

Administration Guide

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The IntelliTeam FMS Feeder Management System application is used to manage network configurations, software updates, server settings, and IntelliTeam FMS application users.

Use the login credentials provided by your S&C representative to access the IntelliTeam FMS application.

Note: The management interface application runs in a browser. The following browsers are officially supported to run the application:

- Microsoft Edge
- Google Chrome

The IntelliTeam FMS management interface is the virtual appliance management interface (VAMI). It can be accessed at the following address: <https://FMShostname:5480/>.

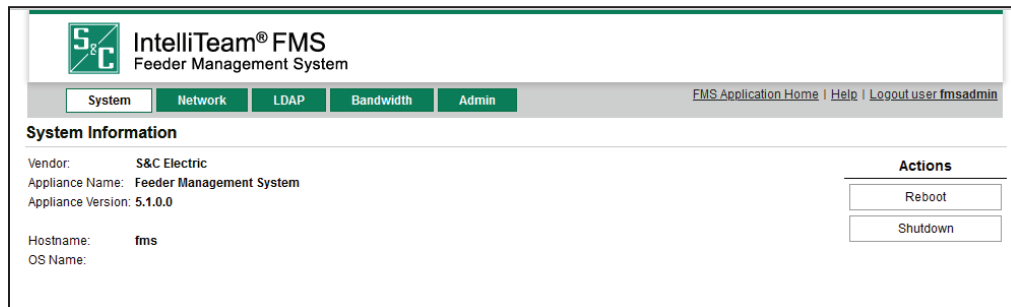
Note: Only secure https over port 5480 is available.

The IntelliTeam FMS management interface includes the following tabs:

- **System**—Displays system information and allows for rebooting or shutting down the IntelliTeam FMS server
- **Network**—Displays basic network information (It also allows the setting up or changing of basic network information and the defining of a proxy server.)
- **LDAP**—Provides user management tools
- **Bandwidth**—Displays graphs of bandwidth-related information
- **Admin**—Provides access to advanced administrative options, including networking configuration and mail-server configuration, log-retention settings, and tools to apply patches and updates

System Tab

The **System** tab displays system information and allows for rebooting or shutting down the IntelliTeam FMS server. See Figure 1.



The screenshot shows the IntelliTeam FMS web interface. At the top left is the S&C logo and the text "IntelliTeam® FMS Feeder Management System". Below this is a navigation bar with tabs for "System", "Network", "LDAP", "Bandwidth", and "Admin". The "System" tab is selected. In the top right corner of the navigation bar, there are links for "FMS Application Home", "Help", and "Logout user fmsadmin". The main content area is titled "System Information" and contains the following details:

Vendor:	S&C Electric	Actions
Appliance Name:	Feeder Management System	
Appliance Version:	5.1.0.0	
Hostname:	fms	<input type="button" value="Reboot"/>
OS Name:		<input type="button" value="Shutdown"/>

Figure 1. The System tab.

The **Network** tab includes the following tabs:

- **Status**—Displays basic network information
- **Address**—Allows setting up or modifying basic network settings, such as the hostname, default gateways, and DNS servers
- **Proxy**—Allows specifying a proxy server and configuring the settings

Status Tab

The **Status** tab displays the hostname, default gateways, DNS server information, and details about the interface. See Figure 2.

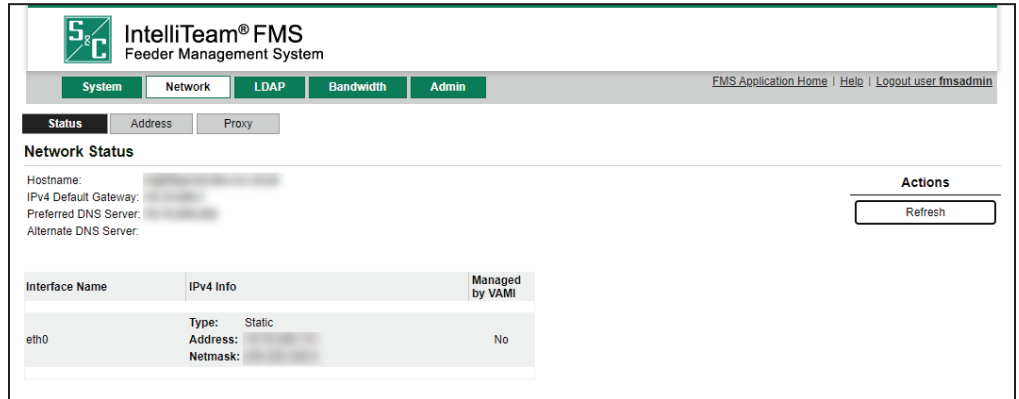


Figure 2. The Status tab.

Address Tab

The **Address** tab allows defining network settings or modifying existing settings. See Figure 3.

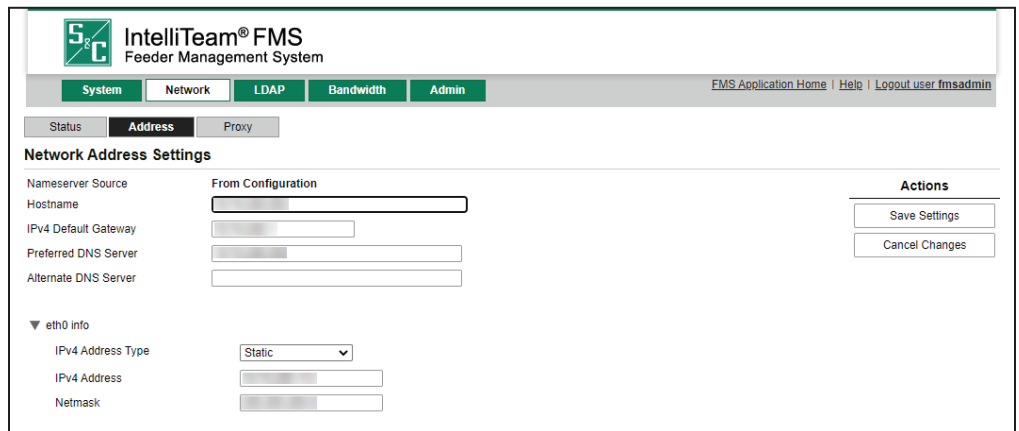
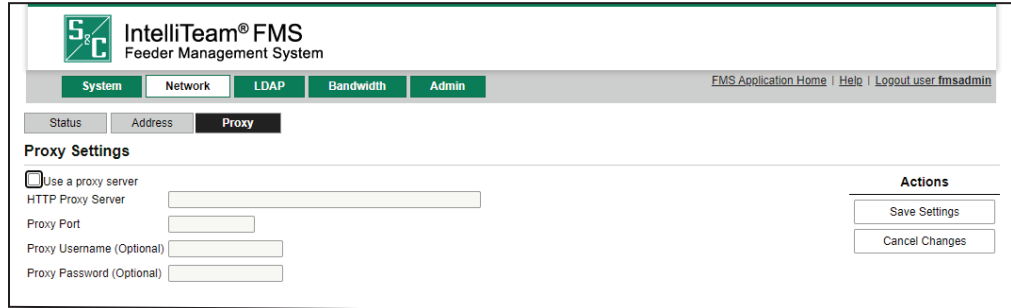


Figure 3. The Address tab.

Proxy Tab

The **Proxy** tab allows defining or modifying proxy server settings. See Figure 4. A proxy server can be defined that has access to IntelliTeam FMS updates from an external repository.

Note: The “Proxy Settings” entries are not presently used but are in place for future development. At this point, updates are only done locally via a CD-ROM.



The screenshot shows the IntelliTeam FMS Feeder Management System interface. At the top, there is a logo for S&C IntelliTeam® FMS Feeder Management System. Below the logo is a navigation bar with tabs for System, Network, LDAP, Bandwidth, and Admin. The Network tab is selected. In the top right corner, there are links for FMS Application Home, Help, and Logout user fmsadmin. Below the navigation bar, there are three sub-tabs: Status, Address, and Proxy. The Proxy tab is selected. The main content area is titled "Proxy Settings" and contains a checkbox labeled "Use a proxy server". Below this checkbox are four input fields: "HTTP Proxy Server", "Proxy Port", "Proxy Username (Optional)", and "Proxy Password (Optional)". To the right of these fields is an "Actions" section with two buttons: "Save Settings" and "Cancel Changes".

Figure 4. The Proxy tab.

The **LDAP** tab provides the tools to manage user accounts for the IntelliTeam FMS application. See Figure 5. The following tasks can be performed from this tab:

- Add a user
- Assign a user to a group
- Add or change a user's password
- Disable/enable a user account
- Remove a user account
- Rename a user account

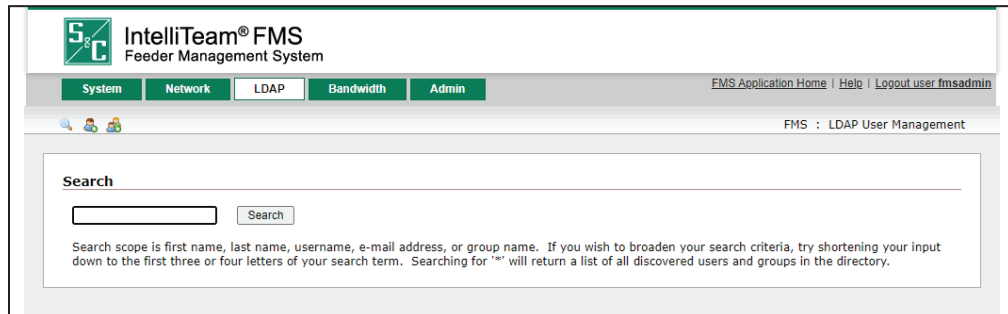


Figure 5. The LDAP tab.

Adding a User

Complete the following steps to add a new user account for the IntelliTeam FMS application:

STEP 1. On the **LDAP** tab, click on the **Add User** icon to open the *Create new user* screen. See Figure 6.

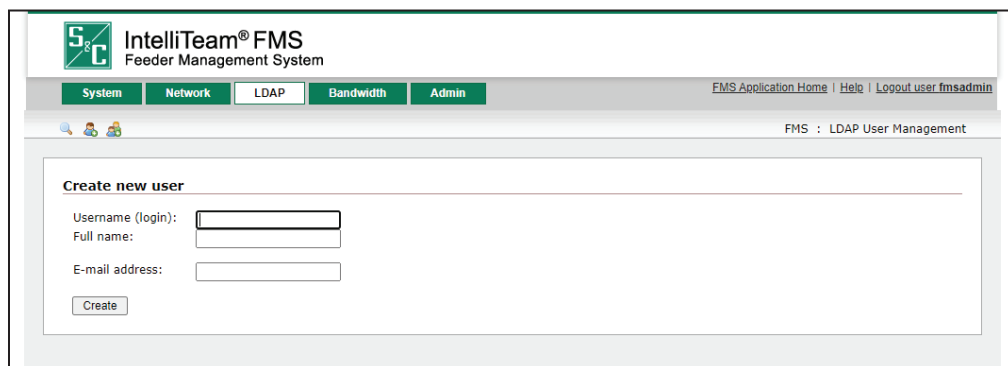


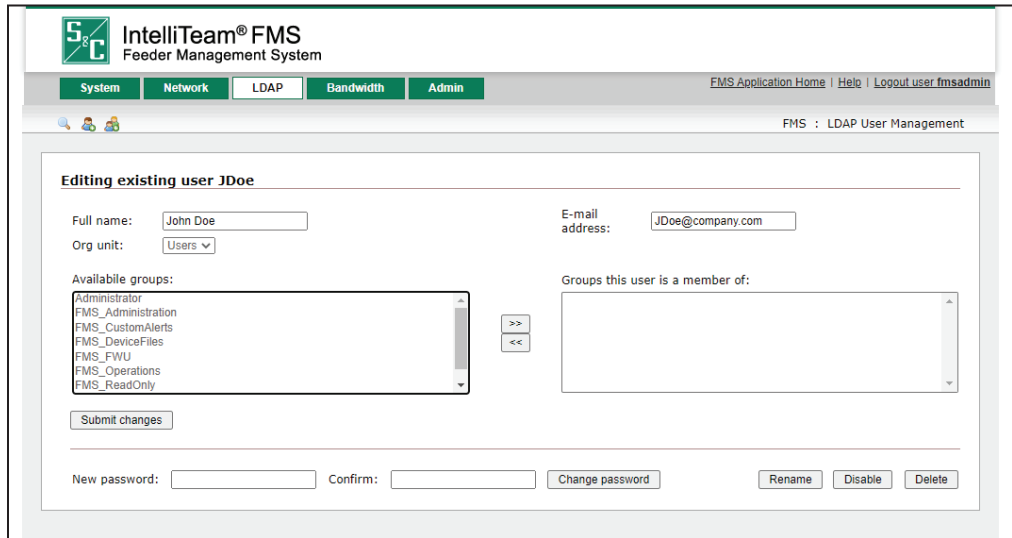
Figure 6. Adding a new user.

STEP 2. Enter the username for the account, the user's full name, and the user's email address. When the required information has been entered, click on the **Create** button to create the user account.

When an account has been created, the user must be assigned to a group and be given a password to log in to the IntelliTeam FMS application.

Assigning a User to a Group

When a user account is created, the *Editing existing user* screen opens automatically when clicking on the **Create** button. See Figure 7. Go to the edit function at any time by searching for a user and then selecting the username of the account to be edited.



The screenshot shows the IntelliTeam FMS Feeder Management System interface. The top navigation bar includes tabs for System, Network, LDAP, Bandwidth, and Admin. The current page is titled 'FMS : LDAP User Management'. The main content area is titled 'Editing existing user JDoe' and contains the following fields and controls:

- Full name:
- E-mail address:
- Org unit:
- Available groups: A list box containing Administrator, FMS_Administration, FMS_CustomAlerts, FMS_DeviceFiles, FMS_FWU, FMS_Operations, and FMS_ReadOnly.
- Groups this user is a member of: An empty list box.
- Navigation buttons: >> and << buttons between the group lists.
- Submit changes: A button below the group lists.
- Bottom section: New password: , Confirm: , Change password: , Rename: , Disable: , Delete: .

Figure 7. Assigning a user to a group.

Complete the following steps to assign a user to a group:

- STEP 1.** In the Available groups list, select the appropriate group and click on the >> button to move the group to the “Groups this user is a member of” box.
- STEP 2.** When the appropriate groups have been selected, click on the **Submit changes** button.

Note: Every user must be a member of the FMS_ReadOnly group.

The FMS Member Groups and their associated privileges are described in Table 1.

Table 1. IntelliTeam FMS Member Groups

Group	Description
FMS_Administration	Provides access to the <i>Options>Configuration</i> screen and the Management Interface (Options>Management Interface) application
FMS_CustomAlerts	Provides access to the <i>Alert Configurations</i> screen if the Custom Alerts module is licensed
FMS_DeviceFiles	Provides access to the Device Files tab if the Device Files module is licensed
FMS_FWU	Provides access to the Firmware Upgrade features if the Firmware Upgrade module is licensed
FMS_ReadOnly	Every IntelliTeam FMS user must be a member of the FMS_ReadOnly group. This group provides access to the standard IntelliTeam FMS application components.
FMS_Settings	Provides access to the Device Settings tab and to settings-management options on the <i>Device Details</i> screen in the Home dashboard custom widget (if applicable) and in the working set filters (It also provides access to device data collections.) These permissions are only given to a user if the Settings module is licensed.

Note: The related IntelliTeam FMS modules must be licensed for privileges to be assigned to users. Also, LDAP User Management includes a group named “Administrator” by default. The IntelliTeam FMS application does not use this group, and users don’t need to be assigned to it.

Adding or Changing a Password

Passwords are added or changed on the *Editing existing user* screen. To access the editing features, search for the appropriate username and select the name when it is displayed.

To add or change a password, enter the new password in the **New password** and **Confirm** fields, and then click on the **Change password** button.

Disabling/Enabling a User Account

Disabling a user account is done on the *Editing existing user* screen. To access the editing features, search for the appropriate username and select the name when it is displayed.

To disable a user account, click on the **Disable** button on the *Editing existing user* screen, which displays a notice to indicate the account has been disabled. See Figure 8.

When an account is disabled, the user cannot log in to the IntelliTeam FMS application, but the user account still exists and can be enabled.

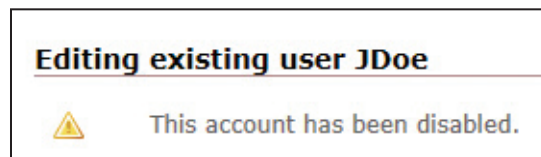


Figure 8. Disabled confirmation message.

To enable a disabled user account, click on the **Enable** button on the *Editing existing user* screen.

Deleting a User Account

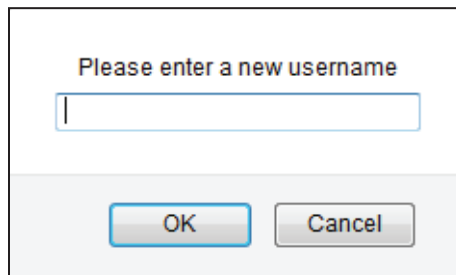
Deleting a user account is done on the *Editing existing user* screen. To access the editing features, search for the appropriate username and select the name when it is displayed.

Deleting a user account permanently removes the user. The account cannot be restored.

To delete a user account, on the *Editing existing user* screen, click on the **Delete** button. A prompt will appear to confirm the deletion. Click on the **OK** button to delete the account.

Renaming a User Account

Renaming a user account is done on the *Editing existing user* screen. To access the editing features, search for the appropriate username and select the name when it is displayed. See Figure 7.



The image shows a dialog box with a light gray background. At the top, the text "Please enter a new username" is displayed in a dark gray font. Below this text is a white text input field with a thin blue border and a vertical cursor on the left side. At the bottom of the dialog box, there are two buttons: "OK" on the left and "Cancel" on the right. Both buttons have a light gray background and a thin blue border.

Figure 9. Renaming a user.

To rename a user account, click on the **Rename** button on the *Editing existing user* screen. When prompted, enter the new username and then click on the **OK** button. See Figure 9.

The **Bandwidth** tab displays the following bandwidth-related graphs:

- Bandwidth per Hour
- Top Bandwidth Offenders
- Total Bandwidth
- Data Export

Bandwidth per Hour

The Bandwidth per Hour graph displays the total bandwidth from the IntelliTeam FMS server for each hour in the day for a user-selected calendar day. See Figure 10.

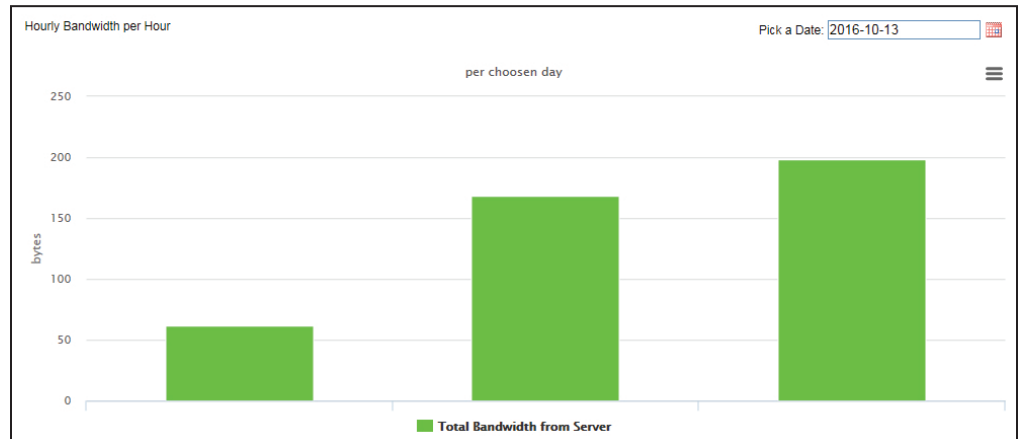


Figure 10. The Bandwidth per Hour graph.

Top Bandwidth Offenders

The Top Bandwidth Offenders graph displays the IP address of the top 10 bandwidth users for a user-selected calendar day. See Figure 11.

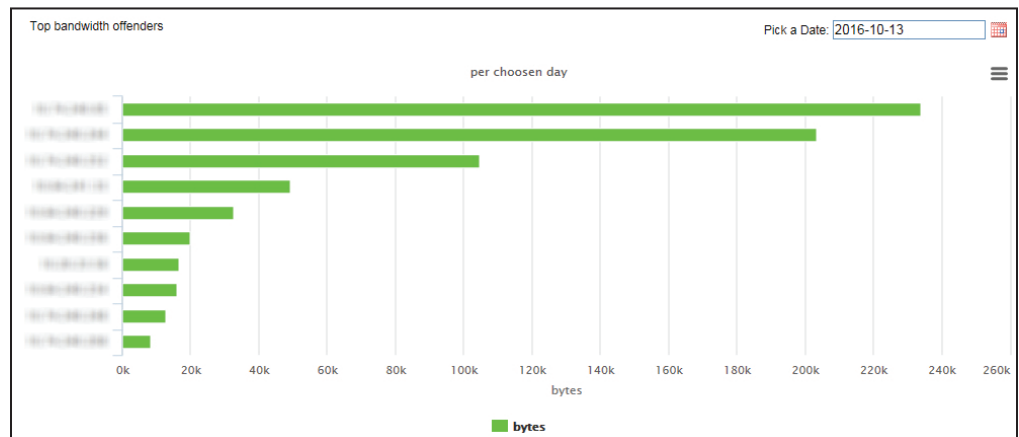


Figure 11. The Top Bandwidth Offenders graph.

Bandwidth Tab

Total Bandwidth

The Total Bandwidth graph displays the bandwidth the IntelliTeam FMS server used during a user-specified time period. See Figure 12. Choose to display one month, three months, six months, year to date, one year, or all available data.

When a time-period selection is made, further refine the time period by using the slider bar below the graph.

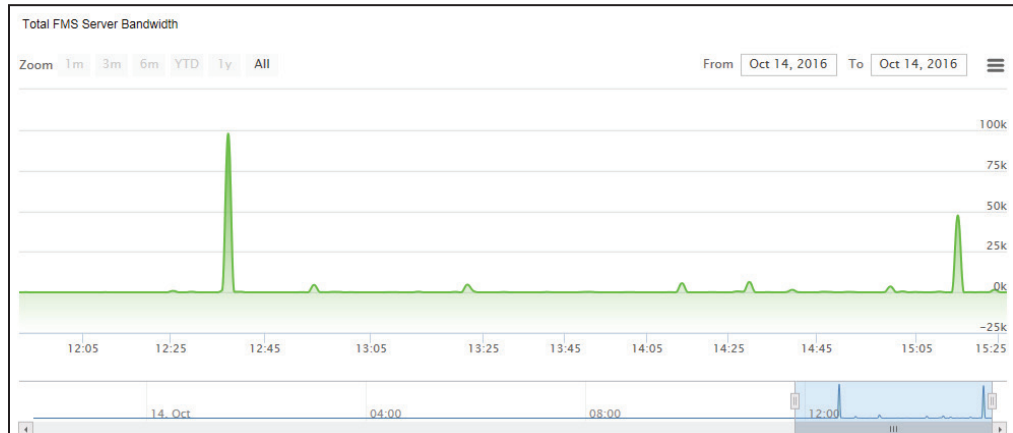
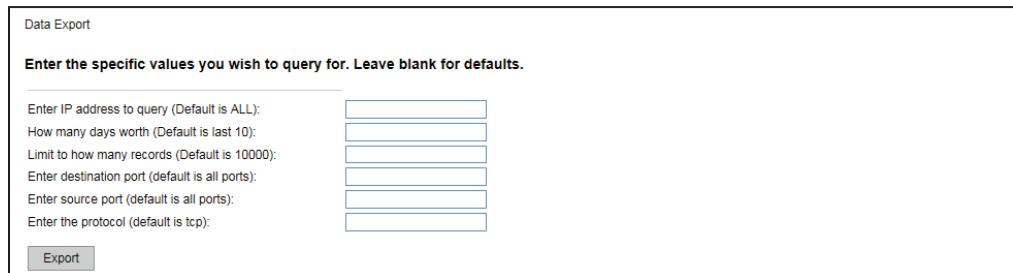


Figure 12. The Total Bandwidth graph.

Data Export

Use the Data Export tool to query for specific network information to be exported. See Figure 13.



The figure shows a "Data Export" form. At the top, it says "Data Export" and "Enter the specific values you wish to query for. Leave blank for defaults." Below this are five input fields with labels: "Enter IP address to query (Default is ALL):", "How many days worth (Default is last 10):", "Limit to how many records (Default is 10000):", "Enter destination port (default is all ports):", and "Enter source port (default is all ports):". Below these is another input field labeled "Enter the protocol (default is tcp):". At the bottom left of the form is an "Export" button.

Figure 13. The Data Export tool.

The **Admin** tab provides access to more advanced administration functions. See Figure 14. The following menu items are included:

- **System**—Provides access to the system logs
- **Servers**—Includes the configuration options for the Postfix mail server
- **Server Status**—Displays the status for all IntelliTeam FMS-related servers and provides access to custom commands used to manage the IntelliTeam FMS server and application
- **Networking**—Includes the advanced network configuration options
- **Hardware**—Provides access to time-related options, such as setting the time zone and syncing the system time to the hardware time or the hardware time to the system time
- **System Information**—Displays a visual summary of the status of the system and some basic information about the server

Use the **Show/Hide Menu** button to expand or collapse the menu on the left of the screen.

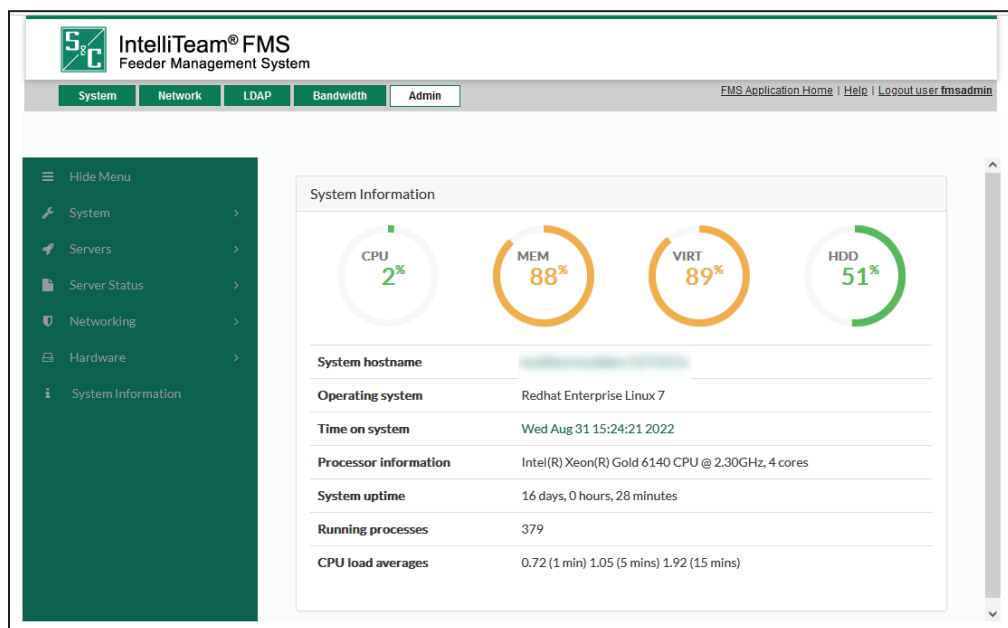


Figure 14. The Admin tab.

System

The **System** tab displays the *System Information* screen, which includes an overview of system information, including CPU, memory, virtual memory, and hard-drive space use. See Figure 15. These numbers are displayed in green (good working status), orange (needs attention), or red (problem status) to indicate the status associated with the number.

The *System Information* screen also displays other system-related information, such as system uptime, number of running processes, and CPU load averages.

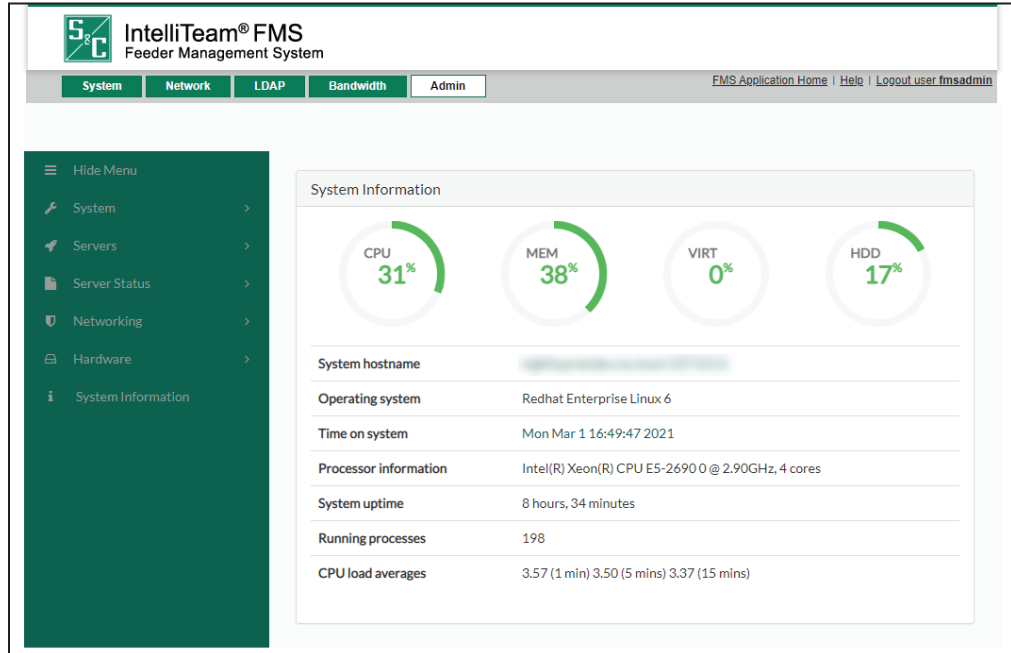


Figure 15. The *System Information* screen.

System Logs

From the **System** menu on the left side of the screen, select the **System Logs** menu item to view log information. See Figure 16. The *System Logs* screen provides access to the system logs. Each log is listed with an indicator noting whether the log is active and the messages displayed in the log view. Click on the **View** link to display any of the available logs.

The screenshot shows the IntelliTeam FMS Feeder Management System interface. The top navigation bar includes 'System', 'Network', 'LDAP', 'Bandwidth', and 'Admin'. The left sidebar menu is expanded to show 'System Logs'. The main content area is titled 'System Logs' and contains a table with the following data:

Log destination	Active?	Messages selected	
File /dev/console	No	kern*	
File /var/log/messages	Yes	*info ; mail.none ; authpriv.none ; cron.none	View..
File /var/log/secure	Yes	authpriv*	View..
File /var/log/maillog	Yes	mail*	View..
File /var/log/cron	Yes	cron*	View..
All users	Yes	*emerg	
File /var/log/spooler	Yes	uucp,news,crit	View..
File /var/log/boot.log	Yes	local7*	View..
Unix socket file remote-host:514	No	**	
File /var/log/fms/appserver.log	Yes	FMS Weblogic Log	View..
File /var/log/fms/logs/fms.log	Yes	FMS Appserver Log	View..

Figure 16. The System Logs screen.

Servers

The **Servers** menu item provides options to add or remove active directory domains for user authentication and access to the configuration options for the Postfix mail server. See Figure 17.

Note: Additional documentation for the Postfix mail server can be found at the following location: <http://www.postfix.org/postfix-manuals.html>.

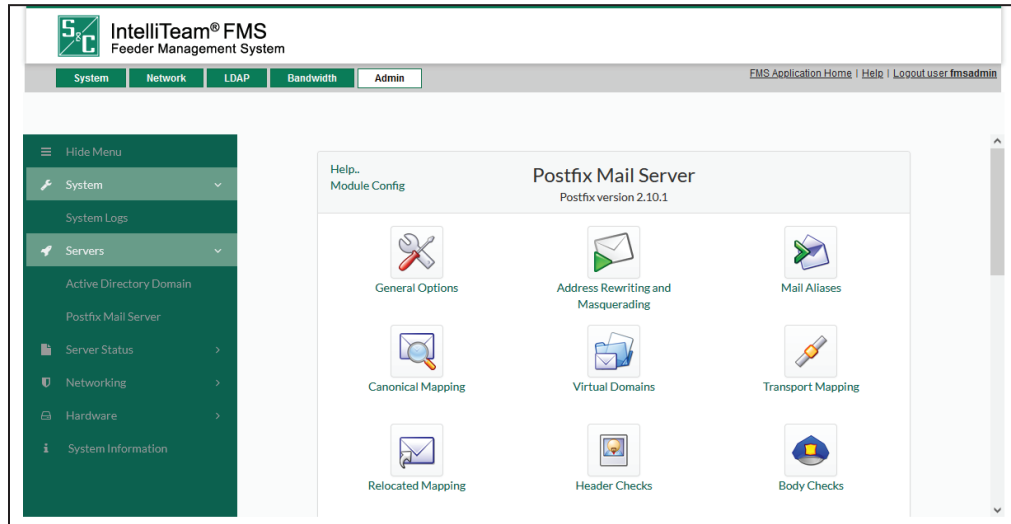


Figure 17. The Postfix Mail Server.

Active Directory Domain

The *Active Directory Domain* screen allows users to add or remove Active Directory domains to IntelliTeam FMS for user authentication. This topic describes how to integrate IntelliTeam FMS with the Active Directory to support single sign-on (SSO) access. When configured, users can use their Windows account to log in to the IntelliTeam FMS application. See Figure 18 on page 17.

LDAP/Active Directory Prerequisites

The following prerequisites must be completed in the Active Directory before adding the Active Directory domain in the IntelliTeam FMS Management Interface:

- An LDAP administrator account (This account is used to bind the Active Directory. It must be an LDAP administrator account with privileges to search users and groups in the Active Directory.)
- Creation of groups in the Active Directory

Create Groups in Active Directory

The following groups must be created in the Active Directory, and each group is associated with an IntelliTeam FMS feature:

- FMS_Administration
- FMS_CustomAlerts
- FMS_DeviceFiles
- FMS_FWU
- FMS_Operations
- FMS_Settings
- FMS_ReadOnly

When the groups are defined in the Active Directory, users can be associated with these groups. See Figure 18. A user can be a member of multiple groups to give user access to multiple features in IntelliTeam FMS. See the “LDAP Tab” section on page 7 for more information on the permissions associated with each group.

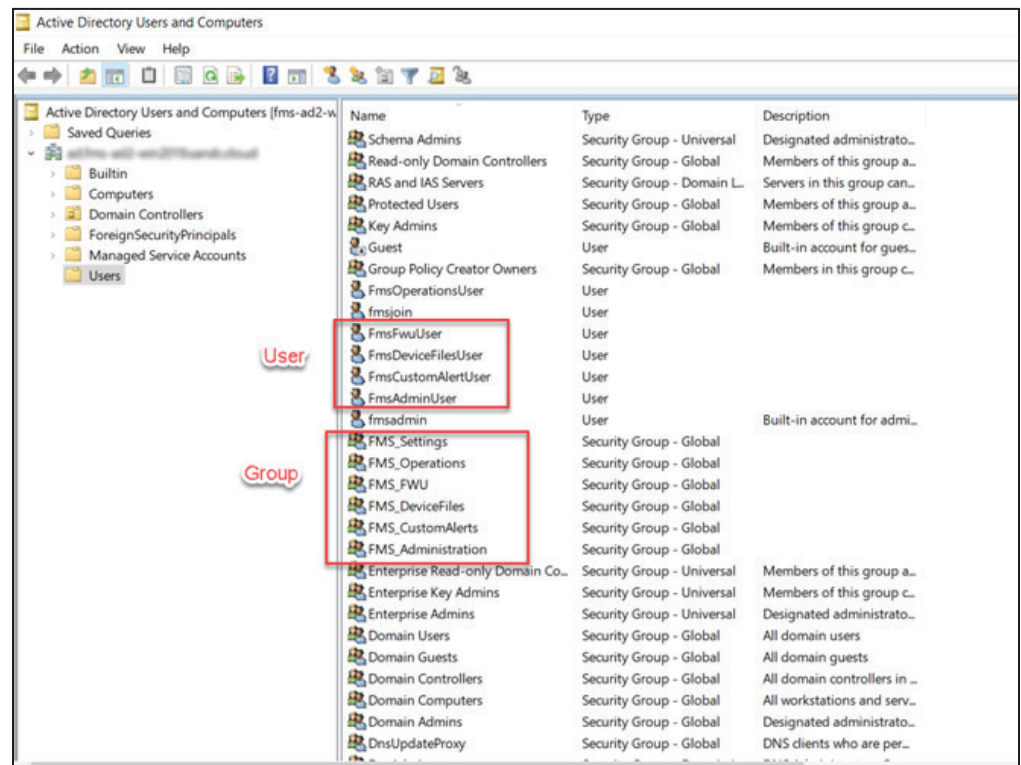


Figure 18. The Active Directory Users and Computers screen.

Active Directory Configuration in the IntelliTeam FMS Management Interface

The **Active Directory Domain** menu item is in the IntelliTeam FMS Management Interface on the **Admin>Servers** menu. Users must log in as the “fmsadmin” user to have access to this menu item. From this screen, users can perform the following actions:

- Add a new domain (IntelliTeam FMS does not automatically use the domain. Users can edit the configuration as needed.)
- Bind a domain (When a domain is bound, IntelliTeam FMS adjusts the application configuration to use the Active Directory domain as the authentication provider. When a domain is bound, users cannot edit or delete the configuration without first unbinding the domain.)
- Unbind a domain (When a domain is unbound, IntelliTeam FMS removes the Active Directory domain from its configuration and does not use it for authentication.)
- Delete a domain (When a domain is deleted, IntelliTeam FMS removes the domain configuration information.)

Adding a New Domain

Complete the following steps to add a new Active Directory domain:

- STEP 1.** On the *Active Directory Domain* screen, click on the **Add domain** link.
- STEP 2.** Provide the required information on the *Create Domain* screen. A description of each field is provided on the screen.
- STEP 3.** When all required information has been entered, click on the **Create** button at the bottom of the screen.

This will create the domain, but it will not yet be used for authentication. Users can edit the domain information if necessary. When ready to use the domain for authentication, the user must bind the domain.

Binding a Domain

When a domain is bound, IntelliTeam FMS will use the domain for authentication.

Complete the following steps to bind a domain:

- STEP 1.** On the *Active Directory Domain* screen, locate the domain to be bound. In the “Action” column, click on the **Bind** button. Details of the domain configuration are displayed for review.
- STEP 2.** If the information is correct, click on the **Yes** button to bind this domain.

The binding process takes several minutes to complete. When the process is complete, the domain will be in a **Bound** state on the *Active Directory Domain* screen.

Unbinding a Domain

When a domain has been bound, users must unbind it before making changes to the configuration or deleting the domain. Complete the following steps to unbind a domain:

STEP 1. On the *Active Directory Domain* screen, locate the domain to be unbound. In the “Action” column, click on the **Unbind** button. Details of the domain configuration are displayed for review.

STEP 2. If the information is correct, click on the **Yes** button to unbind this domain.

The unbinding process takes several minutes to complete. When the process is complete, the domain will be in an **Unbound** state on the *Active Directory Domain* screen.

Deleting a Domain

A domain can only be deleted if it is in an **Unbound** state. Complete the following steps to delete a domain:

STEP 1. On the *Active Directory Domain* screen, locate the domain to be deleted and open the domain configuration information by clicking on the domain ID.

STEP 2. Scroll to the bottom of the domain configuration information and click on the **Delete** button. See Figure 19.

The screenshot shows the IntelliTeam FMS Admin interface. The top navigation bar includes tabs for System, Network, LDAP, Bandwidth, and Admin. The left sidebar menu is expanded to show the 'Active Directory Domain' configuration page. The main content area displays the configuration details for a domain, including fields for Name Filter (Optional), Username Attribute (cn), User Object Class (user), Group Base DN (CN=Users,DC=ad,DC=fms-ad2-win2019,DC=sandc,DC=cloud), All Groups Filter (Optional), and Group From Name Filter (Optional). Each field has a corresponding help text explaining its purpose. At the bottom of the configuration area, there are 'Save' and 'Delete...' buttons, and a 'Return to domain list' button.

Figure 19. The *Active Directory Domain Admin* screen.

Troubleshooting

If unable to log in to IntelliTeam FMS using a Windows account after binding the Active Directory, here are some things to check.

- Make sure the host (either hostname or IP address) and port number for the Active Directory domain server are correct.
- Bind the ID/password by making sure the bind ID (principal) has the correct permissions to search users and groups in the Active Directory.
- Verify the configuration parameters for users and groups.
- Confirm the User/Group Base DN. If the users (or groups) are inside a “Users” node of an “example.com” domain in the Active Directory, then the Base DN could be “cn=Users,dc=example,dc=com”.

Note: All the optional fields can be left blank. In addition, “user” can be used as a User Object Class (for the Active Directory). Also usable as a User Name Attribute is “cn” or “sAMAccountName”. If using “cn”, the username of the IntelliTeam FMS login page may use the full name of the user. If using “sAMAccountName”, the username in the IntelliTeam FMS login page may use the Windows login name of the user. In most scenarios, these values should work for a default **Active Directory** setting.

PostFix Mail Server

As part of the initial configuration of a new IntelliTeam FMS application installation, the SMTP relay host must be set up if the FMS server cannot deliver external mail directly and needs to use an internal relay host. See Figure 20. Complete the following steps to set up the SMTP relay host:

- STEP 1.** On the *Postfix Mail Server* screen, select the **General Options** icon.
- STEP 2.** On the *General Options* screen, in the “Other General Options” section in the **Send outgoing mail via host** field, select “Other” and enter the hostname or IP address of the SMTP relay server. If a hostname is used, it must be resolvable in DNS.
- STEP 3.** At the bottom of the *General Options* screen, click on the **Save and Apply** button.

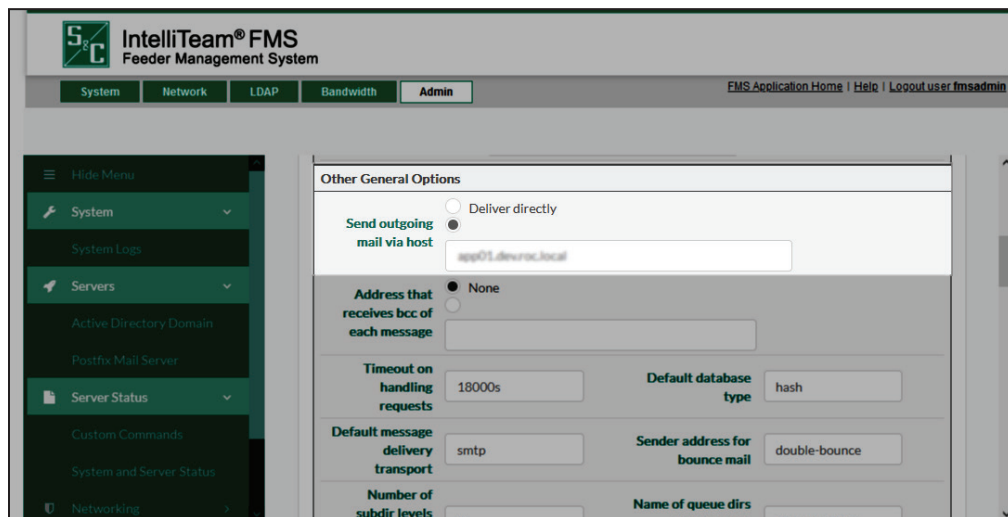


Figure 20. Specifying a SMTP relay host.

Server Status

The **Server Status** menu provides access to the following tools:

- Custom Commands
- System and Server Status

Custom Commands

The *Custom Commands* screen displays commands used to manage the IntelliTeam FMS server and application.

From the *Custom Commands* screen, a user may perform the following tasks:

- Start or stop the IntelliTeam FMS server
- Start or stop ITAlert
- Request and upload a license file
- Enable remote root login
- Create, download, or import a backup
- Create a techdump and download the file
- Download an encrypted database dump
- Apply a patch file either using automated tools or manually
- Upgrade IntelliTeam FMS application software
- Perform an email test
- Change the server root password
- Set log retention periods
- Resize a disk
- Check the status of database archives and backups
- Set the retention period for IntelliTeam FMS data dumps
- Add email recipients for ITAlerts
- Display the credentials needed to map a Windows drive to the IntelliTeam FMS CF file download directory and the backup directory
- Configure and manage the **Syslog Forwarding** feature
- Use the following tools:
 - Traceroute
 - Telnet
 - Ping

Help for each of these commands is available from the *Custom Commands* screen. See Figure 21 on page 23.

The screenshot displays the 'Custom Commands' interface within the IntelliTeam FMS Admin Tab. The top navigation bar includes 'System', 'Network', 'LDAP', 'Bandwidth', and 'Admin' tabs, along with links for 'FMS Application Home', 'Help', and 'Logout user fmsadmin'. The left sidebar menu is expanded to show 'Server Status' and 'Custom Commands'. The main content area features a grid of command panels, each with a 'Help' icon and a description. The panels include: 'Nightly Dump' (button to download encrypted DB dump), 'Download Report' (button to generate report), 'License Request' (button to request license), 'TechDump' (button to create report), 'Upload License' (file upload field for license file), 'Enable remote root login' (button to enable login), 'Execute patch process from manual upload' (button to execute patch), 'Patch App' (file upload field for patch file), 'stop FMS Server' (button to stop the server), 'start FMS Server' (button to start the server), 'telnet' (button to access telnet), and 'TraceRoute' (button to trace route).

Figure 21. The *Custom Commands* screen.

Note: Resizing a disk for IntelliTeam FMS should always be done using custom commands, not through the command line. Additional tasks are built into the custom command for resizing a disc that are not done using the command line. When resizing a disk, first resize it in VShpere. Then, use the *Custom Command* screen in the management interface to resize it. The disk can be resized without taking the IntelliTeam FMS application offline.

Mapping Compact Flash and Backup Directories as Network Drives

The following directories on the IntelliTeam FMS server can be mapped as Windows network drives.

- cfiles
- fmsbackup

Mapping these directories as network drives makes it more convenient to access files in these directories. Access to these directories is read only. Users cannot make changes to files or delete files.

The credentials needed to access these directories are available on the *Admin>Server Status>Custom Commands* screen from the **Show password for FMS CF file-sharing** command. The same credentials are used for both the compact flash and backup directories.

Complete the following steps to map one of the IntelliTeam FMS server directories as a network drive:

- STEP 1.** Open File Explorer from the task bar or the **Start** menu, or press the <Windows Logo> key + the <E> key.
- STEP 2.** Select “This PC” from the left pane. Then, click on the **Computer** tab and select “Map network drive.”
- STEP 3.** In the Drive list, select a drive letter. (Any available letter can be used.) See Figure 22.

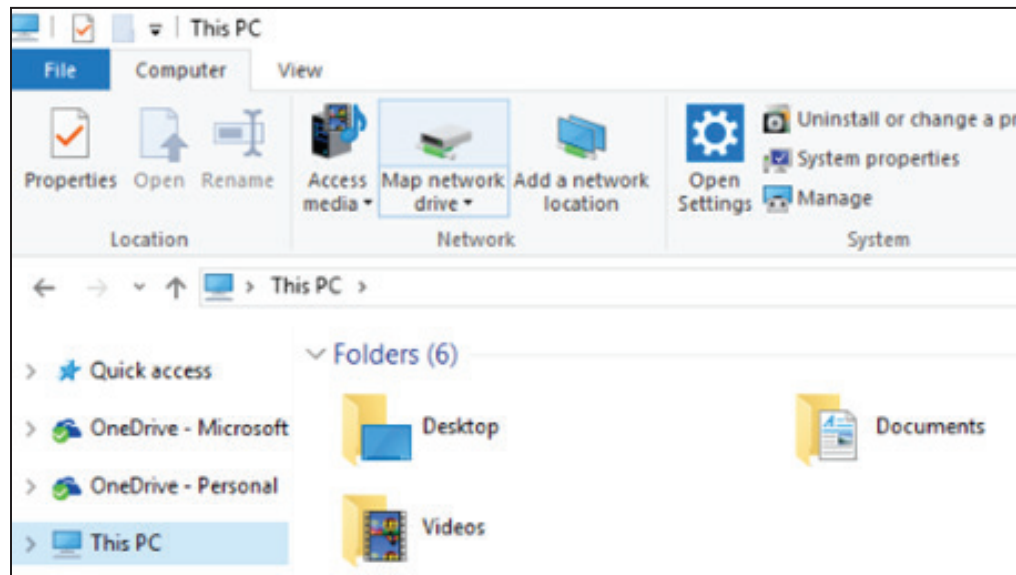


Figure 22. The *Map network drive This PC* screen.

- STEP 4.** In the Folder box, type the path of the folder. Use “\\x.x.x.x\cfiles” to map to the compact flash file directory or “\\x.x.x.x\fmsbackup” to map to the backup files directory (where “x.x.x.x” is the IPv4 address of the IntelliTeam FMS server). See Figure 23.
- STEP 5.** To connect each time when signing on to a PC, select “Reconnect at sign-in” and “Connect using different credentials.” Also, select “Connect using different credentials.”

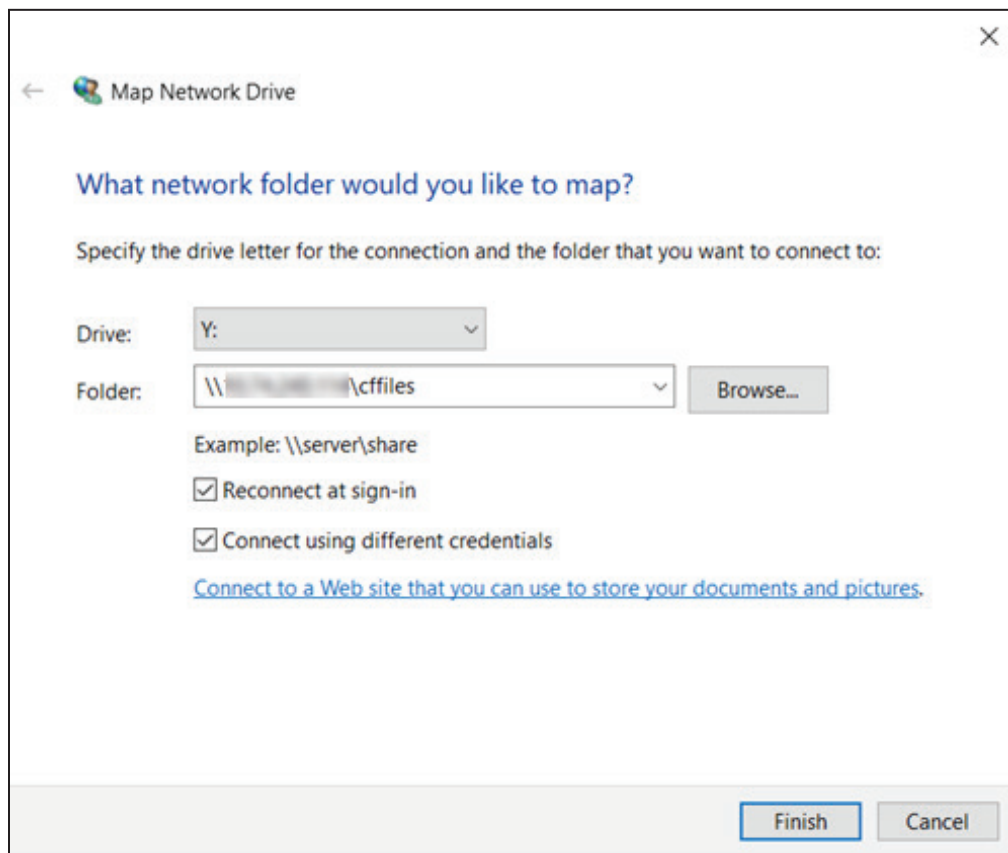


Figure 23. Entering the folder path.

STEP 6. Click on the **Finish** button.

STEP 7. In the Windows Security popup dialog box, provide the username and password to access the directory. See Figure 24. This information is available on the *Admin > Server Status > Custom Commands* screen from the **Show password for FMS CR file-sharing** command. The domain in the Windows Security dialog box can be ignored.

The directory will be shown as a Windows drive in File Explorer.

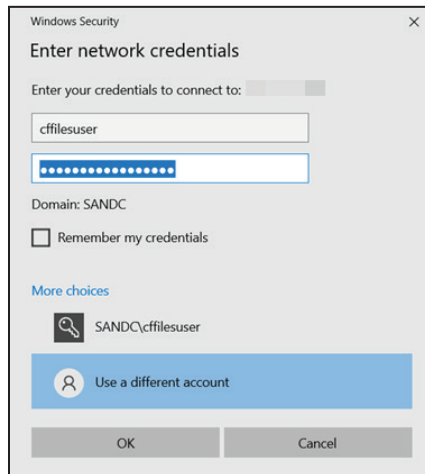


Figure 24. The Windows Security dialog box.

Additional information on mapping network drives is available from Microsoft support.

Configuring and Using the Syslog Forwarding Feature

Syslog forwarding is configured in the Management Interface application on the *Custom Commands* screen. From this screen, users can add or remove an instance of syslog forwarding. They also can retrieve a list of instances already in the IntelliTeam FMS and can pause or resume forwarding for any of the defined instances.

Figure 25. Configuring syslog forwarding.

Complete the following steps to add a syslog forwarding instance:

- STEP 1.** In the **Host** field, enter the hostname or IP address of the server to receive syslog information.
- STEP 2.** In the **TCP/UDP** field, select the communication protocol to use. When selecting a communication protocol, the appropriate port is assigned automatically.
- STEP 3.** In the **Instance Add/Remove/Retrieve** field, select “Add Instance.”
- STEP 4.** Make sure the **Forwarding Pause/Resume** field is set to “Nothing selected.”
- STEP 5.** When all the necessary information has been entered, click on the **Syslog Forwarding** button at the top of the box.

Complete the following step to removing a syslog forwarding instance:

- STEP 1.** In the **Host** field, enter the hostname or IP address of the server to remove.
- STEP 2.** In the **TCP/UDP** field, select the communication protocol used by the instance to remove.
- STEP 3.** In the **Instance Add/Remove/Retrieve** field, select “Remove Instance.”
- STEP 4.** Click on the **Syslog Forwarding** button at the top of the box.

Complete the following step to retrieving a list of syslog forwarding instances presently in the IntelliTeam FMS:

STEP 1. In the **Instance Add/Remove/Retrieve** field, select “Retrieve Instance(s).”

STEP 2. Click on the **Syslog Forwarding** button at the top of the box.

Complete the following steps to pause or resume syslog forwarding:

STEP 1. In the **Host** field, enter the hostname or IP address of the instance to pause or resume.

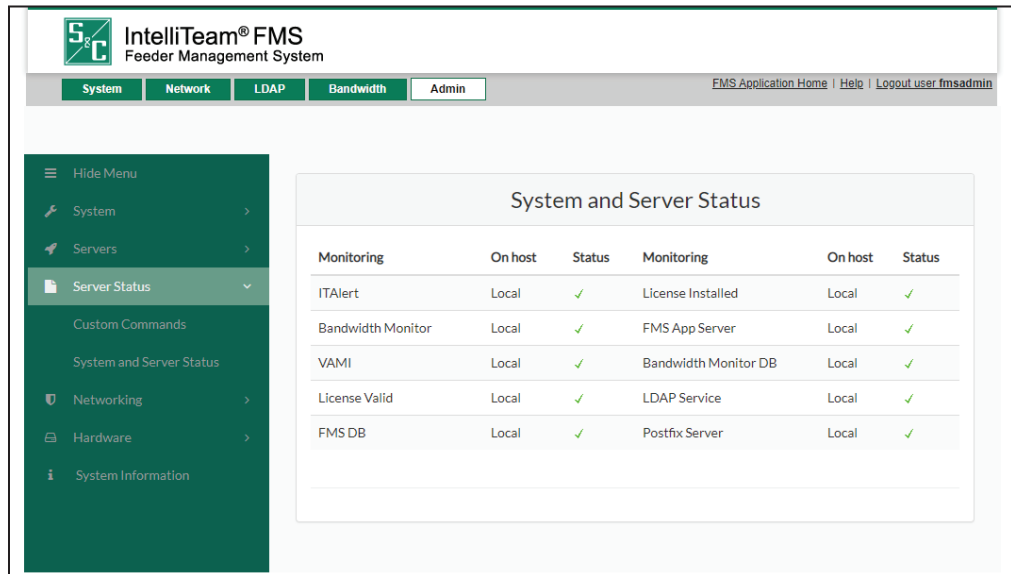
STEP 2. In the **TCP/UDP** field, select the communication protocol used by that instance.

STEP 3. In the **Forwarding Pause/Resume** field, select either “Pause” or “Resume.”

STEP 4. Click on the **Syslog Forwarding** button at the top of the box.

System and Server Status

The *System and Server Status* screen provides a basic status for each IntelliTeam FMS-related service. A good status is indicated by a green checkmark. See Figure 26. If there is a problem with the service, the status is indicated by a red ‘x’.



The screenshot displays the IntelliTeam FMS Feeder Management System interface. The top navigation bar includes tabs for System, Network, LDAP, Bandwidth, and Admin. The main content area is titled "System and Server Status" and contains a table with the following data:

Monitoring	On host	Status	Monitoring	On host	Status
ITAlert	Local	✓	License Installed	Local	✓
Bandwidth Monitor	Local	✓	FMS App Server	Local	✓
VAMI	Local	✓	Bandwidth Monitor DB	Local	✓
License Valid	Local	✓	LDAP Service	Local	✓
FMS DB	Local	✓	Postfix Server	Local	✓

Figure 26. The *System and Server Status* screen.

Networking

The **Networking** menu item provides access to the *Network Configuration* screen, which includes advanced networking functions. See Figure 27. The configuration options on this tab should only be modified when working with an S&C representative.

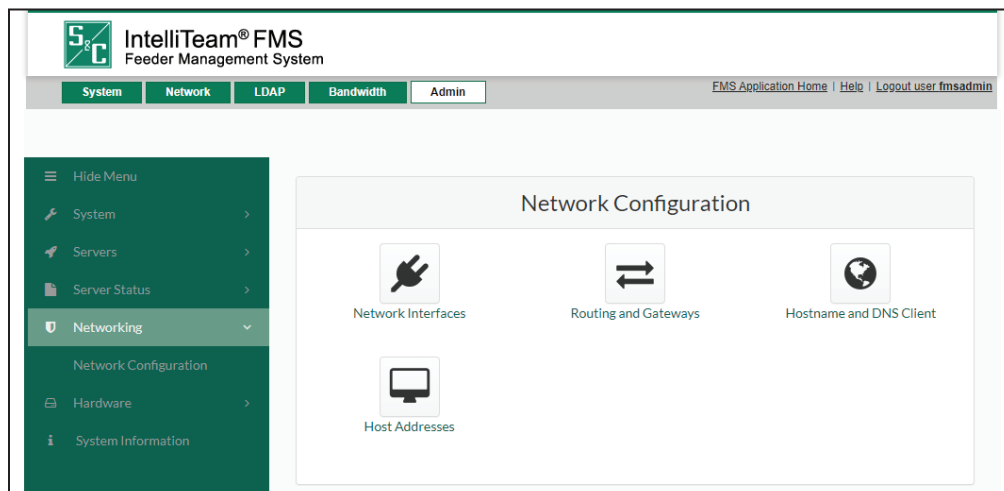


Figure 27. The *Network Configuration* screen.

Hardware

The **Hardware** menu item provides access to the **System Time** functions. See Figure 28. These functions can set the time, specify the time zone, and select how and when the time will be synced.

Note: By default, the FMS time is synchronized with the VM Host using the VMware tools daemon. The VM Host should be configured to sync its time with NTP servers. If the FMS vApp should instead use NTP directly, configure it here. The VMware tools sync option inside the virtual machine settings must be turned off (through vSphere).

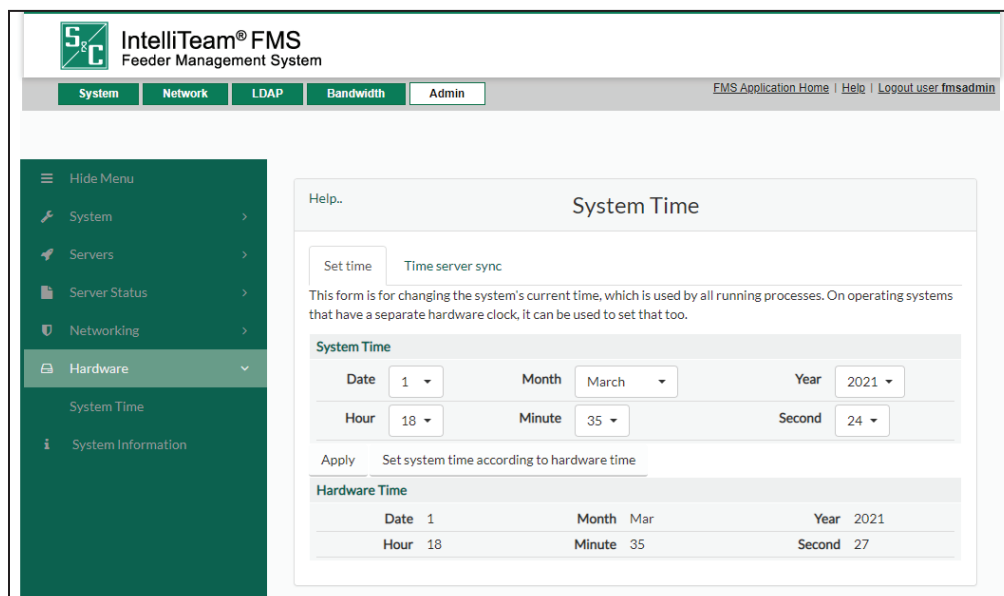


Figure 28. The *System Time* screen.

System Information

The *System Information* screen displays an overview of system information, including the CPU, memory, virtual memory, and hard-drive space use. See Figure 29. These numbers are displayed in green (good working status), orange (needs attention), or red (problem status) to indicate the status associated with the number.

The *System Information* screen also displays other system-related information, such as system uptime, number of running processes, and CPU load averages.

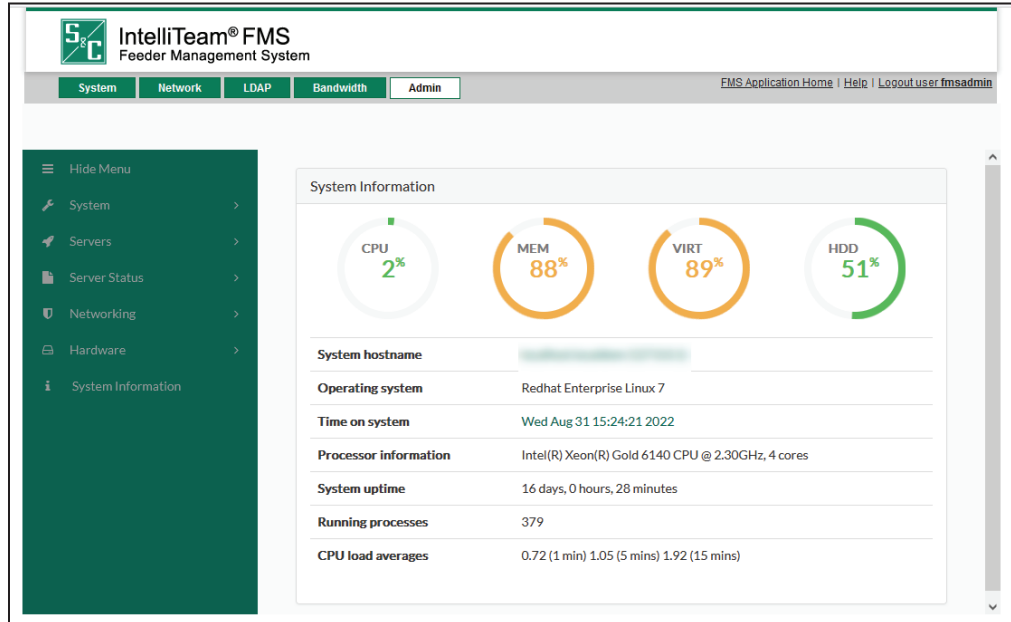


Figure 29. The *System Information* screen.

IT Alert

IT Alert is an alarm, notification, and performance trending modular tool that is part of the IntelliTeam FMS virtual appliance.

Note: IT Alert sends notifications to S&C via email using the local operating system message transfer agent (MTA). If the FMS server is unable to send external email, an internal relay must be set up and configured. Consult your S&C representative for assistance with this configuration.

S&C monitors the notifications IT Alert sends and will contact the customer for issues that require attention.

If an **Alert** condition is present and no notification has been sent within two hours, IT Alert resends the notification. IT alert sends a “Clear” notification when an **Alert** condition clears.

IT Alert monitors and sends alerts for system health and performance, including for the following:

- CPU Load – Load Average of the server is **<Max CPU Load Average** setting
- Disk Space – Checks all attached drives for free space **>MinDisk Space** setting
- Java Memory Usage – Checks that the application memory use is **<Max Java Memory Usage** setting
- Java Running – Checks that the Java process is running
- FMS Web Access – Checks that the log-in page is available
- FMS Log File Size – Checks to make sure the FMS log is **<15 GB**
- FMS WebLogic Queues – Checks the internal queue threshold
- Oracle Data Files – Checks that the datafiles are **<28 GB**
- Oracle Scheduled Jobs – Checks to make sure nightly jobs are completed
- Out of Memory Exception – Checks the log file for out of memory exceptions
- Oracle Port Status – Checks that the database is listening on 1521
- Proc @ 90% – Checks for any process using **>90%** of the CPU for more than **Max Time for Process using >90% CPU** setting
- Total Processes – Checks that the total number of processes is **<Max Number of Processes** setting
- SSH – Checks that processes can connect over Secure Shell (SSH)
- Swap Usage – Checks whether the % of swap use is **<Max Swap Usage %** setting
- Root email mailbox – Monitors for errors in any cronjobs, etc.