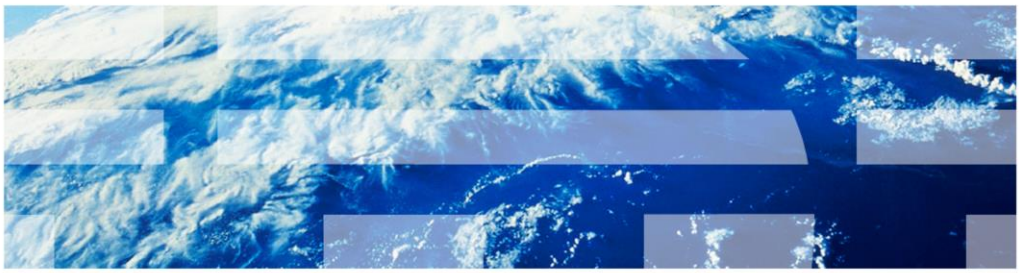
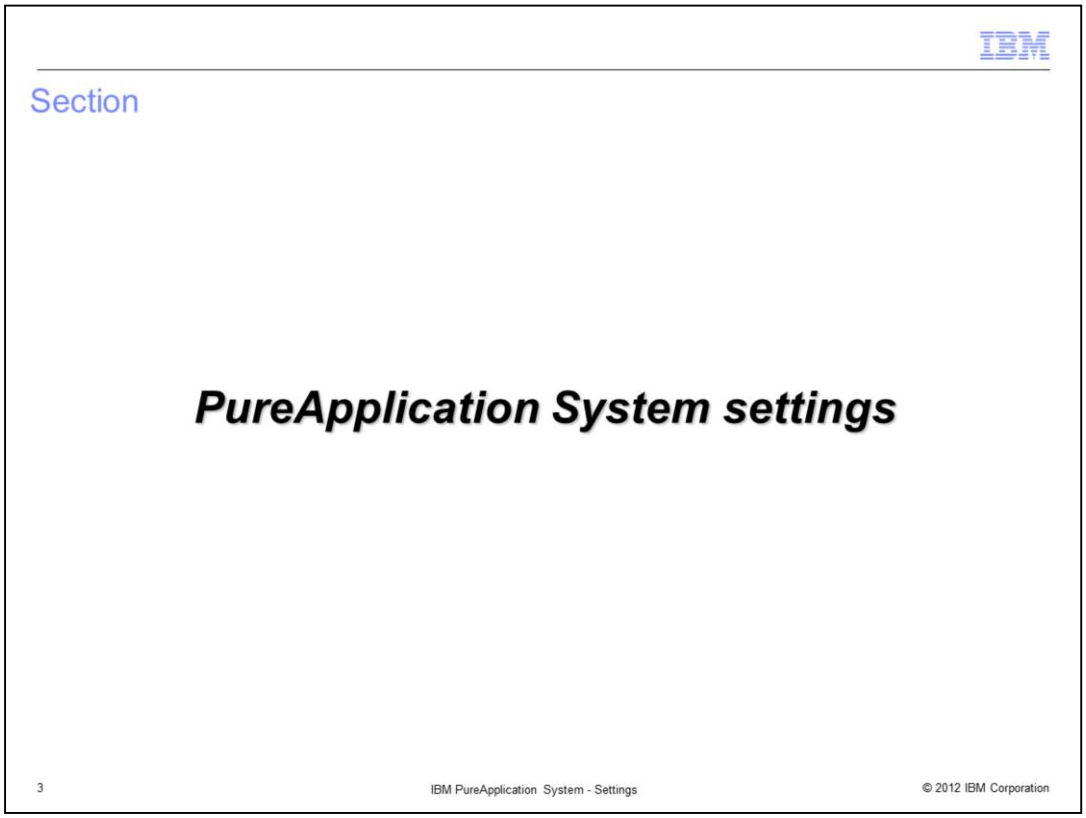
IBM PureApplication System

System settings

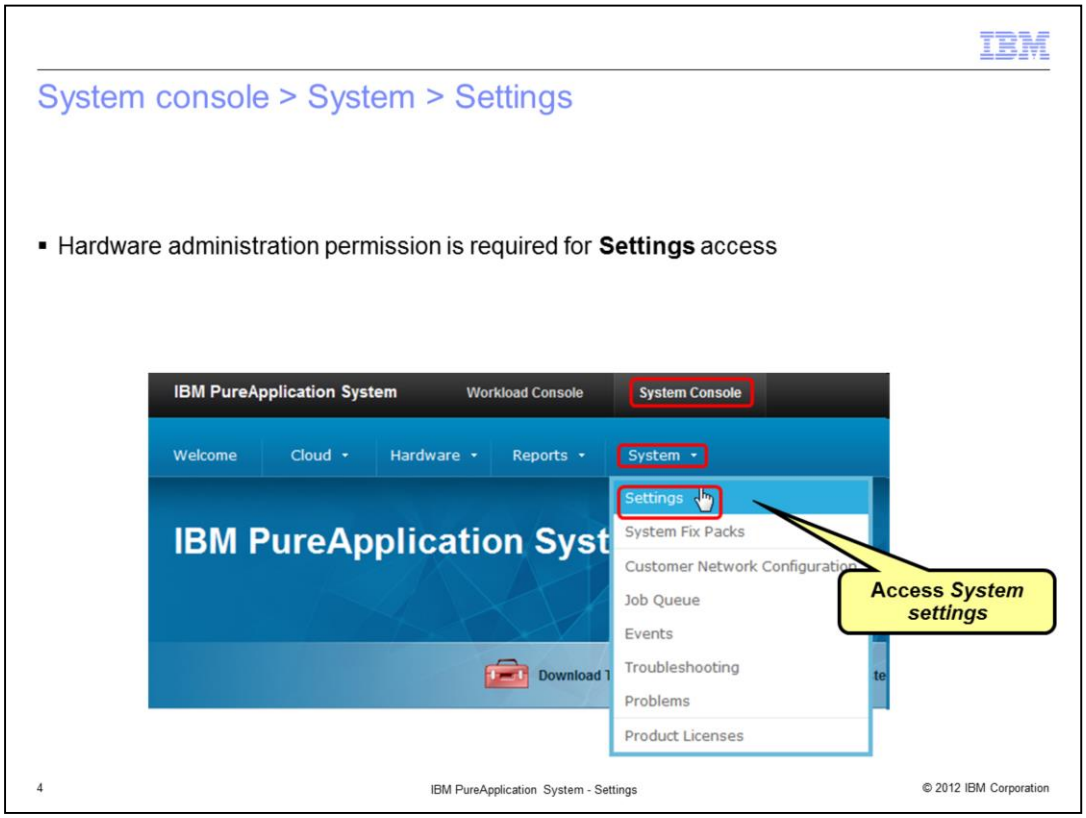


This presentation discusses the System settings menu panels for IBM PureApplication™ System.

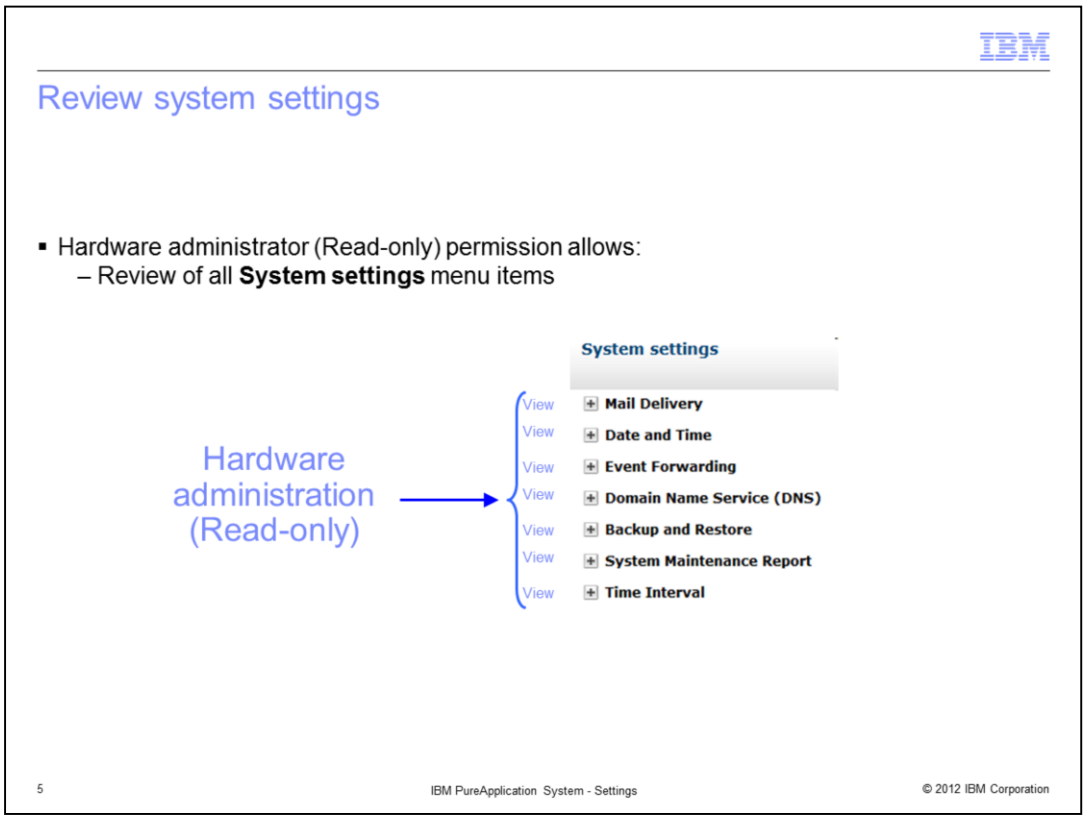
As a hardware administrator for the IBM PureApplication System, you might need to view or modify any of the **System Settings** after the **Genesis** process is complete. This presentation discusses the **Settings** screens for the PureApplication System. The **System Settings** menu includes: **Mail Delivery, Date and Time (for NTP setup), Event Forwarding (for SNMP trap setup), Domain name service, Backup and restore, System Maintenance Report,** and **Time Interval.**



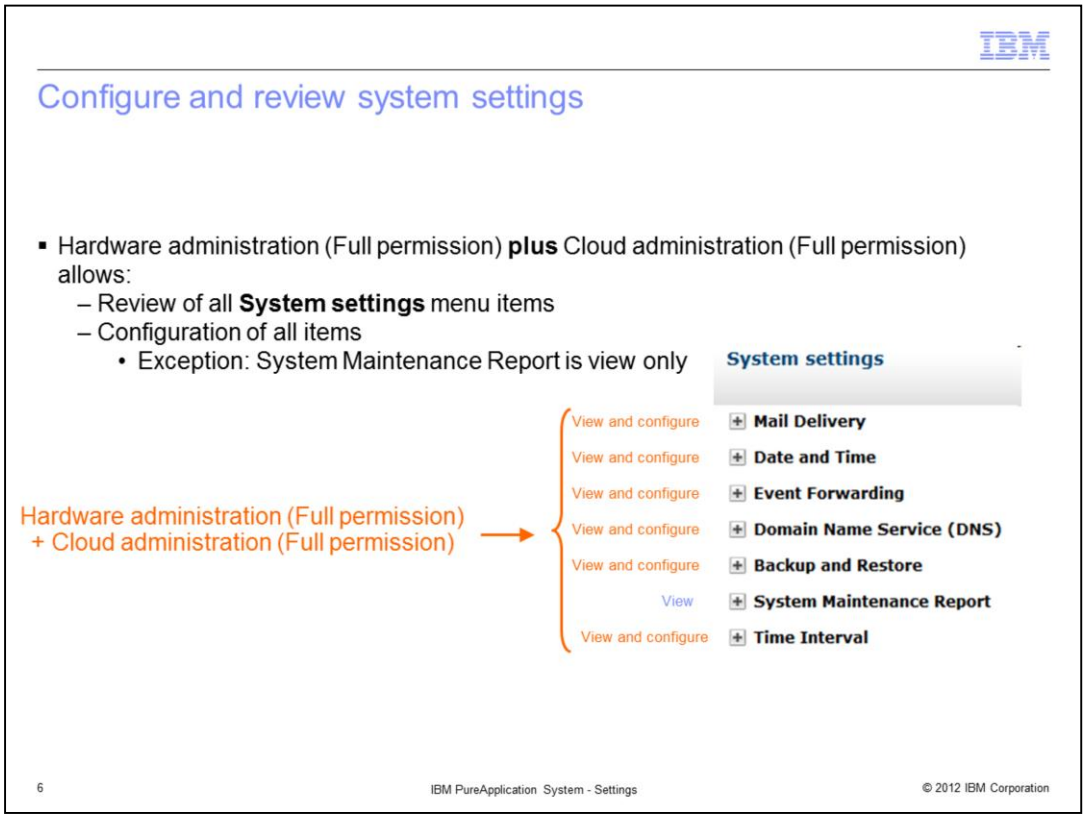
This presentation provides a general overview of each of the settings in the System Settings menu for the PureApplication System.



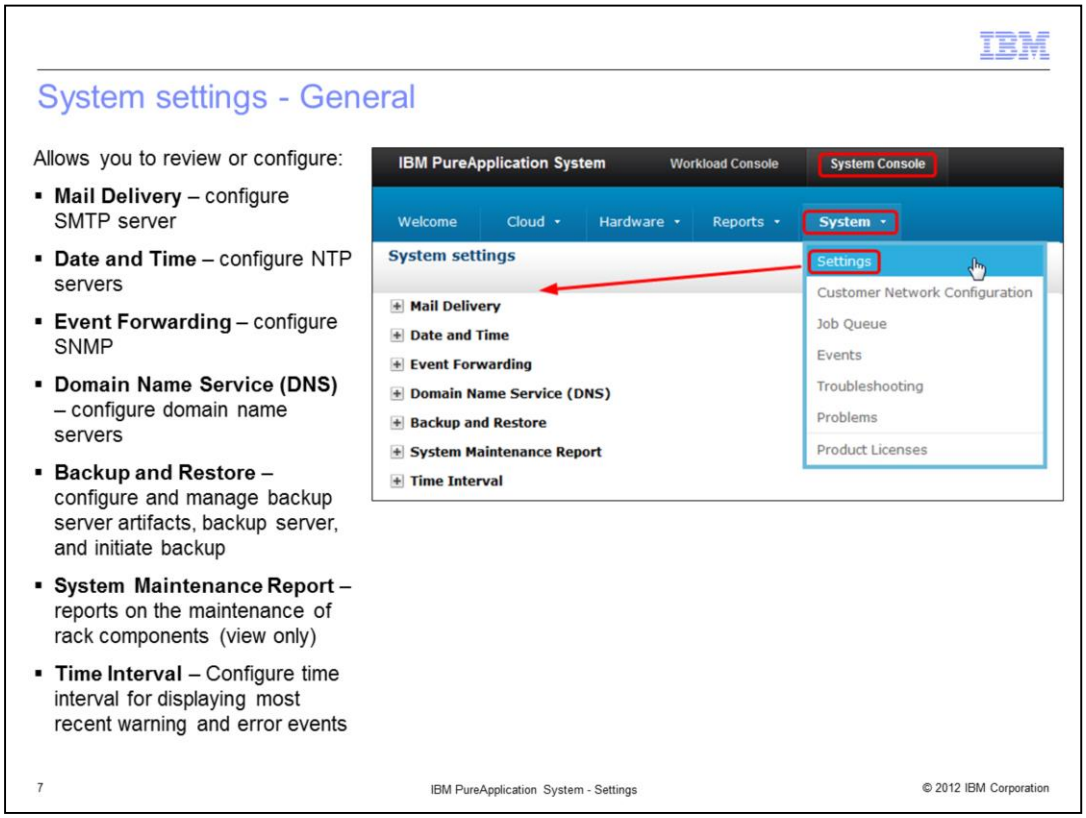
Here's how to access the System Settings menu. First, only a Hardware administrator can access the **Settings** menu items. Log on to the PureApplication System and navigate to the **System Console**. Click the **System** tab on the blue title bar, and within the pull down that opens, click **Settings,** as shown in the slide.



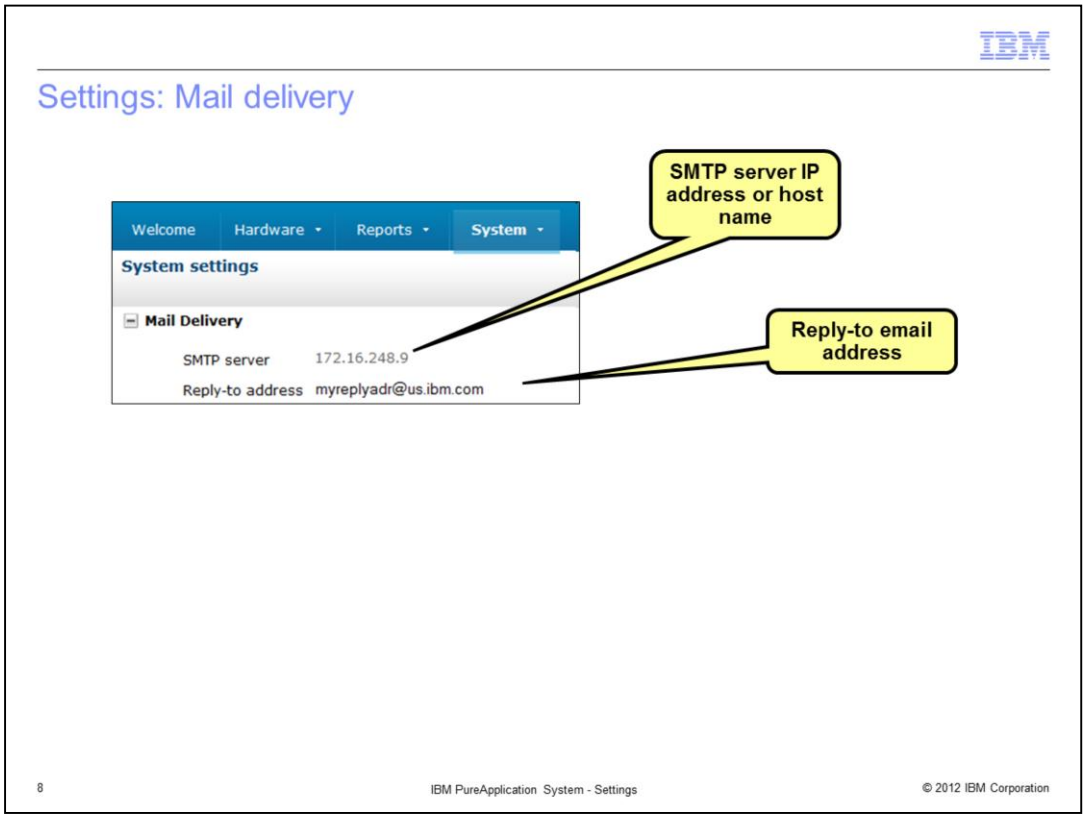
In this slide, you can see that a Hardware administrator with read-only permission can review all seven items in the **System settings** menu.



In this slide, you can see that a user ID with Hardware administration full permission plus Cloud administration full permission can review all seven items in the **System settings** menu. This same user ID can also configure six items on the menu. The System Maintenance Report cannot be configured since it is “view-only.”

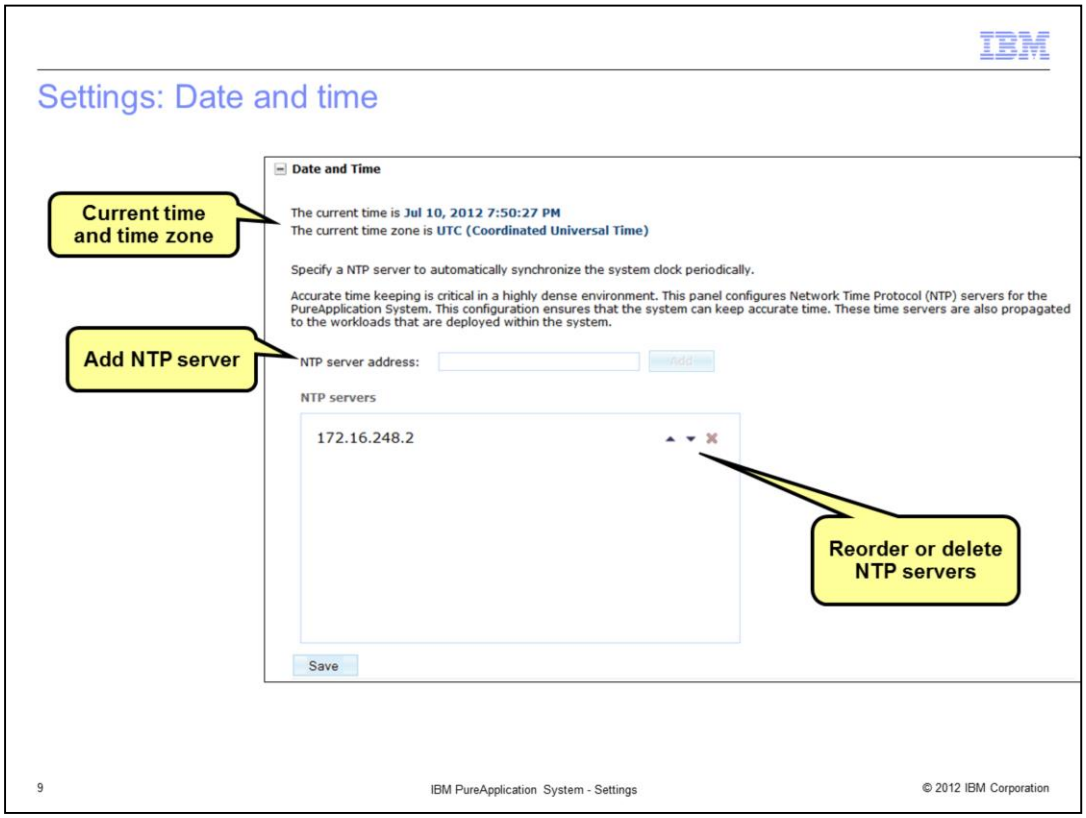


Within the **System settings** menu**,** you can configure PureApplication System for integration into your data center. In the **Mail Delivery** settings, you can configure your SMTP server for email delivery. You configure the Network Time Protocol Servers using the **Date and Time** settings, plus you can review the current time and time zone for PureApplication System. **Event Forwarding** is where you configure SNMP traps to monitor the event severities for which you are interested. Using **Domain Name Service** you configure your Domain Name Servers. The **Backup and Restore** menu section allows you to configure your backup security environment and backup server, and allows you to initiate the backup. The **System Maintenance Report** shows you an overview of the maintenance levels of the rack components. The **Time Interval** allows the configuration of the interval for displaying the most recent warning and error events in the System console.



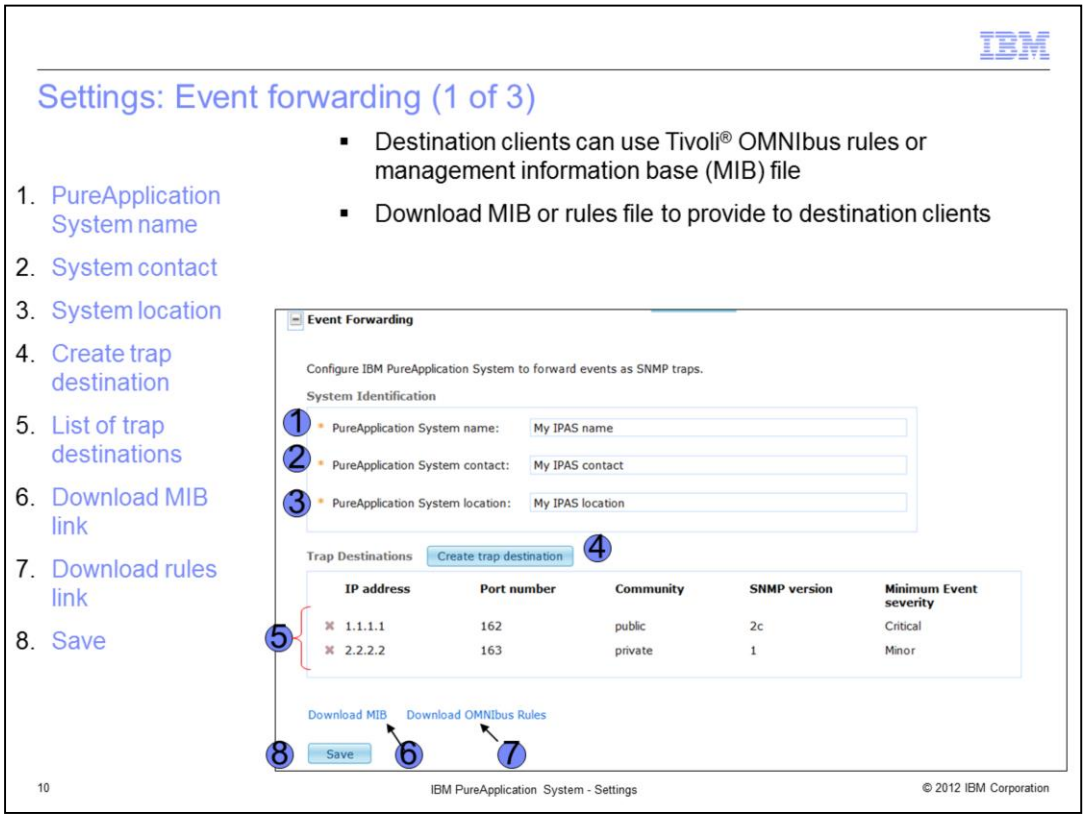
This panel is used to configure the email delivery function on the system. The email delivery function is used in many places within the PureApplication System, but does not function until a valid SMTP server is provided in this panel. In the SMTP server field on this panel, provide the IP address or host name for the SMTP server. If a host name is provided, then it must be able to be resolved by the DNS servers defined for this system.

Optionally a Reply-to-address can also be provided, where the email address of a hardware administrator is entered. This allows for password resets and other event notifications to be sent to this email address.



This Date and Time panel allows you to enter one or more NTP servers to synchronize the system clock and to propagate consistent time to the workloads running on the system. The first available NTP server in the list is used to maintain synchronization.

The servers in the list can be reordered by selecting a server and using the up and down icons. A selected server can also by removed from the list be selecting the delete icon.



In the System Identification section of the screen, you describe the name, contact information, and location of your PureApplication System. The PureApplication Systems name is included with SNMP alert notifications to identify the source of the alert.

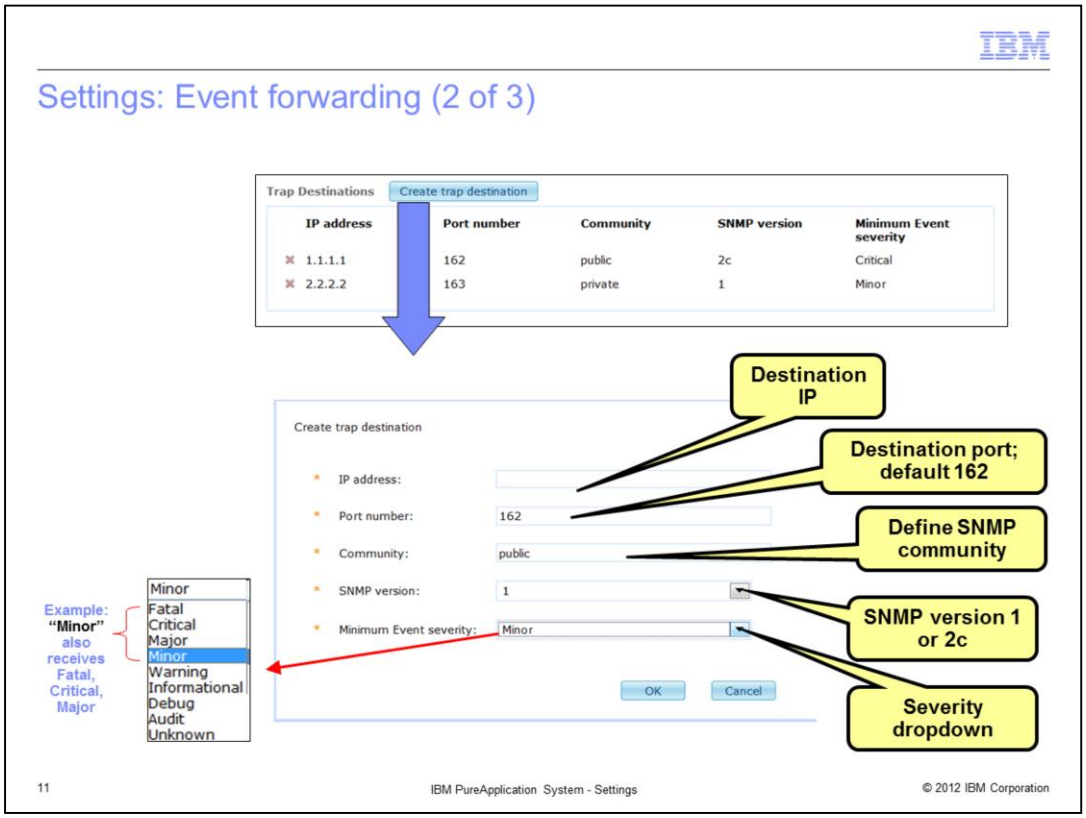
SNMP itself does not define which information (which variables) a managed system should offer. Rather, SNMP uses an extensible design, where the available information is defined by management information bases (MIBs). MIBs describe the structure of the management data of a device subsystem; they use a hierarchical namespace containing object identifiers (OID). Each OID identifies a variable that trap destination clients can read.

To use Simple Network Monitoring Protocol (SNMP) to monitor the status of a IBM PureApplication System, you must download a management information base (MIB).

SNMP trap destinations point to the SNMP clients you use to receive the SNMP data from your system.

The SNMP settings page allows you to create an SNMP trap destination by providing the information required in that section of the screen.

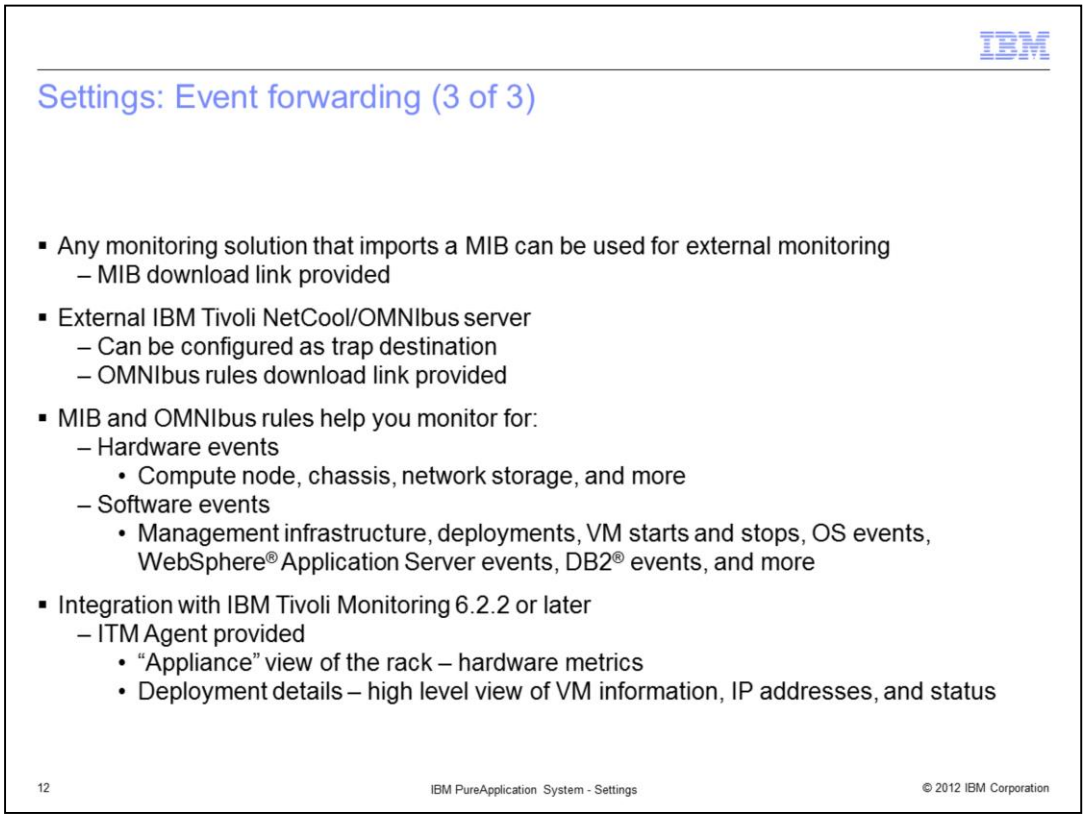
You can use OMNIbus rules or the MIB files to configure the SNMP destination clients to process the SNMP information that PureApplication System sends.



SNMP trap destinations define the SNMP clients you are using to access the SNMP data on your system.

The SNMP Create trap destination button allows you to define: the IP address of the destination, the destination port, define the SNMP community, the SNMP version, and the SNMP severity. Note that authentication in SNMP Versions 1 and 2c amounts to nothing more than a password (community string) sent in clear text between a manager and agent,

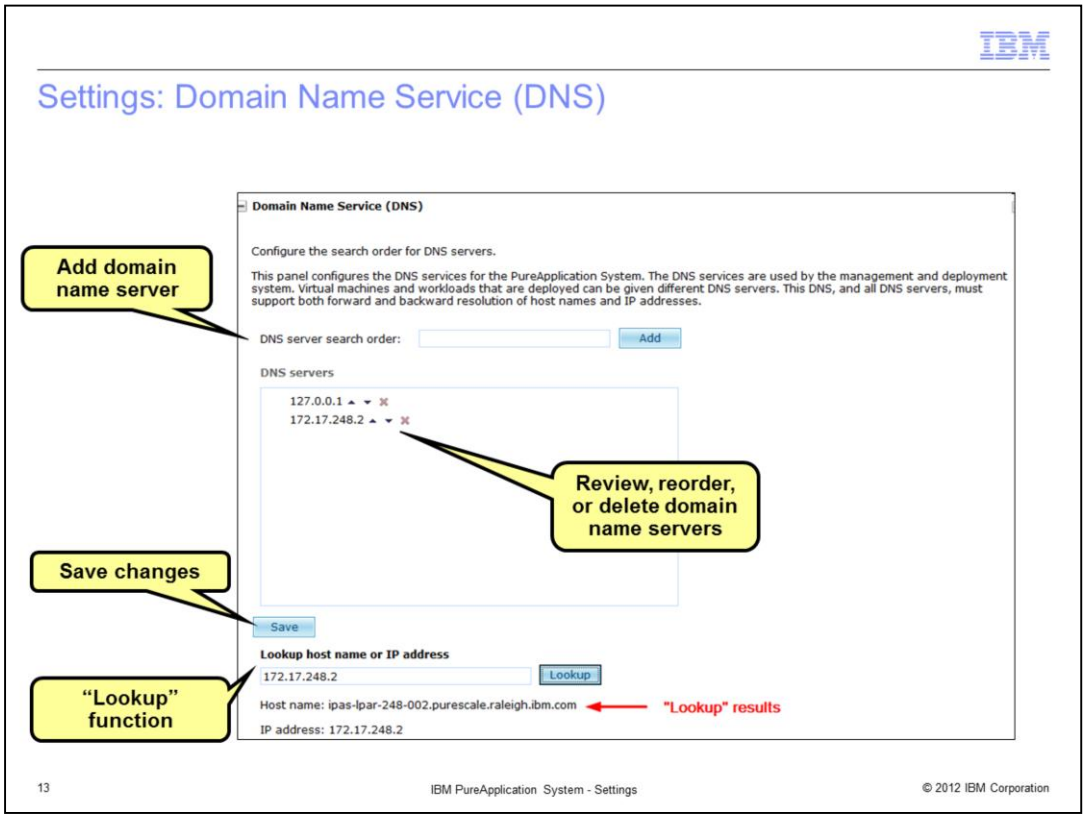
The Minimum Event severity can be set to fatal, critical, major, minor, warning, informational, debug, audit, and unknown. As an example of how “Minimum Event” security functions, a severity level set to Minor also sets Major, Critical and Fatal event notifications.



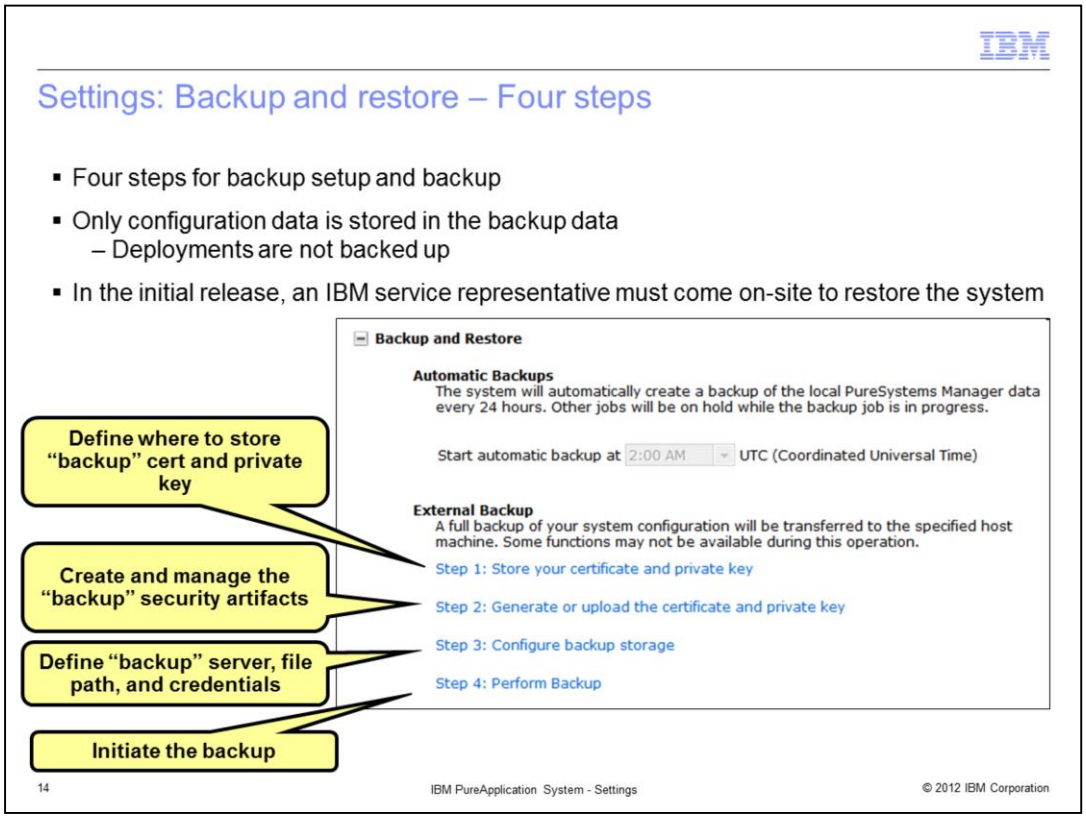
Many external enterprise monitoring solutions can be used with PureApplication System. For example, an IBM Tivoli/Omnibus external server can be configured as a trap destination for SNMP events from PureApplication System. These events include the hardware events and software events listed on this slide. A single PureApplication System MIB is provided for external enterprise monitoring solutions and a set of OMNIbus rules are provided for IBM Tivoli NetCool/OMNIbus.

For integration with external ITM 6.2.2 (or later) environments, PureApplication System provides an ITM agent which provides an "appliance" view of the rack. This slide shows the hardware metrics and high-level deployment information provided, such as status, VM information, and IP addresses.

Within PureApplication System itself, you can use the monitoring-as-a-service provided within the rack. These services provide drill-down into detailed metrics collected for operating systems, WebSphere Application Server, DB2 and other products, along with the hardware metrics, including compute nodes, chassis, network, and storage devices. Information about this service is provided in a separate presentation.



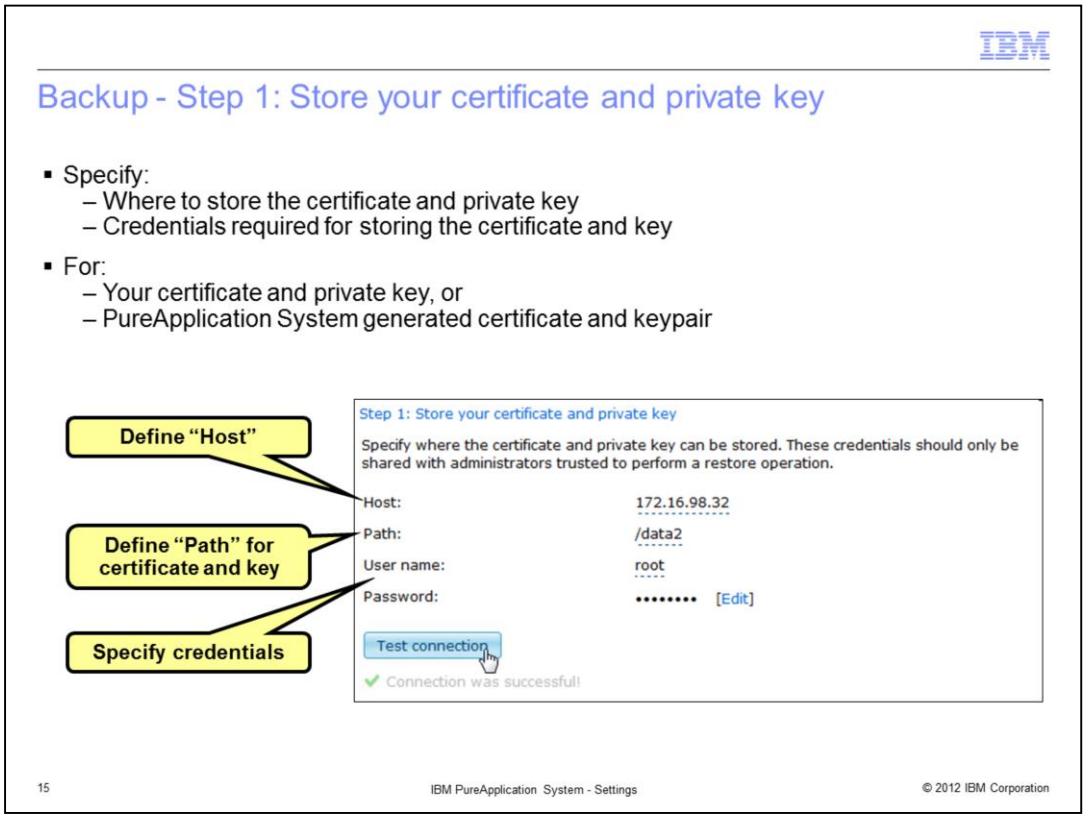
The Domain Name Service settings allow you to review, reorder, delete, and add domain name servers. To add a DNS, type in the host name or IP address of the DNS in the **DNS server search order** field and click **Add.** The DNS's are listed under **DNS servers**. Use the graphical control to the right of each host name or IP address to reorder or delete the entries. Click **Save** to save your changes. In the bottom portion of the screen a "lookup" function is provided for you to test host names or IP addresses.



Within the Backup and Restore settings, you define the information and customize the environment needed for backing up and restoring the PureApplication System. The backup data includes only configuration data and does not include virtual application or virtual system deployments. In the initial release of PureApplication System, the restore must be performed by an on-site IBM service representative.

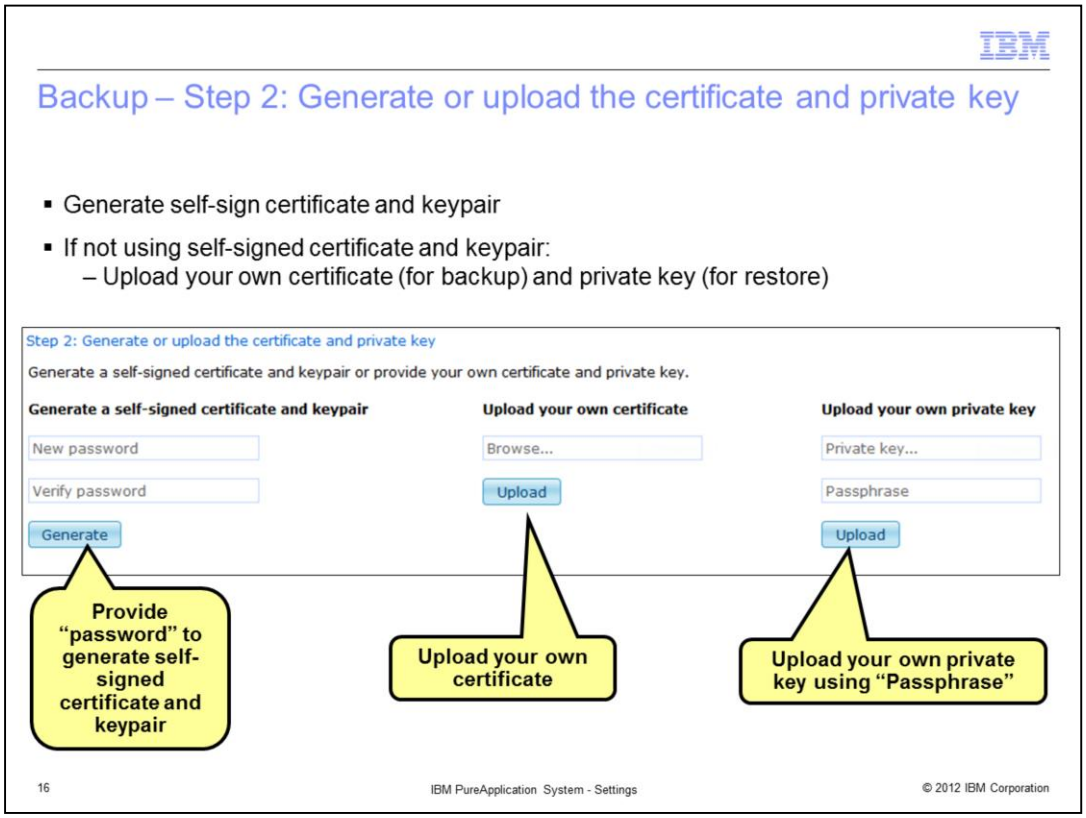
There are four steps to the Backup and Restore settings menu. First you define where you want to store the certificates and keys related to the backup process. You then either generate a self-signed certificate and keypair or upload your own certificate and private key. Then you tell the system where you want to store the backup data files. The last step allows you to initiate a backup. The next slides provide you more details about each step.

Notice the Automatic Backups section of this screen. Once the first three steps are configured you can set the time for an automat backup to begin, so that you do not have to manually start the backup process.



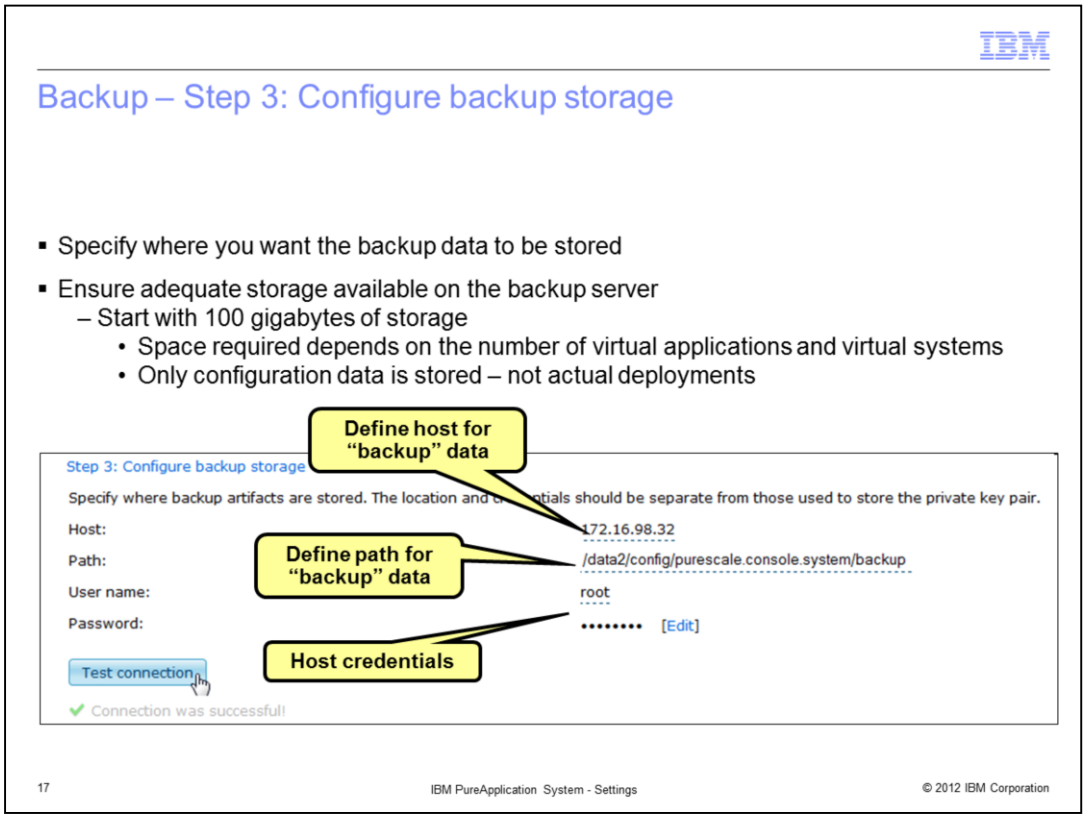
In Step one, you specify a location where you want to store your certificate and private key. If you generate a self-signed certificate and keypair using PureApplication System, those artifacts are stored in this location by the system. The next step provides more information about generating and uploading your certificates and keys.

On this screen you define the host and file path for the certificate and key storage, along with the necessary access credentials for the server.



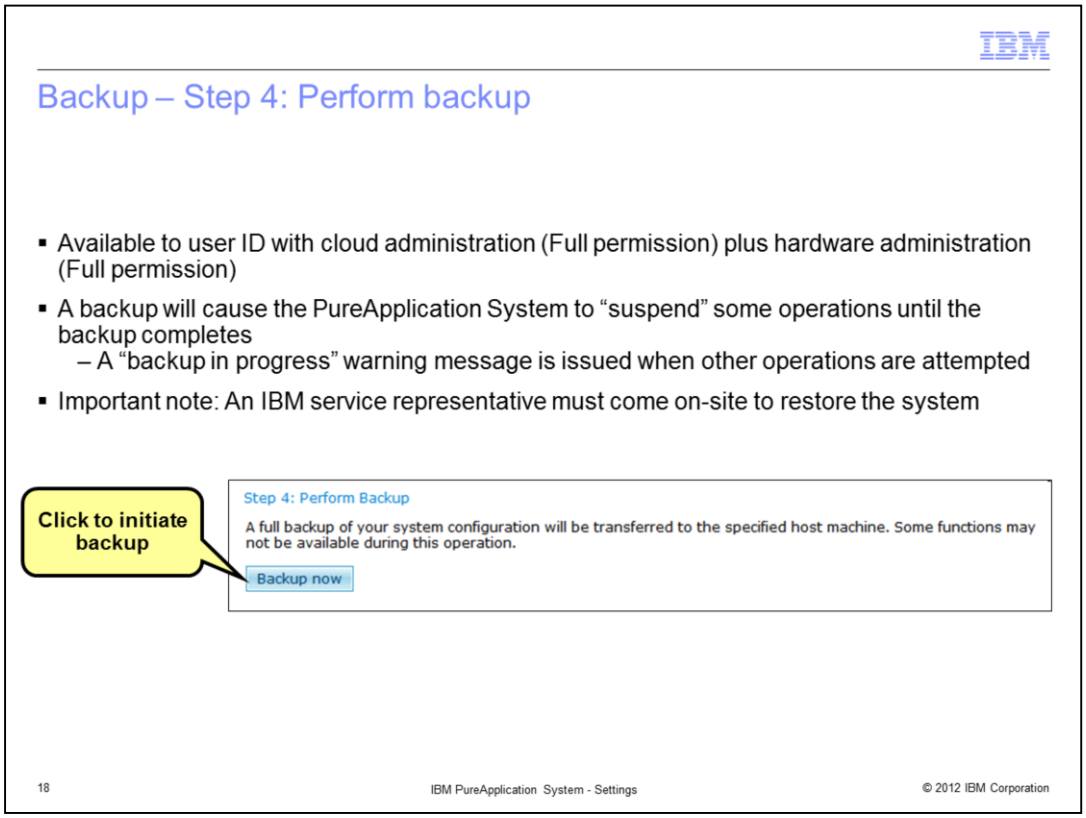
Step two allows you to either generate your own self-signed certificate and keypair, or allows you to upload your own certificate – used during backup – and upload your own private key - used during the restore process. The upload of the certificate and private key are not necessary if you generated a self-signed certificate and keypair.

To generate a self-signed certificate and keypair, supply the required password and click **Generate.** To upload your own certificate, click **Browse**, navigate to your certificate file, and click **Upload.** To upload your own private key, click **Browse**, navigate to your own private key file, and click **Upload.**

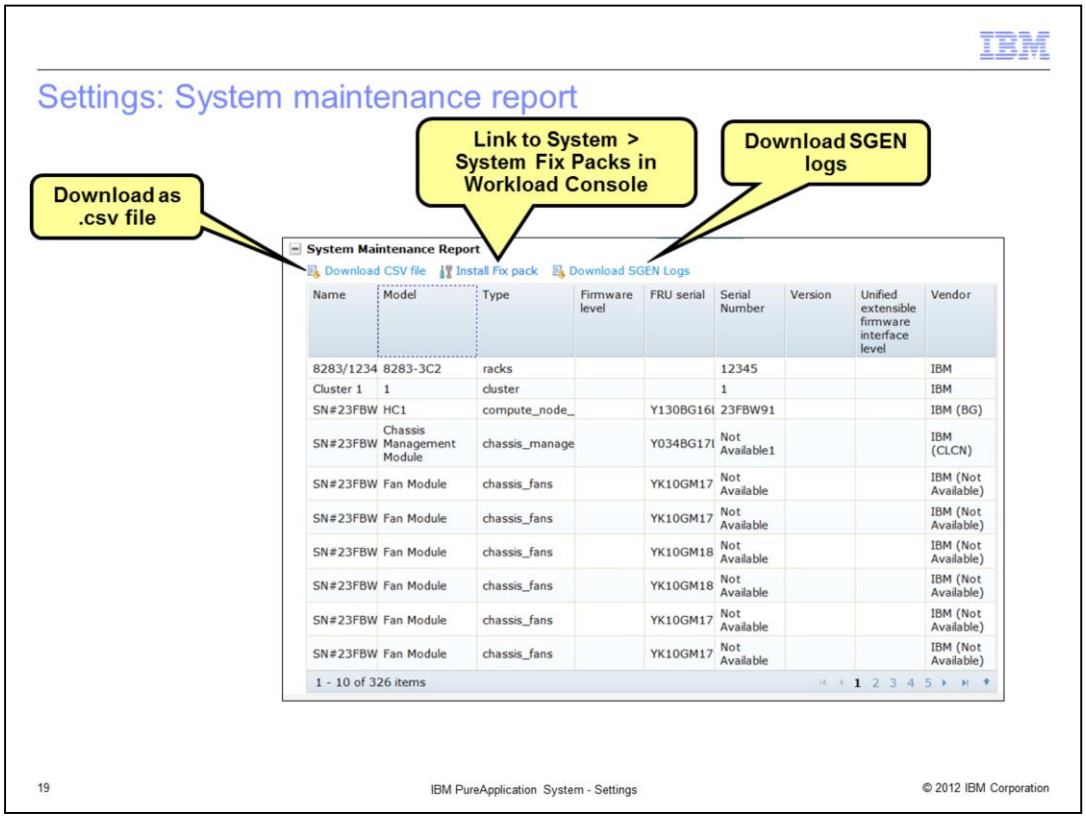


Step three is where you specify where you want to store your backup data files. You should ensure there is adequate space on the backup server, which might require you to perform test backups during various usage scenarios. IBM suggests you start with one hundred gigabytes of available storage when you begin testing your backup procedure. The amount of file space required depends on various factors, including the number of scripts, patterns, and instances you have running. Only the configuration data is stored in the backup – not the actual deployments themselves.

On this screen, you specify the host and path for the backup data, along with the required host access credentials.

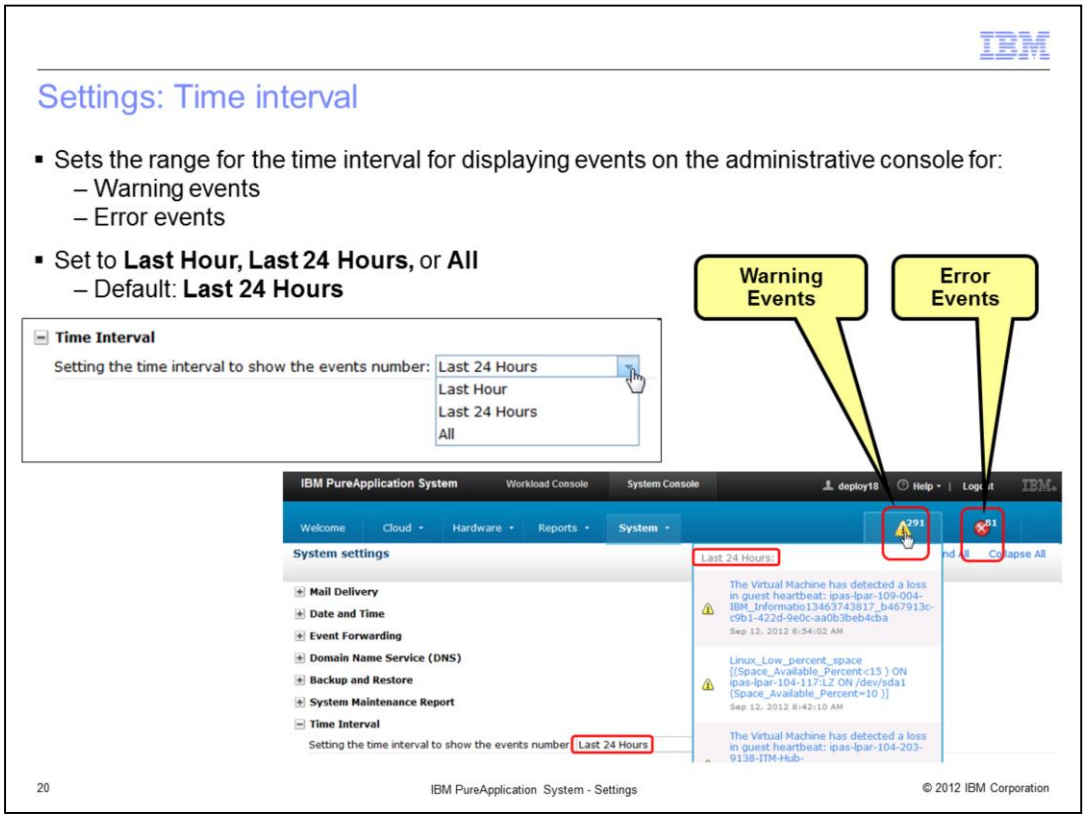


In Step four, you initiate the backup by clicking **Backup now.** This action is available to user IDs which have both cloud administration full permission plus hardware administration full permission. During backup operation, some operations within PureApplication System are suspended, and users receive a warning message that indicates that a backup is in progress. Operations automatically resume once the backup completes.

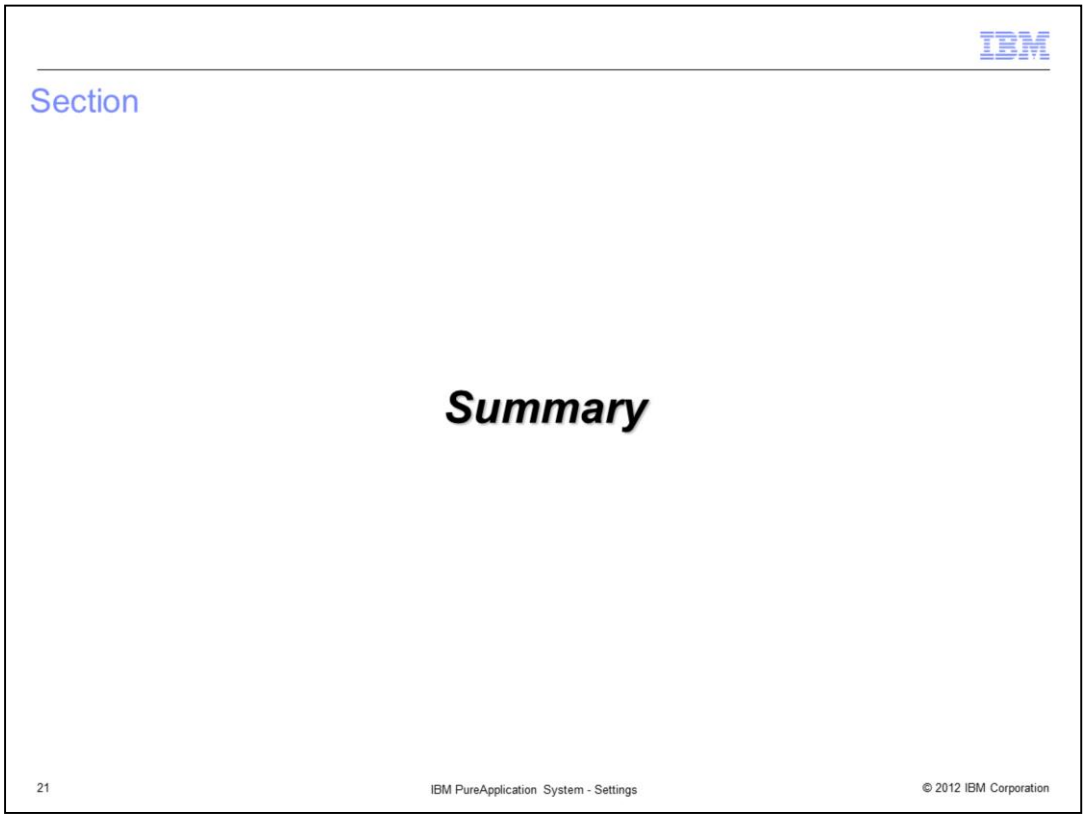


The System Maintenance Report provides a consolidated report of hardware firmware updates to the PureApplication System. The report includes the key information you see here about your hardware.

The Download CSV file link at the top of the panel provides you a way to download this report into a spreadsheet. The Install Fix pack link provides a convenient shortcut to the panel where you can install fix packs, a function which requires the user ID to have cloud administration full permission plus hardware administration full permission. The Download SGEN Logs link allows you to download the system generation logs for review.



The Time Interval setting allows you to set the time interval range to display for the most recent Warning Events and Error Events available for display in the System Console. If you click the yellow triangle at the upper right corner of the System Console, you see a listing of the most recent Warning Events for PureApplication System within a pop-up window. If you click the red circle with an “x” at the upper right-hand corner of the System Console, you see a listing of the most recent Error Events within a pop-up window. The range of time for the events that display within this pop-up window is controlled by the Time Interval setting. The range can be set to **Last Hour, Last 24 Hours**, (which is the default setting**)** or **All.**



This section summarizes the settings presentation.

This presentation discussed the PureApplication System settings. The Mail Delivery settings allow you to configure the SMTP function on the system. Use the Date and Time settings to specify the time zone and to review, add, or delete network time protocol servers. Use the SNMP settings to identify the PureApplication System and to configure and list the destination traps for SNMP clients. Use the Domain Name Service settings to review, add, or delete domain name servers. Using Backup and Restore settings, you define and manage your backup security artifacts, define the backup server, and initiate a backup of the system. Use the System Maintenance Report menu to review or download the firmware level reports for PureApplication System, and review the SGEN logs, and to easily navigate to the **Install Fix pack** screen. The Time Interval allows you to manage the time interval for the most recent Warning Events and Error Events that display from the links in the upper right corner of the System Console.

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