

SolutionPack for UPS

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SolutionPack for UPS

The SolutionPack for UPS provides unified monitoring of all the UPS (Uninterruptible Power Supply) devices distributed in the network. It provides key reports to help you manage the performance and availability of your backup power sources.

The SolutionPack for UPS helps you:

- ◆ Maintain an accurate inventory of devices and components
- ◆ Understand device activities
- ◆ Plan for power source requirements

This SolutionPack is one of many provided with [Service Assurance Suite](#).

SolutionPack version

- ◆ 1.0

Watch4net version

- ◆ 6.3u1 and higher

Supported devices

- ◆ UPS devices supporting `rfc1628.mib`
- ◆ APC devices supporting `PowerNet-MIB.mib`

Data collection method

- ◆ SNMP collector

Main reports

- ◆ UPS Output Load reports on device-wide distribution of the output load
- ◆ Battery Status provides voltage, current, and temperature information
- ◆ Input/Output reports on input line metrics, such as voltage and frequency, and output line metrics, including status, load, voltage, current, and frequency
- ◆ On Battery Stats shows the current status of a battery and its remaining time and capacity
- ◆ Capacity (%) graphs the percentage of battery capacity over a period of time

SolutionPack software updates

Obtain new or updated SolutionPack software:

- ◆ By installing the latest core software update, for example, 6.3u2. SolutionPacks distributed with core software have a 30-day free evaluation period. If you plan to use the software longer than 30 days, you must install a SolutionPack license before the trial period ends.
- ◆ By uploading a `SolutionPackCenter Update.zip` file. New SolutionPacks distributed in the zip file do not include a 30-day trial license. You must install a license file before installing the SolutionPack.

Upload a `SolutionPackCenter Update.zip` file from **Centralized Management > Packages Management > Packages Listing > Upload**.

Note

You may need to unzip the `SolutionPackCenter Update.zip` before uploading the software.

After uploading the files, you have to install the SolutionPack from **Centralized Management > SolutionPack Center**.

Ensure the core modules and SolutionPackBlocks have been updated to the latest version of your software before installing any SolutionPack. The *Watch4net Installation and Configuration Guide* provides information on how to update the software and the license.

SolutionPack licenses

Determine whether you need a SolutionPack license file by checking the feature names and expiration dates listed in **Centralized Management > License Management**. If the SolutionPack license is not listed, you must obtain one before you install the new SolutionPack.

Obtain a SolutionPack license by completing a Support Request (SR). SR forms, software downloads, and documentation are available on the EMC support website <http://support.emc.com>.

Installing the SolutionPack

Before you begin

- ◆ Determine whether you need a SolutionPack license file by checking the feature names and expiration dates listed in **Centralized Management > License Management**.
- ◆ Core modules must be up-to-date in all servers because not all module dependencies are validated during the installation or update process.

Core modules are modules that are not installed by a SolutionPack. Examples of core modules include webapps, module-manager, license-manager, java, mysql, backend, tools, and so forth. Update these core modules: **Databases, Backends, Frontends, Miscellaneous** (except Blocks).

Follow these steps to install the SolutionPack for UPS and perform UPS device discovery.

Procedure

1. Log in to **Centralized Management**.
2. Select **SOLUTIONPACK CENTER**.
3. Select the **SolutionPack for UPS** in the **Browse and Install SolutionPacks** screen.
4. Read the summary information and click **Install**.
5. In the next window, type the instance name for Reports and SNMP Masks and click **Next**.
6. Select the **Administration Web-Service Instance** as the default and click **Next**.
7. In the **SNMP Masks** wizard, click **Install**.

Green indicators appear next to Reports and SNMP Masks to indicate their installations were successful.

Continue with configuration in the **Device Discovery** module.

8. To add the SNMP agents, click **Administration > Modules > Device Discovery**.

9. On the **Device Discovery** page, click **Collectors**.
10. Create a new collector by accepting all the default options for the SNMP collector.
11. Click **Device** and add the UPS device to be discovered.
 - a. Type the IP address, the SNMP community string, and assign the collector that you previously created.
 - b. Select all UPS capabilities to be discovered and any other capabilities.
12. Select the UPS device that you just added and click **Approve**.
13. From the Dashboard:
 - a. Click **Import devices from all enabled device sources**.
 - b. Click **Discover capabilities from all approved devices**.
 - c. Click **Distribute all approved devices with capabilities on all enabled collectors**.
 - d. Click **Send the generated configurations on all available collectors**.

Green indicators appear on the Dashboard after successful executions of the above functions.

After you finish

After the installation is complete, select **Centralized Management** › **SolutionPack** to verify the installed SolutionPack.

Confirming report creation

After you install a SolutionPack, you can view its reports.

To view the reports:

Procedure

1. Go to **User Interface** › **Report Library**.
2. Click the SolutionPack to view its reports.

Results

It may take a minimum of three polling cycles to display all relevant information in these reports.

Troubleshooting problems with your SolutionPack

Report display problems

- ◆ [What to do if data does not appear in any reports on page 5](#)
- ◆ [What to do if data does not appear in some reports on page 5](#)
- ◆ [Searching for metrics in the database on page 5](#)
- ◆ [Running a scheduled task to import data into reports on page 6](#)
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What to do if data does not appear in any reports

Procedure

1. After the completion of at least three collection cycles, verify if data is populating into the reports.
2. On the **Device Discovery Dashboard**, verify that all icons are green.
3. To view the log files for errors, go to **Centralized Management** and click **Collecting > Collector-Manager::<instance name> > Log Files**.
4. Log in to your SQL database and verify data is being written to it. Look specifically at the `data_property`, `data_variable`, `data_property_flat`, and all cache tables:

```
select * from data_property;
select * from data_property_flat;
select * from data_variable;
select * from <cache-table-name>;
```

What to do if data does not appear in some reports

Procedure

1. Access **Edit mode** to view and copy the metric of the SolutionPack.
2. Click the SolutionPack in the report tree.
On the **Filtering and Expansion** tab, the metric expression appears below the **Filter** field.
3. Right click the metric expression and copy it to use in your search.
4. Search for the metric to verify that it is being collected.
If the metric is not returned in the search, then it is not being collected.
5. To view the log files for errors, go to **Centralized Management** and click **Collecting > Collector-Manager::<instance name> > Log Files**.
6. Log in to your SQL database and verify that data is being written to it. Look specifically at the `data_property`, `data_variable`, `data_property_flat`, and all cache tables:

```
select * from data_property;
select * from data_property_flat;
select * from data_variable;
select * from <cache-table-name>;
```

Searching for metrics in the database

You can verify that a metric is being collected and used for reporting when you search and find the metric in the database.

Procedure

1. Go to the **Administration** page.
2. Under **Modules**, click **Management of Database Modules**.
3. On the **Metric Selection** page, create the filter, type the number of results, and select the properties to display for the metric.

For example, to list up to 100 results of the SignalWait Time metric with the properties of device and IP, type `name== 'SignalWaitTime'` in the **Filter** field, **100** in the **Maximum results** field, and select device and IP for the **Properties to show**.

4. Click **Query**.

A list of the metric results appears. If nothing displays, the metric is not being collected.

Running a scheduled task to import data into reports

After you push a new configuration into a collector, a scheduled task runs and populates the reports with new data. You can manually run the scheduled task to import the data more quickly.

Before you begin

Allow at least three polling cycles to pass before manually running the scheduled task.

Procedure

1. Click **Administration**.
2. Click **Centralized Management**.
3. Expand **Scheduled Tasks**.
4. Click **Database**.
5. Select the **import-properties-Default** task.
6. Click **Run Now**.
7. Confirm success in running the task in the **Last Result** and **Last Result Time** columns.

Troubleshooting collector errors with Collector-Manager log files

Review the Collector-Manager log files to troubleshoot problems with data collection.

You can also check the Collector-Manager log files from the command line, as explained in [Viewing collector errors from the command line on page 6](#).

Procedure

1. Click **Administration**.
2. Click **Centralized Management**.
3. Expand **Collecting**.
4. Click the Collector-Manager for your collector instance.
Collector-Manager::<Collector-Manager instance> - <physical_host_ID>
5. Expand **Log Files** and click the **View File** icon to review the configuration error messages.

Viewing collector errors from the command line

Procedure

- ◆ Use this path to access the log files of the SolutionPack: `/opt/APG/Collecting/Collector-Manager/Generic-SNMP/logs/collecting-0-0.log`

SolutionPack uninstallation

Uninstalling a SolutionPack

If you no longer want to view the reports of a certain SolutionPack, you can uninstall that SolutionPack from the server.

Procedure

1. Log in with administrator credentials for core software and select **Administration**.
2. Select **Centralized Management** in the Administration tree.
3. Select **SolutionPacks** in the tree.
4. Select the SolutionPack that you want to uninstall in the **Installed SolutionPacks** screen.
5. In the **Properties** area, click **Trashcan** icon for each instance of the SolutionPackBlock and click **Remove**.

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