Event Driven Auto Remediation Network Management

Modern Problems: Responding to Every Network Problem

- A user complains about an application not working, only to realize that there is a connectivity issue. The user then must open a service ticket which then alerts the company that it faces the inevitable issue of a critical outbound interface going down. The ticket gets moved by the service team to the network team with a priority 1 for immediate action regardless of what time it is.

- The network team, oftentimes woken up in the middle of the night to deal with the issue, must then troubleshoot and run diagnostics to discover which interface is down. Once identified the remediation action of bringing up the interface occurs, the connection is verified and the service ticket is updated and closed.

- These user complaints pile up leading to an overwhelmed service ticket system, meanwhile the network team must always respond to the event as though they are priority 1 until they are correctly identified, even if a simple interface-up command would resolve the issue. This leads to increased stress for the network team and increased employment costs through overtime worked for issues that could wait until the morning.

Composer Benefits

The Orchestral Data Bot continuously monitors your data, instantly notifying your operations team when a critical outbound interface goes down and whether a standard recovery can resolve the issue.
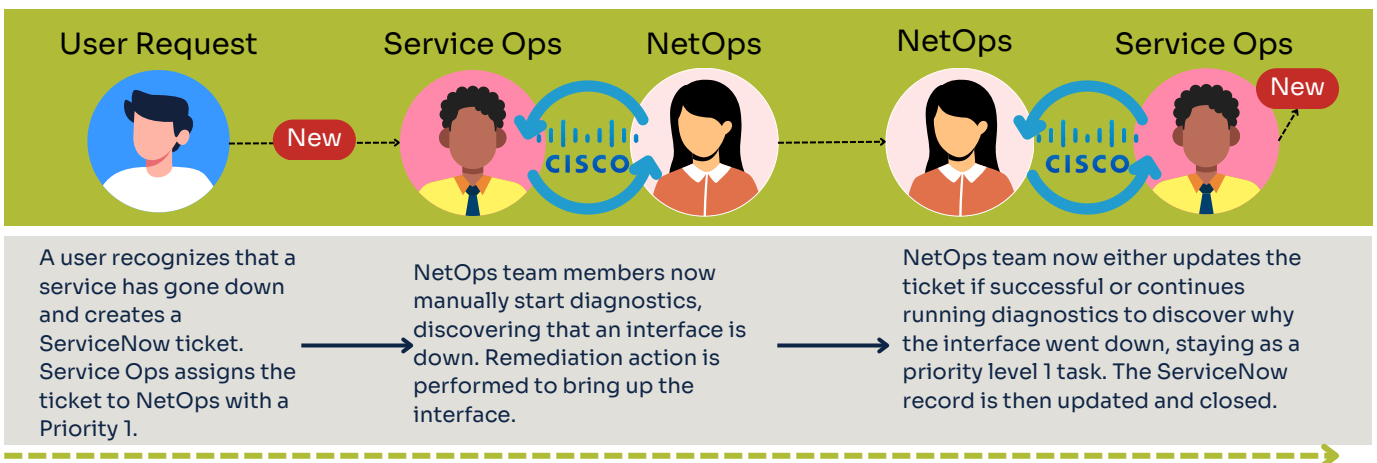
Orchestral.ai is able to automate existing tasks without having to rip and replace any existing services utilized by the company.

It reduces both downtime costs and IT team stress by automatically assigning incident tickets a priority level, letting the team know if immediate action is needed or if they can stand by.

The Conventional Workflow Problem

| User Request | Service Ops | NetOps | NetOps | Service Ops |

A user recognizes that a service has gone down and creates a ServiceNow ticket. Service Ops assigns the ticket to NetOps with a Priority 1.

NetOps team members now manually start diagnostics, discovering that an interface is down. Remediation action is performed to bring up the interface.

NetOps team now either updates the ticket if successful or continues running diagnostics to discover why the interface went down, staying as a priority level 1 task. The ServiceNow record is then updated and closed.

Manual Process: 3-4 Hours for Each Operation With Possible Manual Errors

FIGURE 1: Previous Manual Interface Outage Response

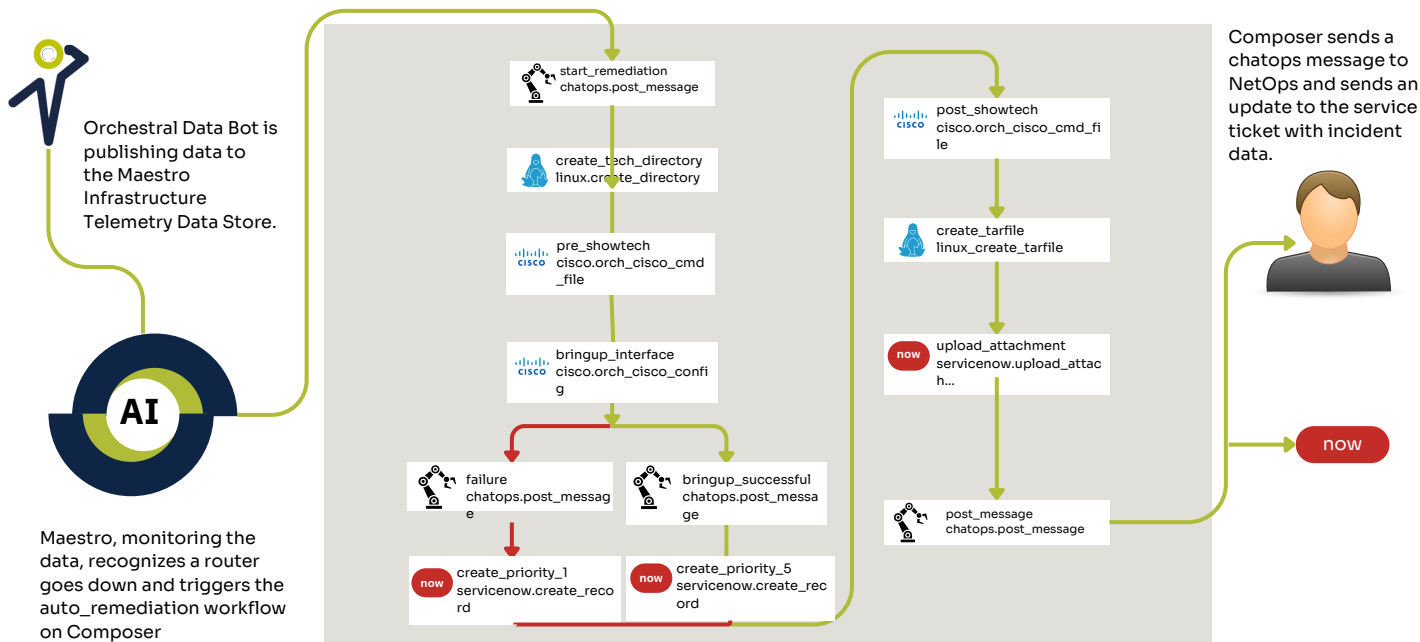# Event Driven Auto Remediation Network Management

Orchestral.ai's Composer Solution

Orchestral.ai introduces a completely automated solution for this problem that is able to perform all of the existing operations to ensure that the company's existing IT tools and practices are maintained.

To begin, the Orchestral Data Bot, a multi-vendor data collector, collects statistical data from all the infrastructure end points and publishes the data to Maestro's infrastructure telemetry data store. The Data Bot also collects all syslog information from network switches which enables Maestro to recognize immediately when a critical outbound interface goes down. Once recognized, Maestro will trigger a Composer auto_remediation_workflow without delay. Composer then executes the following steps:

- If the router is accessible: Informs the operations teams about the outage through omni-communicational chatops and indicates the start of the auto_remediation_workflow.
- Collects the show tech information on the router before and after the remediation action.
- Zips the two files as the artifact of the incident.
- Composer then opens a service ticket with priority 5 on the ticketing system and attaches the troubleshooting artifact for further analysis.
- Lastly, informs the Ops team through chatops of the new incident created and the number for analysis.

FIGURE 2: Maestro + Composer Automated Event Driven Network Remedation

About Us

Orchestral.ai is a team of like-minded technology professionals possessing a combined experience of over 100 years in the IT industry.

Contact Us: For more information, please contact our Client Development Team at info@orchestral.ai

Orchestral's mission is to enable IT infrastructure & operations teams to more effectively manage the complex mission critical processes that their organizations depend upon for day-to-day operations. We accomplish this today with the Orchestral Platform - an integrated suite of automation, orchestration and Explainable Artificial Intelligence (XAI) technologies designed to empower enterprises to start their transition toward Autonomous IT Infrastructure.