service Agent to collect performance management data for all the systems.
5. Specify the **Collection time** that you want IBM Electronic Service Agent to collect performance management data daily.
6. Click **Save** to save your selections.
7. Click **Collect Now** to collect the performance management data of a particular system at the current time.
8. Click **Refresh** to view the updated list of systems that are discovered.

## Results

When you click **Collect Now**, you get a message - **The performance management collection has been started, and will complete in approximately 2-15 minutes. Please check the activity log to view the results.**

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli serviceSettings” on page 108

Use the **esacli serviceSettings** command to set and display information about the types of inventory that is collected and the schedule for sending that inventory to IBM.

## Configuring operational tests

You can specify that IBM Electronic Service Agent regularly test the connection and transmission of service information to the IBM Electronic Support website.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to configure regular operational tests.

**Tip:** You can also use the **esacli export** and **esacli import** commands to configure regular operational tests by following these steps:

1. Enter the following command:
 

```
esacli export -f operationalsettings.script
```
2. Edit `operationalsettings.script` and modify the following section with the desired operational test settings:
 

```
#####
# Operational Test Settings
#
# Used to configure the schedule on which Electronic Service Agent will conduct
# an automated operational test communication with IBM.
#
# Properties and values:
# OPERATIONALTEST_ENABLED          Perform automated operational test.
```

```

#                                (0=No, 1=Yes)
# OPERATIONALTEST_INTERVAL      Test interval in days.
#                                (1-21)
# OPERATIONALTEST_TIME          Test time of day in 24 hour format.
#                                (HH:MM)
#####
OPERATIONALTEST_ENABLED = 1
OPERATIONALTEST_INTERVAL = 1
OPERATIONALTEST_TIME = 21:30

```

3. Save `operationalsettings.script`.
4. Import the changes to modify the operational settings by running the following command:

```
esacli import -f operationalsettings.script
```

For information, see “`esacli export`” on page 83 and “`esacli import`” on page 88.

To configure regular operational tests, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Operational Test** tab. The Operational Test Settings page is displayed.
4. Click **Enable** to automatically test the connection to the IBM Electronic Support website from IBM Electronic Service Agent.
5. Specify the frequency and time of day that you want IBM Electronic Service Agent to run these operational tests.
6. Click **Save Settings** to save your selections.
7. Click **Run operational test** to run an operational test to test the connection to the IBM Electronic Support website.

#### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

#### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
 IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“`esacli test`” on page 116

Use the **`esacli test`** command to perform test operations for the IBM Electronic Service Agent instance.

## Specifying notifications

You can use notifications to send email and SNMP traps about IBM Electronic Service Agent activity to the locations you specify.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to specify these notifications.

**Tip:** You can also use the **esacli notificationSettings** command to specify notifications. For information, see “esacli notificationSettings” on page 95.

To specify notifications, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Notifications** and enter the information for the email notifications and SNMP traps you want to send.
4. Click **Save Settings**. If you click **Send Test Notification** before applying the changes by clicking **Save Settings**, the previous settings are used.

#### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

#### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli notificationSettings” on page 95

Use the **esacli notificationSettings** to set and display information indicating where Electronic Service Agent will send notifications when errors occur.

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Setting the trace level

Trace level determines the message severity that is recorded during IBM Electronic Service Agent activity.

### About this task

You can use the IBM Electronic Service Agent graphical user interface to set the trace level.

**Tip:** You can also use the **esacli logSettings** command to set the trace level. For information, see “esacli logSettings” on page 93.

To set the trace level, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Settings** menu from left navigation.
3. Click **Trace Level** tab.
4. Select the trace level for the message severity you want recorded during IBM Electronic Service Agent activity. The least detailed amount of data is logged with the setting Severe, and the most detailed amount of data is logged with setting Trace.

### Related tasks:

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli logSettings” on page 93

Use the **esacli logSettings** command to set and display information for the current logging level.

## Configuring resource filters

Use the Problem Filters-Resources Settings page to set and display the range of resources that are ignored by ESA.

### About this task

You can configure resource filters by using the IBM Electronic Service Agent graphical user interface.

**Tip:** You can also use the **esacli resourceFilters** command to set and display the range of resources that are ignored by IBM ESA. For more information, see “esacli resourceFilters” on page 103.

### Procedure

To specify the range of resources that are ignored by IBM ESA, follow these steps:

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click the **Settings** menu from left navigation.
3. Click the **Problem Filters-Resources** tab. The Problem Filters-Resources Settings page is displayed.
4. Enter the starting resource from the range of resources that needs to be ignored in the **Start** field.
5. Optional: Enter the ending resource from the range of resources that needs to be ignored in the **End** field.
6. Select the **Platform** (*PPC* or *ALL*).
7. Select the **Operating System** (*AIX*, *IVM*, *Power KVM*, or *Linux*).
8. Click **Add** to add the range of resources. The resource range is saved to the table and you get a message - Resource filters saved successfully.
9. Click **Clear** to reset the fields.
10. To delete a specific resource range, select the resource and click **Delete**. On confirmation, the selected resource filters are removed and you get a message - Resource filters were successfully removed!.

For information about IBM Electronic Service Agent settings that you can change, see “Using the graphical user interface” on page 30.

## Configuring error codes

Use the Problem Filters-Error Codes page to add and display the system reference codes that are ignored for problem reporting.

### About this task

You can configure error code filters by using the IBM Electronic Service Agent graphical user interface.

**Tip:** You can also use the **esacli srcFilters** command to add and display the error codes that are ignored by IBM ESA. For more information, see “esacli resourceFilters” on page 103.

### Procedure

To specify the system reference codes that are ignored by IBM ESA, follow these steps:

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click the **Settings** menu from left navigation.
3. Click the **Problem Filters-Error Codes** tab. The Problem Filters-Error Codes Settings page is displayed.
4. Enter the system reference code that needs to be ignored in the **Error Code** field.
5. Select the **Platform** (*PPC* or *ALL*).
6. Select the **Operating System** (*AIX*, *IVM*, *Power KVM*, or *Linux*).
7. Click **Add** to add the error code. The error code is saved to the table and you get a message - Added successfully. The Error codes table displays the following information:
  - **Error Code** - Displays the specified error codes that are to be ignored by ESA. Following are the pre-defined error codes or that are generated by ESA

762-996	968-136
762-998	973-300
801-102	990-136
802-890	991-135
803-890	991-150
803-971	991-160
803-972	991-180
803-973	991-185
803-994	991-200
844-405	899-000
850-902	704-128
950-999	704-130
968-110	A10-200

- **Operating System** - Displays the operating system of the ESA installed system.
- **Platform** - Displays the platform that is specified (*PPC* or *ALL*).



- **Defined by** - Displays if the error codes are ESA generated (*IBM*) or defined by you (*User*).
8. Click **Clear** to reset the fields.
  9. To delete a specific SRC, select the code and click **Delete**. On confirmation, the selected error codes are removed and you get a message - Removed successfully!.

**Note:** You can delete only the error codes that are added by you. You cannot delete the default error codes that are generated by ESA.

For information about IBM Electronic Service Agent settings that you can change, see “Using the graphical user interface” on page 30.

## Configuring UAK Management settings

You can configure UAK Management settings for IBM ESA to verify and update the access keys for POWER8 systems.

### About this task

POWER8 (and later) servers include an “update access key” (UAK) that is checked when system firmware updates are applied to the system. The access keys include an expiration date. If the calendar date is beyond the expiration date of update access key, the system firmware updates are not processed. IBM Electronic Service Agent updates these keys either manually or automatically.

- While checking manually, the IBM ESA checks the expiration date, downloads, and uploads the latest access keys.
- For automatic updates, the IBM ESA checks the expiration date of the access keys periodically, and updates with the latest access keys, only if the expiration date is less than 30 days.

#### Note:

1. The UAK Management settings feature is applicable for POWER8 systems with firmware 840 and above versions.
2. For the HMC controlled systems, HMC ESA will update the access keys, but not the stand-alone ESA that is installed on the Power Linux system.

You can configure UAK management settings by using the IBM Electronic Service Agent graphical user interface. To configure UAK management settings, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click the **Settings** menu from left navigation.
3. Click the **UAK Management** tab. The UAK Management Settings page is displayed.
4. The **Enable Update Access Key Checks** option is enabled by default. When this option is enabled, ESA automatically checks for the expiration date of the access keys.
5. Specify the frequency to the check expiration of the keys. By default, it is 7 days.
6. Click **Save Settings** to enable automatic update of access keys. The table displays the POWER8 server on which ESA is installed.
  - **Host Name** - Displays the host name of the POWER8 system.

- **Processor Type** - Displays the type of processor of the POWER8 system.
  - **Access Key Expiration Date** - Displays the expiry date of the access key.
  - **Last Checked** - Displays the time stamp at which the expiration date is checked.
7. Click **Perform Check** to manually check the expiration date of the access key. It also downloads and updates the latest access key.

## Deactivating IBM Electronic Service Agent

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you want to deactivate IBM Electronic Service Agent until you choose to restart it, or when you want to deactivate only certain IBM Electronic Service Agent functions. There are several methods for deactivating IBM Electronic Service Agent, depending on the situation.

Use the following table to determine the appropriate method for deactivating IBM Electronic Service Agent.

If you want to...	You should...	To start using IBM Electronic Service Agent again...
Stop monitoring for problems and collecting and sending service information, but still use the graphical user interface functions	Suspend IBM Electronic Service Agent	Resume IBM Electronic Service Agent
Stop monitoring for problems, collecting and sending service information, and using all graphical user interface functions until you restart the system or manually restart IBM Electronic Service Agent	Stop IBM Electronic Service Agent	Start IBM Electronic Service Agent or restart the system on which IBM Electronic Service Agent is installed
Stop monitoring for problems, collecting and sending service information, and using all graphical user interface functions until you manually restart IBM Electronic Service Agent	Disable IBM Electronic Service Agent	Start IBM Electronic Service Agent

## Suspending and resuming IBM Electronic Service Agent

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

### Before you begin

Problem monitoring and collecting and sending service information is stopped when IBM Electronic Service Agent is suspended. However, the other IBM Electronic Service Agent graphical interface functions continue to operate. Suspending and resuming Electronic Service Agent is done using the Electronic Service Agent graphical user interface. Select **Help** from the graphical user interface panels if you have questions about the specific panel or the information to enter.

**Tip:** You can also use the **esacli suspend** and **esacli resume** commands to suspend and resume Electronic Service Agent. For information, see “esacli suspend” on page 116 and “esacli resume” on page 106.

## About this task

To suspend or resume IBM Electronic Service Agent, follow these steps:

### Procedure

1. Access and log in to the IBM Electronic Service Agent graphical user interface.
2. Click **Tools** menu from left navigation.
3. Click **Suspend/Resume** tab.
4. Click **Suspend** or **Resume**.

**Note:** If IBM Electronic Service Agent is suspended, only the Resume option is available. If IBM Electronic Service Agent is running, only the Suspend option is available.

### Related tasks:

“Stopping and starting IBM Electronic Service Agent”

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

“Disabling IBM Electronic Service Agent” on page 68

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

“Using the graphical user interface” on page 30

The IBM Electronic Service Agent graphical user interface is an intuitive way to manage and control IBM Electronic Service Agent. It uses standard graphical controls to access IBM Electronic Service Agent functions and includes online help for each pane. You can access the graphical user interface on the system that is running IBM Electronic Service Agent or from any remote system that can access the same local or remote network.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli start” on page 111

Use the **esacli start** command to start Electronic Service Agent.

“esacli stop” on page 113

Use the **esacli stop** command to stop Electronic Service Agent.

“esacli suspend” on page 116

Use the **esacli suspend** command to suspend Electronic Service Agent.

“esacli resume” on page 106

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Agent.

## Stopping and starting IBM Electronic Service Agent

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

## Before you begin

Problem monitoring and collecting, and sending service information is stopped when IBM Electronic Service Agent is stopped, along with the IBM Electronic Service Agent graphical user interface functions. IBM Electronic Service Agent must be started again to activate these functions. If IBM Electronic Service Agent is stopped it will restart after rebooting the system. If you want to stop problem monitoring and collecting and sending service information but continue to use the other IBM Electronic Service Agent graphical user interface functions, you should suspend IBM Electronic Service Agent.

## About this task

To stop or start IBM Electronic Service Agent, follow these steps:

### Procedure

1. Log in to the system as root or sign on using a root-authorized user ID.
2. At the command prompt, enter either of the following commands:
  - To stop IBM Electronic Service Agent, enter the following command:  
**systemctl stop esactl.service** IBM Electronic Service Agent is temporarily stopped, and will restart when the system is rebooted.
  - To start IBM Electronic Service Agent, enter the following command:  
**systemctl start esactl.service**

### Related tasks:

“Suspending and resuming IBM Electronic Service Agent” on page 66  
IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

“Disabling IBM Electronic Service Agent”

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli start” on page 111

Use the **esacli start** command to start Electronic Service Agent.

“esacli stop” on page 113

Use the **esacli stop** command to stop Electronic Service Agent.

“esacli suspend” on page 116

Use the **esacli suspend** command to suspend Electronic Service Agent.

“esacli resume” on page 106

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Agent.

## Disabling IBM Electronic Service Agent

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

## Before you begin

Problem monitoring and collecting, and sending service information is stopped when IBM Electronic Service Agent is stopped, along with the IBM Electronic Service Agent graphical user interface functions. However, if IBM Electronic Service Agent is stopped, it will restart when the system is rebooted. If you want to permanently deactivate IBM Electronic Service Agent, you should disable IBM Electronic Service Agent rather than stopping it. IBM Electronic Service Agent will remain disabled until it is manually started.

## About this task

To disable IBM Electronic Service Agent, follow these steps:

### Procedure

1. Log in to the system as root or sign on using a root-authorized user ID.
2. At the command prompt, enter the following command:

```
systemctl disable esactl.service
```

IBM Electronic Service Agent is disabled until manually started. For information about starting IBM Electronic Service Agent, see “Stopping and starting IBM Electronic Service Agent” on page 67

### Related tasks:

“Stopping and starting IBM Electronic Service Agent” on page 67

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

“Suspending and resuming IBM Electronic Service Agent” on page 66

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

### Related reference:

“Using the IBM Electronic Service Agent command line interface” on page 72  
IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

“esacli start” on page 111

Use the **esacli start** command to start Electronic Service Agent.

“esacli stop” on page 113

Use the **esacli stop** command to stop Electronic Service Agent.

“esacli suspend” on page 116

Use the **esacli suspend** command to suspend Electronic Service Agent.

“esacli resume” on page 106

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Agent.

## Unconfiguring IBM Electronic Service Agent

You should not unconfigure IBM Electronic Service Agent unless directed to do so by a customer service representative.

## About this task

**Attention:** Unconfiguring IBM Electronic Service Agent is a destructive operation that discards configuration data on the local system. If possible, export the configuration so that the customer contact and system location information can be restored. When IBM Electronic Service Agent is activated following unconfiguration, a new entity ID is associated with the system. Information that is associated with the previous entity ID and system is no longer updated. To access the systems data, you must again associate an IBM ID with the system.

To unconfigure IBM Electronic Service Agent, follow these steps:

### Procedure

1. Log in to the system as root.
2. At the command prompt, enter the following command:

```
/opt/ibm/esa/bin/unconfig.sh
```

### Related tasks:

“Exporting a configuration” on page 45

You can export IBM Electronic Service Agent configuration information to a file so you can use the same contact and location information and operational settings on another system.

## Uninstalling IBM Electronic Service Agent

Before you uninstall IBM Electronic Service Agent, determine whether you want to save the configuration information to use for another system or later on this system.

IBM Electronic Service Agent can be uninstalled from your system using a Linux command. Uninstalling removes the IBM Electronic Service Agent code and configuration information. The configuration information contains contact and location information, and operational settings.

You can choose whether to save your configuration information before you uninstall IBM Electronic Service Agent. If you plan to install IBM Electronic Service Agent again later and want to use the same configuration information, or use the same configuration information for another system, you should save the configuration information for later use.

**Note:** If you uninstall and install IBM Electronic Service Agent again later, you are advised to re-subscribe the KVM hosts.

### Related tasks:

“Installing IBM Electronic Service Agent” on page 15

You must install IBM Electronic Service Agent to enable problem detection, reporting, and transmission of service information to the IBM Electronic Support website.

### Uninstalling IBM Electronic Service Agent and saving configuration information

Uninstalling IBM Electronic Service Agent and saving configuration information enables you to reuse the configuration for the next installation or another system.

## Before you begin

The configuration information contains contact and location information, and operational settings.

## About this task

To save the configuration information and uninstall IBM Electronic Service Agent, follow these steps:

### Procedure

1. Export the configuration information from IBM Electronic Service Agent and save the file. For information about how to export the configuration information, see [Exporting a configuration](#).
2. Use your normal process for uninstalling software to uninstall IBM Electronic Service Agent. The IBM Electronic Service Agent fileset is `esagent.pLinux`.
3. Enter the following RPM uninstallation command:  

```
rpm -e esagent.pLinux
```

### Related tasks:

[“Exporting a configuration” on page 45](#)

You can export IBM Electronic Service Agent configuration information to a file so you can use the same contact and location information and operational settings on another system.

## Uninstalling IBM Electronic Service Agent without saving configuration information

If you uninstall IBM Electronic Service Agent without saving configuration information, you will not be able to reuse the configuration for the next installation.

## Before you begin

If you do not save the configuration information, you must reconfigure IBM Electronic Service Agent if you reinstall it on this system.

## About this task

To uninstall IBM Electronic Service Agent without saving the configuration information, follow these steps:

### Procedure

1. Use your normal process for uninstalling software to uninstall IBM Electronic Service Agent. The IBM Electronic Service Agent fileset is `esagent.pLinux`.
2. Enter the following RPM uninstallation command:  

```
rpm -e esagent.pLinux
```

### Related tasks:

[“Uninstalling IBM Electronic Service Agent and saving configuration information” on page 70](#)

Uninstalling IBM Electronic Service Agent and saving configuration information enables you to reuse the configuration for the next installation or another system.

---

## Using the IBM Electronic Service Agent command line interface

IBM Electronic Service Agent operations can be performed from a Linux command-line prompt.

The basic command to run is `/opt/ibm/esa/bin/esacli`. Except where otherwise noted, **esacli** subcommands can only be used following activation of IBM Electronic Service Agent. For information about activating IBM Electronic Service Agent, see “Activating and configuring IBM Electronic Service Agent” on page 17.

### Related tasks:

“Displaying problem information” on page 35

The **All Problems** pane displays all the problems (service requests) for systems that are monitored by IBM Electronic Service Agent.

## esacli

Use the **esacli** command to control the locally running IBM Electronic Service Agent instance.

### Synopsis

`esacli subcommand subcommand-options`

### Description

The **esacli** command enables you to control the locally running IBM Electronic Service Agent instance.

### Operands

#### *subcommand*

Specifies the specific subcommand to be performed.

### Options

#### *subcommand-options*

Specifies the options specific to the subcommand to be performed. See the specific subcommand documentation for the options specific to the command.

### Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **5**: An unsupported command was specified.
- **9**: Unexpected error. Contact your support.
- **10**: Unsupported option was specified. Option: {option}.
- **13**: An invalid host name was specified for a subcommand host option.
- **14**: A required option was not provided. Option: {option}.
- **16**: The export operation failed. Reason: {Reason}
- **17**: The import operation failed. Reason: {Reason}
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **20**: An output file could not be created. Reason: {Reason}
- **21**: An input file could not be read. Reason: {Reason}
- **22**: An invalid email address was specified. Email: {email} for option {option}.
- **23**: An invalid country was specified. Country: {country}.



- **24:** An invalid phone number was specified. Phone: {Phone}
- **25:** An invalid state or province was specified. State: {State}
- **26:** An invalid postal code: {code} for country code {country code} and state/province {state/province}
- **27:** An invalid IBM ID was specified. IBM ID: {id}
- **28:** Activation failed. Reason: {Reason}.
- **29:** The IBM Electronic Service Agent instance has not been activated.
- **30:** The IBM Electronic Service Agent instance is currently suspended.
- **31:** An integer value was not provided when required. Option: {name} Value: {value}.
- **32:** An integer value was not in the valid range. Option: {option value} Range: {min-max}.
- **33:** Connectivity test failed.
- **34:** Notification test failed. Reason: {Reason}
- **35:** Operational test failed
- **36:** Test problem creation failed.
- **37:** Invalid problem ID specified.
- **38:** Problem deletion failed.
- **39:** Problem update failed.
- **40:** IBM Electronic Service Agent instance is not currently suspended.
- **41:** Invalid value specified: {value}. Value should be specified like {date format} for option {option}.
- **42:** Invalid value {value} specified for the {option} option.
- **43:** IBM Electronic Service Agent is already active.
- **44:** IBM Electronic Service Agent did not start.
- **45:** Mutually exclusive arguments used together.
- **46:** Can not delete required information.
- **47:** Unable to update connection settings. Reason: {reason}
- **49:** The {collector} collector did not start. Reason: {Reason}
- **50:** The primary and secondary contacts can not be the same.
- **51:** The help subcommand {command} is not supported.
- **52:** Administrator privileges needed to run this command.
- **55:** Option {option} is not a valid option when {option} is set to {value}.
- **56:** Interface {interface} not valid. Reason: {reason}.
- **61:** Not a valid option value. Option: {option}.
- **62:** Token already exists.

## Examples

- No command specified

This example illustrates running the **esacli** command without specifying a subcommand to run.

Usage: **esacli** <subcommand> <subcommand-options>

Subcommands:

activity	Show activity log entries.
connectionSettings	Configures connectivity to IBM through proxy servers.
contactSettings	Sets and lists contact information for the monitored system.
export	Export configuration settings.
help	Provides command help.
ibmId	Sets IBM ids associated with this ESA system.
import	Import configuration settings.
interfaces	Lists the network interface cards.
locationSettings	Configures and displays system location information.
logSettings	Sets and lists logging level.
notificationSettings	Configures notification settings.
problem	Work with problems.
problemSettings	Configures frequency of notification retries in case

	of failure and displays settings.
resume	ESA resumes monitoring of the system.
service	Displays inventory collection settings and collects inventory.
serviceSettings	Configures the frequency of inventory collection.
start	Starts ESA.
status	Display Electronic Service Agent status.
stop	Stops ESA.
supportProxySettings	Configures and displays Service and Support Proxy settings.
suspend	ESA suspends monitoring of the system.
test	Performs test operations for connectivity, notification, operations, and problem generation.

#### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli activity

Use the **esacli activity** command to display activity log entries for the IBM Electronic Service Agent instance.

### Synopsis

```
esacli activity [[-m count] | [{-b start-date-time} {-e end-date-time}]
```

### Description

The **esacli activity** command enables you to display activity log entries for the IBM Electronic Service Agent instance.

### Options

**-m** | **--max** *count*

Specifies the maximum number of entries from the end of the activity log to be displayed. A positive integer value must be specified. The entire activity log is displayed if this option is not specified.

**-b** | **--begin** *date-timestamp*

Specifies a date and time for the earliest entry from the activity log to be returned. The date and time may be specified using local conventions for specifying a date and time. Use help for this command to see a sample format for specifying a date and time value. The date and time can also be specified using ISO 8601 an international system for specifying dates and times. An ISO 8601 date and time should be expressed with the following format: YYYY-MM-DD HH:MM. The time is expressed using a 24-hour clock.

**-e** | **--end** *date-timestamp*

Specifies a date and time for the latest entry from the activity log to be returned. The date and time may be specified using local conventions for specifying a date and time. Use help for this command to see a sample format for specifying a date and time value. The date and time can also be specified using ISO 8601 an international system for specifying dates and times. An ISO 8601 date and time should be expressed with the following format: YYYY-MM-DD HH:MM. The time is expressed using a 24-hour clock.

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** The IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}.
- **14:** A required option was not provided. Option: {option}.
- **18:** An option was set more than once. Option: {option}.
- **19:** An option value was not provided when required. Option: {option}.
- **29:** IBM Electronic Service Agent instance has not been activated.
- **31:** An integer value was not provided when required.
- **32:** An integer value was not in the valid range.
- **41:** Invalid value specified: {value}. Value should be specified like {date format} for option {option}.
- **42:** Invalid value {value} specified for the {option} option.
- **45:** Mutually exclusive arguments used together.

## Examples

- List the last six entries in the activity log

This example illustrates running the **esacli activity** command to list the last six entries in the activity log.

```
esacli activity -m 6
```

Activity log entries:

```
Jul 23, 2010 5:43:39 PM: Operational test successful.
Jul 22, 2010 8:59:28 PM: Software service information sent.
Jul 22, 2010 8:58:34 PM: Software service information collection initiated.
Jul 22, 2010 8:57:39 PM: Software service information sent.
Jul 22, 2010 8:55:40 PM: Hardware service information collection initiated.
Jul 22, 2010 8:56:34 PM: Software service information sent
```

- List the activity entries between two dates using a locale format.

This example illustrates running **esacli activity** to list the activity between two dates and times using a locale specific format.

```
esacli activity -b "Jul 22, 2012" -e "Jul 24, 2012"
```

Activity log entries:

```
Jul 23, 2012 5:43:39 PM: Operational test successful.
Jul 22, 2012 8:59:28 PM: Software service information sent.
Jul 22, 2012 8:58:34 PM: Software service information collection initiated.
Jul 22, 2012 8:57:39 PM: Software service information sent.
Jul 22, 2012 8:55:40 PM: Hardware service information collection initiated.
Jul 22, 2012 8:56:34 PM: Software service information sent.
```

- List the activity entries between two dates

This example illustrates running **esacli activity** to list the activity between two dates using an ISO 8601 format.

```
esacli activity -b 2012-07-21 -e 2012-07-24
```

Activity log entries:

```
Jul 23, 2012 5:43:39 PM: Operational test successful.
Jul 22, 2012 8:59:28 PM: Software service information sent.
Jul 22, 2012 8:58:34 PM: Software service information collection initiated.
Jul 22, 2012 8:57:39 PM: Software service information sent.
Jul 22, 2012 8:55:40 PM: Hardware service information collection initiated.
Jul 22, 2012 8:56:34 PM: Software service information sent.
```

## Related tasks:

"Displaying the activity log" on page 43

Use the activity log to see all IBM Electronic Service Agent activity for a designated time period.

## Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli backup

Use the **esacli backup** to take a backup of the configuration settings, discovered systems, and detected problems in IBM Electronic Service Agent.

### Synopsis

```
esacli backup {-f file_name} [-r]
```

### Description

The **esacli backup** command takes a backup of the configuration settings, detected problems, discovered systems to a file that can be used to restore an ESA configuration. This command generates a .backup file that can be used by the **esacli restore** command. This command displays a message - /root/esa.esabkp created successfully on successful completion.

### Options

**-f | --file file\_name**

Specifies the name of the archive file (.esabkp) to which the configuration settings are written. The file can specify either an absolute path or a path relative to the current working directory. The file cannot exist unless the replace option is specified.

**-r | --replace ""**

Specifies the file to which the configuration settings are written which might replace an existing file.

### Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}
- **14**: A required option was not provided. Option: {option}
- **18**: An option was set more than once. Option: {option}
- **19**: An option value was not provided when required. Option: {option}
- **59**: The backup operation failed. Reason: {reason}.
- **20**: The output file could not be created. Reason: {Reason}

### Examples

- This example illustrates taking the backup of ESA configuration

```
esacli backup -f esa.esabkp
/root/esa.esabkp created successfully
```

## esacli clusterInformation

Use the **esacli clusterInformation** command to set and display information for a cluster.

## Synopsis

```
esacli clusterInformation { [ -d ] }
```

```
esacli clusterInformation { [ -e false ] }
```

```
esacli clusterInformation [-e true] {-t type} {-m model} {-s serialVersion}
```

## Description

The **esacli clusterInformation** command sets and displays information for a cluster. This command indicates that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings are displayed. This command also displays the current settings when run with only the display option or when no option is specified.

## Options

- d | --display**  
Specifies that the setting values must be displayed.
- e | --enable *true or false***  
Specifies to enable or disable the cluster
- t | --type *Machine Type***  
Specifies the type of the machine.
- m | --model *Machine Model***  
Specifies the model of the machine.
- s | --serial *serial Number***  
Specifies the serial number of the machine.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}
- **14**: A required option was not provided. Option: {option}
- **19**: An option value was not provided when required. Option: {option}

## Examples

- Display the cluster information.

```
esacli clusterInformation [-d]
Machine is part of cluster: true
Type: 9110
Model Number: 51A
Serial Number: 10607EA
```
- Set the cluster information.

```
esacli clusterInformation -e true -t 9110 -m 51A -s 10607EA
esacli clusterInformation -e false
```

## esacli connectionSettings

Use the **esacli connectionSettings** command to set and display information about the connections to IBM.

## Synopsis

```
esacli connectionSettings [-d [script]]
```

```
esacli connectionSettings {-t direct}
```

```
esacli connectionSettings {-t proxy} {-h hostname} {-p port} [-u user] [-w password]  
[-r connection_number]
```

```
esacli connectionSettings [-k connection_number]
```

## Description

The **esacli connectionSettings** command sets and displays information about the connections to IBM. This command configures connectivity to IBM either directly and through a proxy server. Electronic Service Agent can be configured with up to three connections. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

## Options

### **-d | --display**

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify connectionSettings values, follow these steps:

1. Display the current connectionSettings values by running the following command:

```
esacli connectionSettings -d
```

**Tip:** You can display the help for the connectionSettings command by running the following command: `esacli help connectionSettings`.

2. Save the output of the connectionSettings command to a file by running the following command:

```
esacli connectionSettings -d script > connections.script
```

3. Edit the connections.script file to specify the wanted values.
4. Change the connections.script file to an executable script file.
5. Run the connections.script file to set the connectionSettings values on this or other systems.

### **-t | --type direct or proxy**

Specifies if the connection to IBM is made through a direct connection or through a proxy connection

### **-h | --hostname *IP address or hostname***

Specifies the host name or IP address of the proxy server

### **-p | --port *integer between 1 and 65535***

Specifies a proxy server port

### **-u | --userid *user***

Optional. Specifies a proxy user ID

### **-w | --password *password***

Optional. Specifies a proxy password. The command will prompt for the password if the option but not the value is provided.

**-r | --replace** *integer 1-3*

Replaces the existing connection by number. Connection numbers are viewed using the display option of this command to retrieve the Connection number field.

**-k | --remove** *integer 1-3*

Deletes an existing connection by number. Connection numbers are viewed using the display option of this command to retrieve the Connection number field.

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}.
- **13:** An invalid host name was specified for a subcommand host option.
- **14:** A required option was not provided. Option: {option}.
- **18:** An option was set more than once. Option: {option}.
- **19:** An option value was not provided when required. Option: {option}.
- **31:** An integer value was not provided when required. Option: {name} Value: {value}.
- **32:** An integer value was not in the valid range. Option: {option value} Range: {min-max}.
- **42:** Invalid value {value} specified for the {option} option.
- **47:** Unable to update connection settings. Reason: {reason}

## Examples

- List connections

This example shows how to display the connections.

```
esacli connectionSettings -d
```

Connection List

Connection Number: 1

Type: Direct

Connection Number: 2

Type: Proxy

Proxy IP address or host name: proxy.ibm.com

Proxy Port: 5026

Destination user name: user1

Password: \*\*\*\*\*

Connection Number: 3

Type: Proxy

Proxy IP address or host name: proxy2.ibm.com

Proxy Port: 5026

Destination user name: user1

- Add a direct connection to IBM

This example shows how to add a direct connection to IBM.

```
esacli connectionSettings -x true
```

- Add a proxy connection to IBM

This example shows how to add a proxy connection to IBM.

```
esacli connectionSettings set -x false -h proxy.ibm.com -p 5026 -u user1 -w password
```

- Replace first connection with a proxy connection to IBM

This example shows how to replace the first connection with a proxy connection to IBM.

```
esacli connectionSettings set -x false -h proxy.ibm.com -p 5026 -u user1 -w password -r 1
```

- Remove the first connection to IBM

This example shows how to remove the first connection to IBM.

```
esacli connectionSettings-k 1
```

#### Related tasks:

“Configuring your service connection” on page 22

IBM Electronic Service Agent can connect to the IBM Electronic Support website through direct Internet (HTTPS) connection, service and support proxy, or HTTP proxy connection paths. IBM Electronic Service Agent uses these connection paths to report problems and send service information to the IBM Electronic Support website. IBM Electronic Service Agent uses IPv4 to connect to the IBM Electronic Support website.

#### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli contactSettings

Use the **esacli contactSettings** command to configure the service contact information.

### Synopsis

```
esacli contactSettings [-d [script]]
```

```
esacli contactSettings [-d [script]] {-o organization} [-a address]  
[-b address] [-h address] [-m city] [-s state] {-c country}  
[-z postal-code] [-f phone] [-g alt fax] [-q help] {-n contact name}  
{-p contact phone} [-i alt phone] {-e contact email} [-j alt email]  
[-y pager] {-w secondary name} {-k secondary contact phone}  
[-r secondary contact alt phone] {-x secondary contact email}
```

### Description

The **esacli contactSettings** command configures the service contact information. The **esacli contactSettings** command displays and sets the configuration information for IBM Electronic Service Agent instance associated with the service contact information. All required fields must be entered to run this command. All optional fields not specified will be cleared. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

### Options

#### -d | --display

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify contactSettings values, follow these steps:

1. Display the current contactSettings values by running the following command:

```
esacli contactSettings -d
```



**Tip:** You can display the help for the `contactSettings` command by running the following command: `esacli help contactSettings`.

2. Save the output of the `contactSettings` command to a file by running the following command:

```
esacli contactSettings -d script > contacts.script
```

3. Edit the `contacts.script` file to specify the wanted values.
4. Change the `contacts.script` file to an executable script file.
5. Run the `contacts.script` file to set the `contactSettings` values on this or other systems.

- o | --organization *organization***  
Specifies the name of the organization or company responsible for the system.
- a | --organization.address1 *address***  
Specifies the address line 1 where the organization is located.
- b | --organization.address2 *address***  
Specifies the address line 2 where the organization is located.
- h | --organization.address3 *address***  
Specifies the address line 3 where the organization is located.
- m | --organization.city *city***  
Specifies the name of the city where the organization is located.
- s | --organization.state *state***  
Specifies the name of the state or province where the organization is located. If the organization country is set to the United States or Canada, then a valid state or province setting must be a valid 2 character state or province abbreviation.
- c | --organization.country *country***  
Specifies the name of the country or region for the organization. The country must be specified as a valid two letter code as defined by ISO-3166. This setting cannot be cleared.
- z | --organization.postal *postal\_code***  
Specifies the postal code where the organization is located.
- f | --organization.fax *phone***  
Specifies the facsimile (fax) number where the organization is located. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length.
- g | --organization.altfax *phone***  
Specifies the alternate facsimile (fax) number where the organization is located. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length.
- q | --organization.help *phone***  
Specifies the telephone help desk number for the organization. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length.
- n | --contact.name *name***  
Specifies the name of the primary person responsible for the system. This setting cannot be cleared.
- p | --contact.phone *phone***  
Specifies the telephone number where the primary contact person can be

reached. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length. This setting cannot be cleared.

- i | --contact.altphone *phone***  
Specifies the telephone number where the primary contact person can be reached. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length.
- e | --contact.email *email***  
Specifies the email address for the primary contact person. This setting cannot be cleared.
- j | --contact.altemail *email***  
Specifies the alternative email address for the primary contact person.
- y | --contact.pager *phone***  
Specifies the pager number where the secondary contact person can be reached. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length. This number can contain a PIN number.
- w | --sec.contact.name *name***  
Specifies the name of the secondary person in the organization responsible for the system. This setting cannot be cleared.
- k | --sec.contact.phone *phone***  
Specifies the telephone number where the secondary contact person can be reached. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length. This setting cannot be cleared.
- r | --sec.contact.altphone *phone***  
Specifies an alternative telephone number where the secondary contact person can be reached. Valid United States and Canada numbers must be 10 - 30 alphanumeric characters in length. Other telephone numbers must be 5 - 30 characters in length.
- x | --sec.contact.email *email***  
Specifies the email address for the secondary contact person. This setting cannot be cleared.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **22**: An invalid email address was specified. Email: {email} for option {option}.
- **23**: An invalid country or region was specified. Country: {country}.
- **24**: An invalid phone number was specified. Phone: {Phone}
- **25**: An invalid state or province was specified. State: {State}
- **26**: An invalid postal code: {code} for country code {country code} and state/province {state/province}
- **42**: Invalid value {value} specified for the {option} option.
- **50**: The primary and secondary contacts cannot be the same.

## Examples

- Display the current contact settings

This example shows how to use **esacli contactSettings** to display the current settings.

### **esacli contactSettings -d**

```
Company Information
  Company name:          IBM
  Street address Line 1: 2455 South Rd
  Line 2:
  Line 3:
  City:                  Poughkeepsie
  State or province:     NY
  Country or region:     US
  Postal code:           12603
  Fax number:            9296307095
  Alternate fax number:  0016024545
  Help desk number:      4777736840
Primary Contact
  Contact name:          Primary Contact
  Telephone number:      0312810438
  Alternate telephone number: 6724959392
  E-mail:                email1@ibm.com
  Alternate e-mail:      email2@ibm.com
  Pager number:          5638578295
Secondary Contact
  Contact name:          Secondary Contact
  Telephone number:      4233691129
  Alternate telephone number: 7173103933
  E-mail:                email3@lotus.com
```

- Set several values

This example shows how to use **esacli contactSettings** to set several values.

```
esacli contactSettings -o IBM
-a "2455 South Rd."
-m "Poughkeepsie"
-s "NY"
-c "US"
-z "12601"
-n "John Primary"
-p "8455559464"
-e "jd@ibm.com"
-w "Joe Backup"
-k "8455551212"
-x "jbackup@us.ibm.com"
```

### **Related tasks:**

“Using the activator command” on page 20

If you have many systems to activate and configure or there is little or no variation from one system to the next, it is easy to develop a script to activate and configure IBM Electronic Service Agent.

“Specifying service contact information” on page 26

Specifying IBM Electronic Service Agent service contact information is the first step in preparing to connect to the IBM Electronic Support website.

### **Related reference:**

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## **esacli export**

Use the **esacli export** command to export the configuration settings for the IBM Electronic Service Agent instance.

## Synopsis

```
esacli export {-f file_name} [-r]
```

## Description

The **esacli export** command enables you to write the configuration settings for the IBM Electronic Service Agent instance to a file.

## Options

**-f | --file *file\_name***

Specifies the name of a file to which the configuration settings are to be written.

The file can specify either an absolute path or a path relative to the current working directory. The file cannot already exist unless the replace option is specified.

**-r | --replace**

Specifies the file to which the configuration settings are to be written can replace an existing file.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **16**: The export operation failed. Reason: {Reason}
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **20**: An output file could not be created. Reason: {Reason}

## Examples

- Successful export

This example illustrates running the **esacli export** command.

```
esacli export -f export.file
```

### Related tasks:

“Configuring operational settings” on page 44

You can configure operational settings for IBM Electronic Service Agent to perform the functions that are important to your service environment.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli generateToken

Use the **esacli generateToken** command to generate token for the IBM Electronic Service Agent.

## Synopsis

```
esacli generateToken {[-f ]}
```

## Description

The **esacli import** command enables you to import the configuration settings for the IBM Electronic Service Agent instance from a file.

## Options

**-f | --force**

Generates token, even if token already exists.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **5**: An unsupported command was specified.
- **10**: Unsupported option was specified. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **62**: Token already exists.

## Examples

This example illustrates running the **esacli generateToken** command.

```
esacli generateToken -f
```

Token generated successfully.

```
esacli generateToken
```

0062: Token already exists.

## esacli help

Use the **esacli help** command to request information about using the **esacli** functions.

## Synopsis

```
esacli help <subcommand>
```

## Description

The **esacli help** command enables you to display the syntax and a brief description of the specified subcommand.

## Operands

**subcommand**

Specifies the specific subcommand for which help is requested.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **51**: The help subcommand {command} is not supported.

## Examples

- No subcommand specified

This example illustrates running the **esacli help** command without specifying a subcommand.

**esacli help**

Provide command help.

Usage: **esacli help** [subcommand]

Subcommands:

activity	Show activity log entries.
connectionSettings	Configures connectivity to IBM through proxy servers.
contactSettings	Sets and lists contact information for the monitored system.
export	Export configuration settings.
help	Provides command help.
ibmId	Sets IBM ids associated with this ESA system.
import	Import configuration settings.
interfaces	Lists the network interface cards.
locationSettings	Configures and displays system location information.
logSettings	Sets and lists logging level.
notificationSettings	Configures notification settings.
problem	Work with problems.
problemSettings	Configures frequency of notification retries in case of failure and displays settings.
resume	ESA resumes monitoring of the system.
service	Displays inventory collection settings and collects inventory.
serviceSettings	Configures the frequency of inventory collection.
start	Starts ESA.
status	Display agent status.
stop	Stops ESA.
supportProxySettings	Configures and displays Service and Support Proxy settings.
suspend	ESA suspends monitoring of the system.
test	Performs test operations for connectivity, notification, operations, and problem generation.

- Provide command help

This example illustrates running the **esacli help** command.

**esacli help activity**

Help for activity

## Summary

Use the **esacli activity** command to display activity log entries for IBM Electronic Service Agent instance.

## Synopsis

```
esacli activity [[-m count] | [{-b start-date-time} {-e end-date-time}]]
```

## Description

The **esacli activity** command displays activity log entries for IBM Electronic Service Agent instance.

## Options

- m | --max count  
Specifies the maximum number of entries from the end of the activity log to be displayed. A positive integer value must be specified. The entire activity log is displayed if this option is not specified.
- b | --begin date-timestamp  
Specifies a date and time for the earliest entry from the activity log to be returned. The date and time may be specified using local conventions for specifying a date and time. Use **help** for this command to see a sample format for specifying a date and time value. The date and time can also be specified using ISO 8601 an international system for specifying dates and times. An ISO 8601 date and time should be expressed with the following format: YYYY-MM-DD HH:MM. The time is expressed using a 24 clock.

-e | --end date-timestamp  
 Specifies a date and time for the latest entry from the activity log to be returned. The date and time may be specified using local conventions for specifying a date and time. Use help for this command to see a sample format for specifying a date and time value. The date and time can also be specified using ISO 8601 an international system for specifying dates and times. An ISO 8601 date and time should be expressed with the following format: YYYY-MM-DD HH:MM. The time is expressed using a 24 clock.

#### Exit status

0 = The operation completed successfully.  
 1 = IBM Electronic Service Agent instance is not running.  
 10 = Unsupported option was specified. Option: {option}.  
 14 = A required option was not provided. Option: {option}.  
 18 = An option was set more than once. Option: {option}.  
 19 = An option value was not provided when required. Option: {option}.  
 29 = IBM Electronic Service Agent instance has not been activated.  
 31 = An integer value was not provided when required. Option: {name} Value: {value}.  
 32 = An integer value was not in the valid range. Option: {option value} Range: {min-max}.  
 41 = Invalid value specified: {value}. Value should be specified like {date format} for option {option}.  
 42 = Invalid value {value} specified for the {option} option.  
 45 = Mutually exclusive arguments used together.

#### Examples

##### 1. List the last 6 entries in the activity log

This example illustrates running esacli activity to list the last 6 entries in the activity log.

```
> esacli activity -m 6
```

Activity log entries:

```
Jul 23, 2010 5:43:39 PM: Operational test successful.
Jul 22, 2010 8:59:28 PM: Software service information sent.
Jul 22, 2010 8:58:34 PM: Software service information collection initiated.
Jul 22, 2010 8:57:39 PM: Software service information sent.
Jul 22, 2010 8:55:40 PM: Hardware service information collection initiated.
Jul 22, 2010 8:56:34 PM: Software service information sent.
```

##### 2. List the activity entries between two dates using a locale format.

This example illustrates running esacli activity to list the activity between two dates and times using a locale specific format.

```
> esacli activity -b "7/21/12 9:09 AM" -e "7/24/12 9:09 AM"
```

Activity log entries:

```
Jul 23, 2012 5:43:39 PM: Operational test successful.
Jul 22, 2012 8:59:28 PM: Software service information sent.
Jul 22, 2012 8:58:34 PM: Software service information collection initiated.
Jul 22, 2012 8:57:39 PM: Software service information sent.
Jul 22, 2012 8:55:40 PM: Hardware service information collection initiated.
Jul 22, 2012 8:56:34 PM: Software service information sent.
```

##### 3. List the activity entries between two dates using a standard format.

This example illustrates running esacli activity to list the activity between two dates using an ISO 8601 format.

```
> esacli activity -b 2012-07-21 -e 2012-07-24
```

Activity log entries:

```
Jul 23, 2012 5:43:39 PM: Operational test successful.
Jul 22, 2012 8:59:28 PM: Software service information sent.
Jul 22, 2012 8:58:34 PM: Software service information collection initiated.
Jul 22, 2012 8:57:39 PM: Software service information sent.
Jul 22, 2012 8:55:40 PM: Hardware service information collection initiated.
Jul 22, 2012 8:56:34 PM: Software service information sent.
```

#### Related reference:

“How to read syntax diagrams” on page 123  
Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli ibmId

Use the **esacli ibmId** command to add IBM user IDs that can access the Electronic Service Agent support website to view status.

### Synopsis

```
esacli ibmId -i {IBM user id list}
```

### Description

The **esacli ibmId** command adds IBM user IDs that can access the Electronic Service Agent support website to view status.

### Options

**-i | --ibmid**

Comma separated list of IBM user IDs to be granted access to the Electronic Service Agent website.

### Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **27**: An invalid IBM ID was specified. IBM ID: {id}

### Example

- Set IBM user accounts

The example illustrates adding two user IDs to access the Electronic Service Agent website.

```
esacli ibmId -i "user1,user2"
```

The command completed successfully.

### Related tasks:

“Providing IBM IDs” on page 52

An IBM ID is needed to view service information that was sent to the IBM Electronic Support website by IBM Electronic Service Agent. Service information can be viewed on the IBM Electronic Support website.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli import

Use the **esacli import** command to import the configuration settings for the IBM Electronic Service Agent instance.



If the configuration settings being imported include values for all of the required options for the **esacli activate** command, then the IBM Electronic Service Agent instance will be activated as if the **esacli activate** command had been used.

## Synopsis

```
esacli import {-f file_name}
```

## Description

The **esacli import** command enables you to import the configuration settings for the IBM Electronic Service Agent instance from a file.

## Options

**-f | --file** *file\_name*

Specifies the name of a file from which the configuration settings are to be read. The **esacli export** command can be used to generate a file with the proper format for the **esacli import** command. The generated file includes comments documenting the various settings which can be changed. The file can specify either an absolute path or a path relative to the current working directory.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **17**: The import operation failed. Reason: {Reason}
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **21**: An input file could not be read. Reason: {Reason}

## Examples

- Successful import

This example illustrates running the **esacli import** command.

```
esacli import -f import.file
```

### Related tasks:

“Configuring operational settings” on page 44

You can configure operational settings for IBM Electronic Service Agent to perform the functions that are important to your service environment.

“Importing a configuration” on page 46

You can import an IBM Electronic Service Agent configuration file so you can use the same contact and location information and operational settings as used on another system.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli interfaces

Use the **esacli interfaces** command to list the names of the network interfaces.

## Synopsis

`esacli interfaces`

## Description

The **esacli interfaces** command lists the names of the network interfaces. This command is used as an input source for input for the **esacli supportProxySettings** command.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: The IBM Electronic Service Agent instance is not running.

## Example

- Lists interface

The example illustrates displaying the network interfaces.

```
esacli interfaces
# Interface IP Address
1 eth2      fe80:0:0:0:214:5eff:fe96:a4c6%4
2 eth2      2002:905:150e:251:214:5eff:fe96:a4c6%4
3 eth2      9.5.10.138
4 lo        0:0:0:0:0:0:0:1%1
5 lo        127.0.0.2
6 lo        127.0.0.1
```

## Related tasks:

“Creating the IBM Service and Support proxy” on page 24

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

## Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

“esacli supportProxySettings” on page 114

Use the **esacli supportProxySettings** command to set and display information that configures the Service and Support Proxy.

## esacli lsentityIds

Use the **esacli lsentityIds** to display the entity IDs associated with the hosts.

## Synopsis

`esacli lsentityIds`

`esacli lsentityIds [-h hostname]`

## Description

The **esacli lsentityIds** command displays the entity IDs of all the hosts or a specific host.

## Options

### **-h | --host**

Displays the entity ID associated with the specified host.

To collect the entity ID of a particular host, specify the host name on which performance management data needs to be collected. The host can be a remote host or the primary system on which ESA is installed. For the primary system, the value can be either "localhost" or the output of the command host name. For remote host, the value can be either host name or system name / IP address that is used to discover the system.

**Note:** You might get the following error messages for the respective conditions:

Condition	Error message
Provided an invalid host name	<b>Specified host name is invalid</b>
If there is no entity ID associated with given host name	<b>No Entity IDs for the specified host</b>
If you provide the option <b>-h</b> and did not specify the host name (option value).	<b>An option value was not provided</b>

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}
- **13:** An invalid host name was specified for a subcommand host option.
- **18:** An option was set more than once. Option: {option}
- **19:** An option value was not provided when required. Option: {option}

## Examples

- Lists entity Ids of all hosts

### **esacli lentityIds**

```
EntityId|HostName|MachineType|MachineModel|SerialNumber|IPAddresses
EPS/BOUB24924961|sa6p05|9117|MMA|10F94EB|9.5.103.126,2002:905:150e:301:214:5eff:fe5f:1a24,
fe80::214:5eff:fe5f:1a24
EPS/BOUB24925162|PEkvm|8286|41A|TU00010|fe80::42f2:e9ff:fe5a:8dec,9.5.31.12,
fe80::42f2:e9ff:fe5a:8dec,192.168.122.1
```

- List entity Id associated with a specific host

### **esacli lentityIds -h sa6p05**

```
EntityId|HostName|MachineType|MachineModel|SerialNumber|IPAddresses
EPS/BOUB24924961|sa6p05|9117|MMA|10F94EB|9.5.103.126,2002:905:150e:301:214:5eff:fe5f:1a24,
fe80::214:5eff:fe5f:1a24
```

## esacli locationSettings

Use the **esacli locationSettings** command to configure and display the system location information.

## Synopsis

```
esacli locationSettings [-d [script]]
```

```
esacli locationSettings [-d [script]] {-c country} {-s state-or-province}
{-z postal-code} {-m city} {-a address} {-b building}
{-p phone}
```

## Description

The **esacli locationSettings** command configures and displays the system location information. The **esacli locationSettings** command allows you to display and/or change the configuration settings for IBM Electronic Service Agent instance associated with the system location. All required fields must be entered to run this command. All optional fields not specified will be cleared. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

## Options

### **-d | --display**

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify locationSettings values, follow these steps:

1. Display the current locationSettings values by running the following command:

```
esacli locationSettings -d
```

**Tip:** You can display the help for the locationSettings command by running the following command: `esacli help locationSettings`.

2. Save the output of the locationSettings command to a file by running the following command:

```
esacli locationSettings -d script > locations.script
```

3. Edit the locations.script file to specify the desired values.
4. Change the locations.script file to an executable script file.
5. Run the locations.script file to set the locationSettings values on this or other systems.

### **-c | --location.country *country***

Specifies the name of the country or region for the system location. The country must be specified as a valid two letter code as defined by ISO-3166.

### **-s | --location.state *state***

Specifies the name of the state or province where the system is located. If the location country is set to the United States or Canada, then a valid state or province setting must be a valid 2 character state or province abbreviation.

### **-z | --location.postal *postal code***

Specifies the postal code where the system is located.

### **-m | --location.city *city***

Specifies the name of the city where the system is located.

### **-a | --location.address *address***

Specifies the address where the system is located.

### **-b | --location.building *location***

Specifies the location where the system is located at an address.

### **-p | --location.phone *phone***

Specifies the telephone number where the system is located. Valid United States and Canada telephone numbers must be 10 - 30 alphanumeric characters

and cannot contain any dashes. Other telephone numbers can include any type of character but must be 5 - 30 characters in length.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **23**: An invalid country or region was specified. Country: {country}.
- **24**: An invalid phone number was specified. Phone: {Phone}
- **25**: An invalid state or province was specified. State: {State}
- **26**: An invalid postal code: {code} for country code {country code} and state/province {state/province}
- **42**: Invalid value {value} specified for the {option} option.

## Examples

- Display the current system location settings

This example illustrates running the **esacli locationSettings** to display the current settings.

```
esacli locationSettings -d
System Location
Country or region: United States
State or province: NY
Postal code: 12601
City: Poughkeepsie
Street address: 2455 South Rd
Building, floor, office: 707, 1M-71
Telephone number: 8005551212
```

- Set system location values

This example illustrates running the **esacli locationSettings** to set several values.

```
esacli locationSettings -a "2455 South Rd." -m "Poughkeepsie" -s "NY" -c "US"
-z "12601" -p "8455559464" -b "Building 707 Floor 2 Rm M71"
```

### Related tasks:

“Specifying service contact information” on page 26

Specifying IBM Electronic Service Agent service contact information is the first step in preparing to connect to the IBM Electronic Support website.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli logSettings

Use the **esacli logSettings** command to set and display information for the current logging level.

### Synopsis

```
esacli logSettings [-d [script]]
```

```
esacli logSettings [-d [script]] {-l level}
```

## Description

The **esacli logSettings** command sets and displays information for the current logging level. This command is used to set and display the logging level. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

## Options

### **-d | --display**

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify logSettings values, follow these steps:

1. Display the current logSettings values by running the following command:

```
esacli logSettings -d
```

**Tip:** You can display the help for the logSettings command by running the following command: `esacli help logSettings`.

2. Save the output of the logSettings command to a file by running the following command:

```
esacli logSettings -d script > log.script
```

3. Edit the log.script file to specify the desired values.
4. Change the log.script file to an executable script file.
5. Run the log.script file to set the logSettings values on this or other systems.

### **-l | --level Severe | Error | Warning | Information | Debug | Trace**

Specifies the Electronic Service Agent logging level.

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}.
- **18:** An option was set more than once. Option: {option}.
- **19:** An option value was not provided when required. Option: {option}.
- **42:** Invalid value {value} specified for the {option} option.

## Examples

- Lists logging level

```
esacli logSettings -d
Logging Level: Error
```

- Sets logging level to Error

```
esacli logSettings -l Error
```

### Related tasks:

“Setting the trace level” on page 62

Trace level determines the message severity that is recorded during IBM Electronic Service Agent activity.

### Related reference:

"How to read syntax diagrams" on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli notificationSettings

Use the **esacli notificationSettings** to set and display information indicating where Electronic Service Agent will send notifications when errors occur.

### Synopsis

```
esacli notificationSettings [[-d [script]]
```

```
esacli notificationSettings {-t email} [-e true] {-h hostname} {-p port} [-u userid]  
[-w password] {-l email-list}
```

```
esacli notificationSettings {-t SNMP} [-e true] {-h hostname} {-p port} {-c SNMP Community}
```

```
esacli notificationSettings {-a "email list"} |{-r "email list"}
```

### Description

The **esacli notificationSettings** command sets and displays information indicating where Electronic Service Agent will send notifications when errors occur. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

### Options

#### -d | --display

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify notificationSettings values, follow these steps:

1. Display the current notificationSettings values by running the following command:

```
esacli notificationSettings -d
```

**Tip:** You can display the help for the notificationSettings command by running the following command: `esacli help notificationSettings`.

2. Save the output of the notificationSettings command to a file by running the following command:

```
esacli notificationSettings -d script > notifications.script
```

3. Edit the notifications.script file to specify the desired values.
4. Change the notifications.script file to an executable script file.
5. Run the notifications.script file to set the notificationSettings values on this or other systems.

#### -t | --type <email|SNMP>

Specifies which setting values are to be displayed or set. This command must be run two times for setting both the email and SNMP values.

#### -e | --enable true or false

Specifies if notification is enabled or not. The default is true.

- h** | **--hostname** *SMTP server or SNMP network manager host*  
Specifies an SMTP server hostname or a SNMP network manager host. A hostname or IP Address can be used.
- p** | **--port** *integer between 1 and 65535*  
Specifies an SMTP or SNMP server port.
- u** | **--userid** *user*  
Specifies a SMTP user account.
- w** | **--password** *password*  
Specifies an SMTP user password. The command will prompt for the password if the option but not the value is provided.
- l** | **--list** *email list*  
Specifies a comma-separated list of email addresses where notifications will be sent. This list will replace any existing emails.
- c** | **--community** *SNMP Community*  
Specifies a SNMP Community where SNMP traps will be sent.
- a** | **--add** *email address(es)*  
Specifies additional comma-separated email address(es) where emails will be sent. This option is mutually exclusive of other options.
- r** | **--delete** *email address(es)*  
Specifies comma-separated email address(es) to remove from the notification list. This option is mutually exclusive of other options.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **13**: An invalid host name was specified for a subcommand host option.
- **14**: A required option was not provided. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **22**: An invalid email address was specified. Email: {email} for option {option}.
- **31**: An integer value was not provided when required. Option: [name] Value: {value}.
- **32**: An integer value was not in the valid range. Option: {option value} Range: {min-max}.
- **42**: Invalid value {value} specified for the {option} option.
- **45**: Mutually exclusive arguments used together.
- **46**: Can not delete required information.
- **55**: Option {option} is not a valid option when {option} is set to {value}.

## Examples

- Lists notification settings
 

```
esacli notificationSettings -d
Notification Settings
Send e-mail notifications
Enabled: true
SMTP service name: smtp.server.com
Port: 25
Userid: smtpul
Password: *****
Addresses: user1@ibm.com, user2@ibm.com
Send SNMP traps
```



```
Enabled: true
Target network manager host: snmp.host.com
Community: snmp community
Port: 162
```

- Set SNMP notification settings  
`esacli notificationSettings -t SNMP -e true -h snmp.gateway.com -p 162 -c "SNMP Community"`
- Set email notification settings  
`esacli notificationSettings --type email --enable true  
--userid "smtpuser" --password "password" --hostname smtp.gateway.com --port 25 --list  
"email1@ibm.com,email2@ibm.com"`
- Add an additional email recipient  
`esacli notificationSettings --add "email1@ibm.com"`

#### Related tasks:

“Specifying notifications” on page 61

You can use notifications to send email and SNMP traps about IBM Electronic Service Agent activity to the locations you specify.

#### Related reference:

“esacli test” on page 116

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## esacli opNotificationSettings

Use the **esacli opNotificationSettings** to set and display information indicating where Electronic Service Agent sends notifications when operational tests are performed.

### Synopsis

```
esacli opNotificationSettings [[-d [script]]
```

```
esacli opNotificationSettings [-e true] {-h hostname} {-p port} [-u userid]  
[-w password] {-m email}
```

```
esacli opNotificationSettings {-e false}
```

### Description

The **esacli opNotificationSettings** command sets and displays information indicating where Electronic Service Agent sends notifications when operational tests are performed. This command indicates that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings are displayed. This command also displays the current settings when run with only the display option or when no option is specified.

**Note:** This command should be run only when directed by IBM service and any email address which is set must end with `ibm.com`.

### Options

#### -d | --display

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify opNotificationSettings values, follow these steps:

1. Display the current opNotificationSettings values by running the following command:

```
esacli opNotificationSettings -d
```

**Tip:** You can display the help for the opNotificationSettings command by running the following command: `esacli help opNotificationSettings`.

2. Save the output of the opNotificationSettings command to a file by running the following command:

```
esacli opNotificationSettings -d script > opnotifications.script
```

**Note:** For Windows systems, create a batch file in the following format:

**esacli opNotificationSettings -d script > opnotifications.bat.**

3. Edit the opnotifications.script file to specify the wanted values.
4. Change the opnotifications.script file to an executable script file.
5. Run the opnotifications.script file to set the opNotificationSettings values on this or other systems.

- e** | **--enable** *true or false*  
Specifies if notification is enabled or not. The default is true.
- h** | **--hostname** *SMTP server host*  
Specifies an SMTP server hostname. A hostname or IP Address can be used.
- p** | **--port** *port*  
Specifies an SMTP server port.
- u** | **--userid** *user*  
Specifies an SMTP user account.
- w** | **--password** *password*  
Specifies an SMTP user password. The command prompts for the password if the option is specified but the value is not provided.
- m** | **--email** *email address*  
Specifies an email where operational test notifications are sent. This email address must end with ibm.com.

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}
- **13:** An invalid host name was specified for a subcommand host option.
- **14:** A required option was not provided. Option: {option}
- **18:** An option was set more than once. Option: {option}
- **19:** An option value was not provided when required. Option: {option}
- **22:** An invalid email address was specified. Email: {email} for option {option}
- **31:** An integer value was not provided when required. Option: {name} Value: {value}
- **32:** An integer value was not in the valid range. Option: {option value} Range:{min-max}
- **42:** Invalid value {value} specified for the {option} option.

## Examples

- Lists operational notification settings

```

esacli opNotificationSettings -d
Operational Settings
Send e-mail notifications
Enabled: true
SMTP service name: smtp.server.com
Port: 25
Userid: smtpul
Password: *****
Address: user1@ibm.com

```

- Set operational notification settings

```

esacli opNotificationSettings --enable true
--userid "smtpuser" --password "password" --hostname smtp.gateway.com
--port 25 --email email@ibm.com

```

## esacli opTestSettings

Use the **esacli opTestSettings** command to set and display information indicating when Electronic Service Agent attempts to perform an automatic operational test.

### Synopsis

```

esacli opTestSettings [[-d [script]]

esacli opTestSettings [-e true] {-x time} {-i interval in days}

esacli opTestSettings {-e false}

```

### Description

The **esacli opTestSettings** command sets and displays information indicating when Electronic Service Agent attempts to perform an automatic operational test to IBM servers.

### Options

#### **-d | --display**

Specifies the setting values that must be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify opTestSettings values, follow these steps:

1. Display the current opTestSettings values by running the following command:

```

esacli opTestSettings -d

```

**Tip:** You can display the help for the **opTestSettings** command by running the **esacli help opTestSettings** command.

2. Save the output of the **opTestSettings** command to a file by running the following command:

```

esacli opTestSettings -d script > optest.script

```

**Note:** For Windows systems, create a batch file in the following format:

```

esacli opTestSettings -d script > optest.bat

```

3. Edit the optest.script file to specify the required values.
4. Change the optest.script file to an executable script file.
5. Run the optest.script file to set the opTestSettings values on this or other systems.

- e** | **--enable** *true or false*  
Specifies if the operational test is enabled or not. The default value is true.
- i** | **--interval** *days*  
Number of days between operational tests. Must be a value between 1-21.
- x** | **--time** *test time*  
Specifies when the test should be run in 15 minute intervals. The format of the time uses the ISO 8601 standard. It is expressed as HH:MM using a 24 hour clock. Times are rounded to 15 minute intervals.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}
- **14**: A required option was not provided. Option: {option}
- **18**: An option was set more than once. Option: {option}
- **19**: An option value was not provided when required. Option: {option}
- **31**: An integer value was not provided when required. Option: {name} Value: {value}
- **32**: An integer value was not in the valid range. Option: {option value} Range:{min-max}
- **42**: Invalid value {value} specified for the {option} option.

## Examples

- Lists operational test settings
 

```
esacli opTestSettings -d
Operational test
Automatically test connection to IBM support
Enabled: true
Interval: 10 days
Scheduled time: 15:00
```
- Set operational test settings
 

```
esacli opTestSettings --enable "true" --interval "11" --time "10:00"
The operation completed successfully.
```

## esacli problem

Use the **esacli problem** command to work with problems for the IBM Electronic Service Agent instance.

## Synopsis

```
esacli problem [-i {id}] [-d | -u]]
```

## Description

The **esacli problem** command enables you to work with problems for the IBM Electronic Service Agent instance. If a problem ID or service request ID is provided, then the operation performed is specific to the problem identified by the problem ID. Otherwise, the list of all open problems is displayed.

## Options

- d** | **--delete**  
Specifies that the problem is to be deleted.

**-i | --id *id***

Specifies the problem ID or service request ID of the problem for which information is to be displayed or deleted.

**-u | --update**

Specifies that an update of the service request status for the problem should be retrieved.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **37**: Invalid problem ID specified.
- **38**: Problem deletion failed.
- **39**: Problem update failed.
- **45**: Mutually exclusive arguments used together.

## Examples

- List problems

This example illustrates running the **esacli problem** command to list the problem summary.

**esacli problem**

Problem list:

```
Problem 139e0629965-1573f832:
    Status:      Open
    Service request: 28507379000
```

- Display problem details

This example illustrates running the **esacli problem** command to display details for a problem.

**esacli problem -i 139e0629965-1573f832**

Problem information:

```
Problem ID:      139e0629965-1573f832
Service request: 28507379000
Status:          Open
Is test problem: Yes
Problem description: Test symptom generated by Electronic Service Agent
Problem severity: 2
Problem occurrence date/time: Wed Sep 19 16:15:21 CDT 2012
Extended problem data:
Extended problem data available: No
Service request status: Open
Problem sent:     Yes
Number of attempts: 1
Last changed:     Wed Sep 19 16:15:37 CDT 2012
Error code:       ElectronicService.Test
```

- Delete a problem

This example illustrates running the **esacli problem** command to delete a problem.

**esacli problem -i 12a0068d6d9-28094f01 -d**

Problem with local problem ID or service request 12a0068d6d9-28094f01 deleted successfully.

## Related tasks:

“Displaying problem information” on page 35

The **All Problems** pane displays all the problems (service requests) for systems that are monitored by IBM Electronic Service Agent.

**Related reference:**

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli problemSettings

Use the **esacli problemSettings** command to set and display information about how frequently Electronic Service Agent attempts to call a problem home when it is not initially successful at calling home the problem.

### Synopsis

```
esacli problemSettings [[-d [script]]]
```

```
esacli problemSettings {-r true|false} {-i minutes} {-n number of re-tries}
```

### Description

The **esacli problemSettings** command sets and displays information about how frequently Electronic Service Agent attempts to call a problem home when it is not initially successful at calling home the problem. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

### Options

**-d | --display**

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify problemSettings values, follow these steps:

1. Display the current problemSettings values by running the following command:

```
esacli problemSettings -d
```

**Tip:** You can display the help for the problemSettings command by running the following command: `esacli help problemSettings`.

2. Save the output of the problemSettings command to a file by running the following command:

```
esacli problemSettings -d script > problems.script
```

3. Edit the problems.script file to specify the desired values.
4. Change the problems.script file to an executable script file.
5. Run the problems.script file to set the problemSettings values on this or other systems.

**-r | --retry{true or false }**

Specifies whether Electronic Service Agent should re-try action to perform when reporting a problem fails.

- i | --interval interval{integer between 15 and 720}  
Specifies number of minutes to wait before retrying.
- n | --numtries{[integer | unlimited]}  
Specifies number of times Electronic Service Agent should re-try to report a problem. The value can also be specified as unlimited.

## Exit status

The following table contains the codes that are returned by this command.

- 0: The operation completed successfully.
- 1: IBM Electronic Service Agent instance is not running.
- 10: Unsupported option was specified. Option: {option}.
- 14: A required option was not provided. Option: {option}.
- 18: An option was set more than once. Option: {option}.
- 19: An option value was not provided when required. Option: {option}.
- 31: An integer value was not provided when required. Option: [name] Value: {value}.
- 32: An integer value was not in the valid range. Option: {option value} Range: {min-max}.
- 42: Invalid value {value} specified for the {option} option.

## Examples

- List problem information settings

```
esacli problemSettings -d
Problem information
  Retry:                true
  Interval in minutes:  10
  Number of times:      300
```

- Set problem information settings

```
esacli problemSettings --retry true --interval 300 --numtries 3
```

### Related tasks:

“Configuring problem reporting” on page 57

You can specify that IBM Electronic Service Agent continue to attempt to report a problem if initial transmission fails. You can enable or disable the automatic transmission of extended error data (EED) to IBM. You can also configure the frequency and number of times IBM Electronic Service Agent attempts to report a problem.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli resourceFilters

Use the **esacli resourceFilters** to set and display the range of resources that are ignored by Electronic Service Agent.

### Synopsis

```
esacli resourceFilters { [ -d ]}

esacli resourceFilters [ -a ] {-b begin range} {-e end range}

esacli resourceFilters [ -r ] {-b begin range}{-e end range}
```

## Description

The **esacli resourceFilters** sets and displays the range of resources that are ignored by Electronic Service Agent problem reporting. This command indicates that it completed successfully with a message: This command completed successfully. When the display option is specified, the resource filters are displayed. This command also displays the current filters when run with only the display option or when no option is specified.

## Options

- d | --display**  
Specifies list of resource filters to be displayed
- a | --add Resource Filter**  
Specifies the resource range to be added.
- r | --remove a resource filter**  
Specifies the resource range to be removed
- b | --begin range of resource filter**  
This option specifies the begin range and is a required option when **-a** or **-r** is used.
- e | --end range of resource filter**  
This option specifies the end range and is a required option when **-a** or **-r** is used.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **31**: An integer value was not provided when required. Option: {name} Value: {value}.
- **42**: Invalid value {value} specified for the {option} option.

## Examples

- Display the Resource Filters

```
esacli resourceFilters -d
111 222
333 444
```
- Add a Resource Filter

```
esacli resourceFilters -a -b 333 -e 444
The operation completed successfully.
```
- Remove a Resource Filter

```
esacli resourceFilters -r -b 333 -e 444
The operation completed successfully.
```

## esacli restauth

Use the **esacli restauth** to enable or disable authentication of rest services like data, event, and endpoint services.



## Synopsis

`esacli restauth {-e | -d} "rest services list"`

## Description

The **esacli restauth** command controls the authentication of rest services (data, event and endpoint services). When enabled, the listed commands are authenticated. When disabled, the listed commands are not authenticated for rest services (data, event and endpoint services). This command displays a message - The operation completed successfully. on successful completion.

## Options

**-e | --enable rest services list**

Specifies a comma-separated list of rest services that are authenticated.

**-d | --disable rest services list**

Specifies a comma-separated list of rest services that are not authenticated.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}
- **14**: A required option was not provided. Option: {option}
- **18**: An option was set more than once. Option: {option}
- **19**: An option value was not provided when required. Option: {option}
- **45**: Mutually exclusive arguments used together.

## Examples

- Enables authentication for the provided list of services

```
esacli restauth -e "service1,service2"
```

The operation completed successfully.

- Disables authentication for the provided list of services

```
esacli restauth -d "service1,service2"
```

The operation completed successfully.

## esacli restore

Use the **esacli restore** to restore the configuration settings, discovered systems, and detected problem's information in IBM Electronic Service Agent.

## Synopsis

`esacli restore {-f file_name}`

## Description

The **esacli restore** command imports the configuration settings, discovered systems, and detected problems for IBM Electronic Service Agent instance from the backup file. This command displays a message - The operation completed successfully. on successful completion.

## Options

**-f | --file file\_name**

Specifies the name of the `.esabkp` file from which the configuration settings are imported. The **esacli backup** command can be used to generate a file with the proper format for the **esacli restore** command. The file can specify either an absolute path or a path relative to the current working directory..

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}
- **14**: A required option was not provided. Option: {option}
- **18**: An option was set more than once. Option: {option}
- **19**: An option value was not provided when required. Option: {option}
- **21**: The input file could not be read. Reason: {Reason}
- **60**: The restore operation failed. Reason: {Reason}.

## Examples

- This example illustrates restoring the ESA configuration

```
esacli restore -f esa.esabkp
```

The operation completed successfully.

## esacli resume

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Electronic Service Agent.

## Synopsis

```
esacli resume
```

## Description

The **esacli resume** command enables you to resume monitoring of the system by Electronic Service Agent.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.

## Example

- Resuming Electronic Service Agent

This example illustrates running **esacli resume** to resume Electronic Service Agent.

```
esacli resume
```

The system is being monitored.

## Related tasks:

“Stopping and starting IBM Electronic Service Agent” on page 67

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

"Disabling IBM Electronic Service Agent" on page 68

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

"Suspending and resuming IBM Electronic Service Agent" on page 66

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

**Related reference:**

"esacli start" on page 111

Use the **esacli start** command to start Electronic Service Agent.

"esacli stop" on page 113

Use the **esacli stop** command to stop Electronic Service Agent.

"esacli suspend" on page 116

Use the **esacli suspend** command to suspend Electronic Service Agent.

## esacli service

Use the **esacli service** command to immediately send inventory to IBM.

### Synopsis

```
esacli service [-d]
```

```
esacli service {-t type} {-c}
```

```
esacli service {-t type} {-c} {-h}
```

### Description

The **esacli service** command immediately sends inventory information to IBM when invoked with the **--type** and **collect** options. When invoked with only **display** option, the current settings for inventory collection are displayed.

### Options

**-d | --display**

Specifies the setting values are to be displayed.

**-c | --collect**

Triggers an inventory collection on all systems.

**-t | --type *type of service information***

Specifies the type of service information that is collected. Options are hardware, software, sysconfig, or "system configuration" and perfmgmt or "performance management".

**-h | --hostname**

Optional. Specify with **-c | --collect** option. Collects the performance management data on the specified host. The host can be a remote host or the primary system on which ESA is installed. For the primary system, the value can be either "localhost" or the output of the command **hostname**. For remote host, the value can be either host name or system name / IP address that is used to discover the system.

### Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.

- **1:** IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}.
- **14:** A required option was not provided. Option: {option}.
- **18:** An option was set more than once. Option: {option}.
- **19:** An option value was not provided when required. Option: {option}.
- **42:** Invalid value {value} specified for the {option} option.
- **49:** The {collector} collector did not start. Reason: {Reason}

## Example

- List service information

```
esacli service -t Hardware -c
```

The hardware collector has been started, and will complete in approximately 2-15 minutes. Please check the activity log to view the results.

- Collect performance management data

```
esacli service -t "performance management" -c -h localhost
```

The perfmgmt collector has been started, and will complete in approximately 2-15 minutes. Please check the activity log to view the results.

### Related tasks:

“Collecting and sending service information” on page 42

IBM Electronic Service Agent collects and sends service information to IBM. Service information consists of hardware, software, and system configuration information about the system that is being monitored by IBM Electronic Service Agent.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli serviceSettings

Use the **esacli serviceSettings** command to set and display information about the types of inventory that is collected and the schedule for sending that inventory to IBM.

### Synopsis

```
esacli serviceSettings {-t type} [-d [script]]
```

```
esacli serviceSettings {-t type} {-e false}
```

```
esacli serviceSettings {-t type} [-e true] {-x time} {-f frequency} [-g day-of-the-week]  
[-m day-of-the-month] [-q month-of-the-quarter]]
```

### Description

The **esacli serviceSettings** command sets and displays types of inventory that is collected and the schedule for collecting the information. Times values are rounded to 15-minute intervals. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

### Options

**-d | --display**

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify serviceSettings values, follow these steps:

1. Display the current serviceSettings values by running the following command:

```
esacli serviceSettings -d
```

**Tip:** You can display the help for the serviceSettings command by running the following command: `esacli help serviceSettings`.

2. Save the output of the serviceSettings command to a file by running the following command:

```
esacli serviceSettings -d script > services.script
```

3. Edit the services.script file to specify the desired values.
4. Change the services.script file to an executable script file.
5. Run the services.script file to set the serviceSettings values on this or other systems.

**-e | --enable true or false**

Specifies whether inventory collection is enabled. The default value is true.

**-f | --frequency {daily | weekly | monthly | quarterly}**

Specifies how frequently inventory is collected. The words are case insensitive. If the type option is set to perfmgmt or "Performance management", daily must be specified for this option.

**-g | --dayofweek *Day of the Week***

If frequency is Weekly, specifies the day of the week. Locale info can be used for different starts of the week, such as Monday Tuesday, Wednesday, and so on.

**-m | --dayofmonth *1-28***

If frequency is Monthly, specifies the day of the month.

**-q | --monthofquarter *1-3***

If frequency is Quarterly, specifies the month of the quarter.

**-t | --type *type of service information***

Specifies the type of service information that is collected. Options are hardware, software, sysconfig or "system configuration", and perfmgmt or "performance management".

**Note:** Performance management information is collected daily.

**-x | --time *collection time***

Specifies when the inventory is collected in 15-minute intervals. The format of the time uses the ISO 8601 standard. It is expressed as HH:MM using a 24 hour clock. Times will be rounded to 15-minute intervals.

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** IBM Electronic Service Agent instance is not running.
- **10:** Unsupported option was specified. Option: {option}.
- **14:** A required option was not provided. Option: {option}.
- **18:** An option was set more than once. Option: {option}.
- **19:** An option value was not provided when required. Option: {option}.

- **31:** An integer value was not provided when required. Option: [name] Value: {value}.
- **32:** An integer value was not in the valid range. Option: {option value} Range: {min-max}.
- **41:** Invalid value specified: {value}. Value should be specified like {date format} for option {option}.
- **42:** Invalid value {value} specified for the {option} option.
- **55:** Option {option} is not a valid option when {option} is set to {value}.

## Examples

- List service settings information

```
esacli serviceSettings -d -t Hardware
```

```
Service information
```

```
Hardware
```

```
Enabled: true
```

```
Collection time: 11:15
```

```
Frequency: Quarterly
```

```
Collection month of quarter: First
```

```
Collection day of month: 1
```

- Set service settings information

```
esacli serviceSettings -t hardware -e true -x 13:15 -f daily
```

```
esacli serviceSettings -t hardware -e true -x 13:15 -f weekly -g Monday
```

```
esacli serviceSettings -t hardware -e true -x 13:15 -f monthly -m 28
```

```
esacli serviceSettings -t software -e true -x 13:15 -f quarterly -q 1 -m 14
```

### Related tasks:

“Configuring performance management data collection” on page 59

You can enable IBM Electronic Service Agent to collect performance management data and specify the collection time.

“Configuring service information collection” on page 58

You can specify the type of information that you want IBM Electronic Service Agent to collect, and the time and frequency for the collection.

### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli srcFilters

Use the **esacli srcFilters** to display the system reference codes that are ignored for problem reporting.

### Synopsis

```
esacli srcFilters { [ -d ] }
```

### Description

The **esacli srcFilters** displays the system reference codes that are ignored for problem reporting. When the display option is specified, the resource filters are displayed. This command also displays the current filters when run with only the display option or when no option is specified.

## Options

**-d | --display**  
Displays the system reference codes.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **42**: Invalid value {value} specified for the {option} option.

## Examples

- Lists srcFilters

```
esacli srcFilters -d
762-996
762-998
801-102
802-890
844-405
850-902
950-999
704-128
704-130
A10-200
```

## esacli start

Use the **esacli start** command to start Electronic Service Agent.

## Synopsis

```
esacli start
```

## Description

The **esacli start** command enables you to start Electronic Service Agent.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **43**: IBM Electronic Service Agent is already active.
- **44**: IBM Electronic Service Agent did not start.
- **52**: Administrator privileges needed to run this command.

## Example

- Starting the Electronic Service Agent

This example illustrates running **esacli start** to start the Electronic Service Agent.

```
esacli start
The system is being monitored.
```

## Related tasks:

“Stopping and starting IBM Electronic Service Agent” on page 67

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

“Disabling IBM Electronic Service Agent” on page 68

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

“Suspending and resuming IBM Electronic Service Agent” on page 66

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

**Related reference:**

“esacli stop” on page 113

Use the **esacli stop** command to stop Electronic Service Agent.

“esacli suspend” on page 116

Use the **esacli suspend** command to suspend Electronic Service Agent.

“esacli resume” on page 106

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Agent.

## esacli status

Use the **esacli status** command to display the status of the IBM Electronic Service Agent instance.

### Synopsis

```
esacli status
```

### Description

The **esacli status** command enables you to display the status of the IBM Electronic Service Agent instance.

### Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: The IBM Electronic Service Agent instance is not active.
- **10**: Unsupported option was specified.
- **29**: The IBM Electronic Service Agent instance has not been activated.
- **30**: The IBM Electronic Service Agent instance is currently suspended.

### Examples

- Status after activation

This example illustrates running the **esacli status** command successfully.

**esacli status**

The system is being monitored.

System properties:

Name:	spartacus
Type:	9117
Model:	MMA
Serial Number:	10F94EB
Manufacturer:	IBM
Partition ID:	4
Operating System:	linux
Entity ID:	EPS/BOUB10829163
Product Version:	2.1.0.0 vpl-2.1.gwsa120824

**Related tasks:**



“Checking status” on page 47

You can check whether IBM Electronic Service Agent is monitoring your system.

**Related reference:**

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## **esacli stop**

Use the **esacli stop** command to stop Electronic Service Agent.

### **Synopsis**

```
esacli stop
```

### **Description**

The **esacli stop** command enables you to stop Electronic Service Agent.

### **Exit status**

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **52**: Administrator privileges needed to run this command.

### **Example**

- Stopping Electronic Service Agent

This example illustrates running **esacli stop** to stop Electronic Service Agent.

```
esacli stop
```

```
IBM Electronic Service Agent was stopped.
```

### **Related tasks:**

“Stopping and starting IBM Electronic Service Agent” on page 67

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

“Disabling IBM Electronic Service Agent” on page 68

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

“Suspending and resuming IBM Electronic Service Agent” on page 66

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

### **Related reference:**

“esacli start” on page 111

Use the **esacli start** command to start Electronic Service Agent.

“esacli suspend” on page 116

Use the **esacli suspend** command to suspend Electronic Service Agent.

“esacli resume” on page 106

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Agent.

## esacli supportProxySettings

Use the **esacli supportProxySettings** command to set and display information that configures the Service and Support Proxy.

### Synopsis

```
esacli supportProxySettings [-d [script]]
```

```
esacli supportProxySettings {-e false}
```

```
esacli supportProxySettings [-d [script]] [-e true] [-i interface] {-p port}  
[-u user] [-w password]
```

### Description

The **esacli supportProxySettings** command sets and displays information that configures the Service and Support Proxy. This command will indicate that it completed successfully with a message: This command completed successfully. When the display option is specified, the new settings will be displayed. This command will also display the current settings when run with only the display option or no option is specified.

### Options

#### **-d | --display**

Specifies the setting values are to be displayed.

The optional script option generates this command containing all the current values, which can be used for updates. For example, to create an executable script file that you can use to specify supportProxySettings values, follow these steps:

1. Display the current supportProxySettings values by running the following command:

```
esacli supportProxySettings -d
```

**Tip:** You can display the help for the supportProxySettings command by running the following command: **esacli help supportProxySettings**.

2. Save the output of the supportProxySettings command to a file by running the following command:

```
esacli supportProxySettings -d script > proxy.script
```

3. Edit the proxy.script file to specify the desired values.
4. Change the proxy.script file to an executable script file.
5. Run the proxy.script file to set the supportProxySettings values on this or other systems.

#### **-e | --enable true or false**

Specifies whether the service and support proxy is enabled.

#### **-i | --interface any | *name of interface***

Specifies a network interface to use. Use the **esacli interfaces** command to list the names of the network interfaces. If this option is not specified, the Service and Support proxy will be configured with any interface.

#### **-p | --port integer between 1 and 65535**

Specifies a proxy server port.

#### **-u | --userid user**

Specifies a proxy user ID. If used, Basic HTTP authentication is enabled.

**-w | --password password**

Specifies a proxy password. If used, Basic HTTP authentication is enabled. The command will prompt for the password if the option but not the value is provided.

## Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **10**: Unsupported option was specified. Option: {option}.
- **14**: A required option was not provided. Option: {option}.
- **18**: An option was set more than once. Option: {option}.
- **19**: An option value was not provided when required. Option: {option}.
- **31**: An integer value was not provided when required. Option: [name] Value: {value}.
- **32**: An integer value was not in the valid range. Option: {option value} Range: {min-max}.
- **42**: Invalid value {value} specified for the {option} option.
- **56**: Interface {interface} not valid. Reason: {reason}.

## Examples

- Lists service and support proxy settings

```
esacli supportProxySettings -d
Service and support proxy
Interface: Any
Server port: 5555
Require HTTP basic authentication: true
User name: user1
Password: *****
```

- Sets service and support proxy settings using any interface

```
esacli supportProxySettings -e true -p 5026
```

```
esacli supportProxySettings -e true -p 5026 -u user1 -w password
```

- Sets service and support proxy settings with an interface name

```
esacli supportProxySettings -e true -i "eth0" -p 5026 -u user1 -w password
```

- Sets service and support proxy settings using a list of numbers

```
esacli supportProxySettings -e true -i "1,2" -p 5026 -u user1 -w password
```

These numbers were determined by running the **esacli interfaces** command.

### Related tasks:

“Creating the IBM Service and Support proxy” on page 24

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

### Related reference:

“esacli interfaces” on page 89

Use the **esacli interfaces** command to list the names of the network interfaces.

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

## esacli suspend

Use the **esacli suspend** command to suspend Electronic Service Agent.

### Synopsis

**esacli suspend**

### Description

The **esacli start** command enables you to suspend monitoring of the system by Electronic Service Agent.

### Exit status

The following table contains the codes that are returned by this command.

- **0**: The operation completed successfully.
- **1**: IBM Electronic Service Agent instance is not running.
- **30**: IBM Electronic Service Agent instance is currently suspended.

### Example

- Suspending Electronic Service Agent

This example illustrates running **esacli suspend** to suspend Electronic Service Agent.

**esacli suspend**

The system is NOT being monitored. IBM Electronic Service Agent is currently suspended.

### Related tasks:

“Stopping and starting IBM Electronic Service Agent” on page 67

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to stop or start IBM Electronic Service Agent.

“Disabling IBM Electronic Service Agent” on page 68

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to disable IBM Electronic Service Agent.

“Suspending and resuming IBM Electronic Service Agent” on page 66

IBM Electronic Service Agent is automatically started when the activation process is complete. However, there might be times when you need to suspend or resume IBM Electronic Service Agent.

### Related reference:

“esacli start” on page 111

Use the **esacli start** command to start Electronic Service Agent.

“esacli stop” on page 113

Use the **esacli stop** command to stop Electronic Service Agent.

“esacli resume” on page 106

Use the **esacli resume** command to resume monitoring of the system by Electronic Service Agent.

## esacli test

Use the **esacli test** command to perform test operations for the IBM Electronic Service Agent instance.

## Synopsis

```
esacli test {-c | -o | -p | -n}
```

## Description

The **esacli test** command enables you to perform a test operation for the IBM Electronic Service Agent instance.

## Options

- c | --connectivity**  
Specifies that a connectivity test is to be performed.
- o | --operational**  
Specifies that an operational test is to be performed.
- p | --problem**  
Specifies that creation of a test problem is to be performed.
- n | --notification**  
Specifies that a notification test is to be performed.

**Tip:** Run the **esacli notificationSettings** command to enable notifications before performing a notification test. For information, see “esacli notificationSettings” on page 95.

## Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** The IBM Electronic Service Agent instance is not active.
- **10:** Unsupported option was specified.
- **14:** A required option was not provided.
- **18:** An option was set more than once. Option: {option}.
- **29:** The IBM Electronic Service Agent instance has not been activated.
- **33:** Connectivity test failed.
- **34:** More than one required option was specified.
- **35:** Operational test failed.
- **36:** Test problem creation failed.
- **45:** Mutually exclusive arguments used together.

## Examples

- Connectivity test

This example illustrates running the **esacli test** command to perform a connectivity test.

```
esacli test -c
```

```
Performing Connectivity Verification Test
```

success	Bulk_Data_1	www6.software.ibm.com	170.225.15.41	443
success	Bulk_Data_2	www.ecurep.ibm.com	192.109.81.20	443
success	Gateway_1	eccgw01.boulder.ibm.com	207.25.252.197	443
success	Gateway_2	eccgw02.rochester.ibm.com	129.42.160.51	443
success	Problem_Report_1	www-945.ibm.com	129.42.26.224	443
success	Problem_Report_2	www-945.ibm.com	129.42.34.224	443
success	Problem_Report_3	www-945.ibm.com	129.42.42.224	443
success	SP_Config_1	www.ibm.com	129.42.56.216	443
success	SP_Config_2	www.ibm.com	129.42.58.216	443
success	SP_Config_3	www.ibm.com	129.42.60.216	443
success	SP_Config_4	www-03.ibm.com	204.146.30.17	443

success	SP_Config_5	www.ibm.com	129.42.56.216	80
success	SP_Config_6	www.ibm.com	129.42.58.216	80
success	SP_Config_7	www.ibm.com	129.42.60.216	80
success	SP_Config_8	www-03.ibm.com	204.146.30.17	80
15 successes				
0 failures				
Connectivity Verification Test Results: succeeded				

- Operational test

This example illustrates running the **esacli test** command to perform an operational test.

**esacli test -o**

The operational test has been completed successfully.

- Create test problem

This example illustrates running the **esacli test** command to create a test problem.

**esacli test -p**

Test problem created successfully with problem ID 12ce558daaf-3d3ed62a.

- Notification test

This example illustrates running the **esacli test** command to create a test notification.

**esacli test -n**

Test notification sent successfully.

#### Related tasks:

“Creating the IBM Service and Support proxy” on page 24

IBM Electronic Service Agent can function as a proxy server for other IBM Electronic Service Agent systems or partitions. This enables you to use another IBM Electronic Service Agent server with valid connectivity to IBM instead of a third-party proxy server. You can use IBM Electronic Service Agent graphical user interface to create the IBM Service and support proxy as your connection to the IBM Electronic Support website.

“Running an operational test” on page 41

Check to see whether your connection and the transmission of service information to the IBM Electronic Support website is working correctly.

“Configuring operational tests” on page 60

You can specify that IBM Electronic Service Agent regularly test the connection and transmission of service information to the IBM Electronic Support website.

“Sending a test problem” on page 40

Send a test problem to the IBM Electronic Support website to see whether the problem reporting function is working correctly.

“Collecting and sending service information” on page 42

IBM Electronic Service Agent collects and sends service information to IBM. Service information consists of hardware, software, and system configuration information about the system that is being monitored by IBM Electronic Service Agent.

“Specifying notifications” on page 61

You can use notifications to send email and SNMP traps about IBM Electronic Service Agent activity to the locations you specify.

#### Related reference:

“How to read syntax diagrams” on page 123

Review the conventions used in syntax diagrams to understand the command descriptions.

“esacli notificationSettings” on page 95

Use the **esacli notificationSettings** to set and display information indicating

where Electronic Service Agent will send notifications when errors occur.

## esacli token

Use the **esacli token** command to display the private token for the IBM Electronic Service Agent.

### Synopsis

```
esacli token {[-d]} {[-f json]}
```

### Description

The **esacli token** command allows to display the token for the IBM Electronic Service Agent.

### Options

- d | --display**  
Displays the private token.
- f | --format**  
Prints the private token in a specific format.

**Note:** Currently only *json* format is supported.

### Exit status

The following table contains the codes that are returned by this command.

- **0:** The operation completed successfully.
- **1:** IBM Electronic Service Agent instance is not running.
- **5:** An unsupported command was specified.
- **10:** Unsupported option was specified. Option: {option}.
- **18:** An option was set more than once. Option: {option}.
- **19:** An option value was not provided when required. Option: {option}.
- **29:** The IBM Electronic Service Agent instance has not been activated.
- **30:** The IBM Electronic Service Agent instance is currently suspended.
- **61:** Not a valid option value. Option: {option}.

### Examples

This example illustrates running the **esacli token** command.

```
esacli token -d
activated: true
esa-url: https://hostname:5024/rest/v1
token: 606133b2d4d6b32e121b34dd78b30c3c

esacli token -d -f json
"activated":true,
"esa-url":"https://hostname:5024/rest/v1",
"token":"606133b2d4d6b32e121b34dd78b30c3c"
```

---

## Appendix - Legacy Server Connections

This table contains the IBM server information that is used by IBM Electronic Service Agent before release 3.3. This appendix exists for reference only.

*Table 3. Traditional Server connections*

DNS name	IP address	Port	Purpose
eccgw01.boulder.ibm.com	207.25.252.197	443	Transmission of discovery data
eccgw02.rochester.ibm.com	129.42.160.51	443	Transmission of discovery data
www-945.ibm.com	192.42.26.224	443	Problem reporting
www-945.ibm.com	192.42.50.224	443	Problem reporting
www-945.ibm.com	192.42.42.224	443	Problem reporting
www6.software.ibm.com	170.225.15.41	443	Extended error data and system configuration reporting
www.ecurep.ibm.com	192.109.81.20	443	Extended error data and system configuration reporting
www.ibm.com	129.42.56.216	80, 443	Configuration updates
www.ibm.com	129.42.58.216	80, 443	Configuration updates
www.ibm.com	129.42.60.216	80, 443	Configuration updates
www-03.ibm.com	204.146.30.17	80, 443	Configuration updates

**Note:** If your installed ESA version is earlier to 3.3, you are likely connecting to the traditional IBM server environment. It is highly recommended that you change your network firewall configuration to allow outbound connections to the new environment to take advantage of the new features. If your network does not allow access to the new servers, ESA transactions to the new servers fail and ESA then reattempts to connect to the traditional servers.

---

## Troubleshooting IBM Electronic Service Agent

Follow these general troubleshooting guidelines when you monitor IBM Electronic Service Agent.

### Unable to log in to ESA web UI (RHEL 7)

Whenever you face log in issues with ESA web UI, use the following commands to clear the firewall:

1. `firewall-cmd --zone=public --add-port=5024/tcp --permanent`
2. `firewall-cmd --zone=public --add-port=5028/tcp --permanent`
3. `firewall-cmd --reload`

### Change the SNMP listener port on the ESA system

If the default SNMP listener port (5028) on ESA system is unavailable, you can change it to any other port available. Follow the steps to change the port number:



1. Edit the file `/opt/ibm/esa/workspace/.metadata/.plugins/com.ibm.esa.core/config/snmp.listener.settings.*`.

**Note:** If there are multiple files, select the file with the recent time stamp.

2. Modify the value for the `snmplistener.port`. By default, the value is 5028, as shown in the code here -

```
property name="snmplistener.port" type="java.lang.Integer">5028
```

For example:

```
property name="snmplistener.port" type="java.lang.Integer">5030
```

3. Restart Electronic Service Agent.
4. Rediscover each of the system so that the new port is updated on each of the endpoints.

**Note:** Alternatively, you can also use the **unsubscribe** & **subscribe** commands on each of the discovered KVM hosts.

## Change the SNMP listener community on the ESA system

You can change the default community of the SNMP listener through the following steps:

1. Edit the file `/opt/ibm/esa/workspace/.metadata/.plugins/com.ibm.esa.core/config/snmp.listener.settings.*`.

**Note:** If there are multiple files, select the file with the recent time stamp.

2. Modify the value for the `snmplistener.community`. By default, the value is public, as shown in the code here -

```
property name="snmplistener.community"
```

```
type="java.lang.String">publicproperty name="snmplistener.community"
```

```
type="java.lang.String">public
```

For example:

```
property name="snmplistener.community"
```

```
type="java.lang.String">publicproperty name="snmplistener.community"
```

```
type="java.lang.String">communityname
```

3. Restart Electronic Service Agent.
4. Rediscover each of the system so that the new port is updated on each of the endpoints.

**Note:** Alternatively, you can also use the **unsubscribe** & **subscribe** commands on each of the discovered KVM hosts.

## Discovery action failed as name or service not known

You might get this error, if there is an issue with system configuration. For SSH to work, the system must resolve its own host name. Follow these steps to make the system reachable to its host name:

1. Log in to the respective system.
2. Open the `etc/hosts` file.
3. Map the system's host name to its IP address. For example:

```
10.10.10.10 indesa.ind.ibm.com
```

## Set the IBM Electronic Service Agent trace level

Adjusting the trace level using the IBM Electronic Service Agent graphical interface enables you to set the message severity that is recorded during IBM Electronic Service Agent activity. Working with an IBM Support representative to analyze the messages might help you diagnose problems. If the trace level is set to Severe or Error, you might want to change it to Warning or Information to gather more information about the problem. For more information, see “Setting the trace level” on page 62.

## View the activity log to see whether there are problems recorded

The activity log shows the date and time a problem occurred, as well as a description of the problem. See “Displaying the activity log” on page 43.

If a problem occurs when the system attempts to electronically send a problem or service information to the IBM Electronic Support website, there are many possible reasons why the transmission might not have been successful. IBM Electronic Service Agent is dependent on functions of the operating system to be working correctly. This includes managing the IBM Electronic Service Agent daemon and system connectivity. Normal system problem determination is recommended for this type of problem.

## Verifying that service information was sent to the IBM Electronic Support website

Service information collection activity shows the type of service information collected, when it was last collected, and when it was last sent.

If service information is currently being collected or transmitted, the last collected and last sent activity will not show until the tasks are completed.

The tasks of collecting service information and sending service information take time to run. The time needed to collect and send information is influenced by the size of the system, processing load, and the speed of the connection. Here is a summary of the collection and transmission process.

1. A collection task collects new service information.
2. After the collection is complete, a task is started to perform the following steps:
  - a. Start the connection profile
  - b. Connect to the IBM Electronic Support website
  - c. Send the service information

To verify that the information was sent to the IBM Electronic Support website, see “Displaying the activity log” on page 43.

## Problems opening the IBM Electronic Service Agent graphical user interface

If you cannot access the IBM Electronic Service Agent graphical user interface, follow these steps:

1. Log in to the system as root.
2. Check whether IBM Electronic Service Agent is active on the system by entering the following command:  
**systemctl status esactl.service.**

The IBM Electronic Service Agent status is displayed.

3. If IBM Electronic Service Agent is not active, enter the following command to start IBM Electronic Service Agent:

```
systemctl start esactl.service
```

4. If IBM Electronic Service Agent is not active and still cannot access the graphical user interface, enter the following command to check whether a firewall is blocking the port:

```
/opt/ibm/esa/bin/esafirewall status
```

The status of the firewall is displayed. For example:

```
# /opt/ibm/esa/bin/esafirewall status  
Firewall is friendly with ESA UI (port =1025).
```

5. If the firewall is not friendly, add a new firewall rule by entering the following command:

```
/opt/ibm/esa/bin/esafirewall enable
```

## Getting support for IBM Electronic Service Agent

You can post questions about any of the IBM Service and Productivity Tools, including IBM Electronic Service Agent, on the developerWorks® PowerLinux Community at the following web address:

<https://www.ibm.com/developerworks/mydeveloperworks/groups/service/forum/topics?communityUuid=fe313521-2e95-46f2-817d-44a4f27eba32>

For issues or problems with IBM Electronic Service Agent for PowerLinux, contact your hardware service provider via 1-800-IBM-SERV. Your problem will be addressed by the IBM Electronic Service Agent support team.

### Related tasks:

“Displaying the activity log” on page 43

Use the activity log to see all IBM Electronic Service Agent activity for a designated time period.

“Configuring service information collection” on page 58

You can specify the type of information that you want IBM Electronic Service Agent to collect, and the time and frequency for the collection.

“Setting the trace level” on page 62

Trace level determines the message severity that is recorded during IBM Electronic Service Agent activity.

---

## Reference information

This section includes additional reference materials related to IBM Electronic Service Agent.

## How to read syntax diagrams

Review the conventions used in syntax diagrams to understand the command descriptions.

Syntax diagrams consist of options, option arguments, and operands.

### Options

*Options* indicate input that affects the behavior of the base command (for example, `-l` specifies long output) or required input that you can specify in different ways (for example, you can target objects using either `-n name` OR

*-N groupname* OR *-ac objectclass*). Options consist of either a hyphen and single letter (for example, *-h*) or two hyphens and multiple letters (for example, *--help*). The single letter format is the short form of the multiple letter format, and the two formats are functionally interchangeable when issuing a command.

#### **Option arguments**

Some options are followed by one or more *option arguments* that specify a value for the option. For example, with *-file file\_name*, *file\_name* specifies the name of the file on or with which to take action.

#### **Operands**

*Operands* are parameters at the end of a command that specify required user input.

Syntax diagrams adhere to the following conventions:

- Options and operands that are enclosed in brackets ([]) are optional. Do not include these brackets in the command.
- Options and operands that are enclosed in braces ({}) are required. Do not include these braces in the command.
- Options and operands that are not enclosed in either brackets or braces are required.
- Operands and option arguments that are italicized must be replaced with actual values.
- The names of options are case sensitive and must be typed exactly as shown.
- Options preceded by two dashes (--) must be specified in their entirety.
- A pipe (|) character signifies that you can or must, depending on the enclosing characters, choose one option or the other. For example, [a | b] indicates that you can choose either a or b, but not both. Similarly, {a | b} indicates that you must choose either a or b.
- An ellipsis (...) signifies that you can repeat the operand and option argument on the command line.
- A dash (-) represents standard output.

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