

[APPLICATION NOTE]

Integrating Third-party Devices into Schneider Electric's DCIM Monitoring Tools: Data Center Expert and EcoStruxure IT Expert

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PROJECT AT A GLANCE

Project Type

Integration of hardware devices into DCIM monitoring tools

Schneider Electric's policy and process to monitor third-party devices using a Device Definition File (DDF) that enables communication with the monitoring software and/or gateway.

Application(s)

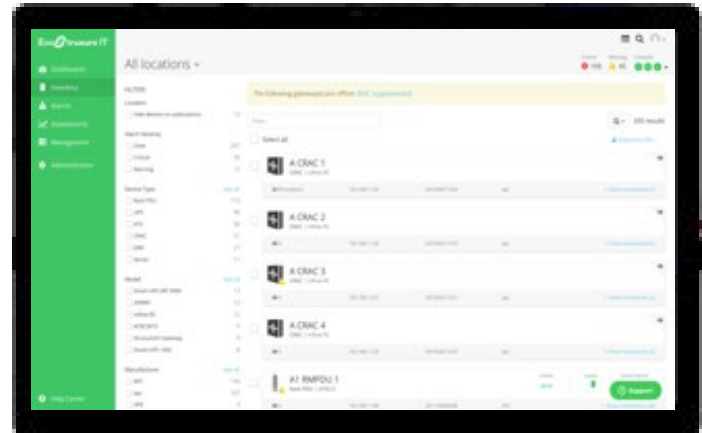
Monitoring third-party devices using Schneider Electric's Data Center Infrastructure Management software monitoring tools

Solutions Used

Data Center Expert, EcoStruxure IT Expert, EcoStruxure IT Gateway, and Asset Definition Service

CUSTOMER BENEFITS

Monitoring your IT critical infrastructure, regardless of brand or type, is necessary for high availability and efficient use of available resources.



Introduction

Most commercial DCIM monitoring and management systems claim they are vendor neutral, and vary widely in how efficiently they incorporate third-party devices in on-premise and cloud-based applications.

In hybrid IT environments where widely distributed assets are managed across multiple sites, it is particularly important that software monitoring tools can discover and receive data from all necessary hardware devices regardless of vendor.

Schneider Electric's DCIM software is designed for compatibility and interoperability with both its own products and devices made by third-party vendors. Devices are integrated with the software using Device Definition Files (DDF) that define their sensors and alarms.

When a DDF is integrated into the Data Center Expert server or the EcoStruxure IT Gateway (required for use with EcoStruxure IT Expert), the device(s) it defines can be discovered and monitored.

What devices can be monitored?

Schneider Electric devices

Data Center Expert and EcoStruxure IT Expert can monitor all supported Schneider Electric, APC, and MGE devices (not end-of-life), and communicate over SNMP or Modbus TCP. IT Expert also supports Modbus RTU. If an issue supporting a Schneider Electric product occurs, please submit a [support ticket](#).

Third-party devices

Data Center Expert

Data Center Expert can monitor thousands of third-party devices. To monitor new third-party devices in Data Center Expert, an additional paid Asset Definition Service (ADS) is required.

IT Expert

Many third-party devices can already be monitored by IT Expert. Requests for additional devices will be considered for inclusion in future releases and prioritized based on the number of requests from subscribed customers.

The addition of new third party devices is not guaranteed and no estimates on when or if it will be available are given. Customers may choose to pay for the Asset Definition Service (ADS) to add new third-party devices with a guaranteed delivery date.

What is a DDF?

Device Definition Files (DDFs) are required by Data Center Expert and IT Expert to monitor devices. DDFs define the sensors and alarms using XML mapping of data addresses to labels, units, and scaling. Typically, a single DDF will work for a number of different devices that are in the same family and have the same network management or interface card. Some devices might use more than one DDF.

There are two types of DDFs, sometimes referred to as essential DDFs and scanner DDFs. Essential DDFs define alarms for APC devices with a Network Management Card (NMC). Scanner DDFs define both sensors and alarms for a variety of devices.

Data Center Expert and EcoStruxure IT Gateway software includes a collection of DDFs for supported SNMP and Modbus devices; EcoStruxure IT Gateway also includes DDFs for supported Redfish devices.

Data Center Expert

Data Center Expert ships with a set of core DDFs. When FTP or SCP is properly configured on the device and in Data Center Expert, essential DDFs are automatically pulled from the device.

To view and manage the DDFs used by Data Center Expert, launch the DCE desktop client. For SNMP devices, go to SNMP Device Communication Settings > Device Definition Files. For Modbus devices, go to Modbus Device Communication Settings > Device Definition Files.

All Data Center Expert DDFs can be searched and downloaded from <http://ddf.ecostruxureit.com/>.

IT Expert

DDFs are bundled into a device library available in the EcoStruxure IT user interface only; the device library is not a separate downloadable file.

EcoStruxure IT Gateways configured for auto-update will get the new device library automatically. Gateways not configured for auto-update require an Administrator user to manually initiate the device library update in the EcoStruxure IT Administration > Gateways option.

Gateway device library changes are documented in the [release notes](#). Documentation describing the third-party devices supported in the device library will be available in the EcoStruxure IT Help Center soon. See [this article](#) to understand more about whether a specific third-party device can be monitored.

How to obtain a DDF for your device(s)

DDFs are available for most Schneider Electric and APC devices. If a DDF for a device is not included with your monitoring software, you can request one or purchase the Asset Definition Service (ADS) to add new third-party devices with a guaranteed delivery date.

First check whether a DDF already exists

Data Center Expert

Search for and download available DDFs for supported devices (not end-of-life) at <https://ddf.ecostruxureit.com/>. If a third-party device DDF or customization of an existing DDF is required, you can [submit a request](#).

EcoStruxure IT Expert

Check whether an EcoStruxure IT Gateway software update or device library update is available in the EcoStruxure IT user interface. Refer to the Gateway device library [release notes](#) for information about support for new devices. If support for a third-party device or customized support is required, you can [submit a request](#).

If not, then request a DDF (either A no-cost request or paid service)

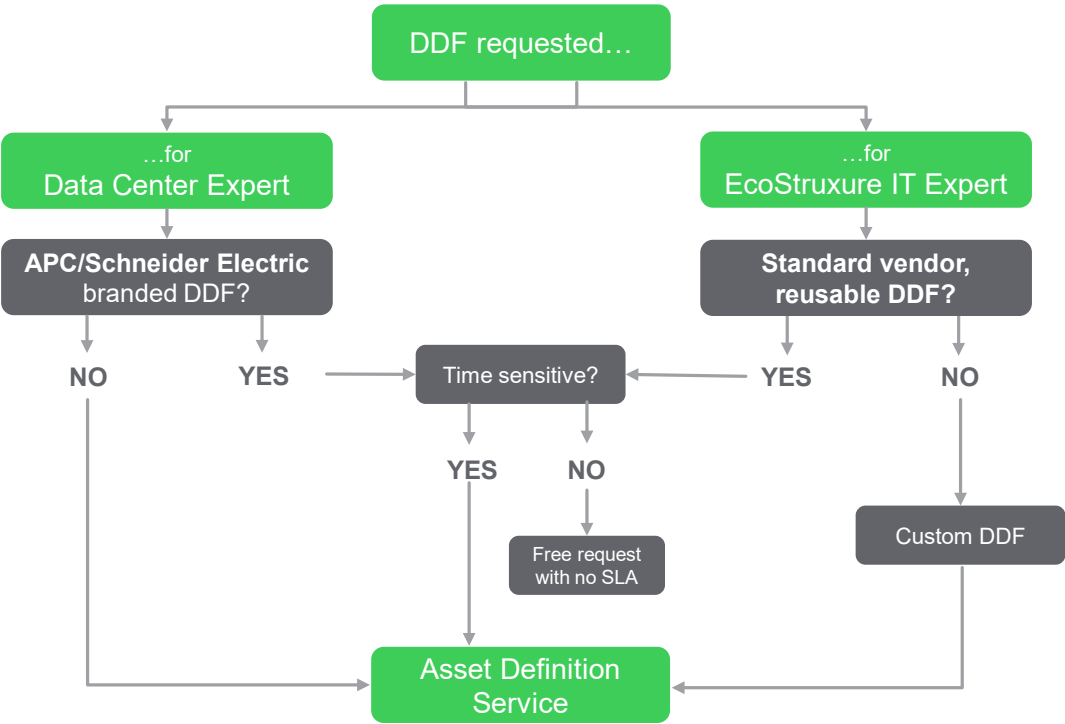
Depending on whether a DDF request is needed by a specific date, and whether a DDF is customized for a single use or standardized for use by all customers, there are two ways Schneider Electric fulfills DDF requests:

- A no-cost request with no associated service level agreement (SLA).

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- The paid Asset Definition Service (ADS) to create one or more DDFs based on a defined and agreed upon service level.
Note: New Data Center Expert DDFs for third-party devices are always fulfilled through the Asset Definition Service.

Figure 1 DDF request process



Free request with no SLA

When you [submit a request](#) for device support and do not purchase the Asset Definition Service, no service level agreement governs the development of the DDF, and no commitment is made for making the DDF available. No-cost Asset Definition requests should only be used when time is not a concern. There is no cost for DDFs for supported (not end-of-life) Schneider Electric power, cooling, and environmental devices.

Data Center Expert

No-cost requests can only be used for Schneider Electric power, cooling, and environmental devices that are not end-of-life.

IT Expert

No-cost requests can only be used for device support that can be standardized for use by all customers for a given vendor's model or model family. Customized support can only be fulfilled through the Asset Definition Service.

Asset Definition Service

When a faster, guaranteed delivery time is required, purchase Schneider Electric's Asset Definition Service. DDFs are sold individually or in packs of 5, 10, 15 or 20. The cost includes three revisions for each DDF. Note that only one DDF is needed per device model.

An engineer from the Advanced Custom Services team will contact you to collect the information needed to create the DDF(s). DDFs are delivered within 20 business days for Data Center Expert, and within 45 business days for EcoStruxure IT Expert.

Available Asset Definition Service SKUs

One DDF: WNSWACS1DDF [Statement of Work](#)

Five DDFs: WNSWACS5DDF [Statement of Work](#)

Ten DDFs: WNSWACS10DDF [Statement of Work](#)

Twenty DDFs: WNSWACS20DDF [Statement of Work](#)

How is a new DDF installed?

Data Center Expert

To view and manage the DDFs used by Data Center Expert, launch the DCE desktop client. **Note:** The DDF must be in XML format. If you received the file in a .zip or another compressed format, you must unzip the file.

1. For SNMP devices, go to SNMP Device Communication Settings > Device Definition Files.

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For Modbus devices, go to Modbus Device Communication Settings > Device Definition Files.

2. Click **Add/Update Definitions**.
3. To add a DDF that was provided to you, click **Local File** and then browse to the file location. Select the file and click Finish.

EcoStruxure IT Gateway

Updates to the Gateway device library are only available in the EcoStruxure IT user interface, not as a separate downloadable file. See [How to update the device library in IT Expert](#)