NRT DC Migration Project Tool Overview & Learning Summary

Tools Used in the Project

SolarWinds: Network monitoring & alerting

Netcool: Event correlation & alarm management

Cramer: Network inventory & asset management

SCCD: Ticketing & IT service management

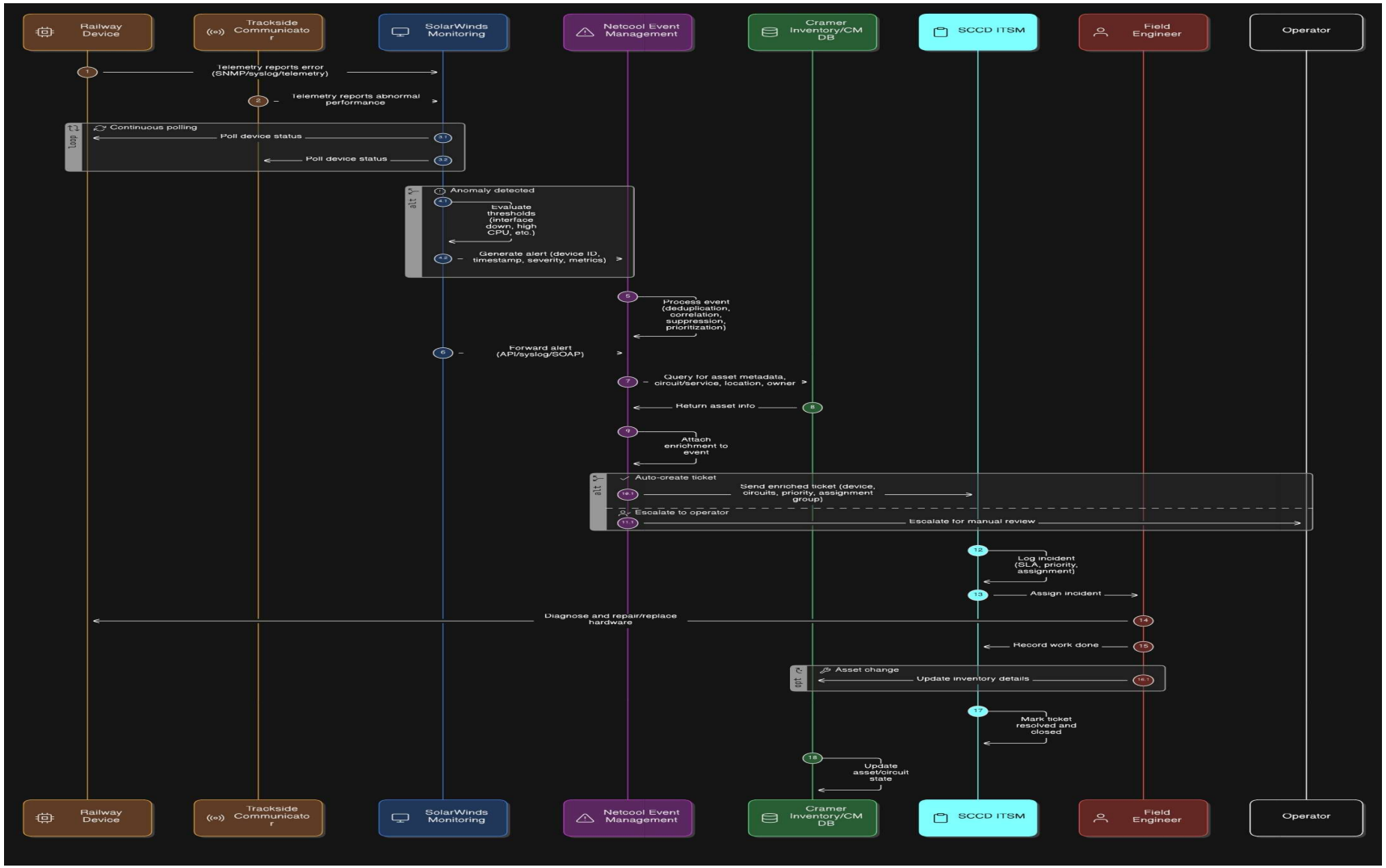
Simple Working Example

SolarWinds detects a device or interface anomaly

Alert is forwarded to Netcool for correlation and suppression of duplicates

Netcool triggers SCCD to create a Trouble Ticket (TT)

Cramer is used to fetch device, circuit, and location details for troubleshooting


Railway Device
Trackside Communicator
SolarWinds Monitoring
Netcool Event Management
Cramer Inventory/CM DB
SCCD ITSM
Field Engineer
Operator
1 Telemetry reports error (SNMP/syslog/telemetry)
2 Telemetry reports abnormal performance
loop Continuous polling
Poll device status
3.1
Poll device status
3.2
alt Anomaly detected
4.1 Evaluate thresholds (interface down, high CPU, etc.)
4.2 Generate alert (device ID, timestamp, severity, metrics)
5 Process event (deduplication, correlation, suppression, prioritization)
6 Forward alert (API/syslog/SOAP)
7 Query for asset metadata, circuit/service, location, owner
Return asset info
8
9 Attach enrichment to event
alt Auto-create ticket
10.1 Send enriched ticket (device, circuits, priority, assignment group)
Escalate to operator
11.1 Escalate for manual review
12 Log incident (SLA, priority, assignment)
13 Assign incident
Diagnose and repair/replace hardware
14
Record work done
15
opt Asset change
Update inventory details
16.1
17 Mark ticket resolved and closed
18 Update asset/circuit state

SolarWinds: Overview (Why it matters)

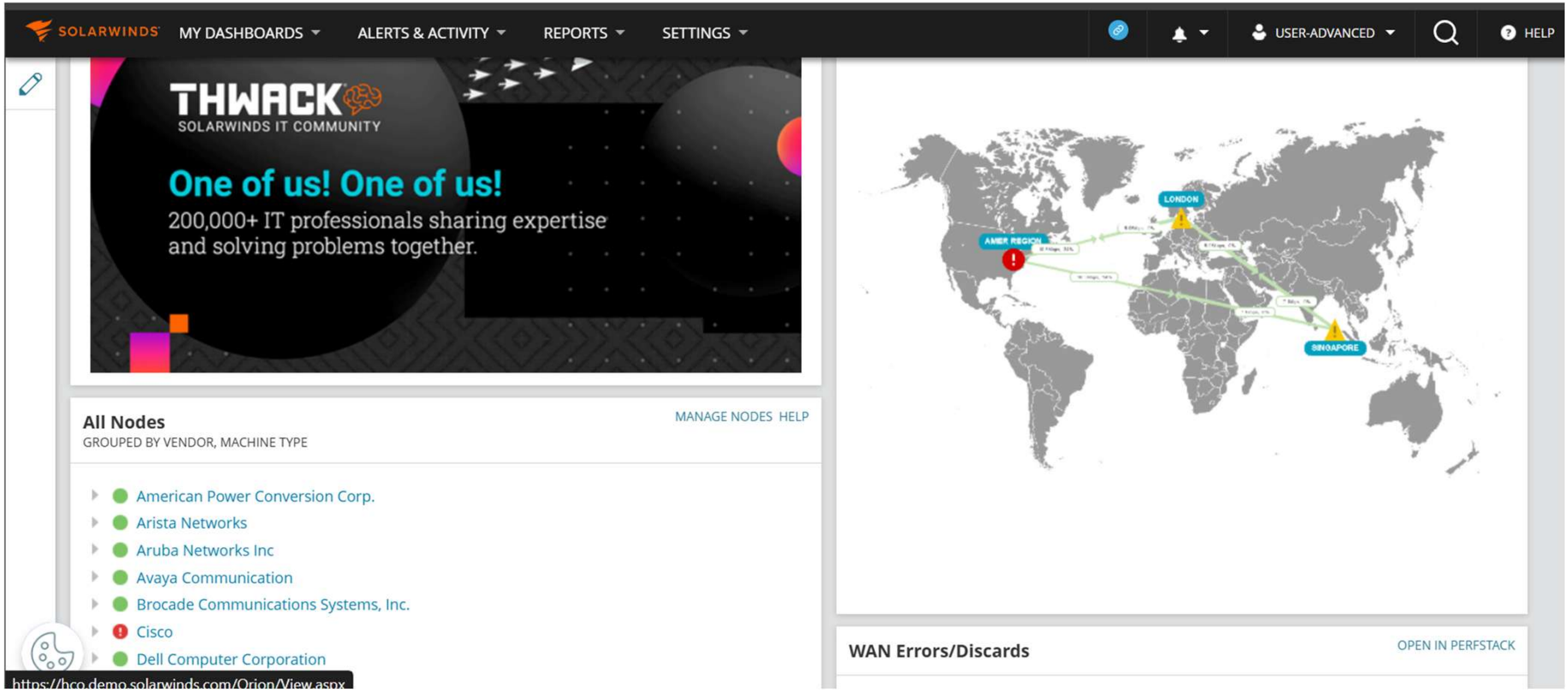
Centralized monitoring for network health and availability

Real-time dashboards and historical performance trends

Automated alerting to reduce detection time

Integrates with downstream systems (Netcool, SCCD)

SolarWinds Dashboard



SolarWinds: NPM (Network Performance Monitor)

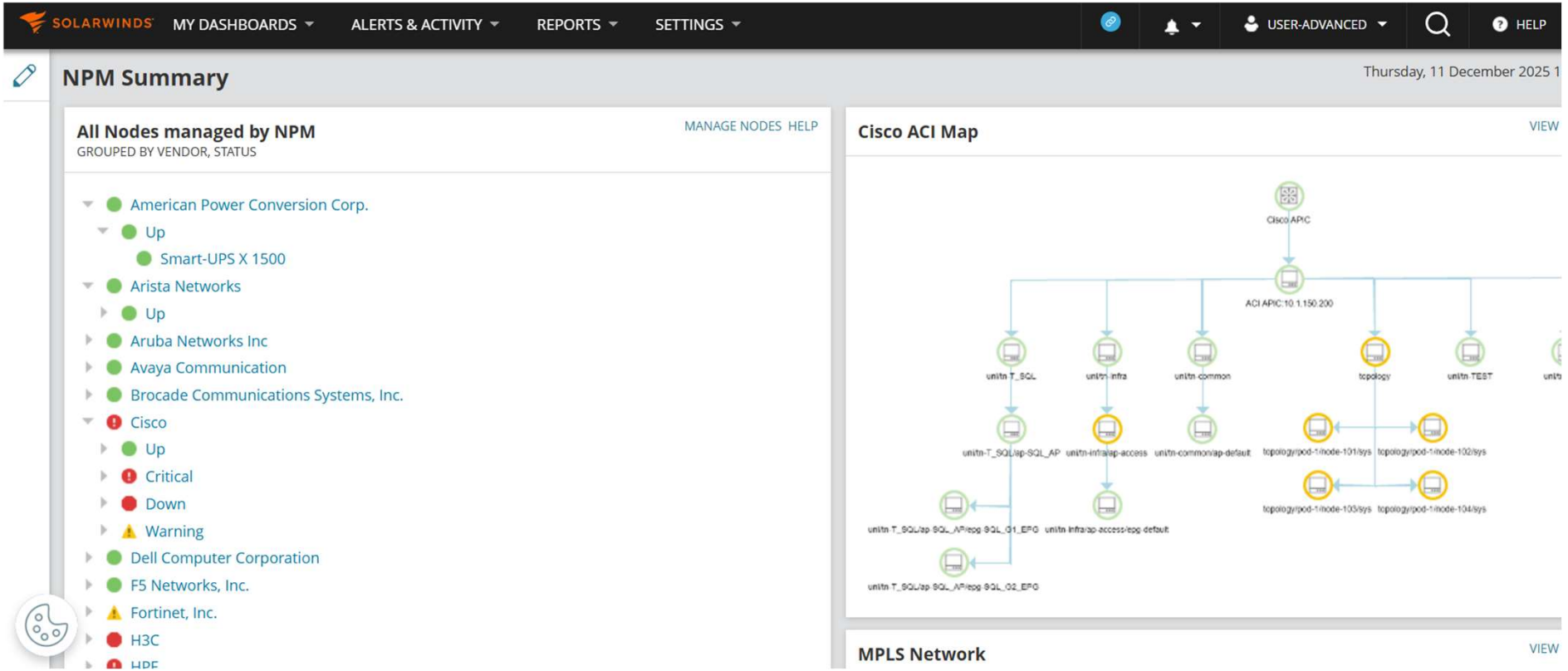
Monitors node availability, interface status, CPU & memory utilization

Uses SNMP/ICMP polling and traps for data collection

Performance charts, thresholds, and historical trend reports

Node maps and dependency-aware alerts for topology context

NPM Dashboard



SolarWinds: NCM (Network Configuration Manager)

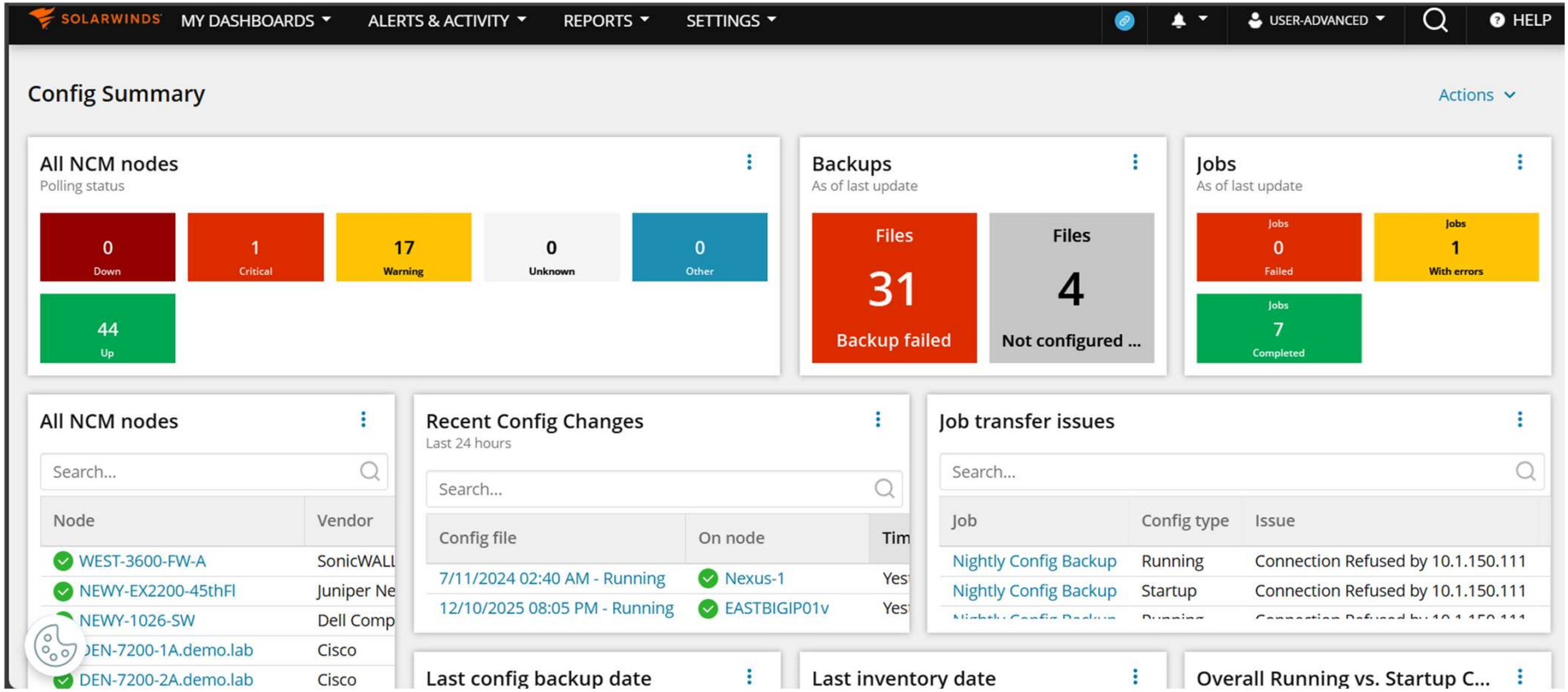
Automated config backups of routers/switches/firewalls

Config change detection and version comparison

Policy/compliance checks and remediation workflows

Enables rapid rollback to known-good configurations

NCM Dashboard



SolarWinds: Log Analyzer

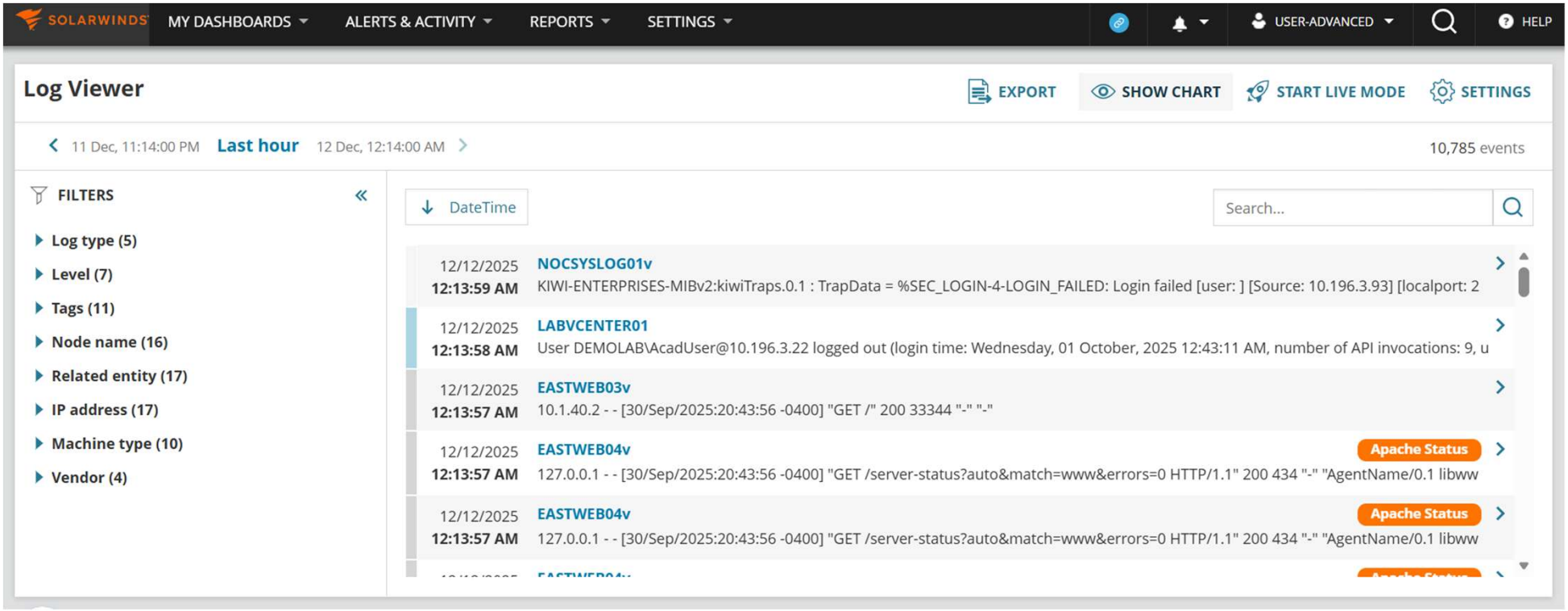
Collects and indexes Syslogs and SNMP traps from devices

Filter, tag, and search logs for troubleshooting

Correlates logs with performance alerts to find root cause

Supports custom alerting based on log patterns

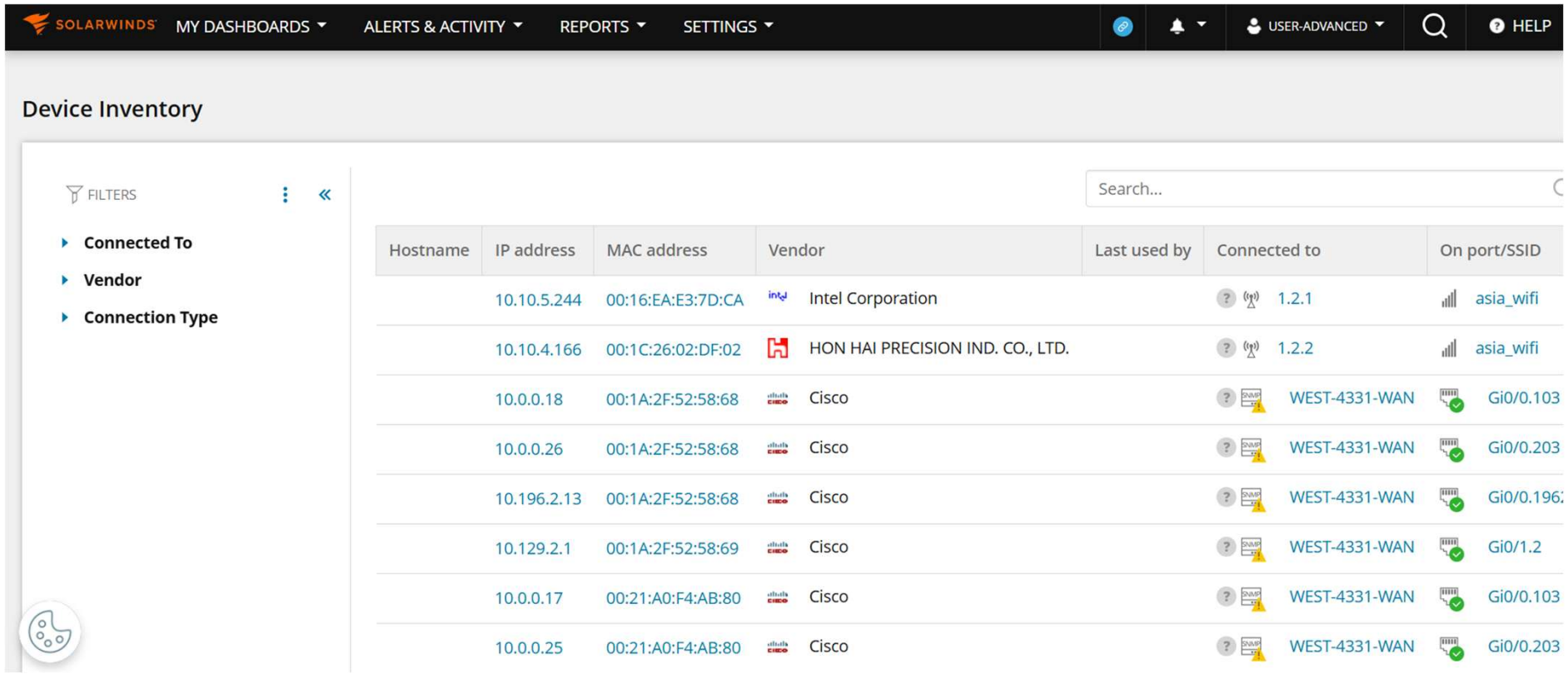
Log Analyzer Dashboard



SolarWinds: User Device Tracker (UDT)

- Maps endpoints to switch ports and access points
- Tracks which port a device was connected to and when
- Detects rogue or unauthorized devices on the network
- Useful during moves, changes, and access investigations

UDT Dashboard



SolarWinds: NetFlow Traffic Analyzer (NTA)

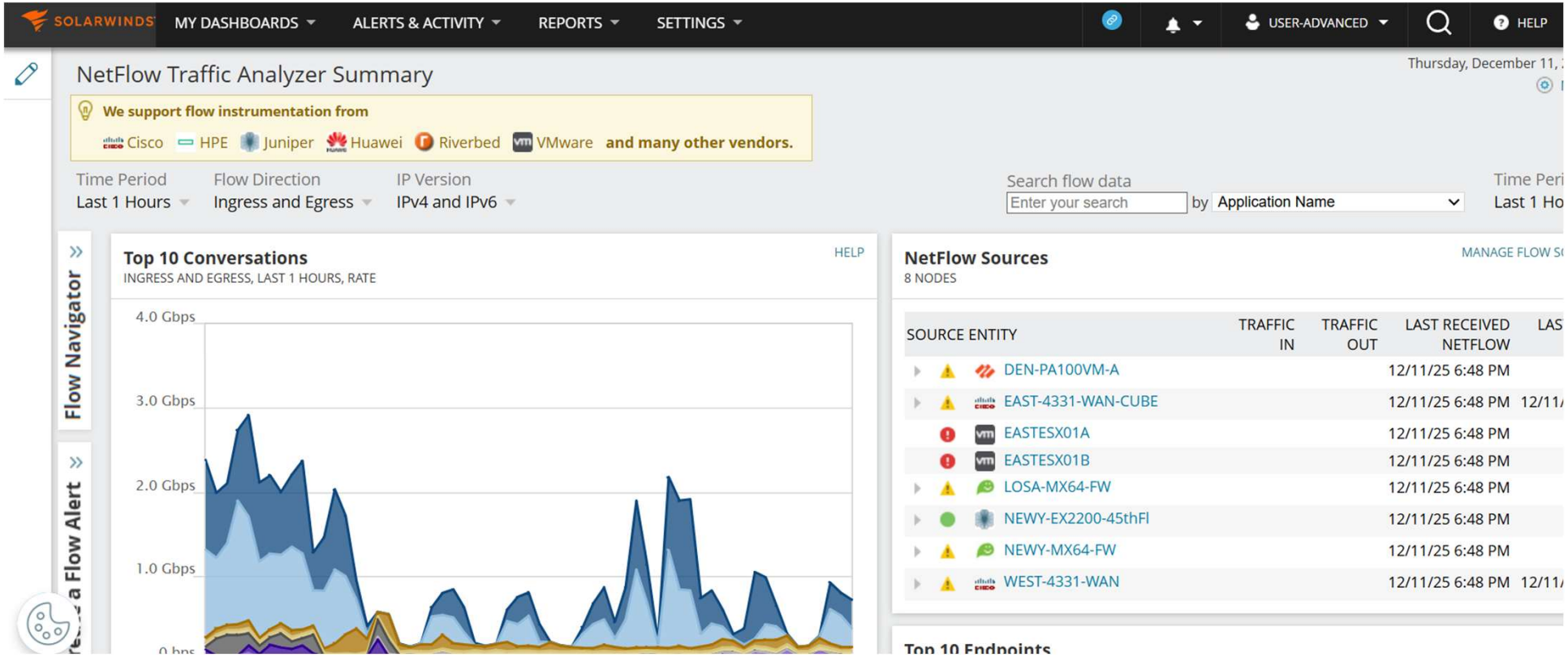
Analyzes traffic flows and bandwidth usage by app/protocol/user

Identifies top talkers and heavy bandwidth consumers

Visualizes traffic trends and sudden spikes for anomaly detection

Assists capacity planning and QoS troubleshooting

NTA Dashboard



SolarWinds: Storage Resource Manager (SRM)

Monitors device health, capacity, and performance metrics

Tracks latency, and storage utilization trends

Alerts on capacity thresholds and performance hotspots

Useful during migrations and storage provisioning

SCCD: Overview (Ticketing & Workflows)

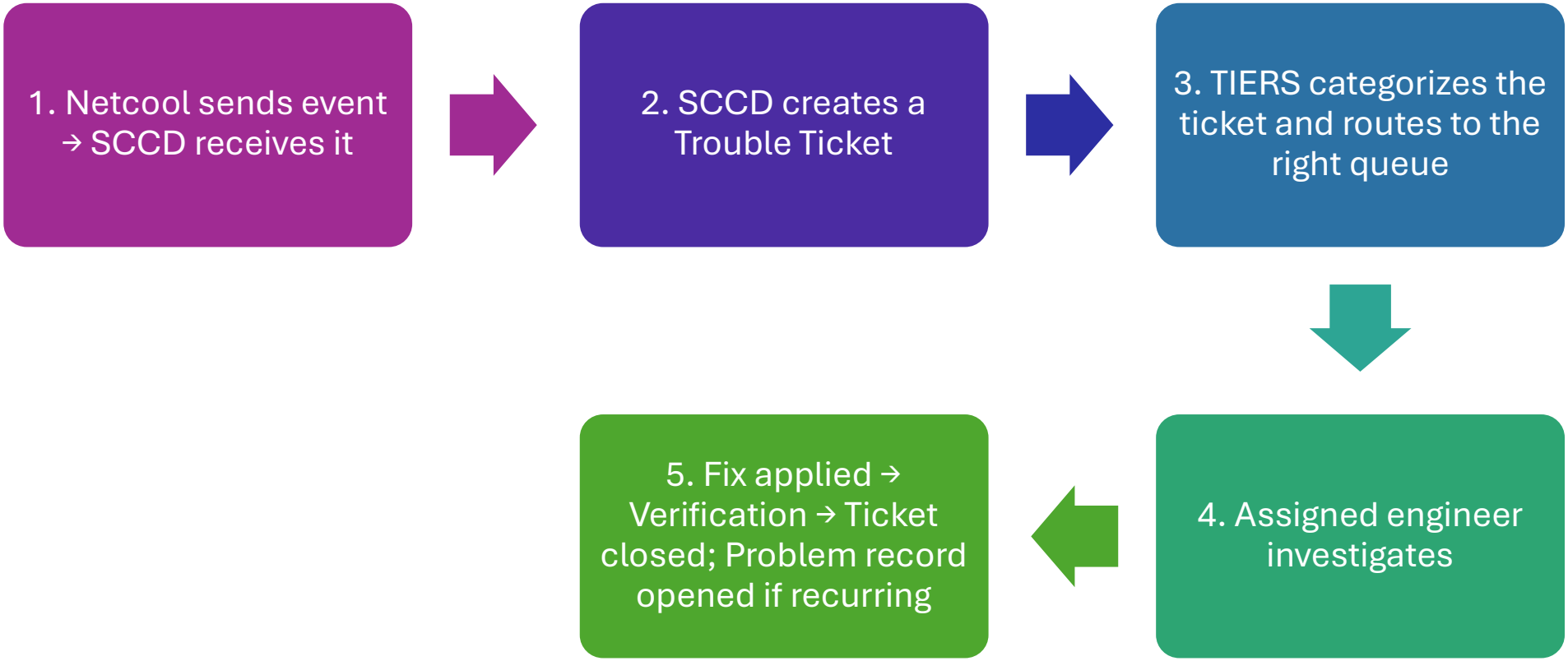
An IT Service Management(ITSM) platform for handling IT issues and requests

Central system for creating, tracking, and resolving tickets.

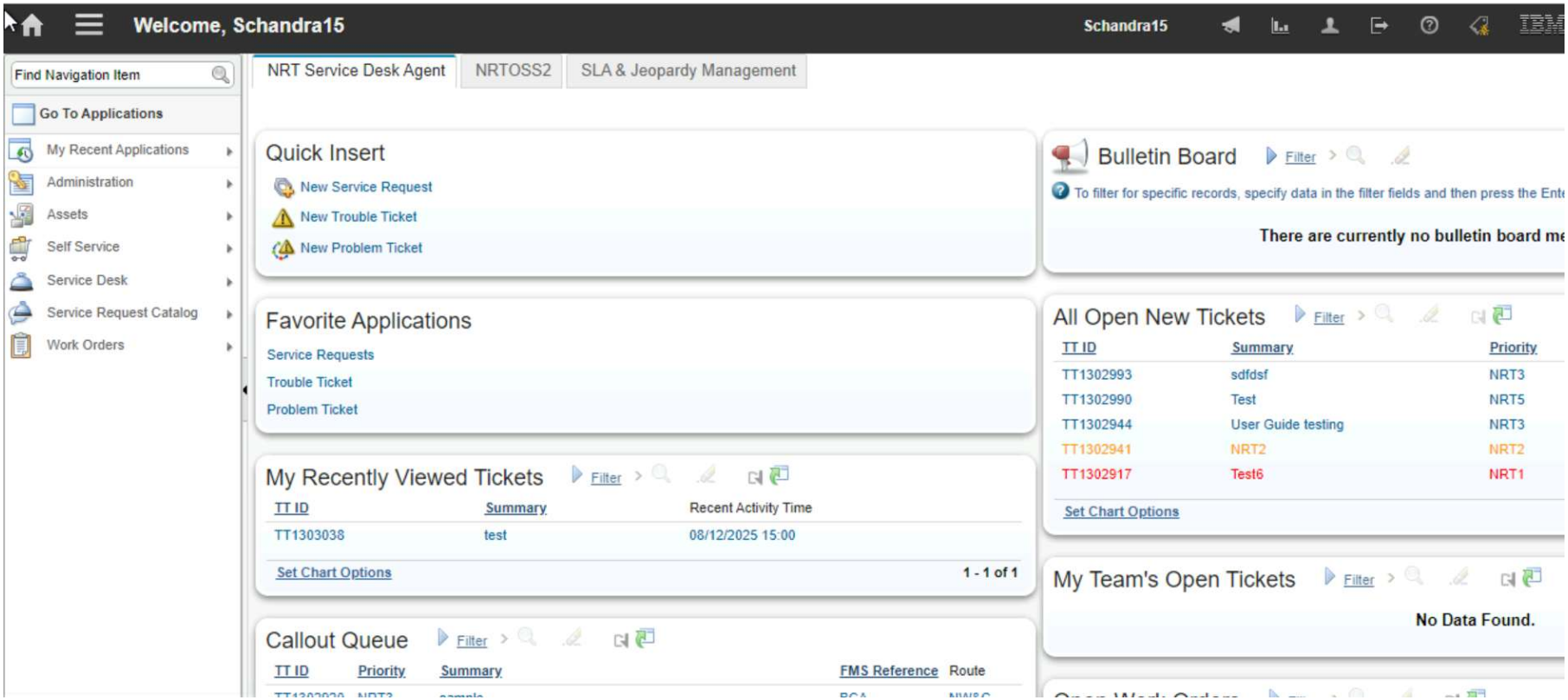
Allows creation of tickets from Netcool for faster resolution

Supports escalation and SLA Tracking

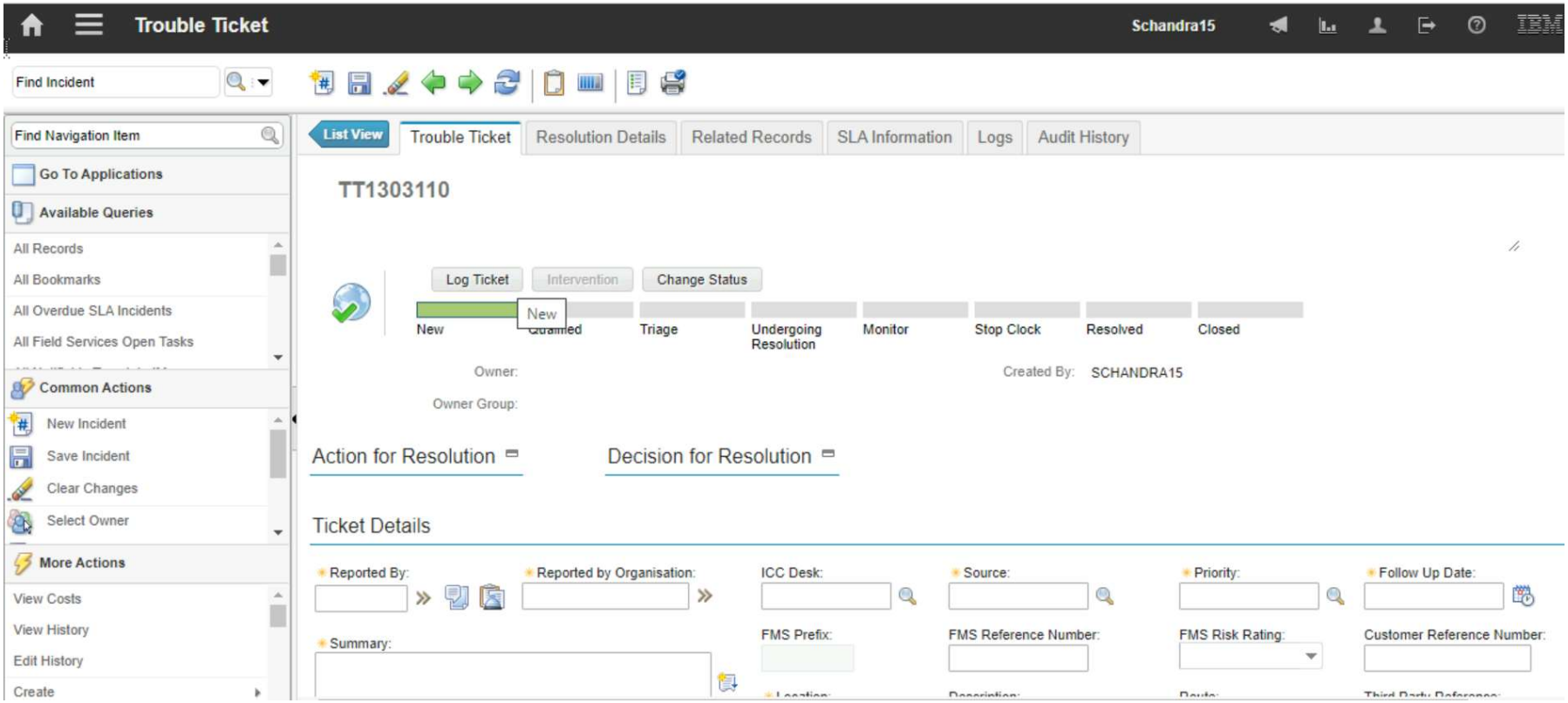
SCCD: Simple Workflow Example



SCCD Dashboard



Trouble Ticket Dashboard



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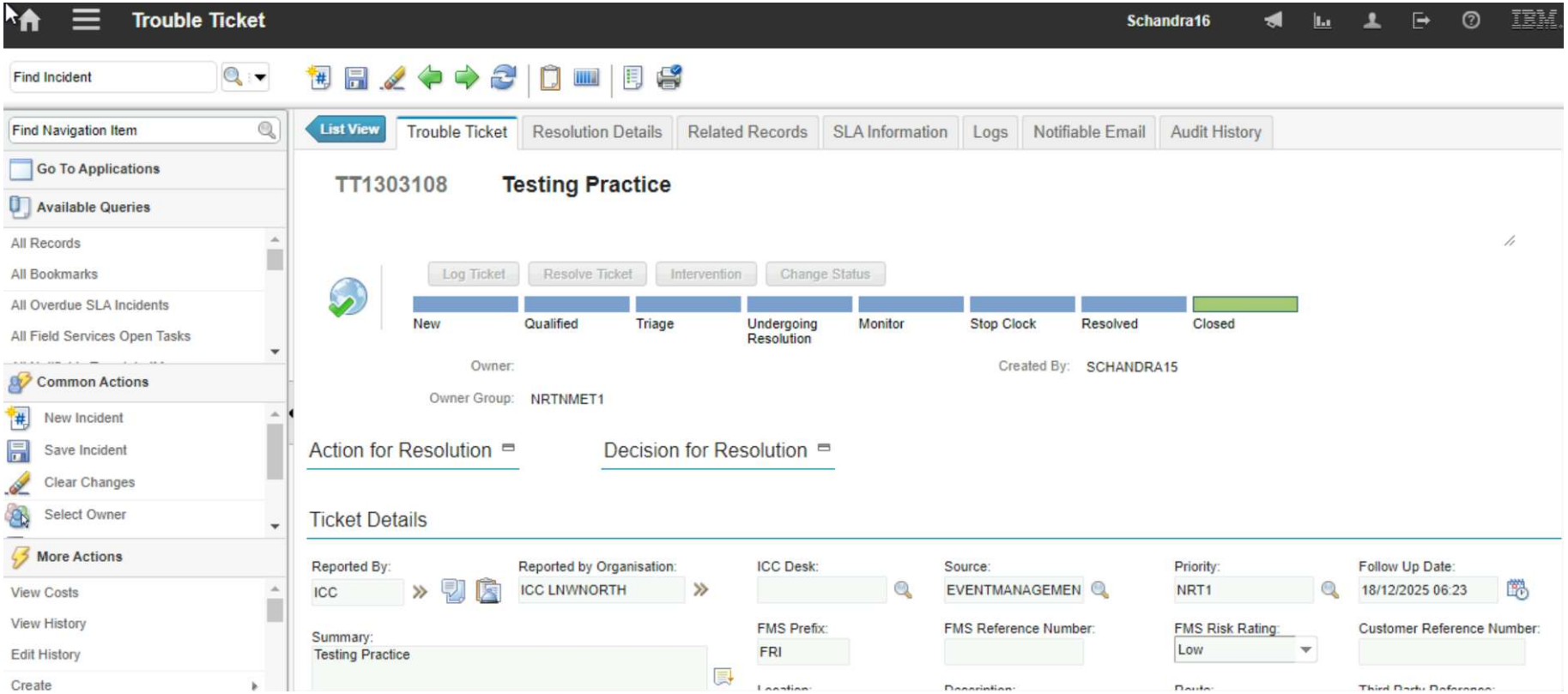

THANK YOU