ServiceNow Email Integration with VMware Pulse IoT Center 2.0
Table of Contents

Executive Summary .................................................................................................................. 3

Business Case .......................................................................................................................... 3
Solution Overview .................................................................................................................... 4

Introduction ............................................................................................................................. 4

Purpose ..................................................................................................................................... 4

Audience .................................................................................................................................. 4

Solution Configuration and Setup ............................................................................................ 5

Assumptions ............................................................................................................................. 5

Configuration ........................................................................................................................... 5

Get access to a ServiceNow Developer Instance ................................................................. 5

Configure the ServiceNow Developer Instance to accept Inbound emails ..................... 8

Solution Validation ................................................................................................................... 9

Define Notifications ................................................................................................................. 9

Define Alerts ............................................................................................................................. 11

View the Incidents created in ServiceNow ............................................................................ 13
Executive Summary

Business Case
The Internet of Things (IoT) is rapidly transforming traditional business models and operational processes to boost innovation and growth. An IoT-ready infrastructure has unique requirements with onboarding, configuring, managing, and securing connected devices, and as a tidal wave of IoT use cases reaches your organization, your IT and Operational Technology (OT) departments may struggle to keep up. VMware can help organizations achieve IoT infrastructure excellence and deliver successful business outcomes that meet the needs of both your IT and OT organizations.

VMware Pulse™ IoT Center™ is a secure, enterprise-grade, end-to-end IoT infrastructure management solution that allows OT and IT to have complete control over their IoT use cases, from the edge all the way to the cloud. It helps companies to onboard, manage, monitor, and secure all things and infrastructure for IoT.

ServiceNow® provides Service Management Software as a Service (SaaS). It has a built-in helpdesk system and is used to digitize workflows and automate business processes.

This Solution Paper describes how notifications generated from VMware Pulse IoT Center can be used to automatically initiate a ServiceNow ticket. ¹

¹ Information provided in this document was developed with publicly available information published at https://developer.servicenow.com. All information is subject to change without notice and this does not represent any type of endorsement by ServiceNow.
Solution Overview
This reference architecture details using VMware Pulse IoT Center and its ability to be an integral part of a company’s IT operations by integrating with ServiceNow software.

- We go through the pre-requisites of setting up a ServiceNow Developer Account to test this flow.
- We integrate email notifications from Pulse IoT Center with the ServiceNow Developer software
- We test the aforementioned integration.

Introduction

Purpose
This reference architecture describes how VMware Pulse IoT Center can integrate with an existing ServiceNow business flow.

Audience
This reference architecture is intended for IT and OT administrators and IoT Architects involved in planning and managing Internet of Things Infrastructure, Applications and Services.
Solution Configuration and Setup

Assumptions

- You have access to a SaaS Instance of VMware Pulse IoT Center v2.0.
- You have a device onboarded and the device is publishing metrics to VMware Pulse IoT Center.
- You have a basic understanding of the ServiceNow interface.

Configuration

Get access to a ServiceNow Developer Instance

- Please follow these steps if you don’t have access to a ServiceNow instance OR you want to test it out on a sandbox first before deploying it in production.
- Browse to https://developer.servicenow.com/app.do#!/home
• Click on Register on the Panel on the Top Right of the Screen and fill in the Registration Information

• Verify your ServiceNow account by clicking the link the email that you receive.
• Sign-In to the Developer Website and Agree to the Terms and Conditions:

• Once Logged In, Click on Manage > Instance:
• Click on “Request Instance”

![Request Instance button on ServiceNow interface]

• Select “Madrid” or the latest release available based on the recommendation.

![Version selection options on ServiceNow interface]

• You should get your credentials with admin as the username.

![Logged-in ServiceNow interface]

• Use the link to log-in directly. You will be prompted to change the username and password.

• Once changed, you will be logged in to your very own ServiceNow Developer Sandbox as the System Administrator.

• Make sure you make a note of your dev##### number as you will be using it for integration.
Configure the ServiceNow Developer Instance to accept Inbound emails

- On the left side panel, search for email properties OR scroll down to System Properties > Email Properties.
- You should see two columns: Outbound Email Configuration and Inbound Email Configuration.
- The Outbound Email Configuration is optional, but you might as well turn it on.
- To integrate with Pulse, we need to configure Inbound Email Configuration. So, under the Inbound column, select Yes under Email Receiving Enabled.
- At the end of the column, enter your company’s domain or enter a domain that you will specify in the advanced settings of Notification Definition of Pulse.
- Hit Save.
Solution Validation

Define Notifications

- Navigate and login to your VMware Pulse IoT Center v2.0 SaaS Instance.
- Once logged in, ensure that a device is connected and is successfully publishing metrics.
- Now, to integrate with ServiceNow, on the left-side panel, click on Alerts and Notifications and then Notification Definitions and then click “Create”:

![VMware Pulse IoT Center interface](image)

- Under Details, enter the Name and Description and then click “Next”:
- Under the Settings step, select “Email Notification” as the Type.

- Under the Recipient Email address, you need to reference the dev##### and use the following as an email: dev#####@service-now.com. For example, if your instance is Dev12345, enter the email address as dev12345@service-now.com.

- Under the Advanced settings, enter the Sender Name (Name that will show up in the ticket/email as the sender) and the Sender Email Address (match this with the one that you used to configure inbound email settings in ServiceNow).

- Click Next > Under the Review Step, click Save.
Define Alerts

- Now, we will create some alerts which will generate notifications which in turn will create ServiceNow incidents.
- Navigate to Alerts and Notifications and Select Alert Definitions.
- Click on Create
- Under the Details Step, enter the Name, Description, Choose the template and Severity.

- Under the Conditions Step, select whether you want the Alert to be Threshold (value comparison) or Offline (Metrics not flowing for a template), then Enter a Symptom (criteria) and the trigger count (number of data cycles of consistent condition matching after which an Alert is raised).
• Now, under the Recommendation step, enter the remediation steps or escalation steps that can add value and reduces the Time-to-solve for the Incident.

• Finally, under notification, Enable Notifications and Select your notification definition to create a ServiceNow ticket.

• Finally, click NEXT, review the alert and hit Save.
View the Incidents created in ServiceNow

- So, once the you see the Alerts start showing up on Pulse IoT Center, you will be able to see Incidents created on ServiceNow. To induce an alert, you can modify the Threshold in Alerts to confirm the functionality.

- If you are unable to view the Incidents, please make sure that you have removed all filters (click on All on the top) under Incidents to view the tickets.
Disclaimer:
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Questions:
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