



System i

Programming

TCP/IP Connectivity Utilities for i5/OS commands

Version 6 Release 1





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Note

Before using this information and the product it supports, be sure to read the information in "Notices," on page 177.

This edition applies to version 6, release 1, modification 0 of IBM TCP/IP Connectivity Utilities for i5/OS (product number 5761-TC1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CICS models.

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Add SMTP List Entry (ADDSMTPLE)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Add SMTP List Entry (ADDSMTPLE) command is used to add elements to SMTP configuration lists. These lists may be enabled or disabled using the Change SMTP Attributes (CHGSMTPA) command or from the SMTP Properties panel in System i Navigator. The changes take effect the next time the SMTP server is started either by the Start TCP/IP (STRTCP) command or by the Start TCP/IP Server (STRTCPSVR) command.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|------------|------------------|--|------------------------|
| TYPE | List type | *ACCEPT, *REJECT, *NEAR, *DOMAIN, *SVRBIND, *CLTBIND, *ETRNSVR, *FTRSUBJECT, *FTRORIGIN, *FTRFILENAME, *FTRTYPE, *HOSTAUTH | Required, Positional 1 |
| INTNETADR | Internet address | Character value | Optional |
| SUBNETMASK | Subnet mask | Character value, '255.255.255.255' | Optional |
| HOSTNAME | Host name | Character value | Optional |
| FTRDATA | Filter data | Character value | Optional |
| USERNAME | User name | Character value | Optional |
| PASSWORD | User password | Character value | Optional |

Top

List type (TYPE)

Specifies which list to add the new element to.

*ACCEPT

The Accept Relay list is updated. Specifies a list of IP addresses with netmasks that will be allowed to relay when "Accept relay messages from" is selected on the SMTP Properties Relay Restrictions page on System i5 Navigator. Parameters valid with this value are INTNETADR and SUBNETMASK.

*REJECT

Adds an IP address and netmask to the Relay Restrictions list. This a list of IP addresses with netmasks that will be rejected if they try to connect to the System i SMTP. Parameters valid with this value are INTNETADR and SUBNETMASK.

*NEAR

Adds a domain to the Near Domain list. The Near Domain list is a list of domains for which mail should not be routed through the firewall, when "Forward outgoing mail to router through

firewall" is selected on the SMTP Properties General page in System i Navigator. Also specifies SMTP should relay mail for recipients whose domains are in the Near Domain list when "Relay mail for only these domains" is selected. Parameter valid with this value is HOSTNAME.

***DOMAIN**

Specifies the domain to associate with each IPv4 interface that the SMTP server will bind to. Parameters valid with this value are HOSTNAME, and INTNETADR.

***SVRBIND**

Specifies the IPv4 interfaces that the SMTP server will bind to. Parameter valid with this value is INTNETADR.

***CLTBIND**

The Client Bind list is updated. Specifies the IPv4 interface the SMTP client should bind to. Parameter valid with this value is INTNETADR.

***ETRNSVR**

The ETRN Server list is updated. Specifies the list of hosts from which the server will accept the ETRN command. Parameter valid with this value is HOSTNAME.

***FTRSUBJECT**

The Subject Filter list is updated. Adds an item to the Subject comparison list. Mail is discarded or quarantined, as specified on the SMTP properties Filters Page, if comparison conditions are met. Parameter valid with this value is FTRDATA.

***FTRORIGIN**

The Originator Filter list is updated. Adds an item to the Originator's address comparison list. Mail is discarded or quarantined, as specified on the SMTP properties Filters Page, if comparison conditions are met. Parameter valid with this value is FTRDATA.

***FTRFILENAME**

The File Name Filter list is updated. Adds an item to the "Filename / extension comparison" list. Mail is discarded or quarantined, as specified on the SMTP properties Filters Page, if comparison conditions are met. Parameter valid with this value is FTRDATA.

***FTRTYPE**

The File Type Filter list is updated. Adds an item to the Type / subtype comparison list. Mail is discarded or quarantined, as specified on the SMTP properties Filters Page, if comparison conditions are met. Parameter valid with this value is FTRDATA.

***HOSTAUTH**

The host logon information is updated. Adds the username and password which will be used to authenticate the specified host. The information is stored encrypted in a database file using base64. Parameters valid with this value are HOSTNAME, USERNAME, and PASSWORD. The USERNAME and PASSWORD values will be used to logon to the next host.

***ACCEPTIP6**

The Accept Relay list is updated. Specifies a list of IPv6 addresses or prefixes that will be allowed to relay when "Accept relay messages from" is selected on the SMTP Properties Relay Restrictions page on System i5 Navigator. Parameter valid with this value is PREFIXIP6.

***REJECTIP6**

Adds an IPv6 address or prefix to the Relay Restrictions list. This a list of IPv6 addresses with prefixes that will be rejected if they try to connect to SMTP. Parameter valid with this value is PREFIXIP6.

***DOMAINIP6**

Specifies the domain to associate with each IPv6 interface that the SMTP server will bind to. Parameters valid with this value are IP6NETADR and HOSTNAME.

*SVRBINDIP6

Specifies the IPv6 interfaces that the SMTP server will bind to. Parameter valid with this value is IP6NETADR.

*CLTBINDIP6

The Client Bind list is updated. Specifies the IPv6 interface the SMTP client should bind to. Parameter valid with this value is IP6NETADR.

Top

IPv4 address (INTNETADR)

Specifies the IPv4 internet address to add to the specified list. This address should be in dotted decimal format. Up to 15 characters can be specified.

Top

Subnet mask (SUBNETMASK)

Specifies the mask to use with the IPv4 internet address.

255.255.255.255

This value selects only a single address value.

subnet-mask

The mask to use with the IPv4 internet address. Up to 15 characters can be specified. Valid mask values are 128.0.0.0 - 255.255.255.255

Top

Host name (HOSTNAME)

Specifies the host name to add to the list. Up to 255 characters can be specified.

Top

Filter data (FTRDATA)

Specifies the data to match when filtering. Up to 512 characters can be specified.

Top

User name (USERNAME)

Specifies the identifier used to logon to the SMTP server. Up to 80 characters can be specified.

Valid characters are case sensitive and include all alpha-numeric characters (a-z, A-Z, and 0-9), and the following special characters:

PERIOD(.),
COMMA(,),
EXCLAMATION MARK(!),
NUMBER SIGN(#),
DOLLAR SIGN(\$),
PERCENT SIGN(%),
AMPERSAND(&),
ASTERISK(*),

PLUS SIGN(+),
HYPHEN(-),
SLASH(/),
COLON(:),
SEMICOLON(;),
EQUAL SIGN(=),
COMMERCIAL AT(@),
QUESTION MARK(?),
UNDERSCORE(_),
TILDE,
CIRCUMFLEX ACCENT.

Top

User password (PASSWORD)

Specifies the password that corresponds to the username to logon to the SMTP server. If the password needs to be changed, you must first issue the RMVSMTPLE TYPE(*HOSTAUTH) CL command to remove the specified hostname and then issue the ADDSMTPLE TYPE(*HOSTAUTH) to add the hostname. Up to 128 characters can be specified.

Valid characters are case sensitive and include all alpha-numeric characters (a-z, A-Z, and 0-9), and the following special characters:

PERIOD(.),
COMMA(,),
EXCLAMATION MARK(!),
NUMBER SIGN(#),
DOLLAR SIGN(\$),
PERCENT SIGN(%),
AMPERSAND(&),
ASTERISK(*),
PLUS SIGN(+),
HYPHEN(-),
SLASH(/),
COLON(:),
SEMICOLON(;),
EQUAL SIGN(=),
COMMERCIAL AT(@),
QUESTION MARK(?),
UNDERSCORE(_),
TILDE,
CIRCUMFLEX ACCENT.

Top

Examples

Example 1: Adding an IPv4 Element to the Accept Relay List

```
ADDSMTPLE TYPE(*ACCEPT) INTNETADR('1.2.3.4')
```

This command adds an address 1.2.3.4 to the Accept Relay list. The assumed mask is 255.255.255.255. This means that this address can be used to connect to the SMTP server to relay mail to another server.

Example 2: Adding an Element to the Subject Filter List

```
ADDSMTPLE TYPE(*FTRSUBJECT) FTRDATA('Love you.')
```

This command adds an element to the Subject Filter list. Any mail with an exact match to the subject 'Love you.' will be filtered as specified by the CHGSMTPA attributes.

Example 3: Adding an Element to the Host Authentication List

```
ADDSMTPLD TYPE(*HOSTAUTH) HOSTNAME('xyz.com')
           USERNAME(admin) PASSWORD(secret)
```

This command adds an element to the Host logon list. The SMTP server will be able to logon to the host 'xyz.com'.

Example 4: Adding a Single IPv6 Element to the Accept Relay List

```
ADDSMTPLD TYPE(*ACCEPTIP6) IP6PFX('2001:DB8::1')
```

This command adds the IPv6 Address 2001:DB8::1 to the accept relay list.

Example 5: Adding a IPv6 Prefix Element to the Accept Relay List

```
ADDSMTPLD TYPE(*ACCEPTIP6) IP6PFX('2001:DB8::/32')
```

This command adds the IPv6 Prefix 2001:DB8::/32 to the accept relay list.

Example 6: Adding a IPv6 Address Element to the Server Bind List

```
ADDSMTPLD TYPE(*SVRBINDIP6) IP6NETADR('2001:DB8::1')
```

This command adds the IPv6 Address 2001:DB8::1 to the server bind list.

[Top](#)

Error messages

***ESCAPE Messages**

TCP1901

Internet address &2 not valid.

TCP1903

Specified host name not valid.

TCP96B7

USERNAME value not valid.

TCP96B8

USERNAME value required for specified list type.

TCP96B9

PASSWORD value required for specified list type.

TCP96BA

PASSWORD value not allowed for specified list type.

TCP96BB
 USERNAME value not allowed for specified list type.

TCP96BC
 PASSWORD value not valid.

TCP264F
 SUBNETMASK parameter value &2 not valid.

TCP265F
 INTNETADR parameter value &2 not valid.

TCP8050
 *IOSYSCFG authority required to use &1.

TCP96AE
 Duplicate entry found in SMTP list type &1.

CPF9847
 Error occurred while closing file &1 in library &2.

CPF9848
 Cannot open file &1 in library &2 member &3.

CPF9849
 Error while processing file &1 in library &2 member &3.

Top

Configure TCP/IP FTP (CFGTCPFTP)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

The Configure TCP/IP FTP (CFGTCPFTP) command provides a single interface for configuring the attributes related to File Transfer Protocol (FTP) and for running any other FTP-related configuration commands.

There are no parameters for this command.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

[Top](#)

Parameters

None

[Top](#)

Examples

CFGTCPFTP

This command will display the Configure TCP/IP FTP menu.

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Error messages

*ESCAPE Messages

TCP8050

*IOSYSCFG authority required to use &1.

[Top](#)

Configure TCP/IP LPD (CFGTCPLPD)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

The Configure TCP/IP LPD (CFGTCPLPD) command provides a single interface for configuring the attributes related to line printer daemon (LPD) and for running any other LPD-related configuration commands.

There are no parameters for this command.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

[Top](#)

Parameters

None

[Top](#)

Examples

CFGTCPLPD

This command will display the Configure TCP/IP LPD menu.

[Top](#)

Error messages

*ESCAPE Messages

TCP8050

*IOSYSCFG authority required to use &1.

[Top](#)

Configure TCP/IP REXEC (CFGTCPRXC)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

The Configure TCP/IP REXEC (CFGTCPRXC) command provides a single interface for configuring attributes related to the Remote EXECution (REXEC) server and for running any other REXEC-related configuration commands.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

[Top](#)

Parameters

None

[Top](#)

Examples

None

[Top](#)

Error messages

*ESCAPE Messages

TCP8050

*IOSYSCFG authority required to use &1.

[Top](#)

Configure TCP/IP SMTP (CFGTCPSMTP)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Configure TCP/IP SMTP (CFGTCPSMTP) command provides an interface for configuring Simple Mail Transfer Protocol (SMTP). The SMTP parameters that can be configured and the SMTP SNADS-related configuration parameters can be defined from this interface.

There are no parameters for this command.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

[Top](#)

Parameters

None

[Top](#)

Examples

CFGTCPSMTP

This command will display the Configure TCP/IP SMTP menu.

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Error messages

*ESCAPE Messages

TCP8050

*IOSYSCFG authority required to use &1.

[Top](#)

Configure TCP/IP TELNET (CFGTCPTELN)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

The Configure TCP/IP TELNET (CFGTCPTELN) command provides a single interface for configuring TELNET-related attributes and for running other TELNET-related configuration commands.

There are no parameters for this command.

[Top](#)

Parameters

None

[Top](#)

Examples

CFGTCPTELN

This command will display the Configure TCP/IP TELNET menu.

[Top](#)

Error messages

None

[Top](#)

Change FTP Attributes (CHGFTPA)

Where allowed to run: All environments (*ALL)
 Threadsafes: No

Parameters
 Examples
 Error messages

The Change FTP attributes (CHGFTPA) command changes the configuration for the File Transfer Protocol (FTP) servers. The FTP attributes can be changed while the FTP servers are active. The attributes that were changed take affect the next time an FTP server connection is made. All existing connections are not changed but keep the same attributes they had when the connection was established.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|--|--|------------------------|
| AUTOSTART | Autostart servers | *SAME, *YES, *NO | Optional, Positional 1 |
| NBRSVR | Number of initial servers | 1-20, *SAME, *DFT | Optional |
| INACTTIMO | Inactivity timeout | 0-2147483647, *SAME, *DFT | Optional |
| CCSID | Coded character set identifier | 1-65533, *SAME, *DFT | Optional |
| TBLFTPOUT | Outgoing EBCDIC/ASCII table | Single values: *SAME, *CCSID, *DFT Other values: <i>Element list</i> | Optional |
| | Element 1: Outgoing EBCDIC/ASCII table | <i>Qualified object name</i> | |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBLFTPIN | Incoming ASCII/EBCDIC table | Single values: *SAME, *CCSID, *DFT Other values: <i>Element list</i> | Optional |
| | Element 1: Incoming ASCII/EBCDIC table | <i>Qualified object name</i> | |
| | Qualifier 1: Incoming ASCII/EBCDIC table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| NAMEFMT | Initial name format | *SAME, *LIB, *PATH | Optional |
| CURDIR | Initial directory | *SAME, *CURLIB, *HOMEDIR | Optional |
| LISTFMT | Initial list format | *SAME, *DFT, *UNIX | Optional |
| CRTCCSID | New file CCSID | 1-65533, *SAME, *CALC, *USER, *SYSVAL | Optional |
| SBSD | Subsystem description | Single values: *SAME, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Subsystem description | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> | |
| ALWSSL | Allow secure sockets layer | *SAME, *YES, *NO, *ONLY | Optional |

Autostart servers (AUTOSTART)

Specifies whether to automatically start the FTP servers when TCP/IP is started by running the Start TCP/IP (STRTCP) command, or the Start TCP/IP Server (STRTCPSVR) command with SERVER(*AUTOSTART) specified. When FTP is started by running the STRTCPSVR command, and SERVER(*AUTOSTART) is not specified, this parameter is ignored and the number of servers defined is started regardless of the value of this parameter.

*SAME

The autostart value that was previously set does not change; otherwise, *YES is used.

***YES** Start the number of servers defined in the NBRSVR parameter.

***NO** Do not start the number of servers defined in the NBRSVR parameter when the STRTCP command is called.

Top

Number of initial servers (NBRSVR)

Specifies the number of FTP servers to start initially when FTP is started by either the Start TCP/IP (STRTCP) command or the Start TCP/IP Server (STRTCPSVR) command. The initial number of servers to be started is shipped with a value of 3. The maximum number of servers that may be specified is 20.

Having more than one FTP server job running can improve the performance of initiating a session when multiple users attempt to connect to the server in a short period of time.

*SAME

The number of servers that was previously set does not change.

***DFT** The number of servers is set to the default value of 3.

1-20 Specify the number of FTP servers to start.

Once the FTP servers are running, you can increase or decrease the number of servers. If you request to increase the number of servers with the CHGFTP command, the number of current servers is increased the next time an FTP connection occurs to the server. If you request to decrease the number of servers, the request has no effect until the next time the STRTCP or STRTCPSVR command is run.

Top

Inactivity timeout (INACTTIMO)

Specifies the number of seconds the system allows an FTP control and data connection to remain inactive before it is ended. When an FTP connection is inactive longer than the specified length of time, it is ended.

Notes:

1. The system may wait an additional 1 to 120 seconds to end the inactive connection.
2. Although a client session is ended after this time, the server job remains active. The specified period relates to the time that a client session performs no interaction with the System i FTP server. Even though you may be issuing local FTP subcommands on a client and you do not interact with the server for the period specified, the FTP server closes the session.

This parameter is used only by the FTP server; it is not used by the FTP client.

***SAME**

The time-out value does not change if it was previously set; otherwise, 0 seconds is used.

***DFT** The time-out value is set to the default of 300 seconds (5 minutes).

0-2147483647

Specify an inactive time-out period in seconds. A value of 0 means that there is no time-out.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded-character set identifier (CCSID) that is used for single-byte character set (SBCS) ASCII file transfers when the FTP TYPE mode is set to ASCII. ASCII file transfers are also assumed when no TYPE subcommand has been issued. The CCSID value chosen is the default used by the FTP server for ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. Mapping is determined using the specified ASCII CCSID and the EBCDIC CCSID of the job.

Outgoing and incoming mapping can optionally be done with mapping tables specified for the **Outgoing EBCDIC/ASCII table (TBLFTPOUT)** and **Incoming ASCII/EBCDIC table (TBLFTPIN)** parameters. Normally the TBLFTPOUT and TBLFTPIN parameters are set to the default of *CCSID or *DFT, with both indicating that the value used in the CCSID parameter is used for mapping.

Note: IBM includes mapping support in FTP to ensure compatibility with releases prior to V3R1. Use of mapping tables for incoming TYPE A file transfers results in the loss of CCSID tagging if the target file must be created. IBM strongly recommends that you use CCSID support for normal operations.

If a mapping table is to be used for outgoing mapping, a table object can be specified in the TBLFTPOUT parameter. Then this table object is used for outgoing mapping instead of the CCSID value.

Incoming mapping can be changed to use a mapping table in the same manner by specifying a table object in the TBLFTPIN parameter. This mapping table would then override the specified CCSID value and be used for incoming mapping.

Double-byte character set (DBCS) CCSID values are not permitted for this parameter. The DBCS CCSID values can be specified using the TYPE subcommand.

***SAME**

The CCSID value that was previously set does not change; otherwise, 00819 (ISO 8859-1 8-bit ASCII) is used.

***DFT** The CCSID value is 00819 (ISO 8859-1 8-bit ASCII).

1-65533

Specify the CCSID value to be used. This value is validated to ensure a valid SBCS CCSID has been requested.

Top

Outgoing EBCDIC/ASCII table (TBLFTPOUT)

Specifies the table object that is to be used to map all outgoing server data in FTP. Outgoing server data is mapped from EBCDIC to ASCII.

If a table object is specified for the TBLFTPOUT parameter, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

*SAME

The TBLFTPOUT value does not change if it was previously set; otherwise, *CCSID is used.

*CCSID

The CCSID parameter is used to determine outgoing mapping.

*DFT The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the table object to be used for mapping the outgoing FTP server data.

Qualifier 2: Library

*LIBL All libraries in the user and system portions of the job's library list are searched until the first match is found.

*CURLIB

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLFTPIN)

Specifies the table object that is used to map all incoming server data in FTP. Incoming server data is mapped from ASCII to EBCDIC.

If a table object is specified for the TBLFTPIN parameter, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping.

Single values

*SAME

The TBLFTPIN value does not change if it was previously set; otherwise, *CCSID is used.

*CCSID

The CCSID parameter is used to determine incoming mapping.

*DFT The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the table object to be used for mapping the incoming FTP server data.

Qualifier 2: Library

*LIBL All libraries in the user and system portions of the job's library list are searched until the first match is found.

*CURLIB

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Initial name format (NAMEFMT)

Specifies the initial setting of NAMEFMT (file naming format) for each new session established with the FTP server.

*SAME

The initial name format that was previously set does not change; otherwise, *LIB is used.

***LIB** The LIBRARY/FILE.MEMBER naming format is used. This is equivalent to specifying the SITE NAMEFMT 0 subcommand to the FTP server.

***PATH**

The path naming format is used for files. This setting is equivalent to specifying the SITE NAMEFMT 1 subcommand to the FTP server.

Top

Initial directory (CURDIR)

Specifies the initial current working directory to be established when a user logs on to the System i FTP server.

*SAME

The initial directory that was previously set does not change; otherwise, *CURLIB is used.

***CURLIB**

The FTP server initializes the setting of the current working directory to the current library specified in the user profile of the user logged in to the FTP server.

***HOMEDIR**

The FTP server initializes the setting of the current working directory to the home directory specified in the user profile of the user logged in to the FTP server.

Note: CURDIR(*HOMEDIR) cannot be used with NAMEFMT(*LIB).

Top

Initial list format (LISTFMT)

Specifies the initial setting of LISTFMT (file listing format) for each new session established with the FTP server.

*SAME

The initial list format that was previously set does not change; otherwise, *DFT is used.

***DFT** The System i listing format is used. This setting is equivalent to specifying the SITE LISTFMT 0 subcommand to the System i FTP server.

***UNIX**

The Unix listing format is used. This setting is equivalent to specifying the SITE LISTFMT 1 subcommand to the System i FTP server.

Top

New file CCSID (CRTCCSID)

Specifies the EBCDIC coded character set identifier (CCSID) to be used when creating new database files in libraries for ASCII file transfers.

***SAME**

The new file CCSID value that was previously set does not change; otherwise, *CALC is used.

***CALC**

New database files created during ASCII file transfers use the related default EBCDIC CCSID of the ASCII line CCSID.

***USER**

New database files created during ASCII file transfers use the CCSID specified in the user profile of the user logged in to the FTP server, or if this CCSID is 65535, the default CCSID determined by the language id specified in the user profile.

***SYSVAL**

New database files created during ASCII file transfers use the CCSID specified by the QCCSID system value.

1-65533

Specify the CCSID to be used when creating new database files during ASCII file transfers. This value is validated to insure that a valid EBCDIC CCSID has been entered.

Top

Subsystem description (SBSD)

Specifies the subsystem description of the subsystem where FTP server jobs are to run. If the specified subsystem description does not exist, it is created.

Notes:

1. A check is made to see if there is an already active subsystem with the same name as the specified subsystem. If there is an active subsystem with the same name but using a subsystem description from a different library, the CHGFTP command will fail with message TCP3D28.
2. If a subsystem description other than the IBM-supplied QSYSWRK subsystem is specified, a job queue is also created with the same name and in the same library as the specified subsystem description. This job queue is used for submitting FTP server jobs. (When the IBM-supplied QSYSWRK subsystem is specified, FTP server jobs are submitted to job queue QSYSNOMAX in library QSYS.)

Single values

***SAME**

The subsystem description value does not change if it was previously set; otherwise, *DFT is used.

***DFT** FTP server jobs run in subsystem QSYSWRK in library QSYS.

Qualifier 1: Subsystem description

name Specify the name of the subsystem description where FTP server jobs are to be run.

Qualifier 2: Library

name Specify the name of the library to be searched.

Top

Allow secure sockets layer (ALWSSL)

Specifies whether the FTP server should use Secure Sockets Layer (SSL) support. SSL provides encryption of FTP datastreams (including passwords), and optionally supports certificate-based authentication of FTP clients (which allows the user to be authenticated by certificate instead of password).

*SAME

The allow secure sockets layer value that was previously set does not change; otherwise, *YES is used.

***YES** The System i FTP server accepts non-SSL FTP sessions. If the prerequisite products needed to allow SSL support are installed and a valid FTP server certificate is configured in the Digital Certificate Manager, SSL sessions will also be allowed.

Note:If ALWSSL(*YES) is specified and the Digital Certificate Manager is configured for required FTP client authentication, non-SSL sessions are accepted by the FTP server. However, non-anonymous FTP users must switch to SSL mode in order to log in to the System i FTP server.

***NO** The System i FTP server will only accept non-SSL FTP sessions.

*ONLY

Except for anonymous FTP users, the System i FTP server allows login only from SSL FTP sessions.

Note:If ALWSSL(*ONLY) is specified and either a prerequisite product required for SSL is not installed or a valid FTP server certificate is not configured in the Digital Certificate Manager, the FTP server will not start.

Top

Examples

None

Top

Error messages

*ESCAPE Messages

TCP261D

Process did not complete successfully

TCP264D

Error occurred processing file.

TCP3D28

Active subsystem &1 not from library &2.

TCP499A

Error accessing configuration member.

TCP499B

&1 cannot be used with &2.

TCP499D

CRTRCCSID parameter value &1 not valid.

TCP499E

CRTRCCSID parameter value &1 not found.

TCP4993

CCSID parameter value &1 not valid.

TCP4994

CCSID parameter value &1 not found.

TCP8050

*IOSYSCFG authority required to use &1.

TCP9503

File &3 in library &2 not available.

TCP9999

Internal system error in program &1.

Top

Change LPD Attributes (CHGLPDA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Change LPD Attributes (CHGLPDA) command provides an interface to configure line printer daemon (LPD) parameters. The changes made by this command take effect the next time the LPD servers are started.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|---------------------------|---------------------------|---------------------------|
| AUTOSTART | Autostart servers | *YES, *NO, <u>*SAME</u> | Optional, Positional 1 |
| NBRSVR | Number of initial servers | 1-20, <u>*SAME</u> , *DFT | Optional |

Top

Autostart servers (AUTOSTART)

Specifies whether to start automatically the LPD servers when TCP/IP is started by running the Start TCP/IP (STRTCP) command, or the Start TCP/IP Server (STRTCPSVR) command with SERVER(*AUTOSTART) specified. When LPD is started by running the STRTCPSVR command, and SERVER(*AUTOSTART) is not specified, this parameter is ignored and the number of initial servers defined is started regardless of the value of this parameter.

*SAME

The autostart value that was previously set does not change.

***YES** Start the number of servers defined in the NBRSVR parameter.

***NO** Do not start the number of servers defined in the NBRSVR parameter when the STRTCP command is called.

Top

Number of initial servers (NBRSVR)

Specifies the number of LPD servers to start initially when LPD is started by either the STRTCP command or the STRTCPSVR command. The initial number of servers is 2.

The STRTCP command starts *all* the servers specified in the CHGLPDA command. The STRTCPSVR command starts only *one* LPD server, regardless of the number of the servers currently running.

LPD works most efficiently when two or more servers are running. Running only one server works, but no jobs can be received while a current job is running. If a large print job is running, new jobs have to wait before LPD is ready to accept any new LPR requests.

***SAME**

The number of servers that was previously set does not change.

***DFT** The number of servers is set to the default value of 2.

number-of-servers

The number of servers requested in this parameter is started the next time the LPD server is started. Valid values range from 1 through 20 servers.

Top

Examples

None

Top

Error messages

***ESCAPE Messages**

TCP8050

*IOSYSCFG authority required to use &1.

TCP9999

Internal system error in program &1.

Top

Change POP Server Attributes (CHGPOPA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Change POP Mail Server Attributes (CHGPOPA) command is used to change the Post Office Protocol (POP) Version 3 Mail Server attributes. The changes take effect the next time the POP3 server is started either by the Start TCP/IP (STRTCP) command or by the Start TCP/IP Server (STRTCPSVR) command.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|---|---|---------------------------|
| AUTOSTART | Autostart servers | *YES, *NO, <u>*SAME</u> | Optional, Positional 1 |
| NBRSVR | Number of initial servers | 1-20, <u>*SAME</u> , *DFT | Optional |
| INACTTIMO | Inactivity timeout | 10-65535, <u>*SAME</u> , *DFT | Optional |
| MSGSPPLIT | Message split size | 32-2048, <u>*SAME</u> , *DFT, *NOMAX | Optional |
| MIMECCSID | MIME CCSID | <i>Element list</i> | Optional |
| | Element 1: Coded character set identifier | <u>*SAME</u> , *DFT, 819, 912, 915, 1089, 813, 916, 920, 5052, 367, 923 | |
| | Element 2: When to use | <u>*SAME</u> , *BESTFIT, *ALWAYS | |
| ALWSSL | Allow secure sockets layer | <u>*SAME</u> , *YES, *NO, *ONLY | Optional |

Top

Autostart servers (AUTOSTART)

Specifies whether to automatically start the POP mail server when TCP/IP is started by running the Start TCP/IP (STRTCP) command, or the Start TCP/IP Server (STRTCPSVR) command with SERVER(*AUTOSTART) specified. When the POP mail server is started by running the STRTCPSVR command, and SERVER(*AUTOSTART) is not specified, this parameter is ignored and the POP mail server is started regardless of the value of this parameter. If STRTCPSVR *POP is specified, and the POP server is already running, then an additional server job is started.

*SAME

The AUTOSTART value does not change if it was previously set. Otherwise, *NO is used.

***NO** Do not automatically start any POP mail server jobs. If you do not intend to use the POP mail server, set AUTOSTART to *NO.

***YES** Start the number of server jobs specified for the **Number of initial servers (NBRSVR)** parameter.

Top

Number of initial servers (NBRSVR)

Specifies the number of POP mail server jobs to start when POP is started by either the Start TCP/IP (STRTCP) command or the Start TCP/IP Server (STRTCPSVR) command. These jobs allow new clients to connect to the server without having to wait for the overhead associated with starting a new job. The server tries to keep at least this number of jobs available for connecting to new clients as the number of connected clients changes. This is a performance enhancement for the POP mail server that reduces the system overhead each time a client connects.

*SAME

The number of server jobs does not change if it was previously set; otherwise 3 is used.

***DFT** The number of server jobs is set to the default value of 3.

1-20 Specify the number of server jobs to start.

Top

Inactivity timeout (INACTTIMO)

Specifies the number of seconds of inactivity between the client and server before the server assumes the client has stopped communicating and disconnects from the client. When this event occurs the server does not delete any mail in the user's mail box to ensure that mail is not lost.

*SAME

The inactivity timeout value does not change if it was previously set; otherwise 600 seconds (10 minutes) is used.

***DFT** The inactivity timeout value is set to the default value of 600 seconds (10 minutes).

10-65535

Specify the number of seconds to use for the inactivity timeout value.

Top

Message split size (MSGSPPLIT)

Specifies the number of kilobytes that will be used for partial message blocks when the mail message exceeds this count. This is used only for remote mail delivery. This is a network parameter and is determined by the capacities of the network gateways you are connected to. Changes to this parameter take effect immediately; you do not need to restart the POP server.

*SAME

The value does not change if it was previously set; otherwise *NOMAX is used.

***NOMAX**

Disables message splitting, data is sent as one message.

***DFT** The message split size is set to the default value of *NOMAX.

32-2048

Specify the number of kilobytes to use for the message split size.

Top

MIME CCSID (MIMECCSID)

Specifies the MIME coded-character set identifier (CCSID) conversion parameters for text data. You must restart the mail server framework (using the STRMSF command) for changes to this parameter to take effect.

Element 1: Coded character set identifier

CCSID value to be used for single-byte character set (SBCS) and some mixed-byte character set (MBCS) ASCII translations when doing ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping.

*SAME

The CCSID value that was previously set does not change. Otherwise, 00819 (ISO 8859-1 8-bit ASCII) is used.

CCSID-value

Specify an ASCII CCSID value from the following list. This value is validated to ensure that you are specifying a valid MIME Standard ASCII CCSID.

00367

MIME Standard: US-ASCII
Name: US English
EBCDIC CCSID: 00500

00819

MIME Standard: ISO-8859-1
Name: Latin-1
EBCDIC CCSID: 00500

00912

MIME Standard: ISO-8859-2
Name: Latin-2
EBCDIC CCSID: 870

00915

MIME Standard: ISO-8859-5
Name: Cyrillic
EBCDIC CCSID: 01025

01089

MIME Standard: ISO-8859-6
Name: Arabic
EBCDIC CCSID: 00420

00813

MIME Standard: ISO-8859-7
Name: Greek
EBCDIC CCSID: 00875

00916

MIME Standard: ISO-8859-8
Name: Hebrew
EBCDIC CCSID: 00424

00920

MIME Standard: ISO-8859-9
Name: Latin-5
EBCDIC CCSID: 01026

00923

MIME Standard: ISO-8859-15
Name: Latin-9
EBCDIC CCSIDs: 01140-1149

05052

MIME Standard: ISO-2022-JP
Name: Japan MBCS
EBCDIC CCSID: 05026

Element 2: When to use

Specifies whether or not to force conversion of mail to or from the ASCII CCSID specified on the CCSID parameter. This configured parameter is a global parameter; once you set it to **ALWAYS*, it dictates the CCSID that all EBCDIC-to-ASCII mail will use. This parameter should only be set to **ALWAYS* if there is a requirement to limit the character set. This should be communicated to all clients requiring mail interchange, particularly where language differences could cause a loss of certain language-specific symbols.

*SAME

The attribute does not change if it was previously set; otherwise **BESTFIT* is used.

**BESTFIT*

Use the specified CCSID *only* if the Mail Server Framework is unable to determine the CCSID from the data in the mail.

**ALWAYS*

Always use the specified CCSID, even if the Mail Server Framework would have used a best-fit CCSID. For incoming mail, the specified CCSID is used if the MIME character set is not supported by the Mail Server Framework. For outgoing mail, EBCDIC-to-ASCII will always convert to the specified CCSID.

Top

Allow secure sockets layer (ALWSSL)

Specifies whether the POP server should use encryption to secure POP datastreams (including passwords). Encryption is provided with either the Secure Sockets Layer (SSL) or the Transport Layer Security (TLS). The selection of TLS or SSL is determined by the outcome of the security negotiation between the POP client and server.

*SAME

The allow TLS/SSL value that was previously set does not change; otherwise, **YES* is used.

**YES* The POP server accepts non-secure POP sessions. If a valid POP server certificate is configured in the Digital Certificate Manager, TLS/SSL sessions will also be allowed.

**NO* The POP server will only accept non-secure POP sessions.

**ONLY*

The POP server allows login only from TLS/SSL POP sessions.

Note:If ALWSSL(**ONLY*) is specified and a valid POP server certificate is not configured in the Digital Certificate Manager, the POP server will not start.

Top

Examples

Example 1: Setting an Inactivity Timeout

```
CHGPOPA  INACTTIMO(700)
```

This command sets the time of 700 seconds that the POP server will wait before assuming the client has stopped communicating. After this time the server will disconnect from the client. No mail will be deleted.

Example 2: Setting a Default CCSID

```
CHGPOPA  MIMECCSID(923 *BESTFIT)
```

This command sets the CCSID 923 to be used for conversions, if the CCSID cannot be determined from the mail. This CCSID contains the Euro character.

Example 3: Setting an Allow Secure Socket Layer

```
CHGPOPA  ALWSSL(*ONLY)
```

This command sets the POP server to use only secure communication between the client and server.

Top

Error messages

*ESCAPE Messages

TCP499A

Error accessing configuration member.

TCP4993

CCSID parameter value &1 not valid.

TCP4994

CCSID parameter value &1 not found.

TCP8050

*IOSYSCFG authority required to use &1.

TCP9503

File &3 in library &2 not available.

Top

Change REXEC Attributes (CHGRXCA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Change REXEC Attributes (CHGRXCA) command changes the configuration of the TCP/IP Remote Execution (REXEC) servers. You can change REXEC attributes when REXEC servers are active. Changes take effect the next time an REXEC server connection is made. Existing connections are not changed, but keep the attributes they had when the connection was established.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|--------------------------------|---------------------------|------------------------|
| AUTOSTART | Autostart servers | *YES, *NO, <u>*SAME</u> | Optional, Positional 1 |
| NBRSVR | Number of initial servers | 1-20, *SAME, *DFT | Optional |
| INACTTIMO | Inactivity timeout | 1-2147483647, *SAME, *DFT | Optional |
| CCSID | Coded character set identifier | 1-65533, *SAME, *DFT | Optional |

Top

Autostart servers (AUTOSTART)

Specifies whether to automatically start the REXEC servers when TCP/IP is started by the Start TCP/IP (STRTCP) command or STRTCPSVR SERVER(*AUTOSTART) command. When REXEC is started by the Start TCP/IP Server (STRTCPSVR) command, and SERVER(*AUTOSTART) is omitted, this parameter is ignored and the number of servers defined is started regardless of the value of this parameter.

*SAME

The autostart value that was previously set does not change; otherwise, *NO is used.

***NO** Do not start the number of servers defined in the NBRSVR parameter when the STRTCP command is called. If you do not plan to use REXEC, set AUTOSTART to *NO.

***YES** Start the number of servers defined in the NBRSVR parameter.

Top

Number of initial servers (NBRSVR)

Specifies the minimum number of REXEC servers to start initially when REXEC is started by either the Start TCP/IP (STRTCP) or Start TCP/IP Server (STRTCPSVR) commands. These servers allow new clients to connect to the server without having to wait for the overhead associated with starting a new server.

***SAME** The number of servers that was previously set does not change; otherwise, *DFT is used.

***DFT** The number of servers is set to the default value of 2.

number-of-servers

The number of servers requested to start. Valid values range from 1 through 20 servers.

Top

Inactivity timeout (INACTTIMO)

Specifies the number of seconds of inactivity between the client and server jobs before the server assumes the client has stopped communicating and disconnects the client. When this event occurs, the server does not run any command for the client user.

*SAME

The time-out value does not change if it was previously set; otherwise, *DFT is used.

***DFT** The time-out value is set to the default of 300 seconds (5 minutes).

inactive-timeout

Specify an inactive time-out period in seconds. Valid values range from 1 through 2147483647 ((2**31)-1) seconds.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded-character set identifier (CCSID) that is used for conversion of data received from and sent to the REXEC client.

*SAME

The CCSID value that was previously set does not change; otherwise, *DFT is used.

***DFT** The CCSID value is chosen to be the related default single-byte PC ASCII equivalent of the CCSID specified by the QCCSID system value (or, if the QCCSID system value is 65535, the ASCII equivalent of the default CCSID associated with the language specified by the QLANGID system value).

CCSID-value

The requested CCSID value is used. This value is validated to ensure that a valid ASCII CCSID has been requested.

Top

Examples

None

Top

Error messages

*ESCAPE Messages

TCP8050

*IOSYSCFG authority required to use &1.

[Top](#)

Change SMTP Attributes (CHGSMTPA)

Where allowed to run: All environments (*ALL)
Threading: No

Parameters
Examples
Error messages

The Change SMTP Attributes (CHGSMTPA) command is used to change common SMTP attributes such as retries, name delimiters, mail router, and the automatic registration of remote users into the system directory.

Changes for the following parameters take effect immediately the next time SMTP processes an email:

ADDRESS, ALLMAILSF, ALWAUTH, ALWBARELF, ALWRLY, AUTOADD, CCSID, ETRNCLT, ETRNSVR, FIREWALL, FWDHUBSVR, FTRACN, IFCDMN, JOURNAL, MAILROUTER, MIME8BIT, NFYDLVRY, OVRJRJCNNL, PCTRTGCHR, POPWDW, RBLSVR, RTYDAY, RTYHOUR, RTYMIN, RTYRMTSVR, SBSB, SYSNAME, TBLSMTPIN, TBLSMTPOUT, TBLTYPE, USRIDPFX, VFYFROMUSR, VFYID, and VFYMSFMSG.

Changes for the following parameters take effect the next time SMTP is started:

AUTOSTART, DIALSCD, and USRIDDELIM.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

[Top](#)

Parameters

| Keyword | Description | Choices | Notes |
|-----------|------------------------------|--|---------------------------|
| AUTOSTART | Autostart server | <u>*SAME</u> , *YES, *NO | Optional, Positional 1 |
| RTYMIN | Retries by minute | <i>Element list</i> | Optional |
| | Element 1: Number of retries | 0-99, <u>*SAME</u> , *DFT | |
| | Element 2: Time interval | 0-99, <u>*SAME</u> , *DFT | |
| RTYDAY | Retries by day | <i>Element list</i> | Optional |
| | Element 1: Number of retries | 0-9, <u>*SAME</u> , *DFT | |
| | Element 2: Time interval | 0-9, <u>*SAME</u> , *DFT | |
| RTYHOUR | Retries by hour | <i>Element list</i> | Optional |
| | Element 1: Number of retries | 0-99, <u>*SAME</u> , *DFT | |
| | Element 2: Time interval | 0-99, <u>*SAME</u> , *DFT | |
| RTYRMTSVR | Retry remote name server | <u>*SAME</u> , *YES, *NO | Optional |
| AUTOADD | Automatic registration | <u>*SAME</u> , *NO, *YES | Optional |
| USRIDPFX | User ID prefix | <i>Communications name</i> , <u>*SAME</u> , *DFT | Optional |
| ADDRESS | Address | <i>Communications name</i> , <u>*SAME</u> , *DFT | Optional |

| Keyword | Description | Choices | Notes |
|------------|--|--|----------|
| SYSDNAME | System name | Character value, <u>*SAME</u> , *DFT | Optional |
| TBLTYPE | Alias table type | <u>*SAME</u> , *SYSTEM, *PERSONAL | Optional |
| USRIDDELIM | User ID delimiter | <u>*SAME</u> , *DFT, '?', '=', ':', '&', '\$, #, '/', '+', '-', '-', '*', '''' | Optional |
| MAILROUTER | Mail router | Character value, <u>*SAME</u> , *NONE | Optional |
| CCSID | Coded character set identifier | 1-65533, <u>*SAME</u> , *DFT | Optional |
| TBLSMTPOUT | Outgoing EBCDIC/ASCII table | Single values: <u>*SAME</u> , *CCSID, *DFT Other values: <i>Element list</i> | Optional |
| | Element 1: Outgoing EBCDIC/ASCII table | <i>Qualified object name</i> | |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , <u>*LIBL</u> , *CURLIB | |
| TBLSMTPIN | Incoming ASCII/EBCDIC table | Single values: <u>*SAME</u> , *CCSID, *DFT Other values: <i>Element list</i> | Optional |
| | Element 1: Incoming ASCII/EBCDIC table | <i>Qualified object name</i> | |
| | Qualifier 1: Incoming ASCII/EBCDIC table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , <u>*LIBL</u> , *CURLIB | |
| FIREWALL | Firewall | <u>*SAME</u> , *YES, *NO | Optional |
| JOURNAL | Journal | <u>*SAME</u> , *YES, *NO | Optional |
| ALLMAILMSF | Process all mail through MSF | <u>*SAME</u> , *YES, *NO | Optional |
| PCTRTGCHR | Percent routing character | <u>*SAME</u> , *YES, *NO | Optional |
| DIALSCD | Dial-up scheduler | Single values: *NO Other values: <i>Element list</i> | Optional |
| | Element 1: Start with SMTP server | <u>*SAME</u> , *YES | |
| | Element 2: Configuration profile | <i>Name</i> , <u>*SAME</u> | |
| | Element 3: Connection time interval | 1-1440, <u>*SAME</u> , *NONE | |
| ETRNSVR | Support ETRN for server | <u>*SAME</u> , *NO, *YES | Optional |
| ETRNCLT | Support ETRN for client | Single values: *NO Other values: <i>Element list</i> | Optional |
| | Element 1: Enable client ETRN | <u>*SAME</u> , *YES | |
| | Element 2: Incoming mail server address | Character value, <u>*SAME</u> | |
| | Element 3: Mail domain name | Character value, <u>*SAME</u> | |
| MIME8BIT | Support 8-bit MIME | <u>*SAME</u> , *NO, *YES | Optional |
| NFYDLVRY | Delivery status notification | <i>Element list</i> | Optional |
| | Element 1: Responsible person | Character value, <u>*SAME</u> , *NONE | |
| SBSD | Subsystem description | Single values: <u>*SAME</u> , *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Subsystem description | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> | |
| RBLSVR | Realtime Blackhole List | Character value, <u>*SAME</u> , *NONE | Optional |

| Keyword | Description | Choices | Notes |
|------------|------------------------------|---|----------|
| ALWRLY | Allow relayed mail | Single values: <u>*SAME</u> , *NONE, *ALL, *BOTH Other values (up to 3 repetitions): *LIST, *NEAR, *POPWDW | Optional |
| POPWDW | POP send mail window | 15-65535, <u>*SAME</u> , *NONE | Optional |
| IFCDMN | Interface/domain association | <u>*SAME</u> , *NONE, *LIST | Optional |
| FTRACN | Filter mail for virus | <u>*SAME</u> , *NONE, *KEEP, *DISCARD | Optional |
| OVRRJTCNNL | Override reject connect list | <u>*SAME</u> , *NO, *YES | Optional |
| ALWBARELF | Allow bare line feed | <u>*SAME</u> , *NO, *YES | Optional |
| VFYID | Verify identification | <u>*SAME</u> , *NO, *YES | Optional |
| ALWAUTH | Allow authentication | <u>*SAME</u> , *RELAY, *LCLRLY, *NONE | Optional |
| VFYMSFMSG | Verify MSF messages | <u>*SAME</u> , *YES, *NO | Optional |
| VFYFROMUSR | Verify from user | <u>*SAME</u> , *ALL, *LIST, *NONE | Optional |
| FWDHUBSVR | Forwarding mailhub server | <i>Character value</i> , <u>*SAME</u> , *NONE | Optional |

Top

Autostart server (AUTOSTART)

Specifies whether to start the SMTP server automatically when TCP/IP is started by running the Start TCP/IP (STRTCP) command, or the Start TCP/IP Server (STRTCPSVR) command with SERVER(*AUTOSTART) specified. When SMTP is started by running the STRTCPSVR command, this parameter is ignored; the SMTP server is started regardless of the value of this parameter.

*SAME

The autostart value that was previously set does not change; otherwise, *YES is used.

***YES** Automatically start the SMTP server.

***NO** Do not automatically start the SMTP server.

Top

Retries by minute (RTYMIN)

Specifies the number of attempts and the number of minutes between attempts for SMTP to distribute mail and to retry the remote name server. If the number specified is used and is not successful, the daily retries that are specified by the RTYHOUR parameter are attempted.

Element 1: Number of retries

*SAME

The number of retries that was previously set does not change; otherwise, 3 is used.

***DFT** The number of first-level distribution retries is set to the default of 3.

0-99 Specify the number of retries to be attempted.

Element 2: Time interval

*SAME

The number of minutes between retries that was previously set does not change; otherwise, 30 is used.

***DFT** The number of minutes between retries is set to the default of 30 minutes.

- 0-99** Specify the number of minutes between retries. If a number of retries is set, the time interval must be set to something other than 0. A recommended time interval is something greater than 5 minutes.

Top

Retries by day (RTYDAY)

Specifies the number of attempts and the number of days between attempts for SMTP to distribute mail and to retry the remote name server. The RTYDAY parameter is used when the RTYMIN parameter was not successful. If the number of RTYDAY attempts is used and is not successful in distributing mail, a status distribution note is returned to the sender. Because the default on the RTYDAY parameter is set to 0 for the number of retries, this level of retry is not used unless intentionally set by the customer. Either, the RTYDAY or RTYHOUR parameter may be chosen for Second Level retry, but not both.

Element 1: Number of retries

*SAME

The number of retries that was previously set does not change; otherwise, 0 is used.

***DFT** The number of retries is set to the default of 0.

- 0-9** Specify the number of retries to be attempted. If the number of retries is set, the time interval must be something other than 0.

Element 2: Time interval

*SAME

The number of days between retries that was previously set does not change; otherwise, 0 is used.

***DFT** The number of days between retries is set to the default of 0 day.

- 0-9** Specify the number of days between retries. If the number of retries is set, the time interval must be something other than 0.

Top

Retries by hour (RTYHOUR)

Specifies the number of attempts and the number of hours between attempts for SMTP to distribute mail and to retry the remote name server. The RTYHOUR parameter is used when the RTYMIN parameter was not successful. If the number of retries is greater than zero, and the time interval is greater than zero for RTYHOUR parameter, the RTYDAY parameter values are not used. If the number of RTYHOUR attempts is used and is not successful in distributing mail, a status distribution note is returned to the sender. Because the default on the RTYHOUR parameter is set to 0 for the number of retries, this level of retry is not used unless intentionally set by the customer.

Element 1: Number of retries

*SAME

The number of retries that was previously set does not change; otherwise, 0 is used.

***DFT** The number of retries is set to the default of 0.

- 0-99** Specify the number of retries to be attempted. If the number of retries is set, the time interval must be something other than 0.

Element 2: Time interval

***SAME**

The number of hours between retries that was previously set does not change; otherwise, 0 is used.

***DFT** The number of hours between retries is set to the default of 0 minutes.

0-99 Specify the number of hours between retries. If the number of retries is set, the time interval must be something other than 0.

Top

Retry remote name server (RTYRMTSVR)

Specifies whether SMTP should retry contacting the remote name server when attempts to contact it are unsuccessful. The RTYMIN and RTYHOUR/RTYDAY parameters are used to determine the frequency of retries.

***SAME**

The value for the RTYRMTSVR parameter that was previously set does not change; otherwise, *NO is used.

***YES** Try to contact the remote name server again.

***NO** Do not attempt to contact the remote name server again.

Top

Automatic registration (AUTOADD)

Specifies, for incoming mail, whether the remote user ID and address are automatically added to the system directory and, if necessary, to an alias table. This enables the local user to respond to the mail without first entering the necessary data into the directory and the alias table.

***SAME**

The automatic registration value that was previously set does not change; otherwise, *NO is used.

***NO** Do not automatically add remote users into the system directory and the alias table.

***YES** Automatically add remote users into the system directory and the alias table.

Top

User ID prefix (USRIDPFX)

Specifies the 3-character prefix that is to be used with the generated 5-digit number that together make up the SNADS user ID. The SNADS user ID is automatically added to the system directory and the alias table. This parameter takes effect only if the AUTOADD parameter is set to *YES.

***SAME**

The user ID prefix value that was previously set does not change; otherwise, QSM is used.

***DFT** The 3-character user ID prefix is set to the default of QSM.

communications-name

Specify the 3-character user ID prefix to be used.

Top

Address (ADDRESS)

Specifies the SNADS address to be generated when remote users are to be automatically added to the system directory and the alias table. This parameter takes effect only if the AUTOADD parameter is set to *YES.

*SAME

The address value that was previously set does not change; otherwise, QSMRMTAD is used.

***DFT** The SNADS address to be automatically added is the default of QSMRMTAD.

communications-name

Specify the SNADS address to be automatically added to the system directory and the alias table. Up to 8 characters can be specified.

Top

System name (SYSNAME)

Specifies the name that SNADS uses to route mail to SMTP. This name should match the distribution routing specified when SMTP was configured. This parameter takes effect only if the AUTOADD parameter is set to *YES.

*SAME

The system name value that was previously set does not change; otherwise, TCPIP is used.

***DFT** SNADS uses the default system name of TCPIP to route mail to SMTP.

character-value

Specify the system name to be used by SNADS to route mail to SMTP. Up to 8 characters can be specified.

Top

Alias table type (TBLTYPE)

Specifies the type of SMTP alias table to be updated with the remote users information if remote users are to be automatically added to the system directory. This parameter takes effect only if the AUTOADD parameter is set to *YES.

*SAME

The table type value that was previously set does not change; otherwise, *SYSTEM is used.

***SYSTEM**

Update the SMTP system alias table with the remote user information.

***PERSONAL**

Update the SMTP personal alias table for the local user with the remote user information.

Top

User ID delimiter (USRIDDELIM)

Specifies the single character delimiter to be used to separate parts of the SMTP user ID. All subsequent entries in the system and personal alias tables use this new character. The special characters must be enclosed in apostrophes.

***SAME**

The user ID delimiter value that was previously set does not change; otherwise, a question mark ('?') is used.

***DFT** The single character delimiter is the question mark (?).

delimiter-character

The single character delimiter to be used to separate parts for the SMTP user ID. Only one of the following characters can be specified:

- Question mark (?)
- Equal sign (=)
- Period (.)
- Plus sign (+)
- Ampersand (&)
- Underscore (_)
- Dash (-)
- Dollar sign (\$)
- Number sign (#)
- Asterisk (*)
- Quotation marks (")
- Forward slash(/)

Top

Mail router (MAILROUTER)

Specifies that a mail router should be used when SMTP cannot find the name and address of the recipient in the system or personal alias tables or when SMTP is not able to resolve the address of the recipient. If you do not want mail routing, you must specify *NONE.

Note: When MAILROUTER(*NONE) is defined, then the FIREWALL parameter will be ignored by the SMTP server.

***SAME**

The mail router previously set does not change; otherwise, *NONE is used.

***NONE**

No mail router is used.

character-value

Specify the route that outgoing mail on the local system is to take first. Up to 256 characters can be specified.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded character set identifier (CCSID) that is used to map all single-byte character set (SBCS) data on outgoing mail. This value is also assumed to be the ASCII CCSID for mapping all SBCS data for incoming mail. Mapping is determined by the specified ASCII CCSID and the EBCDIC CCSID of the job.

The CCSID value chosen is the default used by SMTP for ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. Outgoing and incoming mapping can be done optionally with mapping tables defined in the

TBLSMTPOUT and TBLSMTPIN parameters. Normally the TBLSMTPOUT and TBLSMTPIN parameters are set to the default of *CCSID or *DFT. Both values indicate that the value used in the CCSID parameter is used for mapping.

If a mapping table is used for outgoing mapping, a table object can be specified in the TBLSMTPOUT parameter. The table object specified in the TBLSMTPOUT parameter is used instead of the CCSID value.

Incoming mapping can be changed to use a mapping table by specifying a table object in the TBLSMTPIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

Double-byte character set (DBCS) CCSID values are not permitted for this parameter. DBCS data is self-identifying in SMTP mail.

***SAME**

The CCSID value that was previously set does not change; otherwise, 00819 (ISO 8859-1 8-bit ASCII) is used.

***DFT** The CCSID value is 00819 (ISO 8859-1 8-bit ASCII).

1-65533

Specify the CCSID value to be used. This value is validated to ensure a valid SBCS CCSID was requested.

Top

Outgoing EBCDIC/ASCII table (TBLSMTPOUT)

Specifies the outgoing mapping table used by the SMTP client to map outgoing mail from EBCDIC to ASCII.

If a table object is specified for TBLSMTPOUT, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

***SAME**

The TBLSMTPOUT value does not change if it was previously set; otherwise, *CCSID is used.

***CCSID**

The CCSID parameter is used to determine outgoing mapping.

***DFT** The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the outgoing mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLSMTPIN)

Specifies the incoming mapping table used by the SMTP server to map incoming data from ASCII to EBCDIC.

If a table object is specified for the TBLSMTPIN parameter, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping.

*SAME

The TBLSMTPIN value does not change if it was previously set; otherwise, *CCSID is used.

*CCSID

The CCSID parameter is used to determine incoming mapping.

***DFT** The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the incoming mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

*CURLIB

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Firewall (FIREWALL)

Specifies whether outbound mail, destined for a host in a remote domain, should be forwarded to the configured mail router to get through the network's firewall.

Note: When MAILROUTER(*NONE) is defined, then the FIREWALL parameter will be ignored by the SMTP server.

*SAME

The firewall value that was previously set does not change; otherwise, *NO is used.

***YES** Forward the mail to the mail router machine, if it is for a host that is outside the system's domain.

***NO** Just send the mail to the recipient's host machine.

Top

Journal (JOURNAL)

Specifies whether SMTP should write additional journal entries which show mail message transitions, events, and informational data to the Mail Server Framework journal (QUSRSYS/QZMF) as each mail item passes thru SMTP.

*SAME

The value for the JOURNAL parameter that was previously set does not change; otherwise, *NO is used.

***YES** Write additional journal entries as the mail passes thru SMTP.

***NO** Do not make any additional journal entries.

Top

Process all mail through MSF (ALLMAILMSF)

Specifies whether the SMTP server should process all mail that it receives, even mail that is not addressed to the System i that the server is running on, and pass it into the Mail Server Framework.

*SAME

The value for the ALLMAILMSF parameter that was previously set does not change; otherwise, *NO is used.

***YES** Pass all mail that the SMTP Server receives into the Mail Server Framework.

***NO** Only pass mail into the Mail Server Framework if it is addressed to the System i the server is running on.

Top

Percent routing character (PCTRTGCHR)

Specifies whether the SMTP Server should interpret the '%' character as an SMTP routing character, or allow the character to just pass through. Lotus Notes uses the '%' character as a default separator character for fully qualifying a Lotus Note domain name, ie. John_Smith%NotesDomain1%NotesDomain2@host.domain.

*SAME

The value for the PCTRTGCHR parameter that was previously set does not change; otherwise, *NO is used.

***YES** Interpret the '%' character as an SMTP routing character.

***NO** Treat the '%' as just another character.

Note: You should select *NO, if you use Lotus Notes, or you exchange mail with a Lotus Notes domain.

Top

Dial-up scheduler (DIALSCD)

Determines if the SMTP scheduler should be started to handle dial-up connections. The scheduler is started as a separate SMTP job. An initial connection is first made using the communications profile to establish a Point-to-Point Protocol (PPP) link. The waiting mail is sent, then the job sleeps for the time interval specified. When the time interval expires, the Scheduler reestablishes the communication link and sends any waiting mail accumulated during the interval.

Note: Delivery attempts resulting from the scheduler are not counted as retries (see RTYMIN and RTYHOUR parameters).

Single values

***NO** Do not start the SMTP scheduler when the SMTP server is started. If *NO is specified, values for the configuration profile name and the time interval are ignored.

Element 1: Start with SMTP server

***SAME**

The requested use of the scheduler that was previously set does not change; otherwise, *NO is used.

***YES** Start the SMTP scheduler when the SMTP server is started. If *YES is specified, the configuration profile name (element 2) must be specified on this invocation or a previous invocation of the command.

Element 2: Configuration profile

***SAME**

The requested configuration profile that was previously entered is not changed.

name Specify the name of the configuration profile (PPP or SLIP connection profile) to be used by the scheduler.

Element 3: Connection time interval

***SAME**

The requested time interval that was previously set is not changed; otherwise, 30 minutes is used.

***NONE**

No retries will be performed.

1-1440 Specify the number of minutes between connection attempts. This time measurement begins when the scheduler sees that the connection has been successful or receives a failure indication other than the profile not existing. Any other failure as a result of an attempted connection will cause the scheduler to end with message TCP2285 sent to the QSYSOPR message queue.

Top

Support ETRN for server (ETRNSVR)

Specifies whether the SMTP server will support the Service Extension for Remote Message Queue Starting (ETRN) command from a remote host's client. ETRN is described in RFC 1985 SMTP Service Extension for Remote Message Queue Starting.

***SAME**

The value for the ETRNSVR parameter that was previously set does not change; otherwise, *NO is used.

***YES** The server will retry all its mail when an ETRN command is received from a host.domain that is in the accept ETRN list. The accept ETRN list can be specified by using the System i5 Navigator SMTP properties pages or by using the ADDSMTPLE(Add SMTP List Entry) command and specifying *ETRNSVR for the TYPE parameter.

***NO** The server will respond with the "502 Command not implemented" when the ETRN command is received. **Note:**ETRN will not be included in the list of supported extensions when an EHLO response is sent to a querying client.

Top

Support ETRN for client (ETRNCLT)

Specifies whether the Service Extension for Remote Message Queue Starting (ETRN) command will be issued to an internet service provider's (ISP's) incoming mail server when a dial-out connection is made. The connection's profile is the one defined in the DIALSCD parameter. ETRN is described in RFC 1985 SMTP Service Extension for Remote Message Queue Starting.

Single values

***NO** Do not enable the client's ETRN. If *NO is specified, values for address of incoming mail server and mail domain name are ignored.

Element 1: Enable client ETRN

*SAME

The requested use of the client's ETRN that was previously set does not change; otherwise, *NO is used.

***YES** The SMTP job will make an SMTP connection to the Internet Service's provider incoming mail server's IP address. Once a successful connection is received, the ETRN command will be sent to that server. When *YES is entered, the address of incoming mail server (element 2) and mail domain name (element 3) must be specified on this invocation or a previous invocation of CHGSMTPA.

Element 2: Incoming mail server address

*SAME

The configured internet address that was previously entered is not changed.

character-value

Specify the address of the ISP's incoming mail server.

Element 3: Mail domain name

*SAME

The configured mail domain name that was previously entered is not changed.

character-value

Specify the name of the host.domain that the ISP provides mail storage service for on behalf of this System i system.

Top

Support 8-bit MIME (MIME8BIT)

Specifies whether the 8BITMIME extension is honored by the SMTP server. The SMTP client will try to send the 8BITMIME message (for relayed mail cases), but will send a non-delivery notice to the originator if the destination's mail server does not support 8BITMIME. No conversion will be done.

*SAME

Use the same value for MIME8BIT that was previously set; otherwise, *NO is used.

***YES** The server will honor 8BITMIME mail transfers.

***NO** The server will not honor 8BITMIME transfers.

Top

Delivery status notification (NFYDLVRY)

Specifies whether Delivery Status Notification (DSN) is supported and, if supported, the address to use in the "from" field in the delivery status notification.

*SAME

Use the same value for NFYDLVRY that was previously set; otherwise, *NONE is used.

***NONE**

Delivery Status Notification will not be supported. No "from" field address is provided.

character-value

Specify the SMTP address, in the format "userid@host.domain", that is used in the "from" field inside a delivery status notification. This should be a valid SMTP address. Up to 255 characters can be specified.

The server will honor a request for Delivery Status Notification from an SMTP client. Status notes, indicating delivery, delay, relay or failure of a note to a recipient, will be generated as requested.

Top

Subsystem description (SBSD)

Specifies the subsystem description of the subsystem where SMTP server jobs are to run. If the specified subsystem description does not exist, it is created. If the library does not exist where the description is to be created, the command will fail.

If a subsystem description other than an IBM-supplied *SBSD QSYSWRK is specified, a job queue is also created with the same name and in the same library as the specified subsystem description. This job queue is used for submitting SMTP server jobs.

*READ, *ADD, and *EXECUTE authorities are required to the library where the subsystem description and/or job queue are created. If the subsystem description already exists, *READ, *EXECUTE, *OBJMGT and *OBJOPR authorities to the object are required otherwise this command will fail. If the job queue already exists, *READ, *EXECUTE, *OBJMGT, and *OBJOPR authorities are required to that object; otherwise the command will fail. For an existing subsystem description and job queue, the QTCP user profile will be granted *USE authority to these objects.

Single values

*SAME

Use the same value for SBSBD that was previously set; otherwise, *DFT is used.

***DFT** When *DFT is specified, the SMTP server jobs are submitted to job queue QSYSNOMAX in library QSYS and run in the QSYSWRK subsystem.

Qualifier 1: Subsystem description

name Specify the name of the subsystem description that SMTP will use for its server jobs.

Qualifier 2: Library

name Specify the name of the library to be searched.

Top

Realtime Blackhole List (RBLSVR)

Specify the fully-qualified domain names of the servers to query that are running a Realtime Blackhole List (RBL). If no entry is found for the mail originator's address in the reject connections list, a query will be sent to each RBL server specified in this parameter before mail is accepted for delivery or relay. The reject connections list can be set by using System i5 Navigator SMTP properties pages or by using the ADDSMTPLE command with *REJECT specified for the TYPE parameter.

*SAME

Use the same value for RBLSVR that was previously set; otherwise, *NONE is used.

***NONE**

No Realtime Blackhole List is used.

character-value

Specify the list of Realtime Blackhole List servers to be searched, up to three server names may be specified, separated by spaces and enclosed in apostrophes.

Top

Allow relayed mail (ALWRLY)

Specifies whether to allow relay mail through this server. The value specified for this parameter is ignored if *RELAY or *LCLRLY is specified or in effect for the **Allow authentication (ALWAUTH)** parameter.

Single values

***SAME**

Use the same value for ALWRLY that was previously set; otherwise, *NONE is used.

***NONE**

No mail will be relayed.

***ALL** All relayed mail will be allowed.

***BOTH**

Allow both addresses listed in the relay messages list (*LIST) and addresses to recipients in the near domains (*NEAR) to be relayed.

Other values (up to 3 repetitions)

***LIST** Addresses listed in the accept relay messages list will be relayed. The accept relay messages list can be specified by using System i5 Navigator SMTP properties pages or by using the ADDSMTPLE command with a value of *ACCEPT specified for the TYPE parameter.

Note: System i POP users on this system should be added to this list if this system is to act as their outbound SMTP server. Any message from POP users must be relayed.

***NEAR**

Relay mail addressed to any recipients in the near domain list. The domain list can be defined using System i5 Navigator SMTP properties pages or by using the ADDSMTPLE (Add SMTP List Entry) command and specifying *NEAR for the TYPE parameter.

***POPWDW**

Relay mail for any client who has logged on to the Post Office Protocol (POP) server within the number of minutes specified by the parameter POP send mail window (POPWDW). This requires that a receive POP mail must be done before a send mail is requested by the client.

Top

POP send mail window (POPWDW)

Specifies the number of minutes to allow a client to send mail, using the SMTP server, to addresses other than a local address. The time starts for each client when the client logs on to the POP server to receive mail.

***SAME**

The value does not change if it was previously set; otherwise *NONE is used.

***NONE**

The clients will not be allowed to relay mail after logging on to the POP server.

15-65535

Specify the time interval, in minutes, after logging on to POP that the client can send relay mail using SMTP.

Top

Interface/domain association (IFCDMN)

Specifies whether SMTP should associate domains with specific interfaces.

***SAME**

The value for the IFCDMN parameter that was previously set does not change; otherwise, *NONE is used.

***NONE**

No domains will be associated with a specific interface. The local domain is associated with all interfaces.

***LIST** Use the association that is defined in the domain list. The domain list contains the IP address and the domain names that are associated with them. The domain list can be defined by using the System i5 Navigator SMTP properties pages or by using the ADDSMTPLE (Add SMTP List Entry) command and specifying *DOMAIN for the TYPE parameter.

Top

Filter mail for virus (FTRACN)

Allows mail to be scanned and either discarded or quarantined if a set of conditions are met. These conditions are:

- Subject comparison
- Filename/Extension comparison
- Type/Subtype in Content-Type comparison
- Originator's address

The Subject comparison records are defined by using System i5 Navigator SMTP properties pages or by using the Add SMTP List Entry (ADDSMTPLE) command with a value of *FTRSUBJECT.

The Filename/Extension records are defined by using System i5 Navigator SMTP properties pages or by using the ADDSMTPLE command with a value of *FTRFILENAME.

The Type/Subtype records are defined by using System i5 Navigator SMTP properties pages or by using the ADDSMTPLE command with a value of *FTRTYPE.

The Originator records are defined by using System i5 Navigator SMTP properties pages or by using the ADDSMTPLE command with a value of *FTRORIGIN.

***SAME**

Use the same value for FTRACN that was previously set; otherwise, *NONE is used.

***NONE**

No comparison will be made.

***KEEP**

Keep this message and move it to '/qtcptmm/frfiles' but do not send it if the comparison is made.

***DISCARD**

Discard this message if a comparison is made.

Top

Override reject connect list (OVRRJTCNNL)

Specifies whether the SMTP server will support a POP-before-mail authorization to override the reject connection list.

***SAME**

The value for the OVRRJTCNNL parameter that was previously set does not change; otherwise, *NO is used.

***YES** If the user is already logged on via POP, he is authorized to the server even if the userid is on the reject connection list.

***NO** The server will not authorize the user if he is on the reject connection list.

Top

Allow bare line feed (ALWBARELF)

Specifies whether the SMTP server will support bare linefeed (LF) instead of carriage return and linefeed (CRLF).

***SAME**

The value for the ALWBARELF parameter that was previously set does not change; otherwise, *YES is used.

***YES** The server will accept emails that contains either linefeed (LF) or carriage return and linefeed (CRLF). Bare linefeed is defined in RFC 2821. Setting this parameter to *YES will enforce this definition.

***NO** The server will accept email sent with carriage return and linefeed (CRLF). The server will reject email sent with only linefeed (LF).

Top

Verify identification (VFYID)

Specifies whether the SMTP server will verify whether the user is on the authorized list for email.

***SAME**

The value for the VFYID parameter that was previously set does not change; otherwise, *NO is used.

***NO** The server will permit any user to logon to SMTP.

***YES** The server will only permit users on the authorized list to logon to SMTP.

Top

Allow authentication (ALWAUTH)

Specifies whether the SMTP server will support transport layer security (TLS) and secure socket layer (SSL), and when authentication of the user will occur. If *RELAY or *LCLRLY is specified or in effect, the value specified for the **Allow relayed mail (ALWRLY)** parameter is ignored.

*SAME

The value for the ALWAUTH parameter that was previously set does not change; otherwise, *NONE is used.

*NONE

The server will not use TLS/SSL and no authentication will be done.

*RELAY

The server will allow relay mail through this server. The server will use TLS/SSL and authenticate only the relay.

*LCLRLY

The server will allow relay mail through this server. The server will use TLS/SSL and authenticate it locally and when using the relay.

Top

Verify MSF messages (VFYMSFMSG)

Specifies whether the SMTP server will allow the SMTP mail server framework (MSF) snap-ins functions to reject an email that is not verified. For backwards compatibility this will only be valid when the ALWAUTH parameter is set to *LCLRLY. If the email doesn't come from an authenticated source then the user that issued the QzmfCrtMailMsg() function must match the originator of the MSF message.

*SAME

The value for the VFYMSFMSG parameter that was previously set does not change; otherwise, *YES is used.

*YES The server will reject unverified MSF messages.

*NO The server will process all MSF messages.

Top

Verify from user (VFYFROMUSR)

Specifies whether the SMTP server will verify the Mail From: address to see if the user is in the System Distribution Directory (SDD) and if the email address matches. If there isn't a match, and *ALL or *LIST is specified or in effect for this parameter, the user will be rejected. For backwards compatibility this will only be valid when the ALWAUTH parameter is set to *LCLRLY.

*SAME

The value for the VFYFROMUSR parameter that was previously set does not change; otherwise, *ALL is used.

*ALL Verification will be done on all users.

*NONE

No verification of the users will be done.

*LIST The server will only verify users that are not on the accept list. The accept list is defined by the ADDSMTPLE TYPE(*ACCEPT) CL command.

Top

Forwarding mailhub server (FWDHUBSVR)

Specifies domain name of the SMTP server that this SMTP server should forward all non-local emails. This makes this SMTP server behave like a mailhub. If you do not want the mail forwarded, you must specify *NONE.

*SAME

The mailhub previously set does not change; otherwise, *NONE is used.

*NONE

No mail will be forwarded to another SMTP server.

character-value

Specify the fully qualified mail exchanger domain name of the SMTP server that non-local mail on the local system is to take first. If an IP address is specified instead of a domain name, it will not be resolved as a mail exchanger. Up to 255 characters can be specified.

Top

Examples

Example 1: Changing the POP Send Time to two Hours

```
CHGSMTPA  ALWRLY(*POPWDW)  POPWDW(120)
```

This command changes the SMTP attributes to allow a POP client to send mail using the local SMTP server to any remote address for 2 hours (120 minutes) after logging on to the POP server to check mail.

Example 2: Allow Relay for Addresses on List

```
CHGSMTPA  ALWRLY(*LIST)
```

This command changes the SMTP attributes to allow clients using IP address on a list to send relay mail.

Example 3: Require authentication for Relay

```
CHGSMTPA  ALWAUTH(*RELAY)
```

This command changes the SMTP attributes to authenticate the SMTP relay prior to accepting email forwarded from that relay.

Example 4: Require Users Not on List be Verified

```
CHGSMTPA  VFYFROMUSR(*LIST)
```

This command changes the SMTP attributes to require all emails not in the list defined in the ADDSMTPLE *ACCEPT CL command to have the username verified.

Top

Error messages

*ESCAPE Messages

CPF0011

Error detected by prompt override program.

TCP160B

Search list limited to six domain names.

TCP1901

Internet address &2 not valid.

TCP1903

Specified host name not valid.

TCP2432

User name exceeds maximum length of &1 bytes.

TCP2434

Specified user name not valid.

TCP2436

Configuration profile name required.

TCP261D

Process did not complete successfully

TCP264D

Error occurred processing file.

TCP499A

Error accessing configuration member.

TCP4993

CCSID parameter value &1 not valid.

TCP4994

CCSID parameter value &1 not found.

TCP8050

*IOSYSCFG authority required to use &1.

TCP9503

File &3 in library &2 not available.

TCP9999

Internal system error in program &1.

Top

Change TELNET Attributes (CHGTELNA)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Change TELNET Attributes (CHGTELNA) command is used to change configurable TELNET attributes. The changes take effect the next time the TELNET server is started either by the Start TCP/IP (STRTCP) command or by the Start TCP/IP Server (STRTCP SVR) command.

Note: The CHGTELNA command parameters are used by the TELNET server only; they are not used by the TELNET client. Many of these same parameters can be set for TELNET clients using the Start TCP/IP TELNET (STRTCP TELN) command or the TELNET client subcommands.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|------------|--|--|------------------------|
| AUTOSTART | Autostart server | *YES, *NO, <u>*SAME</u> | Optional, Positional 1 |
| NBR SVR | Number servers | 1-200, <u>*SAME</u> , *CALC | Optional |
| TIMMRKTIMO | Session keep alive timeout | 0-2147483647, <u>*SAME</u> , *CALC, *DFT | Optional |
| DFTNVTTYPE | Default NVT type | <u>*SAME</u> , *VT100, *NVT | Optional |
| CCSID | Coded character set identifier | 1-65533, <u>*SAME</u> , *MULTINAT, *BRITISH, *DUTCH, *FINNISH, *FRENCH, *FRENCHCAN, *GERMAN, *ITALIAN, *NORDAN, *SPANISH, *SWEDISH, *SWISS | Optional |
| TBLVTOUT | ASCII fullscreen mapping | Single values: <u>*SAME</u> , *CCSID, *DFT Other values: <i>Element list</i> | Optional |
| | Element 1: Outgoing EBCDIC/ASCII table | <i>Qualified object name</i> | |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , <u>*LIBL</u> , *CURLIB | |
| TBLVTIN | | Single values: <u>*SAME</u> , *CCSID, *DFT Other values: <i>Element list</i> | Optional |
| | Element 1: Incoming ASCII/EBCDIC table | <i>Qualified object name</i> | |
| | Qualifier 1: Incoming ASCII/EBCDIC table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , <u>*LIBL</u> , *CURLIB | |
| ALWSSL | Allow Secure Socket Layer | *YES, *NO, *ONLY, <u>*SAME</u> | Optional |

Top

Autostart server (AUTOSTART)

Specifies whether to automatically start the TELNET server when TCP/IP is started by the STRTCP command or STRTCP SVR SERVER(*AUTOSTART) command. If STRTCP SVR *TELNET is specified and the TELNET servers are already running, no additional jobs are started.

*SAME

The AUTOSTART value does not change if it was previously set. Otherwise, *YES is used.

***YES** Automatically start the TELNET server.

***NO** Do not automatically start the TELNET server.

Top

Number servers (NBR SVR)

Specifies the number of servers to start. TELNET has two types of server jobs 1) TELNET Server jobs and 2) Device Manager jobs. This number indicates the number of jobs started for the device manager server. Only a single TELNET Server job is started.

*SAME

The number of servers value does not change if it was previously set. Otherwise, *CALC is used.

***CALC**

The number of Device Manager jobs started will be determined by the system. For more information on how the *CALC value is calculated and considerations if you want to change this value, see the [TCP/IP Configuration and Reference](#) .

1-200 Specify the number of servers to start. For example, if you specify 6, six Device Manager jobs will be started. Only a single TELNET Server job will be started.

Top

Session keep alive timeout (TIMMRKTIMO)

Specifies the number of seconds between connection validation. TCP tests each TELNET connection at the specified time interval. If TCP does not get a response, it ends the connection.

This parameter determines how frequently the session connection is verified. A high value can result in a longer time before a lost connection gets detected. A lower value tests the session more frequently, but if set too low then normal network delays may result in connections being considered lost.

An explanation of keep alive can be found in the help information for command CHGTCPA parameter TCPKEEPALV. Note that TCPKEEPALV is defined in minutes, while TIMMRKTIMO is defined in seconds.

*SAME

The session keep alive value does not change if it was previously set. Otherwise, *CALC is used.

***CALC**

The session keep alive is based on the frequency of sampling.

***DFT** The default session keep alive value is set to 600 seconds.

0-2147483647

Specify the number of seconds for the session keep alive timeout. A value of 0 means that there is no timeout.

Top

Default NVT type (DFTNVTTYPE)

Specifies the default Network Virtual Terminal (NVT) type to be used when the TELNET server is not able to negotiate one of the supported types.

*SAME

The default NVT type does not change if it was previously set. Otherwise, *VT100 is used.

*VT100

The TELNET server defaults to VT100 mode when the server and client fail to negotiate one of the supported terminal types. The OS/400 server system operates as if the VT100 terminal type were negotiated.

***NVT** The TELNET server defaults to the network virtual terminal (NVT) mode when the server and client fail to negotiate one of the supported terminal types. NVT mode requires an application program written to interact with NVT workstation devices.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded character set identifier (CCSID) in use on the VTxxx terminal. CCSID is the default used by TELNET for ASCII full-screen mapping. The ASCII CCSID value is used to map between the EBCDIC CCSID of the job and the national replacement character set or the ASCII CCSID value selected with the CCSID parameter. This value is used by VTxxx users when they sign on the OS/400 system.

Outgoing and incoming mapping can optionally be done with mapping tables defined in the TBLVTOU and TBLVTIN parameters. Normally the TBLVTOU and TBLVTIN parameters are set to the default of *CCSID or *DFT. Both parameters indicate that the value used in the CCSID parameter is used for mapping. If a mapping table is to be used for outgoing mapping, a table object can be specified in the TBLVTOU parameter. The table object specified in the TBLVTOU parameter is used instead of the CCSID value.

Incoming mapping can be changed to use a mapping table by specifying a table object in the TBLVTIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

The national replacement character set special values allowed for the CCSID parameter are the Digital Equipment Corporation (DEC) standard character sets. A numeric CCSID value can be used optionally to identify the required ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. If a numeric CCSID value is chosen, it is validated to ensure it is a valid ASCII CCSID value that is available on the current system.

*SAME

The default CCSID value does not change if it was previously set. Otherwise, *MULTINAT is used.

*MULTINAT

The DEC multinational character set is in use.

*BRITISH

The DEC British national replacement character set is in use.

*DUTCH

The DEC Dutch national replacement character set is in use.

*FINNISH

The DEC Finnish national replacement character set is in use.

***FRENCH**

The DEC French national replacement character set is in use.

***FRENCHCAN**

The DEC French Canadian national replacement character set is in use.

***GERMAN**

The DEC German national replacement character set is in use.

***ITALIAN**

The DEC Italian national replacement character set is in use.

***NORDAN**

The DEC Norwegian/Danish national replacement character set is in use.

***SPANISH**

The DEC Spanish national replacement character set is in use.

***SWEDISH**

The DEC Swedish national replacement character set is in use.

***SWISS**

The DEC Swiss national replacement character set is in use.

1-65533

The requested CCSID value is used. This value is validated to ensure a valid ASCII CCSID was requested.

Note: Only ISO 7-bit and ISO 8-bit ASCII CCSID values can be specified.

Top

Outgoing EBCDIC/ASCII table (TBLVTOUT)

Specifies the outgoing mapping table used by the TELNET server to map outgoing data when in an ASCII full-screen session. All outgoing data is mapped from EBCDIC to ASCII.

If a table object is specified for the TBLVTOUT parameter, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used for outgoing mapping.

Single values

***SAME**

The default TBLVTOUT value does not change if it was previously set. Otherwise, *CCSID is used.

***CCSID**

The CCSID parameter is used to determine outgoing mapping.

***DFT**

The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the outgoing mapping table. This mapping table is used instead of the default mapping specified by the CCSID parameter.

Qualifier 2: Library

***LIBL**

All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLVTIN)

Specifies the incoming mapping table used by the TELNET server to map incoming data when in an ASCII full-screen session. All incoming data is mapped from ASCII to EBCDIC.

If a table object is specified for the TBLVTIN parameter, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used for incoming mapping.

Single values

***SAME**

The default TBLVTIN value does not change if it was previously set. Otherwise, *CCSID is used.

***CCSID**

The CCSID parameter is used to determine incoming mapping.

***DFT** The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the incoming mapping table. This mapping table is used instead of the default mapping specified by the CCSID parameter.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Allow Secure Socket Layer (ALWSSL)

Specifies whether Secure Socket Layer and non Secure Socket Layer support should be started.

***SAME**

The Allow Secure Socket Layer setting is not changed if it was previously set. Otherwise, *YES is used.

***YES** The Secure Socket Layer and non Secure Socket Layer support will be started.

***NO** The non Secure Socket Layer support will be started.

***ONLY**

The Secure Socket Layer support will be started.

Top

Examples

Example 1: Setting the Session Keep Alive Timeout

```
CHGTELNA  TIMMRKTIMO(600)
```

This command sets the session keep alive timeout to be 600 seconds. Each TELNET connection will be validated by TCP every 10 minutes. If TCP does not get a response, it ends the connection.

Example 2: Setting the TELNET Autostart Attribute

```
CHGTELNA  AUTOSTART(*NO)
```

This command sets the autostart attribute such that the TELNET server will not be started when TCP/IP is started by the STRTCP command or STRTCP SVR SERVER(*AUTOSTART) command.

Top

Error messages

*ESCAPE Messages

TCP8050

*IOSYSCFG authority required to use &1.

TCP9999

Internal system error in program &1.

Top

Change VT Keyboard Map (CHGV TMAP)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Change VT Keyboard Map (CHGV TMAP) command changes the keyboard mapping values to be used during a VT220 or VT100 TELNET server session. You can specify a maximum of four special values for each parameter. A special value cannot be used to specify more than one OS/400 function. Any parameter that is not specified when this command is run defaults to the current value.

The VT key values that can be specified for this command are:

| | |
|-------------|---|
| *BACKSPC | (Backspace) |
| *CSRDOWN | (Cursor Down) |
| *CSRLEFT | (Cursor Left) |
| *CSRRIGHT | (Cursor Right) |
| *CSRUP | (Cursor Up) |
| *CTLA-*CTLG | (Control-A through Control-G) |
| *CTLK-*CTLL | (Control-K through Control-L) |
| *CTLN-*CTLZ | (Control-N through Control-Z) |
| *CTLBSL | (Control-Backslash) |
| *CTLLBKT | (Control-Left Bracket) |
| *CTLQST | (Control-Question) |
| *CTLRBKT | (Control-Right Bracket) |
| *CTLSPC | (Control-Space) |
| *CTLTILDA | (Control-Tilda) |
| *DLT | (Delete) |
| *ESCA-*ESCZ | (Escape-A through Escape-Z, except for Escape-0) |
| *ESC0-*ESC9 | (Escape-0 through Escape-9) |
| *ESCAMP | (Escape-Ampersand) |
| *ESCAST | (Escape-Asterisk) |
| *ESCAT | (Escape-At) |
| *ESCCFX | (Escape-Circumflex) |
| *ESCDLT | (Escape-Delete) |
| *ESCDOLLAR | (Escape-Dollar) |
| *ESCEQ | (Escape-Equal) |
| *ESCEXCL | (Escape-Exclamation) |
| *ESCLF | (Escape-Line Feed) |
| *ESCLPAR | (Escape-Left Parenthesis) |
| *ESCMINUS | (Escape-Minus) |
| *ESCPCT | (Escape-Percent) |
| *ESCPLUS | (Escape-Plus) |
| *ESCPOUND | (Escape-Pound) |
| *ESCQST | (Escape-Question) |
| *ESCRPAR | (Escape-Right Parenthesis) |
| *ESCTAB | (Escape-Tab) |
| *ESCUS | (Escape-Underscore) |
| *FIND | (Find) |
| *F1-*F20 | (F1 through F20) |
| *INS | (Insert Here) |
| *LF | (Line Feed) |
| *NXTSCR | (Next Screen) |
| *PF1-*PF4 | (PF1 through PF4) |
| *PRVSCR | (Previous Screen) |
| *RETURN | (Return) |
| *RMV | (Remove) |
| *SELECT | (Select) |
| *TAB | (Tab) |

Note: Some VT100 and VT220 TELNET systems use Control-S and Control-Q to control flow. This is generally referred to as XON/XOFF flow control. If you are using a client system that has XON/XOFF enabled, do not use *CTLS and *CTLQ in your keyboard mapping.

Top

Parameters

| Keyword | Description | Choices | Notes |
|----------|-------------------------|--|----------|
| ATTN | 5250 Attention | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| HELP | 5250 Help | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| DOWN | Page Down (Roll Up) | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| UP | Page Up (Roll Down) | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| SYSREQ | System Request | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| INSERT | Insert | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| DELETE | Delete | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| ENTER | Enter | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| BACKSPC | Backspace | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| DUP | Duplicate | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| ERSINP | Erase Input | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| RESET | Error Reset | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDEXIT | Field Exit | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDMINUS | Field Minus | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| HOME | Home | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| NEWLINE | New Line | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| PRINT | Print | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDADV | Field Advance | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDBACK | Field Backspace | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRUP | Cursor Up | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRDOWN | Cursor Down | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRLEFT | Cursor Left | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRRIGHT | Cursor Right | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CLEAR | Clear Screen | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| TSTREQ | Test Request | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| TOGGLE | Toggle Indicator Lights | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| REDRAW | Redraw Screen | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F1 | F1 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F2 | F2 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F3 | F3 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F4 | F4 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F5 | F5 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F6 | F6 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F7 | F7 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F8 | F8 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F9 | F9 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F10 | F10 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F11 | F11 | Values (up to 4 repetitions): <i>Character value</i> | Optional |

| Keyword | Description | Choices | Notes |
|---------|-------------|--|----------|
| F12 | F12 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F13 | F13 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F14 | F14 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F15 | F15 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F16 | F16 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F17 | F17 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F18 | F18 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F19 | F19 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F20 | F20 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F21 | F21 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F22 | F22 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F23 | F23 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F24 | F24 | Values (up to 4 repetitions): <i>Character value</i> | Optional |

Top

5250 Attention (ATTN)

Specifies the VT keys to be mapped to the 5250 Attention key.

Top

5250 Help (HELP)

Specifies the VT keys to be mapped to the 5250 Help key.

Top

Page Down (Roll Up) (DOWN)

Specifies the VT keys to be mapped to the Page Down (Roll Up) key.

Top

Page Up (Roll Down) (UP)

Specifies the VT keys to be mapped to the Page Up (Roll Down) key.

Top

System Request (SYSREQ)

Specifies the VT keys to be mapped to the System Request key.

Top

Insert (INSERT)

Specifies the VT keys to be mapped to the 5250 Insert key.

[Top](#)

Delete (DELETE)

Specifies the VT keys to be mapped to the 5250 Delete key.

[Top](#)

Enter (ENTER)

Specifies the VT keys to be mapped to the Enter key.

[Top](#)

Backspace (BACKSPC)

Specifies the VT keys to be mapped to the Character Backspace key.

[Top](#)

Duplicate (DUP)

Specifies the VT keys to be mapped to the 5250 Duplicate key.

[Top](#)

Erase Input (ERSINP)

Specifies the VT keys to be mapped to the 5250 Erase Input key.

[Top](#)

Error Reset (RESET)

Specifies the VT keys to be mapped to the Error Reset key.

[Top](#)

Field Exit (FLDEXIT)

Specifies the VT keys to be mapped to the Field Exit key.

[Top](#)

Field Minus (FLDMINUS)

Specifies the VT keys to be mapped to the Field Minus key.

Home (HOME)

Specifies the VT keys to be mapped to the 5250 Cursor Home key.

New Line (NEWLINE)

Specifies the VT keys to be mapped to the 5250 New Line key.

Print (PRINT)

Specifies the VT keys to be mapped to the 5250 Print Screen key.

Field Advance (FLDADV)

Specifies the VT keys to be mapped to the Field Advance key.

Field Backspace (FLDBACK)

Specifies the VT keys to be mapped to the Field Backspace key.

Cursor Up (CSRUP)

Specifies the VT keys to be mapped to the Cursor Up (Up Arrow) key.

Cursor Down (CSRDOWN)

Specifies the VT keys to be mapped to the Cursor Down (Down Arrow) key.

Cursor Left (CSRLEFT)

Specifies the VT keys to be mapped to the Cursor Left (Left Arrow) key.

Cursor Right (CSRRIGHT)

Specifies the VT keys to be mapped to the Cursor Right (Right Arrow) key.

[Top](#)

Clear Screen (CLEAR)

Specifies the VT keys to be mapped to the Clear Screen key.

[Top](#)

Test Request (TSTREQ)

Specifies the VT keys to be mapped to the Test Request key.

[Top](#)

Toggle Indicator Lights (TOGGLE)

Specifies the VT keys that toggle the emulated indicator lights on the display station.

[Top](#)

Redraw Screen (REDRAW)

Specifies the VT keys that cause the current display to be redrawn.

[Top](#)

F1 (F1)

Specifies the VT F1 key to be mapped to the 5250 Function keys.

[Top](#)

F2 (F2)

Specifies the VT F2 key to be mapped to the 5250 Function keys.

[Top](#)

F3 (F3)

Specifies the VT F3 key to be mapped to the 5250 Function keys.

[Top](#)

F4 (F4)

Specifies the VT F4 key to be mapped to the 5250 Function keys.

F5 (F5)

Specifies the VT F5 key to be mapped to the 5250 Function keys.

F6 (F6)

Specifies the VT F6 key to be mapped to the 5250 Function keys.

F7 (F7)

Specifies the VT F7 key to be mapped to the 5250 Function keys.

F8 (F8)

Specifies the VT F8 key to be mapped to the 5250 Function keys.

F9 (F9)

Specifies the VT F9 key to be mapped to the 5250 Function keys.

F10 (F10)

Specifies the VT F10 key to be mapped to the 5250 Function keys.

F11 (F11)

Specifies the VT F11 key to be mapped to the 5250 Function keys.

F12 (F12)

Specifies the VT F12 key to be mapped to the 5250 Function keys.

F13 (F13)

Specifies the VT F13 key to be mapped to the 5250 Function keys.

[Top](#)

F14 (F14)

Specifies the VT F14 key to be mapped to the 5250 Function keys.

[Top](#)

F15 (F15)

Specifies the VT F15 key to be mapped to the 5250 Function keys.

[Top](#)

F16 (F16)

Specifies the VT F16 key to be mapped to the 5250 Function keys.

[Top](#)

F17 (F17)

Specifies the VT F17 key to be mapped to the 5250 Function keys.

[Top](#)

F18 (F18)

Specifies the VT F18 key to be mapped to the 5250 Function keys.

[Top](#)

F19 (F19)

Specifies the VT F19 key to be mapped to the 5250 Function keys.

[Top](#)

F20 (F20)

Specifies the VT F20 key to be mapped to the 5250 Function keys.

[Top](#)

F21 (F21)

Specifies the VT F21 key to be mapped to the 5250 Function keys.

F22 (F22)

Specifies the VT F22 key to be mapped to the 5250 Function keys.

F23 (F23)

Specifies the VT F23 key to be mapped to the 5250 Function keys.

F24 (F24)

Specifies the VT F24 key to be mapped to the 5250 Function keys.

Examples

```
CHGVTMAP DOWN(*F8) UP(*F7)
```

This command changes the VT key mapping for the 5250 Page Down (Roll Up) key to the F8 function key, and the 5250 Page Up (Roll Down) key to the F7 function key.

Error messages

*ESCAPE Messages

TCP1340

&1 command not allowed for this device.

TCP1341

Value &1 specified for multiple functions.

TCP1342

Value &1 is not valid.

TCP6B12

Internal system error occurred in program &1.

Convert SMTP Names (CVTNAMSMTP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Convert Name SMTP (CVTNAMSMTP) command is used to convert existing SMTP system alias names into System Distribution Directory entries. After this command is issued, the following is true:

- The Work with Names for SMTP (WRKNAMSMTP) command can no longer be used.
- SMTP system alias names must be maintained using the System Distribution Directory commands. (Use the Work with Directory Entries (WRKDIRE) command to access the System Distribution Directory commands.)
- Personal aliases can no longer be used.

The amount of time the conversion takes depends on the number of SMTP names that exist. If there are a large number of SMTP names, it is recommended that the conversion be done in batch.

Warning:

The conversion that is made by CVTNAMSMTP is **not** reversible. Once the conversion is complete, the System Distribution Directory **must** be used to maintain SMTP system alias names.

There are no parameters for this command.

[Top](#)

Parameters

None

[Top](#)

Examples

None

[Top](#)

Error messages

None

[Top](#)

Display VT Keyboard Map (DSPVTMAP)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

The Display VT Keyboard Map (DSPVTMAP) command displays the current values for the keyboard mapping of your TELNET VT100 or VT220 session.

There are no parameters for this command.

[Top](#)

Parameters

None

[Top](#)

Examples

DSPVTMAP

This command displays the current VT100 or VT220 keyboard mapping.

[Top](#)

Error messages

*ESCAPE Messages

TCP1340

&1 command not allowed for this device.

TCP6B12

Internal system error occurred in program &1.

[Top](#)

Start TCP/IP File Transfer (FTP)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Start TCP/IP File Transfer Protocol (STRTCPF) command is used to start the File Transfer Protocol (FTP) client application that transfers files between systems using the Transmission Control Protocol/Internet Protocol (TCP/IP). FTP is an application protocol used for transferring files to and from a remote system. FTP requires a user ID, and in some cases a password, to gain access to files on a remote system.

Mapping Parameters: Mapping of data is used for all data (for example, user data and protocol data information) between the local and remote systems, except when the EBCDIC subcommand or the BINARY subcommand is in effect. In these cases, mapping of user file data is not done.

The Change FTP Attributes (CHGFTP) command can be used to specify server mapping tables for FTP.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|--|---|------------------------|
| RMTSYS | Remote system | Character value, *INTNETADR | Required, Positional 1 |
| INTNETADR | Internet address | Character value | Optional |
| CCSID | Coded character set identifier | 1-65533, *DFT | Optional |
| PORT | Port | 1-65535, *DFT, *SECURE | Optional |
| SECCNN | Secure connection | *DFT, *NONE, *SSL, *IMPLICIT | Optional |
| DTAPROT | Data protection | *DFT, *CLEAR, *PRIVATE | Optional |
| TBLFTPOUT | Outgoing EBCDIC/ASCII table | Single values: *CCSID, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |
| TBLFTPIN | Incoming ASCII/EBCDIC table | Single values: *CCSID, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming ASCII/EBCDIC table | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |

Top

Remote system (RMTSYS)

Specifies the remote system name to which or from which the files are transferred. To be successful, the remote system name must be valid, and the system must be able to communicate with the local system. The user can assign names to an internet address with the Work with TCP/IP host table entries option on the Configure TCP/IP menu (CFGTCP command). Also, a remote name server can be used to map remote system names to internet addresses. You can use the Change remote name server option on the CFGTCP menu to specify a remote name server.

*INTNETADR

The INTNETADR parameter is prompted.

character-value

Specify the remote system name to which or from which the file transfer takes place.

Top

Internet address (INTNETADR)

Specifies the IPv4 or IPv6 internet address of the remote system to which the file transfer application is started.

An IPv4 internet address is specified in the form *nnn.nnn.nnn.nnn*, where *nnn* is a decimal number ranging from 0 through 255. An IPv4 Internet address is not valid if it has a value of all binary ones or all binary zeros for the network identifier (ID) portion or the host ID portion of the address.

An IPv6 internet address is specified in the form *xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx*, where each x is a hexadecimal digit representing 4 bits. A hexadecimal digit is a number from 0 to 9 or the letter A, B, C, D, E, or F. A "::<" may be used once in the IPv6 address to indicate one or more groups of 16 bits of zeros. The "::<" may be used to compress leading, imbedded, or trailing zeros in the address.

If the internet address is entered from a command line, the address must be enclosed in apostrophes.

character-value

Specify the internet address of the remote system.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded character set identifier (CCSID) that is used for single-byte character set (SBCS) ASCII file transfers when the FTP TYPE mode is set to ASCII. ASCII file transfers are also assumed when no TYPE subcommand has been issued. The CCSID value chosen is the default used by the FTP client for ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. Mapping is determined using the specified ASCII CCSID and the EBCDIC CCSID of the job.

Outgoing and incoming mapping can be done optionally with mapping tables defined in the TBLFTPOUT and TBLFTPIN parameters. Normally the TBLFTPOUT and TBLFTPIN parameters are set to the default of *CCSID or *DFT. Both parameters indicate that the value used in the CCSID parameter is used for mapping. If a mapping table is to be used for outgoing mapping, a table object can be specified in the TBLFTPOUT parameter. The table object specified in the TBLFTPOUT parameter is used instead of the CCSID value.

Incoming mapping can be changed to use a mapping table by specifying a table object in the TBLFTPIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

Double-byte character set (DBCS) CCSID values are not permitted for this parameter. DBCS values can be specified using the TYPE subcommand.

Note: IBM includes mapping support in FTP to ensure compatibility with releases prior to V3R1. Use of mapping tables for incoming TYPE A file transfers results in the loss of CCSID tagging if the target file must be created. IBM strongly recommends that you use CCSID support for normal operations.

***DFT** The CCSID value 00819 (ISO 8859-1 8-bit ASCII) is used.

1-65533

Specify the CCSID value to be used. This value is validated to ensure a valid SBCS CCSID was requested.

The TBLFTPOUT and TBLFTPIN parameters are used to specify user-defined incoming and outgoing mapping tables. The user-defined mapping tables replace the mapping done by the FTP client when the CCSID parameter is specified.

Top

Port (PORT)

Specifies the port number to be used for connecting to the FTP server.

Normally the "well-known" port value of 21 is used to connect to the FTP server. Under some circumstances, the FTP server may be contacted at a port other than port 21. In those situations, the port parameter may be used to specify the server port to connect to.

Note: The FTP client subcommands OPEN and SECOPEN each have an optional 'port' parameter which may be used to specify a port other than port 21.

***DFT** The value 00021 is used.

***SECURE**

The value 00990 is used. Port 990 is reserved for secure FTP servers which immediately use Transport Layer Security (TLS) or Secure Sockets Layer (SSL) protocols to encrypt data.

1-65535

The requested port value is used. This value is validated to ensure it is in the proper range.

Note: If 990 is specified, the FTP client will perform the same functions as if *SECURE were specified.

Top

Secure connection (SECENN)

Specifies the type of security mechanism to be used for protecting information transferred on the FTP control connection (which includes the password used to authenticate the session with the FTP server). Transport Layer Security (TLS) and Secure Sockets Layer (SSL) are compatible protocols which use encryption to protect data from being viewed during transmission and verify that data loss or corruption does not occur.

Note: The FTP client subcommand SECOPEN can be used to open a protected FTP connection during an FTP client session.

***DFT** If the PORT parameter specifies *SECURE or 990, *IMPLICIT is used; otherwise, *NONE is used.

***IMPLICIT**

The FTP client immediately attempts to use TLS/SSL when connecting to the specified FTP server

(without sending an AUTH subcommand to the server). If the server does not support implicit TLS/SSL on the specified port, or the TLS/SSL negotiation fails for any reason, the connection is closed.

***SSL** After connecting to the specified FTP server, the FTP client sends an AUTH (authorization) subcommand requesting a TLS/SSL protected session. If the server supports TLS/SSL, a TLS/SSL negotiation performed. If the server does not support TLS/SSL or the TLS/SSL negotiation fails, the connection is closed.

***NONE**

The FTP client does not use encryption when connecting to the specified FTP server.

Top

Data protection (DTAPROT)

Specifies the type of data protection to be used for information transferred on the FTP data connection. This connection is used to transfer file data and directory listings. The FTP protocol does not allow protection of the data connection if the control connection is not protected.

Note: The DTAPROT parameter controls the use of the PROT (protection) FTP server subcommand. The FTP client subcommand SECDATA can be used to change protection for specific FTP data connections during an FTP client session.

***DFT** If the SECCNN parameter specifies a protected control connection, *PRIVATE is used; otherwise, *CLEAR is used.

***PRIVATE**

Information sent on the FTP data connection is encrypted.

Note: If the SECCNN parameter specifies that the FTP control connection is not encrypted, *PRIVATE cannot be specified.

***CLEAR**

Information sent on the FTP data connection is not encrypted.

Top

Outgoing ASCII/EBCDIC table (TBLFTPOUT)

Specifies the table object that is to be used to map all outgoing data in the FTP client. Outgoing data is mapped from EBCDIC to ASCII.

If a table object is specified for TBLFTPOUT, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

***CCSID**

The CCSID parameter is used to determine outgoing mapping.

***DFT**

The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the table object to be used by the FTP client for mapping outgoing data.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLFTPIN)

Specifies the table object that is to be used to map all incoming data in the FTP client. Incoming data is mapped from ASCII to EBCDIC.

If a table object is specified for TBLFTPIN, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping

Single values

***CCSID**

The CCSID parameter is used to determine incoming mapping.

***DFT** The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the table object to be used by the FTP client for mapping incoming data.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Examples

Example 1: Starting FTP to an IPv4 Internet Address

```
STRTCPFTP RMTSYS(*INTNETADR) INTNETADR('1.2.3.4')
```

This command starts the FTP client to the system specified by IPv4 address '1.2.3.4'.

Example 2: Starting FTP to an IPv6 Internet Address

```
STRTCPFTP RMTSYS(*INTNETADR) INTNETADR('2001:D88::1')
```

This command starts the FTP client to the system specified by IPv6 address '2001:D88::1'.

[Top](#)

Error messages

None

[Top](#)

Send TCP/IP Spooled File (LPR)

Where allowed to run: All environments (*ALL)
 Threadsafes: No

Parameters
 Examples
 Error messages

The Send TCP/IP Spooled File (SNDTCPSPLF) command sends a spooled file to be printed on a remote system. The remote system must be running TCP/IP. The SNDTCPSPLF command is the System i version of the TCP/IP LPR (Line Printer Requester) command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|------------|---|--|------------------------|
| RMTSYS | Remote system | Character value, *INTNETADR | Required, Positional 1 |
| PRTQ | Printer queue | Character value | Required, Positional 2 |
| FILE | Spooled file | Name | Required, Positional 3 |
| JOB | Job name | Single values: * Other values: <i>Qualified job name</i> | Optional |
| | Qualifier 1: Job name | Name | |
| | Qualifier 2: User | Name | |
| | Qualifier 3: Number | 000000-999999 | |
| SPLNBR | Spooled file number | 0-999999, *ONLY, *LAST, *ANY | Optional |
| JOBSYSNAME | Job system name | Name, *ONLY, *CURRENT, *ANY | Optional |
| CRTDATE | Spooled file created | Single values: *ONLY, *LAST Other values: <i>Element list</i> | Optional |
| | Element 1: Creation date | Date | |
| | Element 2: Creation time | Time, *ONLY, *LAST | |
| DESTTYP | Destination type | *AS400, *PSF2, *OTHER | Optional |
| TRANSFORM | Transform SCS to ASCII | *YES, *NO | Optional |
| USRDTATFM | User data transform | Single values: *NONE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: User data transform | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |
| MFRTYPMDL | Manufacturer type and model | Character value, *IBM42011 | Optional |
| INTNETADR | Internet address | Character value | Optional |
| WSCST | Workstation customizing object | Single values: *NONE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Workstation customizing object | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |
| DLTSPLF | Delete file after sending | *NO, *YES | Optional |

| Keyword | Description | Choices | Notes |
|---------|-------------------------------|------------------------|----------|
| DESTOPT | Destination-dependent options | <i>Character value</i> | Optional |
| SEPPAGE | Print separator page | *NO, *YES | Optional |

Top

Remote system (RMTSYS)

Specifies the remote system name to which the print request is sent.

To be successful, the name must be valid, and the system must be able to communicate with the local system. You can assign names to an internet address. Use the **Work with TCP/IP host table entries** option on the Configure TCP/IP menu (CFGTCP command). A remote name server also maps remote system names to internet addresses. You can use the **Change remote name server** option on the CFGTCP menu to specify a remote name server.

*INTNETADR

The value of the INTNETADR parameter is used.

character-value

Specify the remote system name to which the print request is sent.

Top

Printer queue (PRTQ)

Specifies the destination printer queue to be used.

character-value

Specify the name of the destination printer queue to be used. For destination systems that are System i systems, this is the name of an output queue to which the spooled file is sent.

If a library name qualifier is not specified, the library list of the sending user ID on the destination system is searched. If not found or not authorized, QGPL/QPRINT is used as the default. The output queue is usually specified as library name/output queue name (for example, QGPL/OUTQ1). For destination systems that are not System i systems, this name is system-dependent. This name can be either the actual name of the device or the name of a printer queue for the device. The name used for the OS/2 operating system is the actual name of the device. Often, the name used for the UNIX operating system is the name of the printer queue for the device. This parameter is limited to 128 characters.

Note: On some systems, the printer queue name may be case sensitive. To preserve the lowercase letters in a printer queue name, enclose the printer queue name in apostrophes 'MyPrtQ'.

Top

Spooled file (FILE)

Specifies the spooled file that is sent to the specified system and printer. The file name is the same file name that is displayed with the Work with Spooled File (WRKSPLF) command.

name Specify the name of the spooled file to be sent.

Top

Job name (JOB)

Specifies the job that created the spooled file to be sent.

Single values

***** The job that issued this command is the job that created the spooled file.

Qualifier 1: Job name

name Specify the name of the job that created the spooled file.

Qualifier 2: User

name Specify the user name of the job that created the spooled file.

Qualifier 3: Number

000000-999999

Specify the job number of the job that created the spooled file.

Note: If no job number or user name is given, all jobs currently running on the system are searched for a match against the job name.

Top

Spooled file number (SPLNBR)

Specifies the number of the spooled file from the job whose data records are to be sent.

*ONLY

One spooled file from the job has the specified file name. The number of the spooled file is not necessary. If *ONLY is specified and more than one spooled file has the specified file name, an error message is sent.

*LAST

The spooled file with the highest number and the specified file name is used.

0-999999

Specify the number of the spooled file having the specified file name whose data records are to be sent.

Top

Job system name (JOBSYSNAME)

Specifies the system from which the job that created the spooled file was ran on.

*ONLY

One spooled file from the job with the specified job name, user name, job number, spooled file create date and spooled file create time. If *ONLY is specified and more than one spooled file has the specified information listed above, an error message is sent.

*CURRENT

The job on the current system with the specified job name, user name, job number, spooled file create date and spooled file create time.

name Specify the name of the system where the job ran that created the spooled file.

Top

Spooled file created (CRTDATE)

Specifies the date the spooled file was created on the system. This parameter is considered after the job name, user name, job number, spooled file name, spooled file number, and job system name parameter requirements have been met.

Single values

*ONLY

There is only one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, and job system name.

*LAST

The spooled file with the latest date and time which also has the specified job name, user name, job number, spooled file name, spooled file number, and job system name is used.

Element 1: Creation date

date Specify the date the spooled file was created.

Element 2: Creation time

The spooled file create time is the time the spooled file was created on the system. This parameter must have a value set if a date is specified for the first element of this parameter. This create time is considered after the job name, user name, job number, spooled file name, spooled file number, job system name, and spooled file create date requirements have been met.

*ONLY

There is only one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, job system name, and create date.

*LAST

The spooled file with the latest time which also has the specified job name, user name, job number, spooled file name, spooled file number, job system name, and create date is used.

time Specify the time the spooled file was created.

Top

Destination type (DESTTYP)

Specifies the type of destination system to which the spooled file is being sent. This information allows the SNDTCPSPLF command to send the file in a format that is most likely to be received and processed correctly on the destination system. When sending to another System i system, this parameter should be *AS400.

*OTHER

The destination system is not an System i system and is not using Print Services Facility/2.

*AS400

The destination system is an System i system. If TRANSFORM(*NO) is specified, a duplicate of the spooled file is created on the destination system. If the spooled file is *SCS or *AFPDS and TRANSFORM(*YES) is specified, the spooled file is transformed to ASCII and spooled as *USERASCII on the destination System i system.

*PSF2 The destination system is using Print Services Facility/2. This destination system can receive both ASCII data and Advanced Function Printer data stream (AFPDS) data. This means that in addition to sending ASCII data to a PSF/2, you can also send a spooled file of device type

*AFPDS. When sending *AFPDS files, you must consider any external resources of the file. These resources, such as fonts and overlays, must also reside on the destination system to allow the file to print correctly.

Top

Transform SCS to ASCII (TRANSFORM)

Specifies whether or not to make use of the host print transform function to transform a SNA character string (SCS) or Advanced Function Printing data stream (AFPDS) into ASCII data.

Note: If you specify TRANSFORM(*YES), you cannot use the USRDTATFM parameter.

***YES** Use the host print transform.

***NO** Do not use the host print transform.

Top

User data transform (USRDTATFM)

Specifies the program that is used to transform the spooled file data. User data transform programs must be written to the Writer Transform Exit Program interface. For information on this interface, see the APIs topic collection in the Programming category in the i5/OS Information Center at <http://www.ibm.com/systems/i/infocenter/>.

Single values

***NONE**
No data transform program is specified.

Qualifier 1: User data transform

name Specify the name of the data transform program.

Qualifier 2: Library

***LIBL** All libraries in the job's library list are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Manufacturer type and model (MFRTYPMDL)

Specifies the manufacturer, type, and model for a printer using the host print transform function.

If the **Workstation customizing object (WSCST)** parameter is used in conjunction with the MFRTYPMDL parameter, information that is specified in the workstation customization object takes precedence over the MFRTYPMDL parameter.

***IBM42011**
The IBM 4201-1 Proprinter is used.

manufacturer-type-model

Specify the manufacturer, type, and model for a printer using the host print transform function. Specify one of the values that matches the device. Refer to the MFRTYPMDL parameter documentation for the Create Device Description (Printer) (CRTDEVPRT) command for a description of possible values.

***WSCST**

The value of the WSCST parameter is used.

Top

Internet address (INTNETADR)

Specifies the internet address of the remote system to which the print request is sent.

This parameter is accessed by entering *INTNETADR for the RMTSYS parameter or by leaving the RMTSYS parameter blank and pressing the Enter key.

character-value

Specify the internet address of the remote system. The internet address is specified in the form, *nnn.nnn.nnn.nnn*, where *nnn* is a decimal number ranging from 0 through 255. An internet address is not valid if it has a value of all binary ones or all binary zeros for the network identifier (ID) portion or the host ID portion of the address. If the internet address is entered from a command line, the address must be enclosed in apostrophes.

Top

Workstation customizing object (WSCST)

Specifies an object that consists of a table of attributes used to customize a given ASCII device, such as a workstation or printer. Character presentation, font specifications, and control key sequences are examples of characteristics that can be customized.

If the **Manufacturer type and model (MFRTYPMDL)** parameter is used in conjunction with the WSCST parameter, information that is specified in the workstation customization object takes precedence over the MFRTYPMDL parameter.

Single values

***NONE**

Do not specify a workstation customizing object.

Qualifier 1: Workstation customizing object

name Specify the name of a workstation customizing object that was created with the Create Work Station Customizing Object (CRTWSCST) command.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Delete file after sending (DLTSPLF)

Specifies whether or not to delete the specified spooled file after it has been successfully sent. No guarantee can be made as to the correct printing of the sent file. Only correct transmission can be verified.

***NO** Do not delete the spooled file after it has been successfully sent.

***YES** Delete the spooled file after it has been successfully sent.

Destination-dependent options (DESTOPT)

Specifies the destination-dependent options. These options may be specific to a particular implementation of an LPD print server. When this parameter is not specified, the SNDTCPSPLF command sends default options that are common to all LPD print servers. The options specified by this parameter are inserted into the control file generated by the SNDTCPSPLF command, one option per line, and sent to the specified LPD print server. The options specified by this parameter must have the following format:

```
"option1 option2 option3...optionN"
```

where each option is separated from the next by one or more blanks.

Options typically have a format of <control characters><value>. An example is

```
"-oTITLE=LPR"
```

where "-o" are the control characters and "TITLE=LPR" is the value. SNDTCPSPLF examines the first character of each option to determine if it is a reserved control character. The following control characters cannot be specified as their values are determined by SNDTCPSPLF. If any of the following control characters are specified, the option is ignored and a warning message is generated.

| | |
|---|---|
| C | T |
| H | U |
| I | W |
| L | 1 |
| M | 2 |
| N | 3 |
| P | 4 |
| S | k |

For example, "Class=ASCII" is not allowed because the "C" control character is reserved for use by the SNDTCPSPLF command. However, "-Class=ASCII" is permitted.

The control character "X" is allowed, but the value of "AS/400" used with it is not permitted. For example, "XMyLPD" can be specified, but "XAS/400" cannot be. The option "XAS/400" is reserved for use by the SNDTCPSPLF command. It is used to indicate to another System i system that the request is coming from an System i system.

The option "XAIX" controls how multiple copies are sent to the printer. This option specifies that the data and control files are to be sent multiple times, once for each copy. The default is to send the data and control files once, with multiple print commands in the control file.

The following print "filters" are supported by SNDTCPSPLF (see section 7 of RFC 1179):

| | |
|---|---|
| c | n |
| d | p |
| f | r |
| g | t |
| l | v |

If one of these characters is specified as the first character in a destination option, the character is used on the "print file" command in the control file. Only the first occurrence of one of these characters in this position is used in the control file. Subsequent use of these characters in this position is ignored. If none of these options is specified, the default character "l" is used on the "print file" command, which prints the file "as is" without filtering out any control characters.

If "J" is specified as the first character of a destination option, the remaining characters in the option are used to override the default job name for the banner page (see RFC 1179, section 7.4). For instance, to specify a job name of /nff, specify:

```
DESTOPT('J/nff')
```

Only the first occurrence of this option is used to override the job name. If this option is not specified, the spooled file name is used as the job name (the default).

You can enable an auto-queue option by using the destination dependent option XAUTOQ on the SNDTCPSPLF command (or on the CRTOUTQ or CHGOUTQ commands). When you use the auto-queue option, files are sent as before unless the remote system times out during the transform. If this happens, the transformed spool files are sent back to the same output queue using the System i LPD server. When a remote writer is running, it will then send the transformed spooled file to the remote system.

character-value

Specify the destination-dependent options.

Top

Print separator page (SEPPAGE)

Specifies whether or not a separator page is requested when the spooled file is printed on the remote system.

Note: A separator page may not be printed in all cases. Printing of separator pages depends on whether the LPD implementation on the receiving system honors the separator page request. Some LPD implementations ignore the SEPPAGE parameter and print or do not print a separator page by default.

***YES** Request a separator page.

***NO** Do not request a separator page.

Top

Examples

None

Top

Error messages

*ESCAPE Messages

TCP3701

Send request failed for spooled file &1.

TCP3702

Not authorized to spooled file &1.

TCP3703

Send request failed. Spooled file &1 open.

TCP3704

Send request failed. Spooled file &1 not spooled print file.

TCP3705

Spooled file &1 not transformed.

TCP3706

Spooled file &1 not transformed.

TCP3715

Not authorized to delete spooled file &1. The spooled file was sent.

Top

Remove SMTP List Entry (RMVSMTPLE)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Remove SMTP List Entry (RMVSMTPLE) command is used to remove elements from SMTP configuration lists. These lists may be enabled or disabled using the Change SMTP Attributes (CHGSMTPA) command or from the SMTP Properties panel in System i5 Navigator. The changes take effect the next time the SMTP server is started either by the Start TCP/IP (STRTCP) command or by the Start TCP/IP Server (STRTCPSVR) command.

Restrictions:

- You must have input/output system configuration (*IOSYSCFG) special authority to use this command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|------------|------------------|--|------------------------|
| TYPE | List type | *ACCEPT, *REJECT, *NEAR, *DOMAIN, *SVRBIND, *CLTBIND, *ETRNSVR, *FTRSUBJECT, *FTRORIGIN, *FTRFILENAME, *FTRTYPE, *HOSTAUTH | Required, Positional 1 |
| INTNETADR | Internet address | Character value | Optional |
| SUBNETMASK | Subnet mask | Character value, '255.255.255.255' | Optional |
| HOSTNAME | Host name | Character value | Optional |
| FTRDATA | Filter data | Character value | Optional |

Top

List type (TYPE)

Specifies which list to remove the element from.

*ACCEPT

Removes the selected IPv4 item from the Accept Relay list. Parameters valid with this value are INTNETADR and SUBNETMASK.

*REJECT

Removes the selected IPv4 item from the Reject Relay list. Parameters valid with this value are INTNETADR and SUBNETMASK.

*NEAR

Removes the selected item from the Near Domain list. Parameter valid with this value is HOSTNAME.

*DOMAIN

Removes the selected IPv4 item from the Domains list. Parameters valid with this value are HOSTNAME, and INTNETADR.

***SVRBIND**

Removes the selected IPv4 item from the Server Bind list. Parameter valid with this value is INTNETADR.

***CLTBIND**

Removes the selected IPv4 item from the Client Bind list. Parameter valid with this value is INTNETADR.

***ETRNSVR**

Removes the selected item from the ETRN Server list. Parameter valid with this value is HOSTNAME.

***FTRSUBJECT**

Removes the selected item from the Subject comparison list. Parameter valid with this value is FTRDATA.

***FTRORIGIN**

Removes the selected item from the Originator's address comparison list. Parameter valid with this value is FTRDATA.

***FTRFILENAME**

Removes the selected item from the Filename / extension comparison list. Parameter valid with this value is FTRDATA.

***FTRTYPE**

Removes the selected item from the Type / subtype comparison list. Parameter valid with this value is FTRDATA.

***HOSTAUTH**

Removes the selected item from the Host logon comparison list. Parameter valid with this value is HOSTNAME.

***ACCEPTIP6**

Removes the selected IPv6 item from the Accept Relay list. Parameter valid with this value is IP6PFX.

***REJECTIP6**

Removes the selected IPv6 item from the Reject Relay list. Parameter valid with this value is IP6PFX.

***DOMAINIP6**

Removes the selected IPv6 item from the Domains list. Parameters valid with this value are IP6NETADR and HOSTNAME.

***SVRBINDIP6**

Removes the selected IPv6 item from the Server Bind list. Parameter valid with this value is IP6NETADR.

***CLTBINDIP6**

Removes the selected IPv6 item from the Client Bind list. Parameter valid with this value is IP6NETADR.

Top

IPv4 address (INTNETADR)

Specifies the internet address to remove from the specified list. This address should be in dotted decimal format. Up to 15 characters can be specified.

Top

Subnet mask (SUBNETMASK)

Specifies the mask to use with the internet address.

255.255.255.255

This value selects only a single address value.

subnet-mask

The mask to use with the internet address. Up to 15 characters can be specified. Valid mask values are 128.0.0.0 - 255.255.255.255

Top

Host name (HOSTNAME)

Specifies the host name to remove from the list. Up to 255 characters can be specified.

Top

Filter data (FTRDATA)

Specifies the data to remove from matching when filtering. Up to 512 characters can be specified.

Top

Examples

Example 1: Removing an Element from the Accept Relay List

```
RMVSMTPL E   TYPE(*ACCEPT)  INTNETADR('1.2.3.4')
```

This command removes the address 1.2.3.4 with netmask 255.255.255.255. This means that this address can NOT be used to connect to the SMTP server to relay mail to another server.

Example 2: Removing an Element from the Subject Filter List

```
RMVSMTPL E   TYPE(*FTRSUBJECT)  FTRDATA('Love you.')
```

This command removes an element from the Subject Filter list. Mail will NOT be checked for the subject 'Love you.'

Example 3: Removing an Element from the Host Authentication List

```
RMVSMTPL E   TYPE(*HOSTAUTH)  HOSTNAME('xyz.com')
```

This command removes an element from the Host logon list. The SMTP server will not be able to logon to the host 'xyz.com'.

Example 4: Removing a single IPv6 Element from the Accept Relay List

```
RMVSMTPL E   TYPE(*ACCEPTIP6)  IP6PFX('2001:DB8::1')
```

This command removes the IPv6 address 2001:DB8::1 from the accept relay list.

Example 5: Removing a IPv6 prefix Element from the Accept Relay List

```
RMVSMTPLE TYPE(*ACCEPTIP6) IP6PFX('2001:DB8::/32')
```

This command removes the IPv6 prefix 2001:DB8::/32 from the accept relay list.

Example 6: Removing a IPv6 address Element from the Server Bind List

```
RMVSMTPLE TYPE(*SVRBINDIP6) IP6NETADR('2001:DB8::1')
```

This command removes the IPv6 address 2001:DB8::1 from the server bind list.

Top

Error messages

*ESCAPE Messages

TCP1901

Internet address &2 not valid.

TCP1903

Specified host name not valid.

TCP264F

SUBNETMASK parameter value &2 not valid.

TCP265F

INTNETADR parameter value &2 not valid.

TCP8050

*IOSYSCFG authority required to use &1.

TCP96AD

Entry not found in SMTP list type &1.

CPF9847

Error occurred while closing file &1 in library &2.

CPF9848

Cannot open file &1 in library &2 member &3.

CPF9849

Error while processing file &1 in library &2 member &3.

Top

Set VT Keyboard Map (SETVTMAP)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Set VT Keyboard Map (SETVTMAP) command changes the keyboard mapping values to be used during a TELNET VT100 or VT220 server session. A value cannot be used to specify more than one OS/400 function. Any parameter not specified when this command is run defaults to the original system value.

The VT key values that can be specified for this command are:

| | |
|-------------|---|
| *BACKSPC | (Backspace) |
| *CSRDOWN | (Cursor Down) |
| *CSRLEFT | (Cursor Left) |
| *CSRRIGHT | (Cursor Right) |
| *CSRUP | (Cursor Up) |
| *CTLA-*CTLG | (Control-A through Control-G) |
| *CTLK-*CTLL | (Control-K through Control-L) |
| *CTLN-*CTLZ | (Control-N through Control-Z) |
| *CTLBSL | (Control-Backslash) |
| *CTLLBKT | (Control-Left Bracket) |
| *CTLQST | (Control-Question) |
| *CTLRBKT | (Control-Right Bracket) |
| *CTLSPC | (Control-Space) |
| *CTLTILDA | (Control-Tilda) |
| *DLT | (Delete) |
| *ESCA-*ESCZ | (Escape-A through Escape-Z, except for Escape-0) |
| *ESC0-*ESC9 | (Escape-0 through Escape-9) |
| *ESCOMP | (Escape-Ampersand) |
| *ESCAST | (Escape-Asterisk) |
| *ESCAT | (Escape-At) |
| *ESCCFX | (Escape-Circumflex) |
| *ESCDLT | (Escape-Delete) |
| *ESCDOLLAR | (Escape-Dollar) |
| *ESCEQ | (Escape-Equal) |
| *ESCEXCL | (Escape-Exclamation) |
| *ESCLF | (Escape-Line Feed) |
| *ESCLPAR | (Escape-Left Parenthesis) |
| *ESCMINUS | (Escape-Minus) |
| *ESCPCT | (Escape-Percent) |
| *ESCPLUS | (Escape-Plus) |
| *ESCPOUND | (Escape-Pound) |
| *ESCQST | (Escape-Question) |
| *ESCRPAR | (Escape-Right Parenthesis) |
| *ESCTAB | (Escape-Tab) |
| *ESCUS | (Escape-Underscore) |
| *FIND | (Find) |
| *F1-*F20 | (F1 through F20) |
| *INS | (Insert Here) |
| *LF | (Line Feed) |
| *NXTSCR | (Next Screen) |
| *PF1-*PF4 | (PF1 through PF4) |
| *PRVSCR | (Previous Screen) |
| *RETURN | (Return) |
| *RMV | (Remove) |
| *SELECT | (Select) |
| *TAB | (Tab) |

Note: Some VT100 and VT220 TELNET systems use Control-S and Control-Q to control flow. This is generally referred to as XON/XOFF flow control. If you are using a client system that has XON/XOFF enabled, do not use *CTLS and *CTLQ in your keyboard mapping.

Top

Parameters

| Keyword | Description | Choices | Notes |
|----------|-------------------------|--|----------|
| ATTN | 5250 Attention | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| HELP | 5250 Help | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| DOWN | Page Down (Roll Up) | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| UP | Page Up (Roll Down) | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| SYSREQ | System Request | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| INSERT | Insert | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| DELETE | Delete | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| ENTER | Enter | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| BACKSPC | Backspace | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| DUP | Duplicate | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| ERSINP | Erase Input | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| RESET | Error Reset | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDEXIT | Field Exit | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDMINUS | Field Minus | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| HOME | Home | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| NEWLINE | New Line | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| PRINT | Print | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDADV | Field Advance | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| FLDBACK | Field Backspace | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRUP | Cursor Up | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRDOWN | Cursor Down | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRLEFT | Cursor Left | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CSRRIGHT | Cursor Right | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| CLEAR | Clear Screen | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| TSTREQ | Test Request | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| TOGGLE | Toggle Indicator Lights | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| REDRAW | Redraw Screen | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F1 | F1 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F2 | F2 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F3 | F3 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F4 | F4 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F5 | F5 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F6 | F6 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F7 | F7 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F8 | F8 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F9 | F9 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F10 | F10 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F11 | F11 | Values (up to 4 repetitions): <i>Character value</i> | Optional |

| Keyword | Description | Choices | Notes |
|---------|-------------|--|----------|
| F12 | F12 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F13 | F13 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F14 | F14 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F15 | F15 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F16 | F16 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F17 | F17 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F18 | F18 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F19 | F19 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F20 | F20 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F21 | F21 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F22 | F22 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F23 | F23 | Values (up to 4 repetitions): <i>Character value</i> | Optional |
| F24 | F24 | Values (up to 4 repetitions): <i>Character value</i> | Optional |

Top

5250 Attention (ATTN)

Specifies the VT keys to be mapped to the 5250 Attention key.

Top

5250 Help (HELP)

Specifies the VT keys to be mapped to the 5250 Help key.

Top

Page Down (Roll Up) (DOWN)

Specifies the VT keys to be mapped to the Page Down (Roll Up) function.

Top

Page Up (Roll Down) (UP)

Specifies the VT keys to be mapped to the Page Up (Roll Down) key.

Top

System Request (SYSREQ)

Specifies the VT keys to be mapped to the System Request key.

Top

Insert (INSERT)

Specifies the VT keys to be mapped to the 5250 Insert key.

[Top](#)

Delete (DELETE)

Specifies the VT keys to be mapped to the 5250 Delete key.

[Top](#)

Enter (ENTER)

Specifies the VT keys to be mapped to the Enter key.

[Top](#)

Backspace (BACKSPC)

Specifies the VT keys to be mapped to the Character Backspace key.

[Top](#)

Duplicate (DUP)

Specifies the VT keys to be mapped to the 5250 Duplicate key.

[Top](#)

Erase Input (ERSINP)

Specifies the VT keys to be mapped to the 5250 Erase Input key.

[Top](#)

Error Reset (RESET)

Specifies the VT keys to be mapped to the Error Reset key.

[Top](#)

Field Exit (FLDEXIT)

Specifies the VT keys to be mapped to the Field Exit key.

[Top](#)

Field Minus (FLDMINUS)

Specifies the VT keys to be mapped to the Field Minus key.

Home (HOME)

Specifies the VT keys to be mapped to the 5250 Cursor Home key.

New Line (NEWLINE)

Specifies the VT keys to be mapped to the 5250 New Line key.

Print (PRINT)

Specifies the VT keys to be mapped to the 5250 Print Screen key.

Field Advance (FLDADV)

Specifies the VT keys to be mapped to the Field Advance key.

Field Backspace (FLDBACK)

Specifies the VT keys to be mapped to the Field Backspace key.

Cursor Up (CSRUP)

Specifies the VT keys to be mapped to the Cursor Up (Up Arrow) key.

Cursor Down (CSRDOWN)

Specifies the VT keys to be mapped to the Cursor Down (Down Arrow) key.

Cursor Left (CSRLEFT)

Specifies the VT keys to be mapped to the Cursor Left (Left Arrow) key.

Cursor Right (CSRRIGHT)

Specifies the VT keys to be mapped to the Cursor Right (Right Arrow) key.

[Top](#)

Clear Screen (CLEAR)

Specifies the VT keys to be mapped to the Clear Screen key.

[Top](#)

Test Request (TSTREQ)

Specifies the VT keys to be mapped to the Test Request key.

[Top](#)

Toggle Indicator Lights (TOGGLE)

Specifies the VT keys that toggle the emulated indicator lights on the display station.

[Top](#)

Redraw Screen (REDRAW)

Specifies the VT keys that cause the current display to be redrawn.

[Top](#)

F1 (F1)

Specifies the VT F1 key to be mapped to the 5250 Function keys.

Note: The F1 key is not available on a VT220 keyboard. However, many VT220 emulators send hexadecimal values when the F1 key is pressed.

[Top](#)

F2 (F2)

Specifies the VT F2 key to be mapped to the 5250 Function keys.

Note: The F2 key is not available on a VT220 keyboard. However, many VT220 emulators send hexadecimal values when the F2 key is pressed.

[Top](#)

F3 (F3)

Specifies the VT F3 key to be mapped to the 5250 Function keys.

Note: The F3 key is not available on a VT220 keyboard. However, many VT220 emulators send hexadecimal values when the F3 key is pressed.

[Top](#)

F4 (F4)

Specifies the VT F4 key to be mapped to the 5250 Function keys.

Note: The F4 key is not available on a VT220 keyboard. However, many VT220 emulators send hexadecimal values when the F4 key is pressed.

[Top](#)

F5 (F5)

Specifies the VT F5 key to be mapped to the 5250 Function keys.

Note: The F5 key is not available on a VT220 keyboard. However, many VT220 emulators send hexadecimal values when the F5 key is pressed.

[Top](#)

F6 (F6)

Specifies the VT F6 key to be mapped to the 5250 Function keys.

[Top](#)

F7 (F7)

Specifies the VT F7 key to be mapped to the 5250 Function keys.

[Top](#)

F8 (F8)

Specifies the VT F8 key to be mapped to the 5250 Function keys.

[Top](#)

F9 (F9)

Specifies the VT F9 key to be mapped to the 5250 Function keys.

[Top](#)

F10 (F10)

Specifies the VT F10 key to be mapped to the 5250 Function keys.

[Top](#)

F11 (F11)

Specifies the VT F11 key to be mapped to the 5250 Function keys.

[Top](#)

F12 (F12)

Specifies the VT F12 key to be mapped to the 5250 Function keys.

[Top](#)

F13 (F13)

Specifies the VT F13 key to be mapped to the 5250 Function keys.

[Top](#)

F14 (F14)

Specifies the VT F14 key to be mapped to the 5250 Function keys.

[Top](#)

F15 (F15)

Specifies the VT F15 key to be mapped to the 5250 Function keys.

[Top](#)

F16 (F16)

Specifies the VT F16 key to be mapped to the 5250 Function keys.

[Top](#)

F17 (F17)

Specifies the VT F17 key to be mapped to the 5250 Function keys.

[Top](#)

F18 (F18)

Specifies the VT F18 key to be mapped to the 5250 Function keys.

[Top](#)

F19 (F19)

Specifies the VT F19 key to be mapped to the 5250 Function keys.

F20 (F20)

Specifies the VT F20 key to be mapped to the 5250 Function keys.

F21 (F21)

Specifies the VT F21 key to be mapped to the 5250 Function keys.

F22 (F22)

Specifies the VT F22 key to be mapped to the 5250 Function keys.

F23 (F23)

Specifies the VT F23 key to be mapped to the 5250 Function keys.

F24 (F24)

Specifies the VT F24 key to be mapped to the 5250 Function keys.

Examples

```
SETVTMAP DOWN(*F8) UP(*F7)
```

This command sets the VT key mapping for the 5250 Page Down (Roll Up) key to the F8 function key, and the 5250 Page Up (Roll Down) key to the F7 function key.

Error messages

*ESCAPE Messages

TCP1340

&1 command not allowed for this device.

TCP1341

Value &1 specified for multiple functions.

TCP1342

Value &1 is not valid.

TCP6B12

Internal system error occurred in program &1.

[Top](#)

Set VT Mapping Tables (SETVTTBL)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafte: No

Parameters
Examples
Error messages

The Set VT Mapping Tables (SETVTTBL) command sets ASCII full-screen mapping for the current TELNET session.

Top

Parameters

| Keyword | Description | Choices | Notes |
|----------|--|---|------------------------|
| CCSID | Coded character set identifier | 1-65533, *MULTINAT, *BRITISH, *DUTCH, *FINNISH, *FRENCH, *FRENCHCAN, *GERMAN, *ITALIAN, *NORDAN, *SPANISH, *SWEDISH, *SWISS | Optional, Positional 1 |
| TBLVTOUT | Outgoing EBCDIC/ASCII table | Single values: *CCSID, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBLVTIN | Incoming ASCII/EBCDIC table | Single values: *CCSID, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming ASCII/EBCDIC table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |

Top

Coded character set identifier (CCSID)

Specifies the coded character set identifier that identifies the ASCII character encoding in use on the VT100 or VT220 terminal.

Use the CCSID value to change the default mapping for your current TELNET session only. Mapping can optionally be done with mapping tables defined in the TBLVTOUT and TBLVTIN parameters. The TBLVTOUT and TBLVTIN parameters have a default value of *CCSID. The default value of *CCSID indicates mapping is determined by the CCSID parameter. If a mapping table is to be used for outgoing mapping, a table object can be specified in the TBLVTOUT parameter. The table object specified in the TBLVTOUT parameter is used instead of the CCSID value.

Incoming mapping can be changed by specifying a table object in the TBLVTIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

*MULTINAT

The Digital Equipment Company (DEC) multinational character set is in use.

*BRITISH

The DEC British national replacement character set is in use.

***DUTCH**

The DEC Dutch national replacement character set is in use.

***FINNISH**

The DEC Finnish national replacement character set is in use.

***FRENCH**

The DEC French national replacement character set is in use.

***FRENCHCAN**

The DEC French Canadian national replacement character set is in use.

***GERMAN**

The DEC German national replacement character set is in use.

***ITALIAN**

The DEC Italian national replacement character set is in use.

***NORDAN**

The DEC Norwegian/Danish national replacement character set is in use.

***SPANISH**

The DEC Spanish national replacement character set is in use.

***SWEDISH**

The DEC Swedish national replacement character set is in use.

***SWISS**

The DEC Swiss national replacement character set is in use.

1-65533

The requested CCSID value is used. This value is validated to ensure a valid ASCII CCSID was requested.

Note: Only ISO 7-bit and ISO 8-bit ASCII CCSID values can be specified.

Top

Outgoing EBCDIC/ASCII table (TBLVTOUT)

Specifies the table object that is to be used to map outgoing TELNET data when in VT100 or VT220 full-screen mode. All outgoing data is mapped from EBCDIC to ASCII.

If a table object is specified for TBLVTOUT, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

***CCSID**

The table object to be used is determined by using the CCSID parameter and the current language of the user.

***DFT** The default EBCDIC-to-ASCII mapping is used. The value specified for the TBLVTOUT parameter of the Change TELNET Attributes (CHGTELNA) command is used here.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the table object used for mapping outgoing TELNET data.

Qualifier 2: Library

***LIBL** The library list is used to locate the outgoing mapping table.

***CURLIB**

The current library for the job is used to locate the outgoing mapping table. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library where the outgoing mapping table is located.

Top

Incoming ASCII/EBCDIC table (TBLVTIN)

Specifies the table object used to map all incoming TELNET data when in VT100 or VT220 full-screen mode. All incoming data is mapped from ASCII to EBCDIC.

If a table object is specified for TBLVTIN, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping.

Single values

***CCSID**

The table object to be used is determined by using the CCSID parameter and the current language of the user.

***DFT** The default ASCII-to-EBCDIC mapping table is used. The value specified for the TBLVTIN parameter of the Change TELNET Attributes (CHGTELNA) command is used here.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the table object used for mapping incoming TELNET data.

Qualifier 2: Library

***LIBL** The library list is used to locate the incoming mapping table.

***CURLIB**

The current library for the job is used to locate the incoming mapping table. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library where the incoming table is located.

Top

Examples

```
SETVTTBL TBLVTOUT(*DFT) TBLVTIN(*DFT)
```

This command sets the EBCDIC-to-ASCII and ASCII-to-EBCDIC mapping tables to the values currently specified for the TBLVTOUT and TBLVTIN parameters of the Change TELNET Attributes (CHGTELNA) command.

Top

Error messages

***ESCAPE Messages**

CPF9801

Object &2 in library &3 not found.

CPF9802

Not authorized to object &2 in &3.

CPF9803

Cannot allocate object &2 in library &3.

CPF9808

Cannot allocate one or more libraries on library list.

CPF9810

Library &1 not found.

CPF9820

Not authorized to use library &1.

CPF9830

Cannot assign library &1.

[Top](#)

Send TCP/IP Spooled File (SNDTCPSPLF)

Where allowed to run: All environments (*ALL)
 Threadsafes: No

Parameters
 Examples
 Error messages

The Send TCP/IP Spooled File (SNDTCPSPLF) command sends a spooled file to be printed on a remote system. The remote system must be running TCP/IP. The SNDTCPSPLF command is the System i version of the TCP/IP LPR (Line Printer Requester) command.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-------------|---|--|------------------------|
| RMTSYS | Remote system | Character value, *INTERNETADR | Required, Positional 1 |
| PRTQ | Printer queue | Character value | Required, Positional 2 |
| FILE | Spooled file | Name | Required, Positional 3 |
| JOB | Job name | Single values: * Other values: <i>Qualified job name</i> | Optional |
| | Qualifier 1: Job name | Name | |
| | Qualifier 2: User | Name | |
| | Qualifier 3: Number | 000000-999999 | |
| SPLNBR | Spooled file number | 0-999999, *ONLY, *LAST, *ANY | Optional |
| JOBSYSNAME | Job system name | Name, *ONLY, *CURRENT, *ANY | Optional |
| CRTDATE | Spooled file created | Single values: *ONLY, *LAST Other values: <i>Element list</i> | Optional |
| | Element 1: Creation date | Date | |
| | Element 2: Creation time | Time, *ONLY, *LAST | |
| DESTTYP | Destination type | *AS400, *PSF2, *OTHER | Optional |
| TRANSFORM | Transform SCS to ASCII | *YES, *NO | Optional |
| USRDTATFM | User data transform | Single values: *NONE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: User data transform | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |
| MFRTYPMDL | Manufacturer type and model | Character value, *IBM42011 | Optional |
| INTERNETADR | Internet address | Character value | Optional |
| WSCST | Workstation customizing object | Single values: *NONE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Workstation customizing object | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |
| DLTSPLF | Delete file after sending | *NO, *YES | Optional |

| Keyword | Description | Choices | Notes |
|---------|-------------------------------|------------------------|----------|
| DESTOPT | Destination-dependent options | <i>Character value</i> | Optional |
| SEPPAGE | Print separator page | *NO, *YES | Optional |

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Remote system (RMTSYS)

Specifies the remote system name to which the print request is sent.

To be successful, the name must be valid, and the system must be able to communicate with the local system. You can assign names to an internet address. Use the **Work with TCP/IP host table entries** option on the Configure TCP/IP menu (CFGTCP command). A remote name server also maps remote system names to internet addresses. You can use the **Change remote name server** option on the CFGTCP menu to specify a remote name server.

*INTNETADR

The value of the INTNETADR parameter is used.

character-value

Specify the remote system name to which the print request is sent.

Top

Printer queue (PRTQ)

Specifies the destination printer queue to be used.

character-value

Specify the name of the destination printer queue to be used. For destination systems that are System i systems, this is the name of an output queue to which the spooled file is sent.

If a library name qualifier is not specified, the library list of the sending user ID on the destination system is searched. If not found or not authorized, QGPL/QPRINT is used as the default. The output queue is usually specified as library name/output queue name (for example, QGPL/OUTQ1). For destination systems that are not System i systems, this name is system-dependent. This name can be either the actual name of the device or the name of a printer queue for the device. The name used for the OS/2 operating system is the actual name of the device. Often, the name used for the UNIX operating system is the name of the printer queue for the device. This parameter is limited to 128 characters.

Note: On some systems, the printer queue name may be case sensitive. To preserve the lowercase letters in a printer queue name, enclose the printer queue name in apostrophes 'MyPrtQ'.

Top

Spooled file (FILE)

Specifies the spooled file that is sent to the specified system and printer. The file name is the same file name that is displayed with the Work with Spooled File (WRKSPLF) command.

name Specify the name of the spooled file to be sent.

Top

Job name (JOB)

Specifies the job that created the spooled file to be sent.

Single values

***** The job that issued this command is the job that created the spooled file.

Qualifier 1: Job name

name Specify the name of the job that created the spooled file.

Qualifier 2: User

name Specify the user name of the job that created the spooled file.

Qualifier 3: Number

000000-999999

Specify the job number of the job that created the spooled file.

Note: If no job number or user name is given, all jobs currently running on the system are searched for a match against the job name.

Top

Spooled file number (SPLNBR)

Specifies the number of the spooled file from the job whose data records are to be sent.

*ONLY

One spooled file from the job has the specified file name. The number of the spooled file is not necessary. If *ONLY is specified and more than one spooled file has the specified file name, an error message is sent.

*LAST

The spooled file with the highest number and the specified file name is used.

0-999999

Specify the number of the spooled file having the specified file name whose data records are to be sent.

Top

Job system name (JOBSYSNAME)

Specifies the system from which the job that created the spooled file was ran on.

*ONLY

One spooled file from the job with the specified job name, user name, job number, spooled file create date and spooled file create time. If *ONLY is specified and more than one spooled file has the specified information listed above, an error message is sent.

*CURRENT

The job on the current system with the specified job name, user name, job number, spooled file create date and spooled file create time.

name Specify the name of the system where the job ran that created the spooled file.

Top

Spooled file created (CRTDATE)

Specifies the date the spooled file was created on the system. This parameter is considered after the job name, user name, job number, spooled file name, spooled file number, and job system name parameter requirements have been met.

Single values

*ONLY

There is only one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, and job system name.

*LAST

The spooled file with the latest date and time which also has the specified job name, user name, job number, spooled file name, spooled file number, and job system name is used.

Element 1: Creation date

date Specify the date the spooled file was created.

Element 2: Creation time

The spooled file create time is the time the spooled file was created on the system. This parameter must have a value set if a date is specified for the first element of this parameter. This create time is considered after the job name, user name, job number, spooled file name, spooled file number, job system name, and spooled file create date requirements have been met.

*ONLY

There is only one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, job system name, and create date.

*LAST

The spooled file with the latest time which also has the specified job name, user name, job number, spooled file name, spooled file number, job system name, and create date is used.

time Specify the time the spooled file was created.

Top

Destination type (DESTTYP)

Specifies the type of destination system to which the spooled file is being sent. This information allows the SNDTCPSPLF command to send the file in a format that is most likely to be received and processed correctly on the destination system. When sending to another System i system, this parameter should be *AS400.

*OTHER

The destination system is not an System i system and is not using Print Services Facility/2.

*AS400

The destination system is an System i system. If TRANSFORM(*NO) is specified, a duplicate of the spooled file is created on the destination system. If the spooled file is *SCS or *AFPDS and TRANSFORM(*YES) is specified, the spooled file is transformed to ASCII and spooled as *USERASCII on the destination System i system.

*PSF2 The destination system is using Print Services Facility/2. This destination system can receive both ASCII data and Advanced Function Printer data stream (AFPDS) data. This means that in addition to sending ASCII data to a PSF/2, you can also send a spooled file of device type

*AFPDS. When sending *AFPDS files, you must consider any external resources of the file. These resources, such as fonts and overlays, must also reside on the destination system to allow the file to print correctly.

Top

Transform SCS to ASCII (TRANSFORM)

Specifies whether or not to make use of the host print transform function to transform a SNA character string (SCS) or Advanced Function Printing data stream (AFPDS) into ASCII data.

Note: If you specify TRANSFORM(*YES), you cannot use the USRDTATFM parameter.

***YES** Use the host print transform.

***NO** Do not use the host print transform.

Top

User data transform (USRDTATFM)

Specifies the program that is used to transform the spooled file data. User data transform programs must be written to the Writer Transform Exit Program interface. For information on this interface, see the APIs topic collection in the Programming category in the i5/OS Information Center at <http://www.ibm.com/systems/i/infocenter/>.

Single values

***NONE**
No data transform program is specified.

Qualifier 1: User data transform

name Specify the name of the data transform program.

Qualifier 2: Library

***LIBL** All libraries in the job's library list are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Manufacturer type and model (MFRTYPMDL)

Specifies the manufacturer, type, and model for a printer using the host print transform function.

If the **Workstation customizing object (WSCST)** parameter is used in conjunction with the MFRTYPMDL parameter, information that is specified in the workstation customization object takes precedence over the MFRTYPMDL parameter.

***IBM42011**
The IBM 4201-1 Proprinter is used.

manufacturer-type-model

Specify the manufacturer, type, and model for a printer using the host print transform function. Specify one of the values that matches the device. Refer to the MFRTYPMDL parameter documentation for the Create Device Description (Printer) (CRTDEVPRT) command for a description of possible values.

***WSCST**

The value of the WSCST parameter is used.

Top

Internet address (INTNETADR)

Specifies the internet address of the remote system to which the print request is sent.

This parameter is accessed by entering *INTNETADR for the RMTSYS parameter or by leaving the RMTSYS parameter blank and pressing the Enter key.

character-value

Specify the internet address of the remote system. The internet address is specified in the form, *nnn.nnn.nnn.nnn*, where *nnn* is a decimal number ranging from 0 through 255. An internet address is not valid if it has a value of all binary ones or all binary zeros for the network identifier (ID) portion or the host ID portion of the address. If the internet address is entered from a command line, the address must be enclosed in apostrophes.

Top

Workstation customizing object (WSCST)

Specifies an object that consists of a table of attributes used to customize a given ASCII device, such as a workstation or printer. Character presentation, font specifications, and control key sequences are examples of characteristics that can be customized.

If the **Manufacturer type and model (MFRTYPMDL)** parameter is used in conjunction with the WSCST parameter, information that is specified in the workstation customization object takes precedence over the MFRTYPMDL parameter.

Single values

***NONE**

Do not specify a workstation customizing object.

Qualifier 1: Workstation customizing object

name Specify the name of a workstation customizing object that was created with the Create Work Station Customizing Object (CRTWSCST) command.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Delete file after sending (DLTSPLF)

Specifies whether or not to delete the specified spooled file after it has been successfully sent. No guarantee can be made as to the correct printing of the sent file. Only correct transmission can be verified.

***NO** Do not delete the spooled file after it has been successfully sent.

***YES** Delete the spooled file after it has been successfully sent.

Destination-dependent options (DESTOPT)

Specifies the destination-dependent options. These options may be specific to a particular implementation of an LPD print server. When this parameter is not specified, the SNDTCPSPLF command sends default options that are common to all LPD print servers. The options specified by this parameter are inserted into the control file generated by the SNDTCPSPLF command, one option per line, and sent to the specified LPD print server. The options specified by this parameter must have the following format:

```
"option1 option2 option3...optionN"
```

where each option is separated from the next by one or more blanks.

Options typically have a format of <control characters><value>. An example is

```
"-oTITLE=LPR"
```

where "-o" are the control characters and "TITLE=LPR" is the value. SNDTCPSPLF examines the first character of each option to determine if it is a reserved control character. The following control characters cannot be specified as their values are determined by SNDTCPSPLF. If any of the following control characters are specified, the option is ignored and a warning message is generated.

| | |
|---|---|
| C | T |
| H | U |
| I | W |
| L | 1 |
| M | 2 |
| N | 3 |
| P | 4 |
| S | k |

For example, "Class=ASCII" is not allowed because the "C" control character is reserved for use by the SNDTCPSPLF command. However, "-Class=ASCII" is permitted.

The control character "X" is allowed, but the value of "AS/400" used with it is not permitted. For example, "XMyLPD" can be specified, but "XAS/400" cannot be. The option "XAS/400" is reserved for use by the SNDTCPSPLF command. It is used to indicate to another System i system that the request is coming from an System i system.

The option "XAIX" controls how multiple copies are sent to the printer. This option specifies that the data and control files are to be sent multiple times, once for each copy. The default is to send the data and control files once, with multiple print commands in the control file.

The following print "filters" are supported by SNDTCPSPLF (see section 7 of RFC 1179):

| | |
|---|---|
| c | n |
| d | p |
| f | r |
| g | t |
| l | v |

If one of these characters is specified as the first character in a destination option, the character is used on the "print file" command in the control file. Only the first occurrence of one of these characters in this position is used in the control file. Subsequent use of these characters in this position is ignored. If none of these options is specified, the default character "l" is used on the "print file" command, which prints the file "as is" without filtering out any control characters.

If "J" is specified as the first character of a destination option, the remaining characters in the option are used to override the default job name for the banner page (see RFC 1179, section 7.4). For instance, to specify a job name of /nff, specify:

```
DESTOPT('J/nff')
```

Only the first occurrence of this option is used to override the job name. If this option is not specified, the spooled file name is used as the job name (the default).

You can enable an auto-queue option by using the destination dependent option XAUTOQ on the SNDTCPSPLF command (or on the CRTOUTQ or CHGOUTQ commands). When you use the auto-queue option, files are sent as before unless the remote system times out during the transform. If this happens, the transformed spool files are sent back to the same output queue using the System i LPD server. When a remote writer is running, it will then send the transformed spooled file to the remote system.

character-value

Specify the destination-dependent options.

Top

Print separator page (SEPPAGE)

Specifies whether or not a separator page is requested when the spooled file is printed on the remote system.

Note: A separator page may not be printed in all cases. Printing of separator pages depends on whether the LPD implementation on the receiving system honors the separator page request. Some LPD implementations ignore the SEPPAGE parameter and print or do not print a separator page by default.

***YES** Request a separator page.

***NO** Do not request a separator page.

Top

Examples

None

[Top](#)

Error messages

*ESCAPE Messages

TCP3701

Send request failed for spooled file &1.

TCP3702

Not authorized to spooled file &1.

TCP3703

Send request failed. Spooled file &1 open.

TCP3704

Send request failed. Spooled file &1 not spooled print file.

TCP3705

Spooled file &1 not transformed.

TCP3706

Spooled file &1 not transformed.

TCP3715

Not authorized to delete spooled file &1. The spooled file was sent.

[Top](#)

Start TCP/IP File Transfer (STRTCPFTP)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Start TCP/IP File Transfer Protocol (STRTCPFTP) command is used to start the File Transfer Protocol (FTP) client application that transfers files between systems using the Transmission Control Protocol/Internet Protocol (TCP/IP). FTP is an application protocol used for transferring files to and from a remote system. FTP requires a user ID, and in some cases a password, to gain access to files on a remote system.

Mapping Parameters: Mapping of data is used for all data (for example, user data and protocol data information) between the local and remote systems, except when the EBCDIC subcommand or the BINARY subcommand is in effect. In these cases, mapping of user file data is not done.

The Change FTP Attributes (CHGFTP) command can be used to specify server mapping tables for FTP.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|--|---|------------------------|
| RMTSYS | Remote system | Character value, *INTNETADR | Required, Positional 1 |
| INTNETADR | Internet address | Character value | Optional |
| CCSID | Coded character set identifier | 1-65533, *DFT | Optional |
| PORT | Port | 1-65535, *DFT, *SECURE | Optional |
| SECCNN | Secure connection | *DFT, *NONE, *SSL, *IMPLICIT | Optional |
| DTAPROT | Data protection | *DFT, *CLEAR, *PRIVATE | Optional |
| TBLFTPOUT | Outgoing EBCDIC/ASCII table | Single values: *CCSID, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |
| TBLFTPIN | Incoming ASCII/EBCDIC table | Single values: *CCSID, *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming ASCII/EBCDIC table | Name | |
| | Qualifier 2: Library | Name, *LIBL, *CURLIB | |

Top

Remote system (RMTSYS)

Specifies the remote system name to which or from which the files are transferred. To be successful, the remote system name must be valid, and the system must be able to communicate with the local system. The user can assign names to an internet address with the Work with TCP/IP host table entries option on the Configure TCP/IP menu (CFGTCP command). Also, a remote name server can be used to map remote system names to internet addresses. You can use the Change remote name server option on the CFGTCP menu to specify a remote name server.

*INTNETADR

The INTNETADR parameter is prompted.

character-value

Specify the remote system name to which or from which the file transfer takes place.

Top

Internet address (INTNETADR)

Specifies the IPv4 or IPv6 internet address of the remote system to which the file transfer application is started.

An IPv4 internet address is specified in the form *nnn.nnn.nnn.nnn*, where *nnn* is a decimal number ranging from 0 through 255. An IPv4 Internet address is not valid if it has a value of all binary ones or all binary zeros for the network identifier (ID) portion or the host ID portion of the address.

An IPv6 internet address is specified in the form *xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx*, where each x is a hexadecimal digit representing 4 bits. A hexadecimal digit is a number from 0 to 9 or the letter A, B, C, D, E, or F. A "::<" may be used once in the IPv6 address to indicate one or more groups of 16 bits of zeros. The "::<" may be used to compress leading, imbedded, or trailing zeros in the address.

If the internet address is entered from a command line, the address must be enclosed in apostrophes.

character-value

Specify the internet address of the remote system.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded character set identifier (CCSID) that is used for single-byte character set (SBCS) ASCII file transfers when the FTP TYPE mode is set to ASCII. ASCII file transfers are also assumed when no TYPE subcommand has been issued. The CCSID value chosen is the default used by the FTP client for ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. Mapping is determined using the specified ASCII CCSID and the EBCDIC CCSID of the job.

Outgoing and incoming mapping can be done optionally with mapping tables defined in the TBLFTPOUT and TBLFTPIN parameters. Normally the TBLFTPOUT and TBLFTPIN parameters are set to the default of *CCSID or *DFT. Both parameters indicate that the value used in the CCSID parameter is used for mapping. If a mapping table is to be used for outgoing mapping, a table object can be specified in the TBLFTPOUT parameter. The table object specified in the TBLFTPOUT parameter is used instead of the CCSID value.

Incoming mapping can be changed to use a mapping table by specifying a table object in the TBLFTPIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

Double-byte character set (DBCS) CCSID values are not permitted for this parameter. DBCS values can be specified using the TYPE subcommand.

Note: IBM includes mapping support in FTP to ensure compatibility with releases prior to V3R1. Use of mapping tables for incoming TYPE A file transfers results in the loss of CCSID tagging if the target file must be created. IBM strongly recommends that you use CCSID support for normal operations.

***DFT** The CCSID value 00819 (ISO 8859-1 8-bit ASCII) is used.

1-65533

Specify the CCSID value to be used. This value is validated to ensure a valid SBCS CCSID was requested.

The TBLFTPOUT and TBLFTPIN parameters are used to specify user-defined incoming and outgoing mapping tables. The user-defined mapping tables replace the mapping done by the FTP client when the CCSID parameter is specified.

Top

Port (PORT)

Specifies the port number to be used for connecting to the FTP server.

Normally the "well-known" port value of 21 is used to connect to the FTP server. Under some circumstances, the FTP server may be contacted at a port other than port 21. In those situations, the port parameter may be used to specify the server port to connect to.

Note: The FTP client subcommands OPEN and SECOPEN each have an optional 'port' parameter which may be used to specify a port other than port 21.

***DFT** The value 00021 is used.

***SECURE**

The value 00990 is used. Port 990 is reserved for secure FTP servers which immediately use Transport Layer Security (TLS) or Secure Sockets Layer (SSL) protocols to encrypt data.

1-65535

The requested port value is used. This value is validated to ensure it is in the proper range.

Note: If 990 is specified, the FTP client will perform the same functions as if *SECURE were specified.

Top

Secure connection (SECENN)

Specifies the type of security mechanism to be used for protecting information transferred on the FTP control connection (which includes the password used to authenticate the session with the FTP server). Transport Layer Security (TLS) and Secure Sockets Layer (SSL) are compatible protocols which use encryption to protect data from being viewed during transmission and verify that data loss or corruption does not occur.

Note: The FTP client subcommand SECOPEN can be used to open a protected FTP connection during an FTP client session.

***DFT** If the PORT parameter specifies *SECURE or 990, *IMPLICIT is used; otherwise, *NONE is used.

***IMPLICIT**

The FTP client immediately attempts to use TLS/SSL when connecting to the specified FTP server

(without sending an AUTH subcommand to the server). If the server does not support implicit TLS/SSL on the specified port, or the TLS/SSL negotiation fails for any reason, the connection is closed.

***SSL** After connecting to the specified FTP server, the FTP client sends an AUTH (authorization) subcommand requesting a TLS/SSL protected session. If the server supports TLS/SSL, a TLS/SSL negotiation performed. If the server does not support TLS/SSL or the TLS/SSL negotiation fails, the connection is closed.

***NONE**

The FTP client does not use encryption when connecting to the specified FTP server.

Top

Data protection (DTAPROT)

Specifies the type of data protection to be used for information transferred on the FTP data connection. This connection is used to transfer file data and directory listings. The FTP protocol does not allow protection of the data connection if the control connection is not protected.

Note: The DTAPROT parameter controls the use of the PROT (protection) FTP server subcommand. The FTP client subcommand SECDATA can be used to change protection for specific FTP data connections during an FTP client session.

***DFT** If the SECCNN parameter specifies a protected control connection, *PRIVATE is used; otherwise, *CLEAR is used.

***PRIVATE**

Information sent on the FTP data connection is encrypted.

Note: If the SECCNN parameter specifies that the FTP control connection is not encrypted, *PRIVATE cannot be specified.

***CLEAR**

Information sent on the FTP data connection is not encrypted.

Top

Outgoing ASCII/EBCDIC table (TBLFTPOUT)

Specifies the table object that is to be used to map all outgoing data in the FTP client. Outgoing data is mapped from EBCDIC to ASCII.

If a table object is specified for TBLFTPOUT, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

***CCSID**

The CCSID parameter is used to determine outgoing mapping.

***DFT** The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the table object to be used by the FTP client for mapping outgoing data.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLFTPIN)

Specifies the table object that is to be used to map all incoming data in the FTP client. Incoming data is mapped from ASCII to EBCDIC.

If a table object is specified for TBLFTPIN, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping

Single values

***CCSID**

The CCSID parameter is used to determine incoming mapping.

***DFT** The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the table object to be used by the FTP client for mapping incoming data.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Examples

Example 1: Starting FTP to an IPv4 Internet Address

```
STRTCPFTP RMTSYS(*INTNETADR) INTNETADR('1.2.3.4')
```

This command starts the FTP client to the system specified by IPv4 address '1.2.3.4'.

Example 2: Starting FTP to an IPv6 Internet Address

```
STRTCPFTP RMTSYS(*INTNETADR) INTNETADR('2001:D88::1')
```

This command starts the FTP client to the system specified by IPv6 address '2001:D88::1'.

[Top](#)

Error messages

None

[Top](#)

Start TCP/IP TELNET (STRTCPTELN)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Start TCP/IP TELNET (STRTCPTELN) command is used to start a TELNET client session with a remote system. TELNET is an application protocol that allows a user at one site to access another user at a remote system. This is done as though the remote system were locally attached. TELNET uses the Transmission Control Protocol/Internet Protocol (TCP/IP) to connect to a remote system. The QSYSWRK subsystem must be started before this command can be used.

The operating modes for the TELNET client are:

- 5250 full-screen mode.
- 3270 full-screen mode.
- VT220 full-screen mode.
- VT100 full-screen mode.

Top

Parameters

| Keyword | Description | Choices | Notes |
|-----------|-------------------------|---|---------------------------|
| RMTSYS | Remote system | Character value, *INTNETADR | Required, Positional 1 |
| INTNETADR | Internet address | Character value | Optional |
| CTLCHAR | Control character key | Character value, '&' | Optional |
| KBDTYPE | Keyboard language type | * LCL , AGB, AGE, AGI, AGM, ALI, ALM, BGB, BGE, BLI, BLM, BRB, BRE, CAB, CAE, CAI, CAM, CLB, CLE, CSB, CSE, CYB, DMB, DME, DMI, DMM, ESB, FAB, FAE, FAI, FAM, FNB, FNE, FNI, FNM, FQB, FQI, GKB, GNB, GNE, HIB, HNB, HNE, ICB, ICE, ICI, ICM, INB, INI, IRB, ITB, ITE, ITI, ITM, JEB, JEI, JKB, JPB, JPE, JUB, KAB, KOB, LAB, LAE, LTB, LVB, MKB, MKE, NCB, NCE, NEB, NEE, NEL, NEM, NWB, NWE, NWI, NWM, PKB, PKE, PLB, PLE, PRB, PRE, PRI, PRM, RCB, RMB, RME, ROB, ROE, RUB, RUE, SFI, SFM, SGI, SGM, SKB, SKE, SPB, SPE, SPI, SPM, SQB, SQE, SSB, SSE, SSI, SSM, SWB, SWE, SWI, SWM, TAB, THB, THE, TKB, TKE, TRB, TRE, UAB, UAE, UKB, UKE, UKI, UKM, USB, USE, USI, USM, VNB, VNE, YGI, YGM, *TRNTBL | Optional |
| PAGEUP | Page Up (Roll Down) key | * PA2 , *PA1, *PA3, *NONE, *F1, *F2, *F3, *F4, *F5, *F6, *F7, *F8, *F9, *F10, *F11, *F12, *F13, *F14, *F15, *F16, *F17, *F18, *F19, *F20, *F21, *F22, *F23, *F24, *CLEAR, *ERASEINP, *CSRSLT | Optional |
| PAGEDOWN | Page Down (Roll Up) key | * PA1 , *PA2, *PA3, *NONE, *F1, *F2, *F3, *F4, *F5, *F6, *F7, *F8, *F9, *F10, *F11, *F12, *F13, *F14, *F15, *F16, *F17, *F18, *F19, *F20, *F21, *F22, *F23, *F24, *CLEAR, *ERASEINP, *CSRSLT | Optional |
| CSRSLT | Cursor Select key | * NONE , *F1, *F2, *F3, *F4, *F5, *F6, *F7, *F8, *F9, *F10, *F11, *F12, *F13, *F14, *F15, *F16, *F17, *F18, *F19, *F20, *F21, *F22, *F23, *F24 | Optional |

| Keyword | Description | Choices | Notes |
|------------|--|---|----------|
| TBLVTOU | Outgoing EBCDIC/ASCII table | Single values: *CCSID , *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBLVTIN | Incoming ASCII/EBCDIC table | Single values: *CCSID , *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming ASCII/EBCDIC table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBL3270OUT | Outgoing 3270 mapping table | Single values: *KBDTYPE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing 3270 mapping table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBL3270IN | Incoming 3270 mapping table | Single values: *KBDTYPE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming 3270 mapping table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| INZWAIT | Timeout wait for host | 1-32767, 120 , *NOMAX | Optional |
| NUMLCK | Numeric lock keyboard | *NO , *YES | Optional |
| NULLS | Handle nulls | *BLANK , *REMOVE | Optional |
| TBLVTDROW | ASCII full screen draw out | Single values: *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: ASCII full screen draw out | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBLVTDROWI | ASCII full screen draw in | Single values: *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: ASCII full screen draw in | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| VTOPT | ASCII full screen options | Single values: *NONE , *ALL Other values (up to 3 repetitions): *LOCALECHO, *AUTOWRAP, *NEWLINE | Optional |
| DSPCHRATTR | Display character attributes | *NO , *YES | Optional |
| PAGESCROLL | ASCII page scroll feature | *NO , *YES | Optional |
| ANSWERBACK | ASCII answerback feature | <i>Character value</i> , *NONE | Optional |
| TABSTOP | ASCII tab stops | Single values: *DFT , *NONE Other values (up to 10 repetitions): 0-133 | Optional |
| CCSID | Coded character set identifier | 1-65533, *MULTINAT , *BRITISH, *DUTCH, *FINNISH, *FRENCH, *FRENCHCAN, *GERMAN, *ITALIAN, *NORDAN, *SPANISH, *SWEDISH, *SWISS | Optional |
| ASCOPRMOD | ASCII operating mode ID | *VT220B7 , *VT220B8, *VT100, *VT52 | Optional |
| PORT | Port | 1-65534, *DFT | Optional |
| RMTVRTDSP | Remote virtual display | <i>Name</i> , *DFT | Optional |
| RMTUSER | Remote user | <i>Name</i> , *NONE , *CURRENT | Optional |
| RMTPWD | Remote password | <i>Character value</i> , *NONE | Optional |
| RMTPWDENC | Remote password encryption | *DES7 , *SHA1, *NONE | Optional |
| RMTINLPGM | Remote initial program | <i>Name</i> , *RMTUSRPRE , *NONE | Optional |

| Keyword | Description | Choices | Notes |
|------------|------------------------|----------------------------|----------|
| RMTINLMNU | Remote initial menu | Name, *RMTUSRPRF, *SIGNOFF | Optional |
| RMTCURLIB | Remote current library | Name, *RMTUSRPRF | Optional |
| RMTKBDTYPE | Remote keyboard type | *RMTSYS, *LCL | Optional |
| RMTCODPAG | Remote codepage | *RMTSYS, *LCL | Optional |
| RMTCHRSET | Remote character set | *RMTSYS, *LCL | Optional |

Top

Remote system (RMTSYS)

Specifies the remote system name. The name must be valid, and the remote system must provide TELNET server support. You can assign names to an internet address. Use the Work with TCP/IP host table entries option on the Configure TCP/IP menu (CFGTCP command). A remote name server also maps remote system names to internet addresses. You can use the Change remote name server option on the CFGTCP menu to specify a remote name server.

This is a required parameter.

*INTNETADR

The remote system is identified by the value specified for the **Internet address (INTNETADR)** parameter.

character-value

Specify the remote system name to which TELNET is to be started.

Top

Internet address (INTNETADR)

Specifies the IPv4 or IPv6 internet address of the remote system to which TELNET is started.

An IPv4 internet address is specified in the form nnn.nnn.nnn.nnn, where nnn is a decimal number ranging from 0 through 255. An IPv4 internet address is not valid if it has a value of all binary ones or all binary zeros for the network identifier (ID) portion or the host ID portion of the address.

An IPv6 internet address is specified in the form x:x:x:x:x:x, where x is a hexadecimal number ranging from 0 through X'FFFF'. "::" may be used once in the IPv6 address to indicate one or more groups of 16 bits of zeros. The "::" may be used to compress leading, imbedded, or trailing zeros in the address.

If the internet address is entered from a command line, the address must be enclosed in apostrophes.

Note: A value must be specified for this parameter if *INTNETADR is specified for the **Remote system (RMTSYS)** parameter.

character-value

Specify the internet address of the remote system.

Top

Control character key (CTLCHAR)

Specifies the character that is used to represent the control (Ctrl) key on an ASCII keyboard. When this character is used, TELNET interprets the next character as a control character that is to be sent to a remote system. For example, the characters &C indicate that ASCII control character X '03' is sent. This parameter takes effect only if the user is in ASCII line mode, VT100 full-screen mode, or VT220 full-screen mode.

& An ampersand is used to represent the control key on an ASCII keyboard.

character-value

Specify the control character that represents the control key on an ASCII keyboard. The remote system determines which control characters are valid. However, the ASCII mapping table used by TELNET determines which ASCII character is sent to the remote system.

Top

Keyboard language type (KBDTYPE)

Specifies the type of keyboard used on the display device. This parameter also determines which mapping table is used. This parameter is used for the 3270 and 5250 full-screen modes. This parameter is ignored when the user is in ASCII line mode or VT100 or VT220 full-screen mode. The type of keyboard device is specified by a 3-character value.

***LCL** The device is a local display device. The keyboard type is determined from the display device description.

***TRNTBL**

User-defined mapping tables are used for working in the 3270 full-screen mode. The character translation is defined by the mapping tables specified for the **Incoming 3270 mapping table (TBL3270IN)** and **Outgoing 3270 mapping table (TBL3270OUT)** parameters. Both the TBL3270IN and TBL3270OUT parameters must be specified when KBDTYPE(*TRNTBL) is specified. KBDTYPE(*TRNTBL) is valid for both local and remote display devices.

display-keyboard-identifier

Specify the three-character keyboard identifier for the language group associated with the display device from which TELNET is entered. This identifier is ignored if the user is requesting to emulate a local 3270 display device.

Albania

ALB

Albania Multinational (Euro)

ALM

Arabic X/Basic

CLB

Arabic (Euro)

CLE

Austria/Germany

AGB

Austria/Germany (Euro)

AGE

Austria/Germany Multinational

AGI

Austria Multinational (Euro)

AGM

Belgium Multinational
BLI

Belgium Multinational (Euro)
BLM

Brazilian Portuguese
BRB

Brazilian Portuguese (Euro)
BRE

Bulgaria
BGB

Bulgaria Multinational (Euro)
BGE

Canadian French
CAB

Canadian French (Euro)
CAM

Canadian French (Euro)
CAE

Canadian French Multinational
CAI

Croatia
YGI

Cyrillic
CYB

Czech Republic
CSB

Czech Republic (Euro)
CSE

Denmark
DMB

Denmark (Euro)
DME

Denmark Multinational
DMI

Denmark Multinational (Euro)
DMM

Estonia
ESB

Finland/Sweden
FNB

Finland/Sweden (Euro)
FNE

Finland/Sweden Multinational
FNI

Finland Multinational (Euro)
FNM

France (Azerty)
FAB

France (Azerty) (Euro)
FAE

France (Azerty) Multinational
FAI

France (Azerty) Multinational (Euro)
FAM

France (Qwerty)
FQB

France (Qwerty) Multinational
FQI

Greece
GNB

Greece (new) (Euro)
GNE

Greece
GKB

Hebrew
NCB

Hebrew (Euro)
NCE

Hindi HIB

Hungary
HNB

Hungary (Euro)
HNE

Iceland
ICB

Iceland (Euro)
ICE

Iceland Multinational
ICI

Iceland Multinational (Euro)
ICM

International
INB

International Multinational
INI

Iran (Farsi)
IRB

Italy ITB

Italy (Euro)
ITE

Italy Multinational
ITI

Italy Multinational (Euro)
ITM

Japan JPB

Japan/English
JPE

Japan (Euro)
JEB

Japan/English Multinational
JEI

Japan/Kanji. (For PS/55* and 5295 display stations)
JKB

Japan United States Basic
JUB

Japan/Katakana. (For 5251, 5291, 5292, and 3180 Katakana display stations)
KAB

Korea KOB

Lao People's Democratic Republic
LAB

Lao (Euro)
LAE

Lithuania
LTB

Latvia LVB

Latin 2
ROB

Latin 2 (Euro)
ROE

Macedonia
MKB

Macedonia (Euro)
MKE

Netherlands
NEB

Netherlands (Euro)
NEE

Netherlands Multinational
NEI

Netherlands Multinational (Euro)
NEM

Norway
NWB

Norway (Euro)
NWE

Norway Multinational
NWI

Norway Multinational (Euro)
NWM

Poland
PLB

Poland (Euro)
PLE

Portugal
PRB

Portugal (Euro)
PRE

Portugal Multinational
PRI

Portugal Multinational (Euro)
PRM

Romania
RMB

Romanian (Euro)
RME

Russia/Ukraine
RUB

Russia Multinational (Euro)
RUE

Serbia (Cyrillic)
SQB

Serbia Multinational (Euro)
SQE

Serbia (Latin)
YGI

Simplified Chinese
RCB

Slovakia
SKB

Slovakia (Euro)
SKE

Slovenia
YGI

Spain SPB

Spain (Euro)
SPE

Spain Multinational
SPI

Spain Multinational (Euro)
SPM

Spanish Speaking
SSB

Spanish Speaking (Euro)
SSE

Spanish Speaking Multinational
SSI

Spanish Speak Multinational (Euro)
SSM

Sweden
SWB

Sweden (Euro)
SWE

Sweden Multinational
SWI

Sweden Multinational (Euro)
SWM

Switzerland/French Multinational
SFI

Switzerland/French (Euro)
SFM

Switzerland/German (Euro)
SGM

Switzerland/German Multinational
SGI

Thailand
THB

Thailand (Euro)
THE

Traditional Chinese
TAB

Turkey (Qwerty)
TKB

Turkey (old) (Euro)
TKE

Turkey (F)
TRB

Turkey (new) (Euro)
TRE

Ukraine
UAB

Ukraine (Euro)

UAE

United Kingdom/English

UKB

United Kingdom (Euro)

UKE

United Kingdom Multinational

UKI

United Kingdom Multinational (Euro)

UKM

United States/Canada

USB

United States/Canada (Euro)

USE

United States/Canada Multinational

USI

United States/Canada Multinational (Euro)

USM

Urdu PKB

Urdu (Euro)

PKE

Vietnam

VNB

Vietnam (Euro)

VNE

Croatia, Serbia (Latin), and Slovenia

YGI

Croatia, Serbia (Latin), and Slovenia (Euro)

YGM

Note: For example, KBDTYPE(USB) indicates a keyboard using the basic United States/Canada character set.

Top

Page Up (Roll Down) key (PAGEUP)

Specifies which key to assign to the 5250 keyboard Page Up key when it is emulating a 3270 full-screen display device. This parameter is useful because the 3270 does not have a Page Up key. Therefore, when a 5250 display device user is emulating a 3270 display device, the user can continue to benefit from the Page Up key by assigning one of the 3270 keyboard keys to it. This parameter takes effect only in 3270 full-screen mode when the user uses TELNET from a 5250 display device.

***PA2** The PA2 key is assigned to the Page Up key.

***NONE**

No key is assigned to the Page Up key.

***F-KEY**

A function key (F1 through F24) is assigned to the Page Up key.

***PA1** The PA1 key is assigned to the Page Up key.

***PA3** The PA3 key is assigned to the Page Up key.

***CLEAR**

The Clear key is assigned to the Page Up key.

***ERASEINP**

The Erase Input key is assigned to the Page Up key.

***CSRSLT**

The Cursor Select key is assigned to the Page Up key.

Top

Page Down (Roll Up) key (PAGEDOWN)

Specifies which key to assign to the 5250 keyboard Page Down key when it is emulating a 3270 full-screen display. This parameter is useful because the 3270 does not have a Page Down key. Therefore, when a 5250 display device user is emulating a 3270 display device, the user can continue to benefit from the Page Down key by assigning one of the 3270 keyboard keys to it. This parameter takes effect only in 3270 full-screen mode when the user uses TELNET from a 5250 display device.

***PA1** The PA1 key is assigned to the Page Down key.

***NONE**

No key is assigned to the Page Down key.

***F-KEY**

A function key (F1 through F24) is assigned to the Page Down key.

***PA2** The PA2 key is assigned to the Page Down key.

***PA3** The PA3 key is assigned to the Page Down key.

***CLEAR**

The Clear key is assigned to the Page Down key.

***ERASEINP**

The Erase Input key is assigned to the Page Down key.

***CSRSLT**

The Cursor Select key is assigned to the Page Down key.

Top

Cursor Select key (CSRSLT)

Specifies which key on the 5250 keyboard is used to emulate a 3270 keyboard Cursor Select key. This parameter takes effect only in 3270 full-screen mode when the user uses TELNET from a 5250 display device.

***NONE**

No key is assigned to be the Cursor Select key.

***F-KEY**

A function key (F1 through F24) is assigned to be the Cursor Select key.

Top

Outgoing EBCDIC/ASCII table (TBLVTOUT)

Specifies the table object that is to be used to map all outgoing TELNET data when in VT100 or VT220 full-screen mode or ASCII line mode. All outgoing data is mapped from EBCDIC to ASCII. VT100 and VT220 control sequences are not mapped.

The remote system controls whether the standard ASCII character set or the ASCII special characters and line drawing character set is in effect.

If a table object is specified for this parameter, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

*CCSID

The CCSID parameter is used to determine outgoing mapping.

*DFT The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the table object used for mapping outgoing TELNET data.

Qualifier 2: Library

*LIBL All libraries in the user and system portions of the job's library list are searched until the first match is found.

*CURLIB

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLVTIN)

Specifies the table object used to map all incoming TELNET data when in VT100 or VT220 full-screen mode or ASCII line mode. All incoming data is mapped from ASCII to EBCDIC. VT100 and VT220 control sequences are not mapped.

The remote system controls whether the standard ASCII character set or the ASCII special characters and line drawing character set is in effect.

If a table object is specified for this parameter, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping.

Single values

*CCSID

The CCSID parameter is used to determine incoming mapping.

*DFT The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the table object used for mapping incoming TELNET data.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Outgoing 3270 mapping table (TBL3270OUT)

Specifies the outgoing mapping table used to translate characters sent to the remote system when in 3270 full-screen mode. This parameter takes effect for 3270 full-screen mode sessions only. This parameter is valid only when *TRNTBL is specified for the **Keyboard language type (KBDTYPE)** parameter.

Single values

***KBDTYPE**

Translation is done by using the language keyboard type specified for the KBDTYPE parameter.

Qualifier 1: Outgoing 3270 mapping table

name Specify the name of the outgoing mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming 3270 mapping table (TBL3270IN)

Specifies the incoming mapping table used to translate characters sent from the remote system when in 3270 full-screen mode. This parameter takes effect for 3270 full-screen mode sessions only. This parameter is valid only when *TRNTBL is specified for the **Keyboard language type (KBDTYPE)** parameter.

Single values

***KBDTYPE**

Translation is done by using the language keyboard type specified for the KBDTYPE parameter.

Qualifier 1: Incoming 3270 mapping table

name Specify the name of the incoming mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Timeout wait for host (INZWAIT)

Specifies the amount of time (in seconds) that a local system waits for a connection to the remote system to be established. If a connection with the remote system does not occur within the time specified by the user, the TELNET session ends, and a message is returned to the user requesting the connection.

120 TELNET waits 120 seconds for the first display from the remote system.

***NOMAX**

There is no limit to the amount of time the local system waits for the establishment of the connection with the remote system. Specifying this value can be useful if the requester is uncertain whether the remote system is active.

1-32767

Specify the number of seconds the local system waits for establishing a connection between the local system and the remote system.

Top

Numeric lock keyboard (NUMLCK)

Specifies whether the numeric input fields allow only numeric data on the 5250 display device. This parameter specifies whether the numeric shift lock key, which is used for numeric input fields received from the remote system, is set automatically on the 5250 display device. This parameter takes effect only when the user is in 3270 full-screen mode and is using TELNET from a 5250 display device with a data entry keyboard.

***NO** Numeric input fields are displayed on the 5250 display device with the keyboard shift at the lower setting.

***YES** Numeric input fields are displayed on the 5250 display device with the numeric shift locked at the upper setting. The user can press the Alpha key on the keyboard to reset the numeric shift lock at the lower setting. NUMLCK(*YES) is not valid for 5250 display devices configured with a typewriter keyboard.

Top

Handle nulls (NULLS)

Specifies how the 3270 data stream nulls are processed before being sent to the remote system. This parameter takes effect only in 3270 full-screen mode sessions.

***BLANK**

The beginning and embedded nulls are changed to blanks.

***REMOVE**

The beginning and embedded nulls are removed from the data stream.

Top

ASCII full screen draw out (TBLVTDRWO)

Specifies the outgoing mapping table used to map outgoing TELNET data when in VT100 or VT220 full-screen mode. All outgoing data is mapped from EBCDIC to ASCII characters and the ASCII line drawing character set. VT100 and VT220 control sequences are not mapped. The remote system controls whether the standard ASCII character set (or national language character set in VT220 mode) or the ASCII special drawing character set is in effect. The mapping table specified for this parameter is used when the special line drawing character set is in effect.

Single values

***DFT** The default EBCDIC-to-ASCII special line drawing mapping table is used.

Qualifier 1: ASCII full screen draw out

name Specify the name of the outgoing mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

ASCII full screen draw in (TBLVTDRWI)

Specifies the incoming mapping table used to map incoming TELNET data when in VT100 or VT220 full-screen mode. All incoming data is mapped from ASCII to EBCDIC characters and the ASCII line drawing character set. VT100 and VT220 control sequences are not mapped. The remote system controls whether the standard ASCII character set (or national language character set in VT220 mode) or the ASCII special drawing character set is in effect. The mapping table specified for this parameter is used when the special line drawing character set is in effect.

Single values

***DFT** The default ASCII-to-EBCDIC special line drawing mapping table is used.

Qualifier 1: ASCII full screen draw in

name Specify the name of the incoming mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

ASCII full screen options (VTOPT)

Specifies the setup options. This parameter is applicable only in VT100 or VT220 full-screen mode.

Single values

*NONE

None of the available setup options are selected.

***ALL** All of the available setup options are selected.

Other values (up to 3 repetitions)

*LOCALECHO

The local echo option is selected. This option allows you to specify whether the remote system or the local terminal displays typed characters.

*NEWLINE

The new line option is selected. This option allows you to specify which characters are transmitted when you press the Enter key. When the NEWLINE option is off, the Enter key transmits a carriage return. When the NEWLINE option is on, the Enter key transmits a carriage return followed by a line feed.

*AUTOWRAP

The automatic wrap option is selected. This option allows you to specify where the next character appears when the cursor reaches the right margin. When the automatic wrap option is on and the cursor is in the last character position of a line, the next character received is put in the first position of the next line. When the automatic wrap option is off and the cursor is in the last character position of a line, the next character received replaces the character in the current position of the cursor.

Top

Display character attributes (DSPCHRATTR)

Specifies whether character attributes are displayed. This parameter is applicable only in VT100 or VT220 full-screen mode. This parameter is not applicable when using a display that supports extended attributes (such as a 3477). Character attributes can be displayed without data loss on such displays.

*YES Character attributes are displayed.

***NO** Character attributes are not displayed.

Top

ASCII page scroll feature (PAGE_SCROLL)

Specifies whether paging is used in this session. This parameter is applicable only in VT100 or VT220 mode.

*NO Paging is not used. Data is displayed as fast as the system allows when received from the remote system.

***YES** Paging is used. Data is displayed one page at a time, and you must press the Page Down (Roll Up) key to move on to the next page of data.

Top

ASCII answerback feature (ANSWERBACK)

Specifies the answerback message. This parameter is applicable only in VT100 or VT220 full-screen mode. You can store an identifying message of up to 20 characters in length that is sent to the remote system when that system transmits an enquire (ENQ) character.

*NONE

No answerback message is specified.

character-value

Specify an answerback message of up to 20 characters in length.

Top

ASCII tab stops (TABSTOP)

Specifies which columns are to contain tab stops. This parameter is applicable only in VT100 or VT220 full-screen mode. A maximum of 10 tab stops can be specified.

Single values

*DFT The VT100 or VT220 default tab stops are used.

*NONE

No tab stops are specified.

Other values

0-133 Specify the column numbers to contain tab stops.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded character set identifier (CCSID) in use. This parameter is the default used by the STRCPTLN command for VT100 and VT220 full-screen mapping. The ASCII CCSID value is used to map between the EBCDIC CCSID of the job and the National Replacement Character set, or the ASCII CCSID value selected with the CCSID parameter.

Mapping can be done optionally with mapping tables defined in the TBLVTOUT and TBLVTIN parameters. The default value for the TBLVTOUT and TBLVTIN parameters is *CCSID, which indicates mapping is determined by the CCSID parameter.

If a mapping table is to be used for outgoing mapping, you can specify a table object in the TBLVTOUT parameter. The table object in the TBLVTOUT parameter is used for outgoing mapping instead of the CCSID value.

Incoming mapping can be changed by specifying a table object in the TBLVTIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

The special values allowed for the CCSID parameter for the national replacement character set are the Digital Equipment Corporation (DEC) standard character sets. A numeric CCSID value can optionally be used to identify the required ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. If a numeric CCSID value is chosen, the value is validated to ensure it is a valid ASCII CCSID value that is available on the current system.

***MULTINAT**

The default is the 8-bit DEC multinational translation table, which consists of the 7-bit compatible standard ASCII Graphics Set (US) and the 8-bit compatible DEC supplemental graphics set.

***BRITISH**

British national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***DUTCH**

Dutch national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***FINNISH**

Finnish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***FRENCH**

French national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***FRENCHCAN**

French Canadian national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***GERMAN**

German national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***ITALIAN**

Italian national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***NORDAN**

Norwegian/Danish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***SPANISH**

Spanish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***SWEDISH**

Swedish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***SWISS**

Swiss national language mapping will be initialized when VT100 or VT220 mode is negotiated.

1-65533

Specify the CCSID value to be used. This value is validated to ensure a valid ASCII CCSID was requested.

Top

ASCII operating mode ID (ASCOPRMOD)

Specifies which operating mode the client-TELNET session will be initialized in when VT220 full-screen mode is negotiated.

***VT220B7**

The default mode is VT220 7-bit, which transmits all escape sequences using standard VT220 7-bit ASCII communications and can receive and run standard 7-bit ANSI functions.

***VT220B8**

VT220-8 bit mode transmits all escape sequences using 8-bit ASCII characters and can receive and run standard 8-bit ANSI functions.

***VT100**

VT100 mode transmits all escape sequences using standard VT100 7-bit ASCII communications and can receive and run standard 7-bit ANSI functions.

***VT52** VT52 mode transmits all escape sequences using standard VT52 7-bit ASCII communications. Standard ANSI functions are not supported.

Top

Port (PORT)

Specifies a certain port that an application on the target server system is listening on (if it's other than well-known port 23 for TELNET).

***DFT** This default value uses the well-known port 23 for the TELNET session.

1-65534

Specify the port number to be used. You should be aware of the specific port the remote server application is listening on. Otherwise, a port that is specified (other than 23) can result in the remote host rejecting the open attempt.

Top

Remote virtual display (RMTVRTDSP)

Specifies a unique device name to be requested on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the device naming enhancement as defined in the TN5250E RFC.

***DFT** A device using the default device naming (QPADEVnnn) will be created depending on system values in effect at the remote server system.

name Specify the device name to be used. A device using this specific name, if not already in use on the target remote system, will be created and assigned to this session.

Top

Remote user (RMTUSER)

Specifies the user profile for automatic sign-on to the remote server system. If a profile is specified for this parameter and password security is active on the target system, *NONE is not valid for the Remote password (RMTPWD) parameter.

If you are connecting to an OS/400 TELNET server, the QRMTSIGN system value must be set to *SAMEPRF or *VERIFY. For TELNET, the *SAMEPRF setting is treated the same as the *VERIFY setting because the TELNET server only receives the user profile name specified on the STRTCPTELN command. It does not receive the user profile name of the job using the STRTCPTELN command and cannot enforce the profiles being the same on both systems.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***NONE**

No user profile is sent and no automatic sign-on occurs.

***CURRENT**

The user profile of the job using the STRTCPTELN command is sent. If the target system allows it, and the user profile exists on the target system, and the password specified for the Remote password (RMTPWD) parameter is valid for the profile, the user is automatically signed on.

Otherwise, the user is presented with a sign-on display on the target system, or a failure message on the source system, depending on the configuration of the target system.

name Specify the name of the user profile to use (that exists) on the target system. If the target system allows it, and the user profile exists on the target system, and the password specified for the Remote password (RMTPWD) parameter is valid for the profile, the user is automatically signed on. Otherwise, the user is presented with a sign-on display on the target system, or a failure message on the source system, depending on the configuration of the target system. If a profile is specified and password security is active on the target system, a password must be specified, even if the profile specified is the same as the current profile.

Top

Remote password (RMTPWD)

Specifies the password being sent to the target system.

If you are connecting to an OS/400 TELNET server, then the QRMTSIGN system value must be set to *SAMEPRF or *VERIFY. For TELNET, the *SAMEPRF setting is treated the same as the *VERIFY setting because the TELNET server only receives the user profile name specified on the STRTCPTELN command. It does not receive the user profile name of the job using the STRTCPTELN command and cannot enforce the profiles being the same on both systems.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

*NONE

The system does not send a password. This value is only valid when *NONE is specified for the **Remote user (RMTUSER)** parameter, and indicates that no automatic sign-on is to be performed on the target system.

character-value

Specify a password to be sent to the target system to verify the sign-on of the user specified for the RMTUSER parameter. The **Remote password encryption (RMTPWDENC)** parameter will be used to determine whether or not the password is encrypted prior to sending it to the target system. Choosing *NONE for the RMTPWDENC parameter will result in the password being sent "in the clear" on the network. This will result in traces, like the communications trace, showing the actual password.

Top

Remote password encryption (RMTPWDENC)

Specifies whether the password being sent to the target system should be encrypted prior to sending it to the remote system.

This parameter is only valid when the **Remote password (RMTPWD)** parameter has a value other than *NONE.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

If the remote system is running OS/400, you should set this parameter based on the release level of the remote system and the system value QPWDLVL on the remote system.

- If OS/400 on the remote system is at release level V4R5 or earlier, specify *DES7.

- If OS/400 on the remote system is at release level V5R1 or later, and QPWDLVL has a value of '0' or '1', specify *DES7.
- If OS/400 on the remote system is at release level V5R1 or later and QPWDLVL has a value of '2' or '3', specify *SHA1.

If the encryption algorithm used does not match what is expected by the remote system, the automatic sign-on will fail and the user is presented with a sign-on display on the target system, or a failure message on the source system, depending on the configuration of the target system.

It is strongly recommended that you use the *DES7 or *SHA1 value for this parameter if you are connecting to an OS/400 TELNET server which will accept encrypted passwords. Using the *DES7 or *SHA1 value will ensure that the password cannot be viewed in traces, such as the communications trace.

***DES7** Encrypt the password, using the DES-7 algorithm, prior to sending it to the target system.

***SHA1**

Encrypt the password, using the SHA-1 algorithm, prior to sending it to the target system.

***NONE**

Do not encrypt the password prior to sending it to the target system. Selecting this value will result in the password being passed "in the clear" on the network. This can result in traces, such as the communications trace, showing the actual password value.

Top

Remote initial program (RMTINLPGM)

Specifies the program that is called immediately after you are automatically signed on to the remote target system.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***RMTUSRPRF**

The initial program specified in the remote user profile is called immediately after automatic sign-on.

***NONE**

No program is run before the initial menu is shown, even if an initial program is specified in the remote user profile.

name Specify the name of the program that is called immediately after automatic sign-on.

Top

Remote initial menu (RMTINLMNU)

Specifies the menu shown when you are automatically signed on to the target system after the initial program is run.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***RMTUSRPRF**

The initial menu specified in the remote user profile is shown immediately after the initial program is run.

***SIGNOFF**

A menu is not shown after the initial program is run, even if an initial menu is specified in the remote user profile. After the initial program ends, the user is signed off, and the TELNET session ends.

name Specify the name of the menu that is shown immediately after the initial program is run.

Top

Remote current library (RMTCURLIB)

Specifies the library that becomes the current library in the library list of the job after automatic sign-on.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***RMTUSRPRF**

The current library specified in the remote user profile becomes the current library after automatic sign-on.

name Specify the name of the library that becomes the current library in the library list after automatic sign-on.

Top

Remote keyboard type (RMTKBDTYPE)

Specifies the type of keyboard used on the display device created on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the remote keyboard enhancement as defined in the TN5250E RFC.

***RMTSYS**

Use the default keyboard type defined on the remote target system.

***LCL** Use the same keyboard type defined in the display device description for this local device.

Note: An invalid combination of Remote keyboard type, Remote character set and Remote code page will result in unpredictable results.

Top

Remote codepage (RMTCODPAG)

Specifies the code page on the display device created on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the remote code page enhancement as defined in the TN5250E RFC.

***RMTSYS**

Use the default code page defined on the remote target system.

***LCL** Use the same code page defined in the display device description for this local device.

Note: An invalid combination of Remote keyboard type, Remote character set and Remote code page will result in unpredictable results.

Top

Remote character set (RMTCHRSET)

Specifies the character set on the display device created on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the remote character set enhancement as defined in the TN5250E RFC.

*RMTSYS

Use the default character set defined on the remote target system.

***LCL** Use the same character set defined in the display device description for this local device.

Note: An invalid combination of Remote keyboard type, Remote character set and Remote code page will result in unpredictable results.

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Examples

Example 1: Starting a TELNET Client Session

```
STRTCPTELN RMTSYS(CHICAGO)
```

This command starts a TELNET client session on remote system CHICAGO. The remote name server currently being used by TCP/IP will map the name CHICAGO to an internet address.

Example 2: Starting a TELNET Session Using an IPV4 Internet Address

```
STRTCPTELN RMTSYS(*INTNETADR) INTNETADR('5.37.197.43')
```

This command starts a TELNET client session on the remote system that has **5.37.197.43** as its internet address.

Example 3: Starting a TELNET Session Using an IPV6 Internet Address

```
STRTCPTELN RMTSYS(*INTNETADR) INTNETADR('2001:DB8::1234')
```

This command starts a TELNET client session on the remote system that has **2001:DB8:0:0:0:0:1234** as its internet address.

Top

Error messages

*ESCAPE Messages

CPD87DC

&1 is not a valid keyword on this display.

CPD87DD

Hexadecimal string not valid.

CPD87DF

Character string not valid.

CPF87DA

STRTCPTELN command not allowed from Send TELNET Control Functions Menu

CPF87DB

STRTCPTELN not allowed in pass-through environment.

CPF87D1

The keyboard language type could not be determined.

CPF87D2

Parameter value &3 not valid.

CPF87D3

Internal system error occurred in program &1.

CPF87D4

Data sent exceeded the corresponding I/O request.

CPF87D5

Selected option &1 not valid.

CPF87D6

Selected option &1 not valid.

CPF87D7

Cannot automatically select virtual device.

CPI87DE

Data received from remote system not recognized.

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Start TCP/IP TELNET (TELNET)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Start TCP/IP TELNET (STRTCPTELN) command is used to start a TELNET client session with a remote system. TELNET is an application protocol that allows a user at one site to access another user at a remote system. This is done as though the remote system were locally attached. TELNET uses the Transmission Control Protocol/Internet Protocol (TCP/IP) to connect to a remote system. The QSYSWRK subsystem must be started before this command can be used.

The operating modes for the TELNET client are:

- 5250 full-screen mode.
- 3270 full-screen mode.
- VT220 full-screen mode.
- VT100 full-screen mode.

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Parameters

| Keyword | Description | Choices | Notes |
|-----------|-------------------------|---|---------------------------|
| RMTSYS | Remote system | Character value, *INTNETADR | Required, Positional 1 |
| INTNETADR | Internet address | Character value | Optional |
| CTLCHAR | Control character key | Character value, '&' | Optional |
| KBDTYPE | Keyboard language type | * LCL , AGB, AGE, AGI, AGM, ALI, ALM, BGB, BGE, BLI, BLM, BRB, BRE, CAB, CAE, CAI, CAM, CLB, CLE, CSB, CSE, CYB, DMB, DME, DMI, DMM, ESB, FAB, FAE, FAI, FAM, FNB, FNE, FNI, FNM, FQB, FQI, GKB, GNB, GNE, HIB, HNB, HNE, ICB, ICE, ICI, ICM, INB, INI, IRB, ITB, ITE, ITI, ITM, JEB, JEI, JKB, JPB, JPE, JUB, KAB, KOB, LAB, LAE, LTB, LVB, MKB, MKE, NCB, NCE, NEB, NEE, NEL, NEM, NWB, NWE, NWI, NWM, PKB, PKE, PLB, PLE, PRB, PRE, PRI, PRM, RCB, RMB, RME, ROB, ROE, RUB, RUE, SFI, SFM, SGI, SGM, SKB, SKE, SPB, SPE, SPI, SPM, SQB, SQE, SSB, SSE, SSI, SSM, SWB, SWE, SWI, SWM, TAB, THB, THE, TKB, TKE, TRB, TRE, UAB, UAE, UKB, UKE, UKI, UKM, USB, USE, USI, USM, VNB, VNE, YGI, YGM, *TRNTBL | Optional |
| PAGEUP | Page Up (Roll Down) key | * PA2 , *PA1, *PA3, *NONE, *F1, *F2, *F3, *F4, *F5, *F6, *F7, *F8, *F9, *F10, *F11, *F12, *F13, *F14, *F15, *F16, *F17, *F18, *F19, *F20, *F21, *F22, *F23, *F24, *CLEAR, *ERASEINP, *CSRSLT | Optional |
| PAGEDOWN | Page Down (Roll Up) key | * PA1 , *PA2, *PA3, *NONE, *F1, *F2, *F3, *F4, *F5, *F6, *F7, *F8, *F9, *F10, *F11, *F12, *F13, *F14, *F15, *F16, *F17, *F18, *F19, *F20, *F21, *F22, *F23, *F24, *CLEAR, *ERASEINP, *CSRSLT | Optional |
| CSRSLT | Cursor Select key | * NONE , *F1, *F2, *F3, *F4, *F5, *F6, *F7, *F8, *F9, *F10, *F11, *F12, *F13, *F14, *F15, *F16, *F17, *F18, *F19, *F20, *F21, *F22, *F23, *F24 | Optional |

| Keyword | Description | Choices | Notes |
|------------|--|--|----------|
| TBLVTOU | Outgoing EBCDIC/ASCII table | Single values: *CCSID , *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing EBCDIC/ASCII table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBLVTIN | Incoming ASCII/EBCDIC table | Single values: *CCSID , *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming ASCII/EBCDIC table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBL3270OUT | Outgoing 3270 mapping table | Single values: *KBDTYPE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Outgoing 3270 mapping table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBL3270IN | Incoming 3270 mapping table | Single values: *KBDTYPE Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: Incoming 3270 mapping table | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| INZWAIT | Timeout wait for host | 1-32767, 120 , *NOMAX | Optional |
| NUMLCK | Numeric lock keyboard | *NO , *YES | Optional |
| NULLS | Handle nulls | *BLANK , *REMOVE | Optional |
| TBLVTDROW | ASCII full screen draw out | Single values: *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: ASCII full screen draw out | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| TBLVTDROWI | ASCII full screen draw in | Single values: *DFT Other values: <i>Qualified object name</i> | Optional |
| | Qualifier 1: ASCII full screen draw in | <i>Name</i> | |
| | Qualifier 2: Library | <i>Name</i> , *LIBL, *CURLIB | |
| VTOPT | ASCII full screen options | Single values: *NONE , *ALL Other values (up to 3 repetitions): *LOCALECHO, *AUTOWRAP, *NEWLINE | Optional |
| DSPCHRATTR | Display character attributes | *NO , *YES | Optional |
| PAGESCROLL | ASCII page scroll feature | *NO , *YES | Optional |
| ANSWERBACK | ASCII answerback feature | <i>Character value</i> , *NONE | Optional |
| TABSTOP | ASCII tab stops | Single values: *DFT , *NONE Other values (up to 10 repetitions): 0-133 | Optional |
| CCSID | Coded character set identifier | 1-65533, *MULTINAT , *BRITISH , *DUTCH , *FINNISH , *FRENCH , *FRENCHCAN , *GERMAN , *ITALIAN , *NORDAN , *SPANISH , *SWEDISH , *SWISS | Optional |
| ASCOPRMOD | ASCII operating mode ID | *VT220B7 , *VT220B8, *VT100, *VT52 | Optional |
| PORT | Port | 1-65534, *DFT | Optional |
| RMTVRTDSP | Remote virtual display | <i>Name</i> , *DFT | Optional |
| RMTUSER | Remote user | <i>Name</i> , *NONE , *CURRENT | Optional |
| RMTPWD | Remote password | <i>Character value</i> , *NONE | Optional |
| RMTPWDENC | Remote password encryption | *DES7 , *SHA1 , *NONE | Optional |
| RMTINLPGM | Remote initial program | <i>Name</i> , *RMTUSRPRE , *NONE | Optional |

| Keyword | Description | Choices | Notes |
|------------|------------------------|----------------------------|----------|
| RMTINLMNU | Remote initial menu | Name, *RMTUSRPRF, *SIGNOFF | Optional |
| RMTCURLIB | Remote current library | Name, *RMTUSRPRF | Optional |
| RMTKBDTYPE | Remote keyboard type | *RMTSYS, *LCL | Optional |
| RMTCODPAG | Remote codepage | *RMTSYS, *LCL | Optional |
| RMTCHRSET | Remote character set | *RMTSYS, *LCL | Optional |

Top

Remote system (RMTSYS)

Specifies the remote system name. The name must be valid, and the remote system must provide TELNET server support. You can assign names to an internet address. Use the Work with TCP/IP host table entries option on the Configure TCP/IP menu (CFGTCP command). A remote name server also maps remote system names to internet addresses. You can use the Change remote name server option on the CFGTCP menu to specify a remote name server.

This is a required parameter.

*INTNETADR

The remote system is identified by the value specified for the **Internet address (INTNETADR)** parameter.

character-value

Specify the remote system name to which TELNET is to be started.

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Internet address (INTNETADR)

Specifies the IPv4 or IPv6 internet address of the remote system to which TELNET is started.

An IPv4 internet address is specified in the form nnn.nnn.nnn.nnn, where nnn is a decimal number ranging from 0 through 255. An IPv4 internet address is not valid if it has a value of all binary ones or all binary zeros for the network identifier (ID) portion or the host ID portion of the address.

An IPv6 internet address is specified in the form x:x:x:x:x:x, where x is a hexadecimal number ranging from 0 through X'FFFF'. "::" may be used once in the IPv6 address to indicate one or more groups of 16 bits of zeros. The "::" may be used to compress leading, imbedded, or trailing zeros in the address.

If the internet address is entered from a command line, the address must be enclosed in apostrophes.

Note: A value must be specified for this parameter if *INTNETADR is specified for the **Remote system (RMTSYS)** parameter.

character-value

Specify the internet address of the remote system.

Top

Control character key (CTLCHAR)

Specifies the character that is used to represent the control (Ctrl) key on an ASCII keyboard. When this character is used, TELNET interprets the next character as a control character that is to be sent to a remote system. For example, the characters &C indicate that ASCII control character X '03' is sent. This parameter takes effect only if the user is in ASCII line mode, VT100 full-screen mode, or VT220 full-screen mode.

& An ampersand is used to represent the control key on an ASCII keyboard.

character-value

Specify the control character that represents the control key on an ASCII keyboard. The remote system determines which control characters are valid. However, the ASCII mapping table used by TELNET determines which ASCII character is sent to the remote system.

Top

Keyboard language type (KBDTYPE)

Specifies the type of keyboard used on the display device. This parameter also determines which mapping table is used. This parameter is used for the 3270 and 5250 full-screen modes. This parameter is ignored when the user is in ASCII line mode or VT100 or VT220 full-screen mode. The type of keyboard device is specified by a 3-character value.

*LCL The device is a local display device. The keyboard type is determined from the display device description.

*TRNTBL

User-defined mapping tables are used for working in the 3270 full-screen mode. The character translation is defined by the mapping tables specified for the **Incoming 3270 mapping table (TBL3270IN)** and **Outgoing 3270 mapping table (TBL3270OUT)** parameters. Both the TBL3270IN and TBL3270OUT parameters must be specified when KBDTYPE(*TRNTBL) is specified. KBDTYPE(*TRNTBL) is valid for both local and remote display devices.

display-keyboard-identifier

Specify the three-character keyboard identifier for the language group associated with the display device from which TELNET is entered. This identifier is ignored if the user is requesting to emulate a local 3270 display device.

Albania

ALB

Albania Multinational (Euro)

ALM

Arabic X/Basic

CLB

Arabic (Euro)

CLE

Austria/Germany

AGB

Austria/Germany (Euro)

AGE

Austria/Germany Multinational

AGI

Austria Multinational (Euro)

AGM

Belgium Multinational
BLI

Belgium Multinational (Euro)
BLM

Brazilian Portuguese
BRB

Brazilian Portuguese (Euro)
BRE

Bulgaria
BGB

Bulgaria Multinational (Euro)
BGE

Canadian French
CAB

Canadian French (Euro)
CAM

Canadian French (Euro)
CAE

Canadian French Multinational
CAI

Croatia
YGI

Cyrillic
CYB

Czech Republic
CSB

Czech Republic (Euro)
CSE

Denmark
DMB

Denmark (Euro)
DME

Denmark Multinational
DMI

Denmark Multinational (Euro)
DMM

Estonia
ESB

Finland/Sweden
FNB

Finland/Sweden (Euro)
FNE

Finland/Sweden Multinational
FNI

Finland Multinational (Euro)
FNM

France (Azerty)
FAB

France (Azerty) (Euro)
FAE

France (Azerty) Multinational
FAI

France (Azerty) Multinational (Euro)
FAM

France (Qwerty)
FQB

France (Qwerty) Multinational
FQI

Greece
GNB

Greece (new) (Euro)
GNE

Greece
GKB

Hebrew
NCB

Hebrew (Euro)
NCE

Hindi HIB

Hungary
HNB

Hungary (Euro)
HNE

Iceland
ICB

Iceland (Euro)
ICE

Iceland Multinational
ICI

Iceland Multinational (Euro)
ICM

International
INB

International Multinational
INI

Iran (Farsi)
IRB

Italy ITB

Italy (Euro)
ITE

Italy Multinational
ITI

Italy Multinational (Euro)
ITM

Japan JPB

Japan/English
JPE

Japan (Euro)
JEB

Japan/English Multinational
JEI

Japan/Kanji. (For PS/55* and 5295 display stations)
JKB

Japan United States Basic
JUB

Japan/Katakana. (For 5251, 5291, 5292, and 3180 Katakana display stations)
KAB

Korea KOB

Lao People's Democratic Republic
LAB

Lao (Euro)
LAE

Lithuania
LTB

Latvia LVB

Latin 2
ROB

Latin 2 (Euro)
ROE

Macedonia
MKB

Macedonia (Euro)
MKE

Netherlands
NEB

Netherlands (Euro)
NEE

Netherlands Multinational
NEI

Netherlands Multinational (Euro)
NEM

Norway
NWB

Norway (Euro)
NWE

Norway Multinational
NWI

Norway Multinational (Euro)
NWM

Poland
PLB

Poland (Euro)
PLE

Portugal
PRB

Portugal (Euro)
PRE

Portugal Multinational
PRI

Portugal Multinational (Euro)
PRM

Romania
RMB

Romanian (Euro)
RME

Russia/Ukraine
RUB

Russia Multinational (Euro)
RUE

Serbia (Cyrillic)
SQB

Serbia Multinational (Euro)
SQE

Serbia (Latin)
YGI

Simplified Chinese
RCB

Slovakia
SKB

Slovakia (Euro)
SKE

Slovenia
YGI

Spain SPB

Spain (Euro)
SPE

Spain Multinational
SPI

Spain Multinational (Euro)
SPM

Spanish Speaking
SSB

Spanish Speaking (Euro)
SSE

Spanish Speaking Multinational
SSI

Spanish Speak Multinational (Euro)
SSM

Sweden
SWB

Sweden (Euro)
SWE

Sweden Multinational
SWI

Sweden Multinational (Euro)
SWM

Switzerland/French Multinational
SFI

Switzerland/French (Euro)
SFM

Switzerland/German (Euro)
SGM

Switzerland/German Multinational
SGI

Thailand
THB

Thailand (Euro)
THE

Traditional Chinese
TAB

Turkey (Qwerty)
TKB

Turkey (old) (Euro)
TKE

Turkey (F)
TRB

Turkey (new) (Euro)
TRE

Ukraine
UAB

Ukraine (Euro)

UAE

United Kingdom/English

UKB

United Kingdom (Euro)

UKE

United Kingdom Multinational

UKI

United Kingdom Multinational (Euro)

UKM

United States/Canada

USB

United States/Canada (Euro)

USE

United States/Canada Multinational

USI

United States/Canada Multinational (Euro)

USM

Urdu PKB

Urdu (Euro)

PKE

Vietnam

VNB

Vietnam (Euro)

VNE

Croatia, Serbia (Latin), and Slovenia

YGI

Croatia, Serbia (Latin), and Slovenia (Euro)

YGM

Note: For example, KBDTYPE(USB) indicates a keyboard using the basic United States/Canada character set.

Top

Page Up (Roll Down) key (PAGEUP)

Specifies which key to assign to the 5250 keyboard Page Up key when it is emulating a 3270 full-screen display device. This parameter is useful because the 3270 does not have a Page Up key. Therefore, when a 5250 display device user is emulating a 3270 display device, the user can continue to benefit from the Page Up key by assigning one of the 3270 keyboard keys to it. This parameter takes effect only in 3270 full-screen mode when the user uses TELNET from a 5250 display device.

***PA2** The PA2 key is assigned to the Page Up key.

***NONE**

No key is assigned to the Page Up key.

***F-KEY**

A function key (F1 through F24) is assigned to the Page Up key.

***PA1** The PA1 key is assigned to the Page Up key.

***PA3** The PA3 key is assigned to the Page Up key.

***CLEAR**

The Clear key is assigned to the Page Up key.

***ERASEINP**

The Erase Input key is assigned to the Page Up key.

***CSRSLT**

The Cursor Select key is assigned to the Page Up key.

Top

Page Down (Roll Up) key (PAGEDOWN)

Specifies which key to assign to the 5250 keyboard Page Down key when it is emulating a 3270 full-screen display. This parameter is useful because the 3270 does not have a Page Down key. Therefore, when a 5250 display device user is emulating a 3270 display device, the user can continue to benefit from the Page Down key by assigning one of the 3270 keyboard keys to it. This parameter takes effect only in 3270 full-screen mode when the user uses TELNET from a 5250 display device.

***PA1** The PA1 key is assigned to the Page Down key.

***NONE**

No key is assigned to the Page Down key.

***F-KEY**

A function key (F1 through F24) is assigned to the Page Down key.

***PA2** The PA2 key is assigned to the Page Down key.

***PA3** The PA3 key is assigned to the Page Down key.

***CLEAR**

The Clear key is assigned to the Page Down key.

***ERASEINP**

The Erase Input key is assigned to the Page Down key.

***CSRSLT**

The Cursor Select key is assigned to the Page Down key.

Top

Cursor Select key (CSRSLT)

Specifies which key on the 5250 keyboard is used to emulate a 3270 keyboard Cursor Select key. This parameter takes effect only in 3270 full-screen mode when the user uses TELNET from a 5250 display device.

***NONE**

No key is assigned to be the Cursor Select key.

***F-KEY**

A function key (F1 through F24) is assigned to be the Cursor Select key.

Top

Outgoing EBCDIC/ASCII table (TBLVTOUT)

Specifies the table object that is to be used to map all outgoing TELNET data when in VT100 or VT220 full-screen mode or ASCII line mode. All outgoing data is mapped from EBCDIC to ASCII. VT100 and VT220 control sequences are not mapped.

The remote system controls whether the standard ASCII character set or the ASCII special characters and line drawing character set is in effect.

If a table object is specified for this parameter, the table object is used for outgoing mapping. Otherwise, the CCSID parameter is used to determine outgoing mapping.

Single values

*CCSID

The CCSID parameter is used to determine outgoing mapping.

*DFT The CCSID parameter is used to determine outgoing mapping.

Qualifier 1: Outgoing EBCDIC/ASCII table

name Specify the name of the table object used for mapping outgoing TELNET data.

Qualifier 2: Library

*LIBL All libraries in the user and system portions of the job's library list are searched until the first match is found.

*CURLIB

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming ASCII/EBCDIC table (TBLVTIN)

Specifies the table object used to map all incoming TELNET data when in VT100 or VT220 full-screen mode or ASCII line mode. All incoming data is mapped from ASCII to EBCDIC. VT100 and VT220 control sequences are not mapped.

The remote system controls whether the standard ASCII character set or the ASCII special characters and line drawing character set is in effect.

If a table object is specified for this parameter, the table object is used for incoming mapping. Otherwise, the CCSID parameter is used to determine incoming mapping.

Single values

*CCSID

The CCSID parameter is used to determine incoming mapping.

*DFT The CCSID parameter is used to determine incoming mapping.

Qualifier 1: Incoming ASCII/EBCDIC table

name Specify the name of the table object used for mapping incoming TELNET data.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Outgoing 3270 mapping table (TBL3270OUT)

Specifies the outgoing mapping table used to translate characters sent to the remote system when in 3270 full-screen mode. This parameter takes effect for 3270 full-screen mode sessions only. This parameter is valid only when *TRNTBL is specified for the **Keyboard language type (KBDTYPE)** parameter.

Single values

***KBDTYPE**

Translation is done by using the language keyboard type specified for the KBDTYPE parameter.

Qualifier 1: Outgoing 3270 mapping table

name Specify the name of the outgoing mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Incoming 3270 mapping table (TBL3270IN)

Specifies the incoming mapping table used to translate characters sent from the remote system when in 3270 full-screen mode. This parameter takes effect for 3270 full-screen mode sessions only. This parameter is valid only when *TRNTBL is specified for the **Keyboard language type (KBDTYPE)** parameter.

Single values

***KBDTYPE**

Translation is done by using the language keyboard type specified for the KBDTYPE parameter.

Qualifier 1: Incoming 3270 mapping table

name Specify the name of the incoming mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Timeout wait for host (INZWAIT)

Specifies the amount of time (in seconds) that a local system waits for a connection to the remote system to be established. If a connection with the remote system does not occur within the time specified by the user, the TELNET session ends, and a message is returned to the user requesting the connection.

120 TELNET waits 120 seconds for the first display from the remote system.

***NOMAX**

There is no limit to the amount of time the local system waits for the establishment of the connection with the remote system. Specifying this value can be useful if the requester is uncertain whether the remote system is active.

1-32767

Specify the number of seconds the local system waits for establishing a connection between the local system and the remote system.

Top

Numeric lock keyboard (NUMLCK)

Specifies whether the numeric input fields allow only numeric data on the 5250 display device. This parameter specifies whether the numeric shift lock key, which is used for numeric input fields received from the remote system, is set automatically on the 5250 display device. This parameter takes effect only when the user is in 3270 full-screen mode and is using TELNET from a 5250 display device with a data entry keyboard.

***NO** Numeric input fields are displayed on the 5250 display device with the keyboard shift at the lower setting.

***YES** Numeric input fields are displayed on the 5250 display device with the numeric shift locked at the upper setting. The user can press the Alpha key on the keyboard to reset the numeric shift lock at the lower setting. NUMLCK(*YES) is not valid for 5250 display devices configured with a typewriter keyboard.

Top

Handle nulls (NULLS)

Specifies how the 3270 data stream nulls are processed before being sent to the remote system. This parameter takes effect only in 3270 full-screen mode sessions.

***BLANK**

The beginning and embedded nulls are changed to blanks.

***REMOVE**

The beginning and embedded nulls are removed from the data stream.

Top

ASCII full screen draw out (TBLVTDRWO)

Specifies the outgoing mapping table used to map outgoing TELNET data when in VT100 or VT220 full-screen mode. All outgoing data is mapped from EBCDIC to ASCII characters and the ASCII line drawing character set. VT100 and VT220 control sequences are not mapped. The remote system controls whether the standard ASCII character set (or national language character set in VT220 mode) or the ASCII special drawing character set is in effect. The mapping table specified for this parameter is used when the special line drawing character set is in effect.

Single values

***DFT** The default EBCDIC-to-ASCII special line drawing mapping table is used.

Qualifier 1: ASCII full screen draw out

name Specify the name of the outgoing mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

ASCII full screen draw in (TBLVTDRWI)

Specifies the incoming mapping table used to map incoming TELNET data when in VT100 or VT220 full-screen mode. All incoming data is mapped from ASCII to EBCDIC characters and the ASCII line drawing character set. VT100 and VT220 control sequences are not mapped. The remote system controls whether the standard ASCII character set (or national language character set in VT220 mode) or the ASCII special drawing character set is in effect. The mapping table specified for this parameter is used when the special line drawing character set is in effect.

Single values

***DFT** The default ASCII-to-EBCDIC special line drawing mapping table is used.

Qualifier 1: ASCII full screen draw in

name Specify the name of the incoming mapping table.

Qualifier 2: Library

***LIBL** All libraries in the user and system portions of the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

ASCII full screen options (VTOPT)

Specifies the setup options. This parameter is applicable only in VT100 or VT220 full-screen mode.

Single values

*NONE

None of the available setup options are selected.

***ALL** All of the available setup options are selected.

Other values (up to 3 repetitions)

*LOCALECHO

The local echo option is selected. This option allows you to specify whether the remote system or the local terminal displays typed characters.

*NEWLINE

The new line option is selected. This option allows you to specify which characters are transmitted when you press the Enter key. When the NEWLINE option is off, the Enter key transmits a carriage return. When the NEWLINE option is on, the Enter key transmits a carriage return followed by a line feed.

*AUTOWRAP

The automatic wrap option is selected. This option allows you to specify where the next character appears when the cursor reaches the right margin. When the automatic wrap option is on and the cursor is in the last character position of a line, the next character received is put in the first position of the next line. When the automatic wrap option is off and the cursor is in the last character position of a line, the next character received replaces the character in the current position of the cursor.

Top

Display character attributes (DSPCHRATTR)

Specifies whether character attributes are displayed. This parameter is applicable only in VT100 or VT220 full-screen mode. This parameter is not applicable when using a display that supports extended attributes (such as a 3477). Character attributes can be displayed without data loss on such displays.

*YES Character attributes are displayed.

***NO** Character attributes are not displayed.

Top

ASCII page scroll feature (PAGE_SCROLL)

Specifies whether paging is used in this session. This parameter is applicable only in VT100 or VT220 mode.

*NO Paging is not used. Data is displayed as fast as the system allows when received from the remote system.

***YES** Paging is used. Data is displayed one page at a time, and you must press the Page Down (Roll Up) key to move on to the next page of data.

Top

ASCII answerback feature (ANSWERBACK)

Specifies the answerback message. This parameter is applicable only in VT100 or VT220 full-screen mode. You can store an identifying message of up to 20 characters in length that is sent to the remote system when that system transmits an enquire (ENQ) character.

*NONE

No answerback message is specified.

character-value

Specify an answerback message of up to 20 characters in length.

Top

ASCII tab stops (TABSTOP)

Specifies which columns are to contain tab stops. This parameter is applicable only in VT100 or VT220 full-screen mode. A maximum of 10 tab stops can be specified.

Single values

*DFT The VT100 or VT220 default tab stops are used.

*NONE

No tab stops are specified.

Other values

0-133 Specify the column numbers to contain tab stops.

Top

Coded character set identifier (CCSID)

Specifies the ASCII coded character set identifier (CCSID) in use. This parameter is the default used by the STRCTPTELN command for VT100 and VT220 full-screen mapping. The ASCII CCSID value is used to map between the EBCDIC CCSID of the job and the National Replacement Character set, or the ASCII CCSID value selected with the CCSID parameter.

Mapping can be done optionally with mapping tables defined in the TBLVTOUT and TBLVTIN parameters. The default value for the TBLVTOUT and TBLVTIN parameters is *CCSID, which indicates mapping is determined by the CCSID parameter.

If a mapping table is to be used for outgoing mapping, you can specify a table object in the TBLVTOUT parameter. The table object in the TBLVTOUT parameter is used for outgoing mapping instead of the CCSID value.

Incoming mapping can be changed by specifying a table object in the TBLVTIN parameter. This mapping table overrides the specified CCSID value and is used for incoming mapping.

The special values allowed for the CCSID parameter for the national replacement character set are the Digital Equipment Corporation (DEC) standard character sets. A numeric CCSID value can optionally be used to identify the required ASCII-to-EBCDIC and EBCDIC-to-ASCII mapping. If a numeric CCSID value is chosen, the value is validated to ensure it is a valid ASCII CCSID value that is available on the current system.

***MULTINAT**

The default is the 8-bit DEC multinational translation table, which consists of the 7-bit compatible standard ASCII Graphics Set (US) and the 8-bit compatible DEC supplemental graphics set.

***BRITISH**

British national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***DUTCH**

Dutch national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***FINNISH**

Finnish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***FRENCH**

French national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***FRENCHCAN**

French Canadian national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***GERMAN**

German national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***ITALIAN**

Italian national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***NORDAN**

Norwegian/Danish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***SPANISH**

Spanish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***SWEDISH**

Swedish national language mapping will be initialized when VT100 or VT220 mode is negotiated.

***SWISS**

Swiss national language mapping will be initialized when VT100 or VT220 mode is negotiated.

1-65533

Specify the CCSID value to be used. This value is validated to ensure a valid ASCII CCSID was requested.

Top

ASCII operating mode ID (ASCOPRMOD)

Specifies which operating mode the client-TELNET session will be initialized in when VT220 full-screen mode is negotiated.

***VT220B7**

The default mode is VT220 7-bit, which transmits all escape sequences using standard VT220 7-bit ASCII communications and can receive and run standard 7-bit ANSI functions.

***VT220B8**

VT220-8 bit mode transmits all escape sequences using 8-bit ASCII characters and can receive and run standard 8-bit ANSI functions.

***VT100**

VT100 mode transmits all escape sequences using standard VT100 7-bit ASCII communications and can receive and run standard 7-bit ANSI functions.

***VT52** VT52 mode transmits all escape sequences using standard VT52 7-bit ASCII communications. Standard ANSI functions are not supported.

Top

Port (PORT)

Specifies a certain port that an application on the target server system is listening on (if it's other than well-known port 23 for TELNET).

***DFT** This default value uses the well-known port 23 for the TELNET session.

1-65534

Specify the port number to be used. You should be aware of the specific port the remote server application is listening on. Otherwise, a port that is specified (other than 23) can result in the remote host rejecting the open attempt.

Top

Remote virtual display (RMTVRTDSP)

Specifies a unique device name to be requested on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the device naming enhancement as defined in the TN5250E RFC.

***DFT** A device using the default device naming (QPADEVnnn) will be created depending on system values in effect at the remote server system.

name Specify the device name to be used. A device using this specific name, if not already in use on the target remote system, will be created and assigned to this session.

Top

Remote user (RMTUSER)

Specifies the user profile for automatic sign-on to the remote server system. If a profile is specified for this parameter and password security is active on the target system, *NONE is not valid for the Remote password (RMTPWD) parameter.

If you are connecting to an OS/400 TELNET server, the QRMTSIGN system value must be set to *SAMEPRF or *VERIFY. For TELNET, the *SAMEPRF setting is treated the same as the *VERIFY setting because the TELNET server only receives the user profile name specified on the STRTCPTELN command. It does not receive the user profile name of the job using the STRTCPTELN command and cannot enforce the profiles being the same on both systems.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***NONE**

No user profile is sent and no automatic sign-on occurs.

***CURRENT**

The user profile of the job using the STRTCPTELN command is sent. If the target system allows it, and the user profile exists on the target system, and the password specified for the Remote password (RMTPWD) parameter is valid for the profile, the user is automatically signed on.

Otherwise, the user is presented with a sign-on display on the target system, or a failure message on the source system, depending on the configuration of the target system.

name Specify the name of the user profile to use (that exists) on the target system. If the target system allows it, and the user profile exists on the target system, and the password specified for the Remote password (RMTPWD) parameter is valid for the profile, the user is automatically signed on. Otherwise, the user is presented with a sign-on display on the target system, or a failure message on the source system, depending on the configuration of the target system. If a profile is specified and password security is active on the target system, a password must be specified, even if the profile specified is the same as the current profile.

Top

Remote password (RMTPWD)

Specifies the password being sent to the target system.

If you are connecting to an OS/400 TELNET server, then the QRMTSIGN system value must be set to *SAMEPRF or *VERIFY. For TELNET, the *SAMEPRF setting is treated the same as the *VERIFY setting because the TELNET server only receives the user profile name specified on the STRTCPTELN command. It does not receive the user profile name of the job using the STRTCPTELN command and cannot enforce the profiles being the same on both systems.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

*NONE

The system does not send a password. This value is only valid when *NONE is specified for the **Remote user (RMTUSER)** parameter, and indicates that no automatic sign-on is to be performed on the target system.

character-value

Specify a password to be sent to the target system to verify the sign-on of the user specified for the RMTUSER parameter. The **Remote password encryption (RMTPWDENC)** parameter will be used to determine whether or not the password is encrypted prior to sending it to the target system. Choosing *NONE for the RMTPWDENC parameter will result in the password being sent "in the clear" on the network. This will result in traces, like the communications trace, showing the actual password.

Top

Remote password encryption (RMTPWDENC)

Specifies whether the password being sent to the target system should be encrypted prior to sending it to the remote system.

This parameter is only valid when the **Remote password (RMTPWD)** parameter has a value other than *NONE.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

If the remote system is running OS/400, you should set this parameter based on the release level of the remote system and the system value QPWDLVL on the remote system.

- If OS/400 on the remote system is at release level V4R5 or earlier, specify *DES7.

- If OS/400 on the remote system is at release level V5R1 or later, and QPWDLVL has a value of '0' or '1', specify *DES7.
- If OS/400 on the remote system is at release level V5R1 or later and QPWDLVL has a value of '2' or '3', specify *SHA1.

If the encryption algorithm used does not match what is expected by the remote system, the automatic sign-on will fail and the user is presented with a sign-on display on the target system, or a failure message on the source system, depending on the configuration of the target system.

It is strongly recommended that you use the *DES7 or *SHA1 value for this parameter if you are connecting to an OS/400 TELNET server which will accept encrypted passwords. Using the *DES7 or *SHA1 value will ensure that the password cannot be viewed in traces, such as the communications trace.

***DES7** Encrypt the password, using the DES-7 algorithm, prior to sending it to the target system.

***SHA1**

Encrypt the password, using the SHA-1 algorithm, prior to sending it to the target system.

***NONE**

Do not encrypt the password prior to sending it to the target system. Selecting this value will result in the password being passed "in the clear" on the network. This can result in traces, such as the communications trace, showing the actual password value.

Top

Remote initial program (RMTINLPGM)

Specifies the program that is called immediately after you are automatically signed on to the remote target system.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***RMTUSRPRF**

The initial program specified in the remote user profile is called immediately after automatic sign-on.

***NONE**

No program is run before the initial menu is shown, even if an initial program is specified in the remote user profile.

name Specify the name of the program that is called immediately after automatic sign-on.

Top

Remote initial menu (RMTINLMNU)

Specifies the menu shown when you are automatically signed on to the target system after the initial program is run.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***RMTUSRPRF**

The initial menu specified in the remote user profile is shown immediately after the initial program is run.

***SIGNOFF**

A menu is not shown after the initial program is run, even if an initial menu is specified in the remote user profile. After the initial program ends, the user is signed off, and the TELNET session ends.

name Specify the name of the menu that is shown immediately after the initial program is run.

Top

Remote current library (RMTCURLIB)

Specifies the library that becomes the current library in the library list of the job after automatic sign-on.

Note: This parameter is only valid for 5250 connections to servers which support the automatic sign-on enhancement as defined in the TN5250E RFC.

***RMTUSRPRF**

The current library specified in the remote user profile becomes the current library after automatic sign-on.

name Specify the name of the library that becomes the current library in the library list after automatic sign-on.

Top

Remote keyboard type (RMTKBDTYPE)

Specifies the type of keyboard used on the display device created on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the remote keyboard enhancement as defined in the TN5250E RFC.

***RMTSYS**

Use the default keyboard type defined on the remote target system.

***LCL** Use the same keyboard type defined in the display device description for this local device.

Note: An invalid combination of Remote keyboard type, Remote character set and Remote code page will result in unpredictable results.

Top

Remote codepage (RMTCODPAG)

Specifies the code page on the display device created on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the remote code page enhancement as defined in the TN5250E RFC.

***RMTSYS**

Use the default code page defined on the remote target system.

***LCL** Use the same code page defined in the display device description for this local device.

Note: An invalid combination of Remote keyboard type, Remote character set and Remote code page will result in unpredictable results.

Top

Remote character set (RMTCHRSET)

Specifies the character set on the display device created on the remote server system.

Note: This parameter is only valid for 5250 connections to servers which support the remote character set enhancement as defined in the TN5250E RFC.

*RMTSYS

Use the default character set defined on the remote target system.

***LCL** Use the same character set defined in the display device description for this local device.

Note: An invalid combination of Remote keyboard type, Remote character set and Remote code page will result in unpredictable results.

Top

Examples

Example 1: Starting a TELNET Client Session

```
STRTCPTELN RMTSYS(CHICAGO)
```

This command starts a TELNET client session on remote system CHICAGO. The remote name server currently being used by TCP/IP will map the name CHICAGO to an internet address.

Example 2: Starting a TELNET Session Using an IPV4 Internet Address

```
STRTCPTELN RMTSYS(*INTNETADR) INTNETADR('5.37.197.43')
```

This command starts a TELNET client session on the remote system that has **5.37.197.43** as its internet address.

Example 3: Starting a TELNET Session Using an IPV6 Internet Address

```
STRTCPTELN RMTSYS(*INTNETADR) INTNETADR('2001:DB8::1234')
```

This command starts a TELNET client session on the remote system that has **2001:DB8:0:0:0:0:1234** as its internet address.

Top

Error messages

*ESCAPE Messages

CPD87DC

&1 is not a valid keyword on this display.

CPD87DD

Hexadecimal string not valid.

CPD87DF

Character string not valid.

- CPF87DA**
STRTCPTELN command not allowed from Send TELNET Control Functions Menu
- CPF87DB**
STRTCPTELN not allowed in pass-through environment.
- CPF87D1**
The keyboard language type could not be determined.
- CPF87D2**
Parameter value &3 not valid.
- CPF87D3**
Internal system error occurred in program &1.
- CPF87D4**
Data sent exceeded the corresponding I/O request.
- CPF87D5**
Selected option &1 not valid.
- CPF87D6**
Selected option &1 not valid.
- CPF87D7**
Cannot automatically select virtual device.
- CPI87DE**
Data received from remote system not recognized.

Top

Work with Names for SMTP (WRKNAMSMTP)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Names for SMTP (WRKNAMSMTP) command adds, maintains, and removes names for a Simple Mail Transfer Protocol (SMTP) user or for the system. The purpose of these names is to associate a SNADS user ID and address pair to an SMTP mailing address.

Restrictions:

- You must have security administrator (*SECADM) special authority to change system aliases or to work with personal aliases other than your own.

Top

Parameters

| Keyword | Description | Choices | Notes |
|---------|-------------------------|-------------------------------------|---------------------------|
| TBLTYPE | Table type to work with | <u>*SELECT</u> , *SYSTEM, *PERSONAL | Optional, Positional 1 |

Top

Table type to work with (TBLTYPE)

Specifies the SMTP alias table to work with.

*SELECT

Shows the initial display allowing you to select either the system or personal alias tables.

*SYSTEM

Shows the display allowing you to work with the system alias table. Users who do not have the proper authority are restricted to print and display only. Proper authority means having either security administrator (*SECADM) or all object (*ALLOBJ) special authority.

*PERSONAL

For users with the proper authority, shows the initial display with the personal alias table selection selected. If you are in the system directory, your user ID and address are automatically filled in. If you are not in the system directory, your user ID and address fields are blank.

If you do not have either *SECADM or *ALLOBJ special authority, you must have an entry in the system directory and are only authorized to work with your own personal alias table. This parameter automatically shows your personal alias table.

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Examples

None

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Error messages

None

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