Integration of ExtremeCloud™ IQ – Site Engine with ServiceNow®

Supporting Automated Workflows in the Enterprise

Introduction

ServiceNow IT Service Management (ITSM) is the world's most innovative service management solution and helps enterprises deliver resilient services that increase productivity and create amazing experiences. ExtremeCloud IQ – Site Engine[1] extends the value of ExtremeCloud IQ by enabling a cloud migration path from a local/on-premises operational model and provides network management and orchestration for legacy non-cloud native and third-party devices. ExtremeCloud IQ customers can simply open ExtremeCloud IQ – Site Engine from within their ExtremeCloud IQ application via a single sign-on. In addition, ExtremeCloud IQ – Site Engine offers an open northbound API for customized integrations to key enterprise platforms such as ServiceNow®. It offers an intuitive graphical way to easily automate network tasks by creating workflows via scripts (i.e. Python). Workflows can be triggered by any event like threshold reached, syslog message or trap received, user action, or even an external API call.

The goal of integrating ExtremeCloud IQ – Site Engine with ServiceNow is to enable the detection of network issues and have them trigger a ServiceNow workflow that provides contextual technical data. The network issue will create an alarm within ExtremeCloud IQ – Site Engine. Upon triggering an alarm, a workflow is launched to extract the details of the network event and a ServiceNow ticket is opened as per the instruction set defined within the API scripts and populated with supporting data gathered from the network. Network administrators benefit by having the ticket automatically created in ServiceNow® for specific network events, thereby saving the time and effort of manually opening the ticket themselves and effectively translating to financial savings for the enterprise.

Figure 1 illustrates the specific role of ExtremeCloud IQ – Site Engine as a cloud enablement pathway within the ExtremeCloud IQ ecosystem, and the various applications with which it interconnects, including its northbound API integration capability with ServiceNow®.
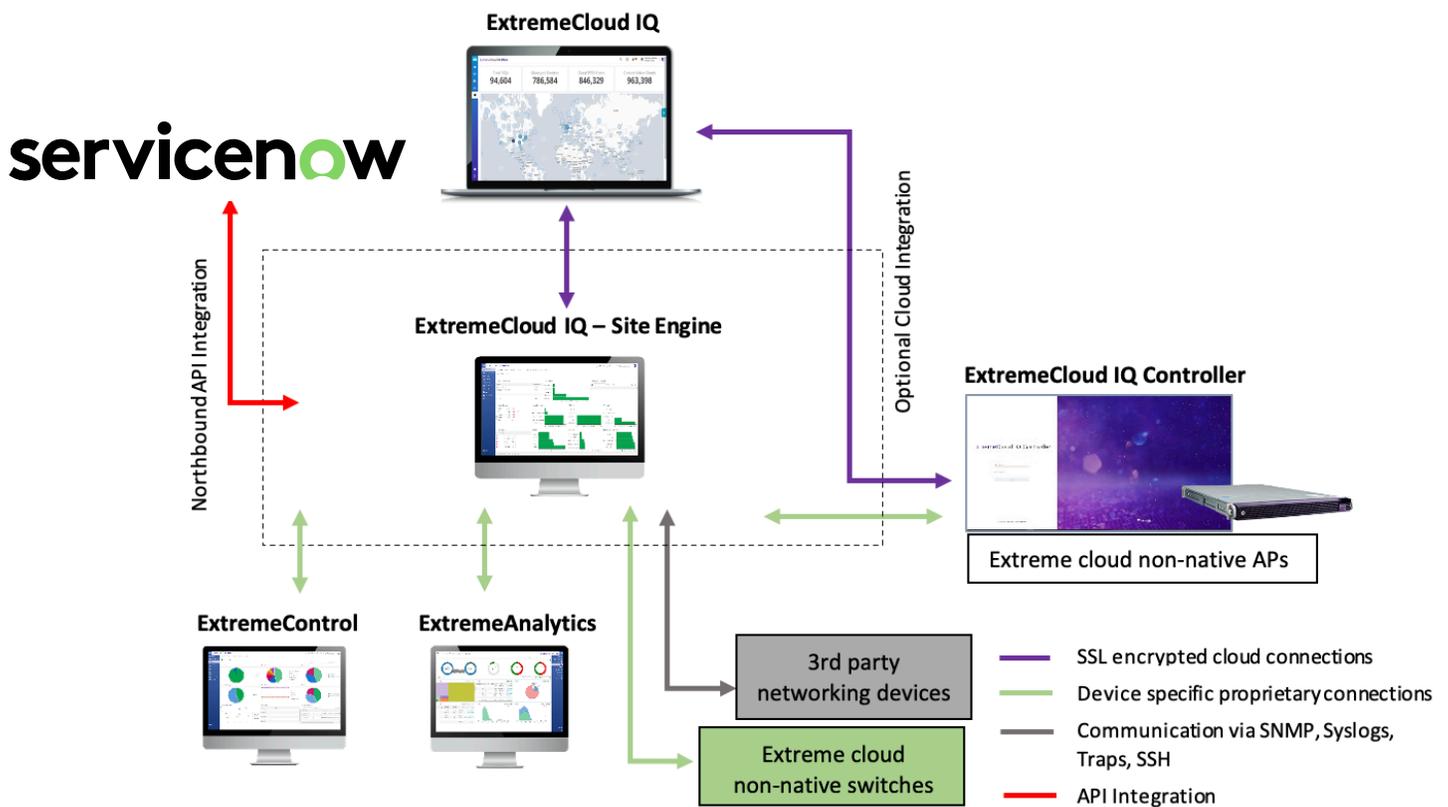
Figure 1: *ExtremeCloud IQ – Site Engine's Ecosystem and Northbound API Integration with ServiceNow*

An Integration Workflow Example

An example of the previously described goal of integrating ExtremeCloud IQ – Site Engine with ServiceNow can be highlighted by describing the processes involved in a scenario whereby a "Device High CPU" alarm is detected within ExtremeCloud IQ – Site Engine triggered by a switch(es) reporting high CPU events based on a predefined SNMP Trap. Upon detection of the alarm, the process to open a pre-configured ServiceNow ticket workflow would be launched to process the event. The event details as well as the execution status of the ServiceNow workflow could be monitored via specific dashboards. Figure 2 illustrates how users can drill down to the individual color coded activities that represents

the execution status of each activity within the workflow's pathway. These activities can be switch CLI commands, HTTP queries, email alerts, or Python scripts. The workflow may first comprise the processing of the event and extracting the key network details. This would be followed by opening a ticket via the ServiceNow API and populating the ticket with the events from the Alarm, and followed, as shown in Figure 3 by sending an email to the network administrator that a workflow has been executed, and indicating the ticket number assigned by ServiceNow. By implementing such an automated workflow, the ExtremeCloud IQ – Site Engine can change for example, a network administrator's 3 AM wake up call to a 10 AM follow-up.

[1] *For additional information regarding Extreme IQ – Site Engine and its integrated applications (ExtremeAnalytics and ExtremeControl) please refer to the ExtremeCloud IQ – Site Engine Data Sheet.*
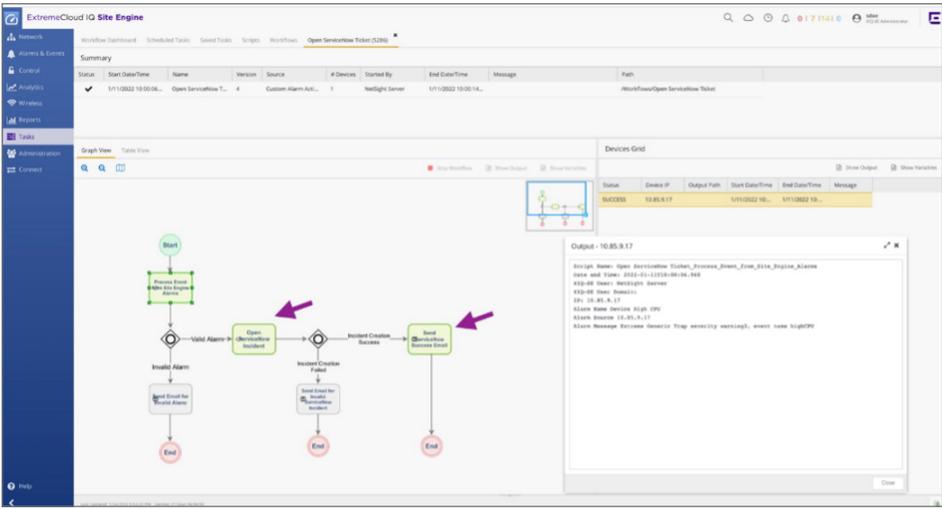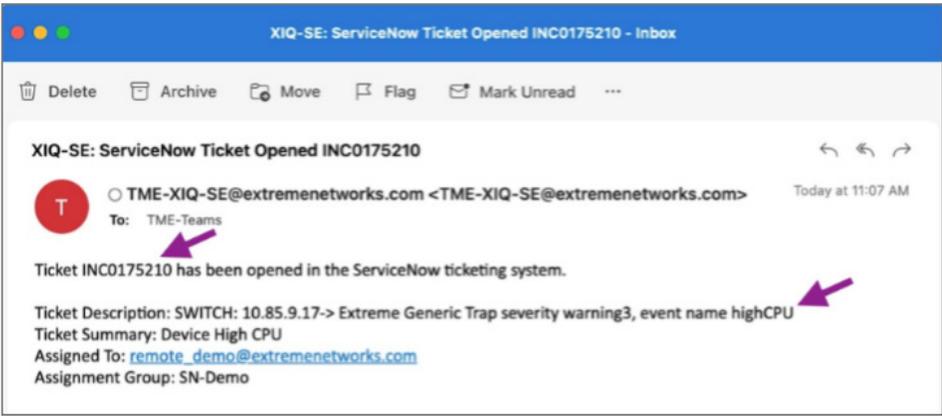
Figure 2: *Workflow for ServiceNow Ticket Opening*

Figure 3: *Email Notification of ServiceNow Ticket Number*

Conclusion

The integration of ExtremeCloud IQ – Site Engine's network management, alarm detection, and API script driven workflow orchestration with ServiceNow's enterprise workflow and ticketing capabilities provides network administrators valuable tools to respond to underlying network events. By customizing the orchestration of how alarms and events are addressed upon detection, service downtimes can be minimized thereby driving better business performance outcomes.

About Extreme Networks

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"The integration of ServiceNow and ExtremeCloud IQ – Site Engine enables enterprises using these leading platforms to benefit from automated workflows and drive proactive management of networking events to simplify their day-to-day operations and deliver the best employee experiences."

John Abel, CIO, Extreme Networks