Cabinet PDU Alarm Investigation

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Procedure for Investigating Cabinet PDU Alarms

Problem:

Alert ticket pops up in Care with a Subject like this;

[alert-trigger] - [rdc-pdu] - pdu1-2-5.rdc.rkv.md is in alarm state.

This means that a temperature reading, or humidity reading measured somewhere at the top of the aisle where that cabinet is found may have exceeded its threshold and alarms are being sent out, including to upper management.

First, we have to acknowledge that we have seen the alert and we are responding to it. This stops the process of sending alarms to upper management.

Click the link next to "**Acknowledge Alert**" on the ticket. This should take you to the "**All Active Alerts"** page in Orion.

Look for the affected pdu under the column "**Object that Triggered this Alert**".

Once found, click the corresponding "**Acknowledge**" button under the column "**Acknowledged by**".

How to Investigate:

1) Notice the "PDU Alarm Status" in the alert ticket. For example,

#1 **Orion NPM** <orion@nms2-web.atlantech.net> 6 months ago

Date: Friday, December 2, 2022 6:23 AM

Alert Details: Click Here
Acknowledge Alert: Click Here
Update Properties: Click Here

PDU Name: pdu1-2-5.rdc.rkv.md
Cabinet Number: Cabinet 2-5
Customer ID: 2914
Customer Name:
AOI TT:
PDU Alarm Status: normal
PDU Details Page: Click Here

Help URL: Click Here

This alert indicates that a preconfigured temperature or humidity threshold has been breached for pdu1-2-5.rdc.rkv.md. Please check the "PDU Details Page" above for the current value of the 'APCrPDUTemp' poller, as this is the current temperature being read at this PDU.

A value other than 'normal' listed in the 'Alarm Status' above may indicate a problem. Here is a list of all the possible statuses:

1 - notPresent - Means that this sensor value does not exist.
2 - belowMin - This value is below the defined minimum threshold (Humidity).
3 - belowLow - This value is below the defined 'low' threshold (Humidity).
4 - normal - This value means all is normal (obviously).
5 - aboveHigh - This value has exceeded the defined 'high' threshold (Temperature).
6 - aboveMax - This value has exceeded the maximum threshold (Temperature).

This email has been sent to the Data Center group, but it would probably be a good idea to contact them anyway, just to be sure they know about the issue.

Look up what It means in the list of all the possible statuses in the above screenshot. In this example, the status "**normal**" means that the temperature and humidity values measured in the aisle are good. (This unnecessary alarm will pop up when Orion reboots, for example).

The status, "**notPresent**", shows up when a cabinet PDU is disconnected from the network, and therefore cannot receive any info about the temperature or humidity.

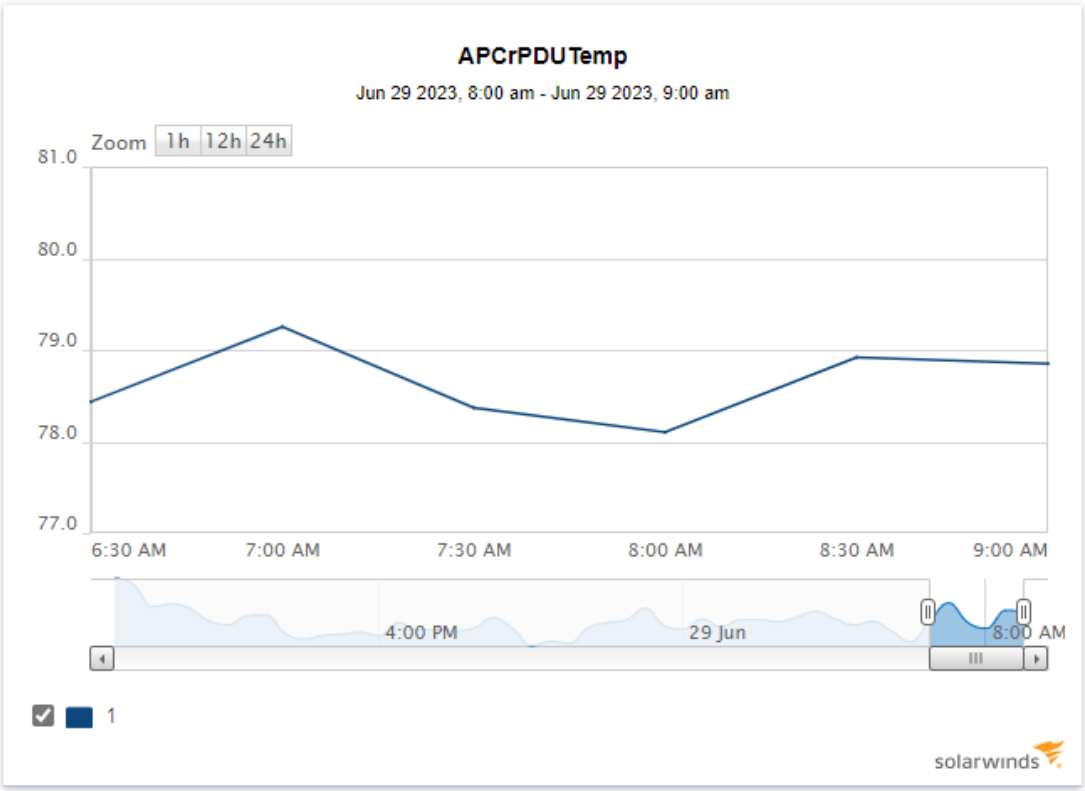
2) If the status is anything other than "normal" or "notPresent", click the link next to "**PDU Details Page**".

On the right side of the next page, under "**Universal Device Poller Status**", click on **APCrPDUTemp**.

Universal Device Poller Status

POLLER NAME	CURRENT STATUS	LAST POLLED
APC PDU		
APCrPDUTemp	1 value(s)	9:02 AM
rPDU2SensorTempHumidityStatusHumidityStatus	1 value(s)	9:01 AM
rPDU2SensorTempHumidityStatusRelativeHumidity	1 value(s)	9:01 AM
rPDU2SensorTempHumidityStatusTempF	1 value(s)	9:01 AM
rPDUIdentDevicePowerVA	1570	8:20 AM
rPDUIdentDevicePowerWatts	1450	8:20 AM

This brings you to a chart like this;



This shows you how the temperature in the Aisle has been changing with time.

Document the chart in the alert ticket.

Determine which 2 HVAC units are cooling down the aisle in which the mentioned cabinet is found. That should be the HVAC units nearest to the Aisle. Document whether these 2 HVAC units are turned on and cooling or not.

Use the hand thermometer to measure the temperature in the middle of the cold aisle.

Take 3 measurements as follows:

- 2 inches from the floor
- Halfway up the Cabinet
- Top of the cabinet

Document these readings in the ticket.