



Avocent®

Technical Bulletin

# **DSView® 3 Software Plug-In**

## **ACS Advanced Console Server**

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# ***DSView 3 Management Software Plug-In Supporting the ACS Advanced Console Server***

The ACS console server plug-in for DSView<sup>®</sup> 3 management software enables access, configuration and management of the ACS console servers from within the DSView 3 software. The information provided here is supplemental to the DSView 3 software Installer/User Guide and the ACS Console Server Installation, Administration and User Guide. For detailed information on a particular functionality, please refer to the corresponding product manual.

## **Before You Begin**

- The ACS console server plug-in is pre-installed in the DSView 3 management software, version 3.3. Make sure that the plug-in is installed on every hub and spoke server in your network.
- If an upgrade to the pre-installed version of plug-in is necessary, make sure you install the plug-in that corresponds to the number of ports on your ACS console server. For example, if you have a 16-port ACS console server, select the ACS16 plug-in.
- If the version of the DSView 3 software you are using does not include the plug-in, refer to the plug-in module installation instructions in the DSView 3 Management Software Installer/User Guide.
- The ACS console server firmware version 3.0.0 is required for integration into the DSView 3 management software. If the console server needs to be upgraded, refer to the ACS Console Server Installation, Administration and User Guide for instructions.
- You must have DSView 3 software administrator access rights to add or manage plug-ins.
- To perform any of the procedures in this document, select the appropriate ACS console server within the Units view in the DSView 3 management software. For some procedures, you will need to select the appropriate target device connected to the ACS console server.

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**NOTE:** Most of the screens in the ACS console server plug-in include two buttons: Save and Flash Required. The Save button stores your configuration changes in the DSView 3 software server database and in RAM on the ACS console server. The Flash Required button stores your changes permanently to the Flash memory card in the ACS console server.

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## Configuration Tools

The ACS console server plug-in is integrated with the DSView 3 management software tools to perform the tasks shown in the following table. You may access these tools from the Unit Overview page.

**Table 1: Configuration Tools**

Appliance / Tools	Description
Name	Rename an ACS console server. Use alphanumeric characters, hyphen (-) or underscore (_) only.
Type	Non-editable field. It displays the ACS console server type.
Reboot	Terminate all active sessions and reboot the console server.
Upgrade Firmware	Upgrade the firmware through the DSView 3 software server. A valid Flash file must exist in the DSView 3 software server firmware repository.
Resync	Synchronize the configuration information in the ACS console server and connected target devices with the DSView 3 software server database.
Manage Power Devices	Configure and manage power devices connected to the ACS console server and target devices.
Appliance Session	Launch a viewer with an SSH connection to the Linux command line of the ACS console server. You may specify the application to be used for serial sessions to target devices. Select <i>Profile - Applications - Serial Sessions</i> for the options.
Save Configuration	Back up the ACS console server configuration data to the DSView 3 software server database. The DSView software server prompts you to enter a filename for the backup configuration file.
Restore Configuration	Restore a previously saved configuration. A valid configuration file must exist in the DSView 3 software server configuration files repository.
Save Configuration to Flash	Save the ACS console server configuration data to Flash memory.

## ACS Console Server Properties

You may modify the properties described in the following table from the Units Identification Properties page.

**Table 2: Properties Configuration**

Property	Description
Identity	Identification properties which may be used for asset management.
Location	Information on physical location of the console server.

**Table 2: Properties Configuration (Continued)**

Property	Description
Contacts	Primary and secondary contacts responsible for administering the console server, who should be notified when there is an issue with the unit.
Custom Fields	Three custom fields in which you may specify specific information to better identify an ACS console server on the network.
Notes	Any additional comments on the console server. For example, unit description or an associated accounting cost center.
Network	The ACS console server appliance static IP address and the DSView software server IP address.

**To view or change properties:**

1. From the Units tab, select the ACS console server you wish to configure.
2. Click *Properties* in the side navigation bar.
3. Change the desired property. Click *Save*, then *Close*.

## Access Rights

The ACS console server plug-in is integrated with the DSView 3 software licensing feature to control access privileges. In addition to assigning access rights to managed devices, the DSView 3 software server uses the ACS console server plug-in to control access to specific functionality of the console server. An administrator may control user or group access to the following tasks:

- View unit information
- Reboot appliance and disconnect sessions
- Flash upgrade the console server
- Configure unit settings
- Establish viewer sessions
- Control target device power
- View data logging

**To configure access rights:**

1. Click *Access Rights* in the side navigation bar.
2. Select a value from the User and User Groups window. The Access Right matrix displays the default values for each functionality.

If the desired user or user group is not shown, click *Edit List*. Add a user or user group from the Available dialog box to the List to Update window, then click *OK*.

3. Enable or disable an Access Right. The following options are available:

- Allow - The access right is allowed for the user/group.
- Deny - The access right is denied for the user/group.
- Inherit - The access right is propagated from the unit to which the selected user/group belongs. When *Inherit* is selected, the Allow and Deny checkboxes are grayed out.

If none of the checkboxes are checked, the access right is neither allowed nor denied.

## Configuring the ACS Console Server

You may configure the following ACS console server settings using the DSView 3 software:

- Network Parameters
- Authentication method and DSView 3 software authentication servers
- Enable or disable ACS console server web manager
- Configure SNMP traps, Syslog or system events
- Configure ACS console server ports
- Configure power devices and manage power on target servers
- Configure data logging

### Network parameters

The network configuration information is shown when you select *Appliance Settings - Network*. This screen displays whether a static IP is assigned or DHCP is used.

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**NOTE:** If you make any changes to the ACS console server network settings, make sure to update the unit network properties by selecting *Units - Properties - Network*.

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#### To configure network parameters:

1. Click *Appliance Settings - Network* in the side navigation bar.
2. If you are using a static IP, disable DHCP and complete the ACS console server network settings. Click *Save*.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

### Configuring authentication

The ACS console server provides centralized authentication through the DSView 3 management software. To enable centralized authentication, select one of the three DSView 3 software authentication types: *DSView*, *DSView/Local* or *DSViewDownLocal*. When the DSView 3 software centralized authentication service is configured, the DSView 3 software server is used to authenticate users accessing the ACS console server.

#### To select an authentication type:

1. Click *Appliance Settings - Authentication Type* in the side navigation bar.

2. Select an Authentication Type from the drop-down list. Click *Save*.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Authentication servers

You may use the Appliance Authentication Servers page to configure up to four DSView 3 software authentication servers for the DSView, DSViewLocal or DSViewDownLocal authentication methods.

### To configure authentication servers:

1. Click *Appliance Settings - Authentication Servers* in the side navigation bar.
2. Enter the IP addresses of up to four DSView software authentication servers on your network. Click *Save*.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## ACS console server web manager

You may use the Web Service page to enable or disable access to the ACS console server web manager. If direct access to the ACS console server is required, you need to enable the web service.

### To enable or disable access to the ACS console server web manager:

1. Click *Appliance Settings - Web* in the side navigation bar.
2. Select the new state for the web manager from the drop-down list. Click *Save*.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Configuring SNMP

SNMP v1/v2 protocol is used to communicate management information between the DSView 3 software server and the ACS console server. The following limitations apply when using the DSView 3 software to configure SNMP:

- The DSView 3 software may configure only one SNMP read and write community.
- SNMPv3 cannot be configured through the DSView 3 software.

To configure more than one SNMP community or to configure SNMPv3, enable and use the ACS console server web manager. See the ACS console server web manager section and the ACS Console Server Installation, Administration and User Guide.

The following settings appear under SNMP in the side navigation bar:

- System - Assign, enable or disable an SNMP server. When you enable SNMP, the managed appliance listens for incoming traps to log SNMP messages.
- Managers - Assign SNMP management stations. Up to four management station are allowed.
- Community - Define access environment to which the devices and management stations running SNMP belong.

- Destinations - Enter the IP addresses of hosts where SNMP traps are sent. Destination SNMP traps are enabled through the Events menu. See the Configuring system events section.

**To configure ACS console server SNMP parameters:**

1. Click *Appliance Settings - SNMP* in the side navigation bar.
2. Enable SNMP from the System menu. If desired, change the name and description of the managed appliance and enter a contact. Click *Save*.
3. Click *Managers* in the side navigation bar and enter the IP address of up to four SNMP management stations. Click *Save*.
4. Click *Community* in the side navigation bar and enter the SNMP community names for read, write and trap. Click *Save*.
5. Click *Destinations* in the side navigation bar and enter the IP address of up to four SNMP trap destinations. Click *Save*.
6. To configure SNMP traps, see Configuring system events section.

## Configuring system events

### SNMP traps and Syslog messages

The ACS console server may be configured to send notification for system events using the following modes of delivery:

- SNMP traps - System events are routed and logged in the DSView 3 software event database, and optionally in the SNMP management systems.
- Syslog - System events are logged in the DSView 3 software event database.

**To configure SNMP traps and syslog:**

1. Click *Appliance Settings - Events - Traps/Syslog* in the side navigation bar.
2. Activate the desired events and click the *Enable SNMP Trap* or *Enable Syslog* notification mode. You may use the Filter field to display events that contain your search string.
  - If you select Syslog notification mode, make sure you enable and save the Syslog server by selecting *System - Data Logging - SysLog Server*.
  - If you select SNMP trap notification mode, specify trap destinations under *Appliance Settings - SNMP - Destinations*.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Configuring appliance alerts

You may configure alert strings for defined events, and trigger an email notification when the system event containing the alert string occurs. You may enter up to 10 alert strings in the displayed fields.

**To enable appliance alerts and email notification:**

1. Click *Appliance Settings - Events - Appliance Alerts* in the side navigation bar.
2. Click *Enable Appliance Alert* and enter the desired text string(s) in the *Alert String* field(s).
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.
4. Navigate to the Reports tab and click *Email Notifications* in the side navigation bar.
5. Click *Add* to start the Add Email Notification Wizard. Click *Next*.
6. Configure the email address properties. Click *Next*.
7. Select the events for which you want to trigger email notifications and add them to the Events To Notify window. Click *Next*.
8. Add one or more unit groups for which you want to trigger email notification. Click *Next*, then click *Finish*.

**Configuring data logging**

The ACS console server plug-in integrates with the DSView 3 management software to support data logging of console connections to console servers and connected target devices using the Syslog protocol. You can use the data logging feature to:

- Enable or disable data logging on the ACS console server or each individual serial port.

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**NOTE:** An SSH/Telnet session to the ACS console server does not require or use a data log license; however, a data log license is required for each target device serial session. For detailed information on data logging and licensing, consult the DSView 3 Software Installer/User Guide.

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- Configure the DSView 3 software server where the data logging messages should be sent.
- Configure Syslog server and SSH server ports.
- Configure SSH parameters on the ACS console server.

**To enable or disable data logging:**

1. Click *Appliance Settings - Data Logging - Configure* in the side navigation bar.
2. Select the connection to the console server or individual serial ports, and click the *Enable* or *Disable* button.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

**To configure the Syslog SSH server for data logging:**

1. Click *Appliance Settings - Data Logging - Syslog SSH Server* in the side navigation bar.
2. Enter the IP address of the DSView 3 software server which belongs to the same hub and spoke system.
3. Enter the Syslog server and SSH server port numbers, and configure the ACS console server for SSH tunneling. The default SSH server port number is TCP 4122 and the Syslog server port number is TCP 4514.

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**NOTE:** Make sure Syslog and SSH servers are both enabled for data logging. To verify, click *Data Logging - SSH Server* and *Data Logging - SysLog Server* from the System tab.

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4. Click *Save* to store your changes in the DSView 3 software server database.
5. Click *Flash Required* to save your changes to the ACS console server Flash memory.

**To view the data logging files:**

1. Click *Session Files* in the side navigation bar.
2. To modify the list of viewable columns, click the *Customize* button and add the desired fields from the Available Fields window.
3. Click *Save* or *Set as Default* and then click *Close*.
4. To view a file's content, click on a filename. A text file opens using the default text viewer in the DSView 3 software.

## ACS console server firmware information

Navigate to *Appliance Settings - Versions* to display boot code and firmware versions of the ACS console server.

## Configuring the ACS Console Server Serial Ports

You may perform the following tasks from the Ports page:

- Enable or disable serial ports.
- Rename serial ports and initiate a push or pull name operation.
- Configure serial ports authentication method.
- Configure serial ports connection protocol, break sequence and communication parameters.
- Configure serial ports for multiple users and sessions.
- Configure port alerts.
- Configure data logging.

### Enable or disable a serial port

**To enable or disable a serial port:**

1. Click *Appliance Settings - Ports - Serial* in the side navigation bar. A list of serial ports appear.
2. Activate the checkbox next to a desired port and click the *Enable Port* or *Disable Port* button.
3. Click *Flash Required* to save your changes to the ACS console server Flash memory.

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**NOTE:** You may view the status of all serial ports from this page. The Type (protocol) of each serial port is configurable through the ACS console server web manager. See the ACS console server web manager section, and the ACS Console Server Installation, Administration and User Guide.

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## Serial ports general settings

### To configure serial ports general settings:

1. Click *Appliance Settings - Ports - Serial* in the side navigation bar. A list of serial ports appears.
2. Click the desired port number. The General Info page appears.
3. To rename a serial port in the ACS console server, enter a desired name in the Name in Appliance field. This may be a target device name in the ACS console server.
4. Select an Authentication Type for the serial port from the drop-down list. The DSView software is the global authentication method.
5. Select the desired protocol for connecting to a target device.

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**NOTE:** Only SSH and SSH/Telnet are supported by the serial viewer.

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6. Enter a desired character string for sending a break sequence to the serial port. The default is **~break [Ctrl-b]**.
7. Click *Save* to store your changes in the DSView 3 software database.
8. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Configuring serial communication parameters

In addition to the communication options that are normally available to serial devices in the DSView 3 software, you can configure the following communication parameters on a serial port:

- Detect if a modem in use is still powered and active.
- Monitor a Data Carrier Detect (DCD) signal. By doing this, the system can generate an alarm if a serial console cable is removed from the console server or if a target device attached to the console server is powered down.

### To configure serial communication parameters:

1. Click *Appliance Settings - Ports - Serial* in the side navigation bar.
2. Click the serial port you wish to configure.
3. Click *Communication* from the side navigation bar.
4. Configure the communication parameters and the DCD signal.

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**NOTE:** Communication settings must match the settings in the target device.

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5. Click *Save* to store your changes in the DSView 3 software server database.
6. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Configuring multiple users and sessions

The ACS console server allows multiple users to connect simultaneously to a single serial port.

### To configure multiple users and sessions:

1. Click *Appliance Settings - Ports - Serial* in the side navigation bar.
2. Click the serial port you wish to configure.
3. Click *Multi-User* from the side navigation bar.
4. Activate the *Enable Multiple Sessions* checkbox.
5. Select an option from the Multiple Sessions Settings pull-down menu. The following table describe the available options.

**Table 3: Multiple Session Settings**

Multiple Session Setting	Description
No	Do not allow multiple sessions. Only two users can connect to the same port simultaneously. One shared session and one normal session are allowed.
Read/Write (do not show menu)	More than two simultaneous users can connect to the same serial port. A Sniffer menu is presented, in which you can choose to: <ul style="list-style-type: none"> <li>• Open a sniff session</li> <li>• Open a read/write session</li> <li>• Cancel a connection</li> <li>• Send a message to other users connected to the same serial port</li> </ul>
Read/Write (show menu)	Read/write sessions are opened, and the sniffer menu won't be presented.
ReadOnly (do not show menu)	Read only sessions are opened, and the sniffer menu won't be presented.

6. In the Privileged Users field, enter the usernames with access rights to a multiuser shared session.
7. In the Menu Hotkey field, enter the hotkey sequence for accessing the menu. The default is **^Z (Ctrl-Z)**.
8. Activate the Notify Users checkbox to inform users of session access.
9. Select an option from the Sniff Mode drop-down list to configure the type of data displayed on the monitor in a port-sharing session.
10. Click *Save* to store your changes in the DSView 3 software server database.
11. Click *Flash Required* to save your changes to the ACS console server Flash memory.

### To enable port alerts and email notification:

1. Click *Appliance Settings - Ports - Serial* in the side navigation bar.
2. Click the serial port you wish to configure.
3. Click *Alerts* from the side navigation bar.
4. Click *Enable Port Alert* and enter the desired text string(s) in the Alert String field(s).

5. Click *Save* to store your changes in the DSView 3 software server database.
6. Click *Flash Required* to save your changes to the ACS console server Flash memory.
7. Navigate to the *Reports* tab and click the *Email Notifications* in the side navigation bar.
8. Click *Add* to start the Add Email Notification Wizard. Click *Next*.
9. Configure the email address properties. Click *Next*.
10. Select the events for which you want to trigger email notifications and add them to the Events To Notify window. Click *Next*.
11. Add one or more unit groups for which you want to trigger email notification. Click *Next*, then click *Finish*.

## Serial ports data logging

The ACS console servers support the following methods of data logging. Only one of the data logging methods can be enabled at a time.

- The DSView 3 software server centralized data logging of the serial console sessions and direct SSH/Telnet sessions to the console server. A data log license is required for each enabled data log session. See Configuring data logging section.
- ACS console server local data logging where data is stored in circular format in a file or buffer. In a circular data logging format, data is written into a specified local data file until the maximum file size is reached then the data is overwritten sequentially as additional data log is stored. Circular buffering requires an administrator to set up a process to examine the data during the timeframe before the data logging file or buffer reach its maximum size.

### To configure serial port data logging:

1. Click *Appliance Settings - Ports - Serial* in the side navigation bar.
2. Click the serial port you wish to configure.
3. Click *Data Logging* from the side navigation bar.
4. Click one of the following Data Log Locations:
  - *Enable DSView 3 Data Log* (for additional information see Configuring data logging)
  - *Enable Appliance Circular Data Log*
5. If you selected *Enable Appliance Circular Data Log*, select either *Buffer* or *File* mode from the drop-down list and enter a file size (bytes).
6. Click *Save* to store your changes in the DSView 3 software server database.
7. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Managing Power Devices

You may configure and manage the following power devices connected to an ACS console server through the DSView 3 software:

- Avocent SPC power control device

- Cyclades PM Intelligent Power Distribution Unit (IPDU)
- Server Technology Sentry™ Switched CDU

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**NOTE:** Configuration and management of Server Technology Sentry CDU should be handled through the DSView 3 software. The DSView 3 software server enables the Server Technology Sentry CDU licensing feature for the selected serial ports in the ACS console server.

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## Adding or removing power management devices

### To add or remove power management devices:

1. Click *Appliance Settings - Ports - Power Devices*.
2. Click the *Manage* button to start the Power Management Wizard. Click *Next*.
3. Select the *Add Power Devices* or *Remove Power Devices* radio button. Click *Next*.
4. Select the ACS console server serial port number where a power device is attached.
5. If you are adding a power device, select a Power Device Type from the drop-down list; options are Cyclades PM IPDU, Server Technology Sentry CDU or Avocent SPC power control device. Click *Next*. The DSView 3 management software adds the attached power device.
6. Click *Finish*.
7. To perform a name change operation in the power device or on the DSView 3 software server, activate the checkbox for the power device you wish to configure and click *Push Name* or *Pull Name*.

Managed devices in the DSView 3 software have a name stored in the DSView 3 software server database, and may also have a name stored in the managed device. The Push Name and Pull Name operations synchronizes the names in the DSView 3 software database and the managed device. For more information refer to the DSView 3 software Installer/User Guide.

8. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Power device settings

Depending on the power device type (Cyclades PM IPDU, Avocent SPC power control device or Server Technology Sentry CDU), the configurable parameters may differ. The following tables describe the parameters viewable when a Cyclades PM IPDU, an Avocent SPC power control device or a Server Technology Sentry CDU is used.

**Table 4: PM IPDU Configuration Parameters**

Parameter	Description
Name in Appliance	The name saved in the PM IPDU.
Name in DSView	The name assigned to the PM IPDU in the DSView 3 software.
Firmware Version	The PM IPDU firmware version.

**Table 4: PM IPDU Configuration Parameters (Continued)**

Parameter	Description
Number of Sockets	Total number of outlets in the PM IPDU.
Model	The PM IPDU model name and number.
Reset Current	This function shows the present and the maximum electricity current flow detected on the PM IPDU. Activating the Reset Current checkbox and clicking the Save button refreshes these values. The PM IPDU buzzer sounds to confirm the refresh.
Reset Temperature	This function shows the present and the maximum temperature detected on the PM IPDU. Activating the Reset Temperature checkbox and clicking the Save button refreshes these values. The PM IPDU buzzer sounds to confirm the refresh. (This option is available only on models that have temperature sensors.)
Current Alarm Threshold	Enter a current threshold in amperes to trigger an alarm or syslog message.
Syslog	Enable or disable Syslog messages.
Buzzer	Enable or disable the buzzer.
Current Protection	Enable or disable current protection. If the current on the PM IPDU exceeds the defined threshold, this function helps to prevent outlets from being powered.

**Table 5: Avocent SPC Power Control Device and Server Technology Sentry CDU Configuration Parameters**

Parameter	Description
Name in Appliance	Avocent SPC power control device or Server Technology Sentry CDU name saved in the power control device.
Name in DSView	The name assigned to the power device in the DSView 3 software.
Status	Status of the power device (enabled or disabled).
Version	Current firmware version.
Total Load (amps)	Total current load on the power device.
Total Load Minimum (amps)	Triggers an enabled trap when a drop in the current below the defined minimum current threshold is reached. This value should be set between 0 and 30.
Total Load Maximum (amps)	Triggers an enabled trap when a reading above the defined maximum current threshold is reached. This value should be set between 0 and 30.
Ports Installed	Total number of outlets in the power device.
Poll Rate (milliseconds)	The time value that the power device is polled for status and data. The value should be set between 500 and 10,000.
Vendor Name	The name of the power device manufacturer.

**Table 5: Avocent SPC Power Control Device and Server Technology Sentry CDU Configuration Parameters (Continued)**

Parameter	Description
Input Feeds	Number of power inlets used by the power device.
Model	The power device model name and number.
Sequence Interval (Server Technology Sentry CDU only)	When powering up multiple sockets at the same time, this is the delay time (in seconds) between operations on each socket. (Valid only on a master Server Technology Sentry CDU)
Reboot Delay (Server Technology Sentry CDU only)	Number of seconds that a socket's power stays off before it is turned back on. (Valid only on the master Server Technology Sentry CDU)

**To change power device settings:**

1. Click *Appliance Settings - Ports - Power Devices* in the side navigation bar.
2. Select the power device you wish to configure. The Settings page appears.
3. Modify the power device parameters. For more information see the PM IPDU Configuration Parameters table, or Avocent SPC Power Control Device and Server Technology Sentry CDU Socket Settings table.
4. Click *Save* to store your changes in the DSView 3 software database.
5. Click *Flash Required* to save your changes to the ACS console server Flash memory.
6. Click *Close*.

**Power device input feeds**

Use the Input Feeds page to configure power devices with more than one power inlet. The following table describe the parameters on this page.

**Table 6: Power Device Input Feeds Parameters**

Parameter	Description
Name	Name of the power input feed.
Load (amps)	Current load on the input feed.
Load Minimum (amps)	Current Load minimum threshold.
Load Maximum (amps)	Current Load maximum threshold.

**To change power device input feeds parameters:**

1. Click *Appliance Settings - Ports - Power Devices* in the side navigation bar.

2. Select the power device you wish to configure.
3. Click *Input Feeds* from the side navigation bar.
4. Select the Input Feed you wish to configure.
5. Set the Current Load minimum and maximum thresholds. You can set a trap to be sent when the minimum or maximum threshold is reached.
6. Click *Save* to store your changes.

## Power device sockets

Use the Power Device Sockets page to perform the following operations on an individual or multiple power device sockets.

- Switch power sockets on or off.
- Lock a socket to prevent accidental power switch, or unlock a socket.
- Cycle power on an individual socket or on multiple sockets with a defined power up interval.
- Save configuration changes to Flash memory on the ACS console server.

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**NOTE:** Depending on the power device type (Cyclades PM IPDU, Avocent SPC power control device or Server Technology Sentry CDU), the configurable parameters may differ.

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### To configure individual power device sockets:

1. Click *Appliance Settings - Ports - Power Devices* in the side navigation bar.
2. Select the power device you wish to configure.
3. Click *Sockets* from the side navigation bar.
4. Activate the checkbox next to single or multiple sockets to perform the following operations:
  - Click the *On* or *Off* button to switch the power on a socket.
  - Click on the *Cycle* button to briefly switch a socket off and on.
  - Click on the *Lock* button to prevent accidental power switch, or click *Unlock* to unlock a socket.
  - Click *Push Name* or *Pull Name* to initiate a push or pull name operation.
  - Click on *Save Configuration to Flash* to save your changes to the ACS console server Flash memory.
5. Click on a single socket to modify the settings. See PM IPDU Socket Settings table or Avocent SPC Power Control Device and Server Technology Sentry CDU Socket Settings table.

**Table 7: PM IPDU Socket Settings**

Setting	Description
Name	Assign or change the name of an outlet in the power device.

**Table 7: PM IPDU Socket Settings (Continued)**

Setting	Description
Interval (PM IPDU)	Change the power up interval which is the time delay (in seconds) for powering up subsequent outlets after an outlet has been powered up.

**Table 8: Avocent SPC Power Control Device and Server Technology Sentry CDU Socket Settings**

Setting	Description
Name	Name assigned in the power device.
Post-On Delay Time (Server Technology Sentry CDU only)	Change the power up interval which is the time delay (in seconds) for powering up subsequent outlets after an outlet has been powered up. This value should be set between 0 and 900 seconds.
Minimum On Time (Avocent SPC power control devices only)	Minimum time an outlet stays on before it is turned off. Valid values are 0s, 15s, 30s, 45s, 1m, 1m15s, 1m30s, 1m45s, 2m, 3m, 4m, 5m, 10m, 15m, 30m and 1h.
Minimum Off Time (Avocent SPC power control devices only)	Minimum time an outlet stays turned off before it is turned on. Valid values are 0s, 15s, 30s, 45s, 1m, 1m15s, 1m30s, 1m45s, 2m, 3m, 4m, 5m, 10m, 15m, 30m and 1h.
Wake	Outlet state after a cold boot. It can be set to on, off or the last saved state.

## Configuring the TCP Ports

By default, The TCP port numbers start at 7001 for serial port 1 and increase incrementally by one (+1) up to the number of serial ports that your console server supports. For example, an ACS console server with eight serial ports has TCP ports 7001 through 7008. If these ports are already in use within your system, the default settings may duplicate and fail. If this occurs, change the default TCP base port for the serial port.

### To change the default TCP base port number:

1. Click *Appliance Settings - Ports - TCP Port* in the side navigation bar.
2. Enter the new base port in the field.
3. Click *Save* to store your changes in the DSView 3 software server database.
4. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## ACS console server TCP and UDP ports usage

The communication between the DSView 3 software plug-in and the ACS console server may be through a standard connection or through a proxy server. ACS console servers use a Secure Shell protocol (SSH). See ACS Console Server Communication Ports table for port usage information.

**Table 9: ACS Console Server Communication Ports**

Port ID	Description
TCP 3871	Avocent DS Authentication Protocol (ADSAP2). Used for session authorization.
TCP 1078	Avocent serial viewer port in proxy mode.
TCP 4122 (default)	SSH Server port.
TCP 4514 (default)	Syslog Server port.
UDP 3211	Avocent Install and Discovery Protocol (AIDP). Used for IP configuration.
UDP 162	SNMP trap port. Used if ACS console server is configured to send SNMP traps to the DSView software server.

## Configuring Sessions Settings

Using the Sessions menu, you can perform the following tasks:

- View the active sessions, who is logged into each target device and their connection duration.
- Terminate a user session and disconnect them from the target device.
- Set an idle time-out, the maximum time (in seconds) that a session may be idle before the user is logged off.

### To monitor active sessions or set an idle time-out:

1. Click *Appliance Settings - Sessions - Active* in the side navigation bar.
2. To terminate a user's session, activate the checkbox next to a target device and click the *Disconnect* button.
3. Click *Flash Required*.
4. To set an idle timeout, select *Sessions - Settings - Serial*.
5. In the Idle Timeout field, enter a value (in seconds).
6. Click *Save* to store your changes in the DSView 3 software database.
7. Click *Flash Required* to save your changes to the ACS console server Flash memory.

## Renaming Connections to the ACS Console Server

You may use the Appliance Connections window to rename an ACS console server, a target server or a power management device that is part of a connection path.

**To rename ACS console server connections:**

1. Click *Connections* in the side navigation bar.
2. Click on a connection to open the Appliance Connections - Rename page.
3. Enter a new name for one or more devices in the connection chain. If you modify a name and the automatic name push feature is enabled, the new name is pushed to the ACS console server based on the configured push properties.
4. Click *Save* and then click *Close*.



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