

Third-Party Device Integration into InfraStruXure Management

Abstract

This document details the integration of third-party (non-APC) equipment into the APC management scheme and InfraStruXure Manager. Devices with dry contact outputs (CRACs, generators, PDUs and UPSs) can be integrated by tying the dry contact points to an APC management device. The APC management device will expose the third-party device on the network, allowing it to report into InfraStruXure Manager.

Introduction

Integration of a third-party device into the APC network management scheme involves wiring outputs from the device into an APC Environmental Monitoring Unit or an APC Environmental Management System. The product solutions are selected by determining the number of data points. An APC Environmental Monitoring Unit has the ability to monitor devices with up to four data points, and an APC Environmental Management System has the ability to monitor devices with up to eight data points.

Benefits of InfraStruXure Management

Integrating a device into the APC management scheme and InfraStruXure Manager introduces a variety of additional benefits to the overall NCPI solution set. The benefits include:

- Centralized management
- Fault notification
- Notification groups
- Data logging
- Event logging
- Browser accessible
- Password Security
- Read-only access
- Encryption
- Radius support

- Building management system integration
- Enterprise management system compatible

Example Application: Enabling a generator using an APC Environmental Management System

The input contacts of the Environmental Management System (EMS) can allow alarm notification and logging through the APC InfraStruXure Manager. The example below shows the input contacts of the EMS connected to the output contacts to a diesel-powered generator. Normally Open (NO) or Normally Closed (NC) dry contacts can be wired to the EMS which allows configuration of the normal state.

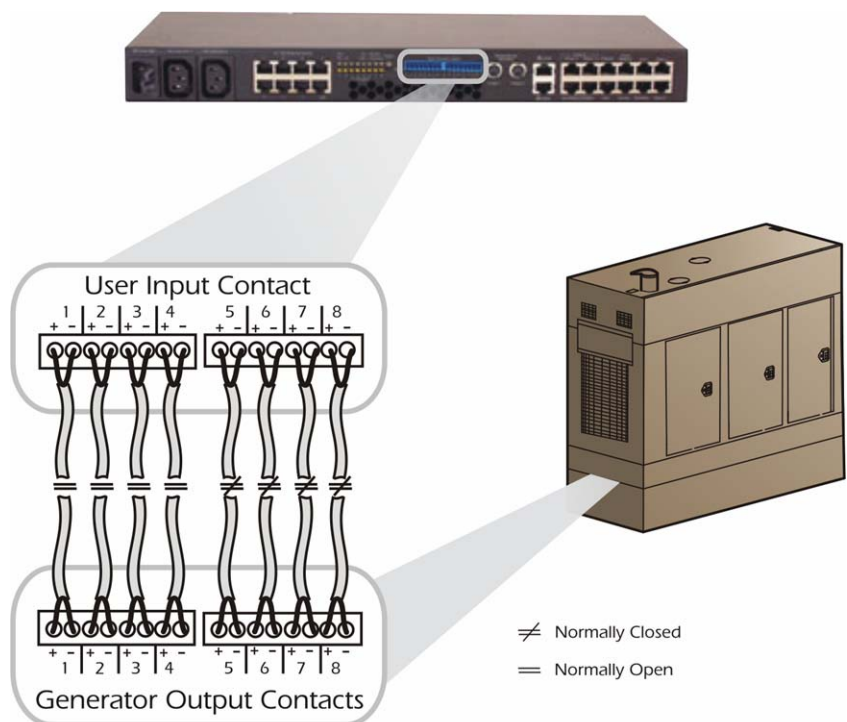
Explanation of the Figure at Right:

The output contacts of this example generator are:

- 1 Generator Self Test Failed
- 2 Bad Battery
- 3 Low Fuel Level
- 4 Generator in Maintenance Mode
- 5 Generator Cranking
- 6 Generator Failed to Start
- 7 Generator Running
- 8 High Engine Temp

As you can see, this configuration includes both Normally Open and Normally Closed contacts. Make physical connections according to the EMS installation manual and the installation instructions included with your third-party device. Once the dry contacts are connected between the device and the EMS,

configure the EMS settings on its Web interface so that the InfraStruXure Manager can properly display and log the device's states and alarms.



General configuration steps are as follows:

Name the contacts and set whether they are Normally Open or Normally Closed. Go to the **Input Contacts** screen and click on the **Configure** button in the lower corner of the screen.

The screenshot displays the APC Network Management Card web interface. The browser window shows the URL `http://159.215.9.70/arakfram.htm?8:0`. The page title is "APC Network Management Card - Microsoft Internet Explorer". The main content area is titled "Input Contacts" and includes a "Device Overview" section showing system status (Normal) and various components like Env Probes, Input Contacts, Beacon, Lock, Cooling Solutions, Output Relays, Sensors, and Outlets. Below this is an "Input Contact Configuration" table with columns for Name, Normal State, and Alarm Map. The table lists 8 contacts with their respective normal states (Open or Closed) and alarm maps (all [None]). Buttons for "Apply" and "Cancel" are at the bottom of the configuration table.

Name	Normal State	Alarm Map
1: Gen Self Test Failed	Open	[None]
2: Gen Bad Battery	Open	[None]
3: Gen Low Fuel	Open	[None]
4: Gen Maintenance Mode	Open	[None]
5: Gen Cranking	Closed	[None]
6: Gen Failed to Start	Closed	[None]
7: Gen Running	Closed	[None]
8: Gen High Engine Temp	Closed	[None]

Conclusion

Integrating third party devices (non-APC) into InfraStruXure Manager gives the ability to manage all equipment through a single interface, and provides network visibility to devices which do not natively support it. The benefit of this integration is realized through reports, alarms, and availability analysis.