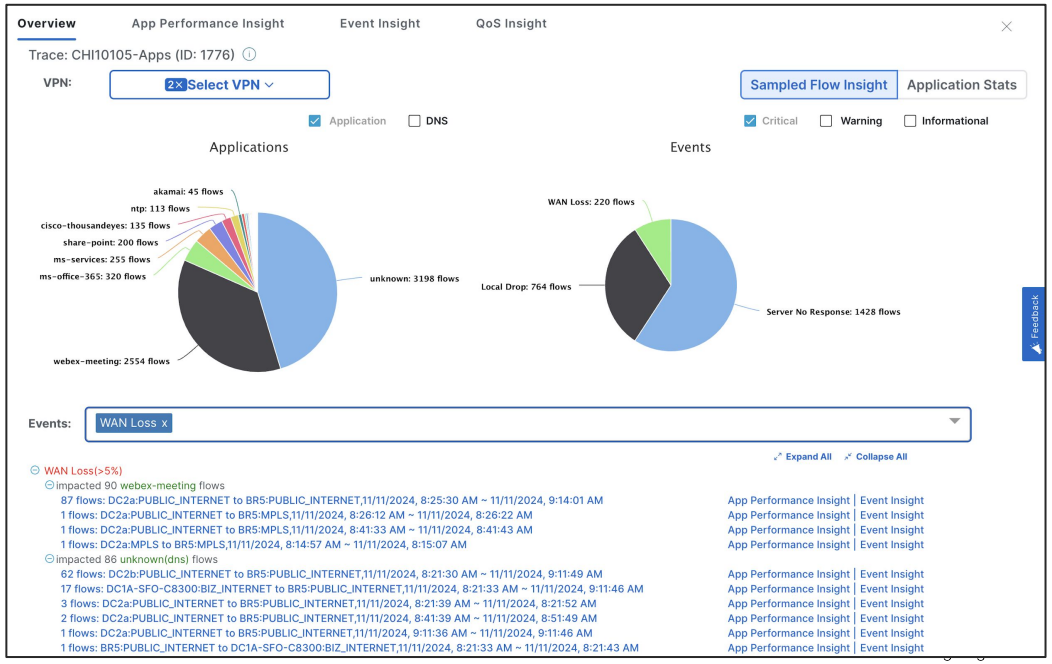
AI Network Wizards

Nov 2024

Anomaly Detection + NWPI & TE = Insights for Transport Issues in SD-WAN

- SD-WAN Analytics detects Anomalies in Tunnel KPIs which provides insights into any anomalous behavior in the network.
- **Idea 1: Analyze and explain Anomaly Reason using AI.** Various Data Points will be used: Alarms, Application Usage, Device Health metrics and Network Wide Path Insights trace information at that time to offer Root Cause Analysis on:
  1) What caused the Anomaly?
  2) What is the Impact of the Anomaly on Apps and Users?
  3) How to remediate the Anomaly.
- **Idea 2: Forecast** future Problems and **schedule** NWPI Trace & ThousandEyes Tests for end-to-end insights for proactive Remediation.



User Journey for both Hackathon Ideas

1. User opens a page with all Anomalies detected in the last 7 days.

2. User reviews the top 5 Anomalies and clicks for a specific Issue on “Explain Anomaly with AI” button.

3. Summary with the following two key sections is presented as output:

   A. **Explanation** what happened:

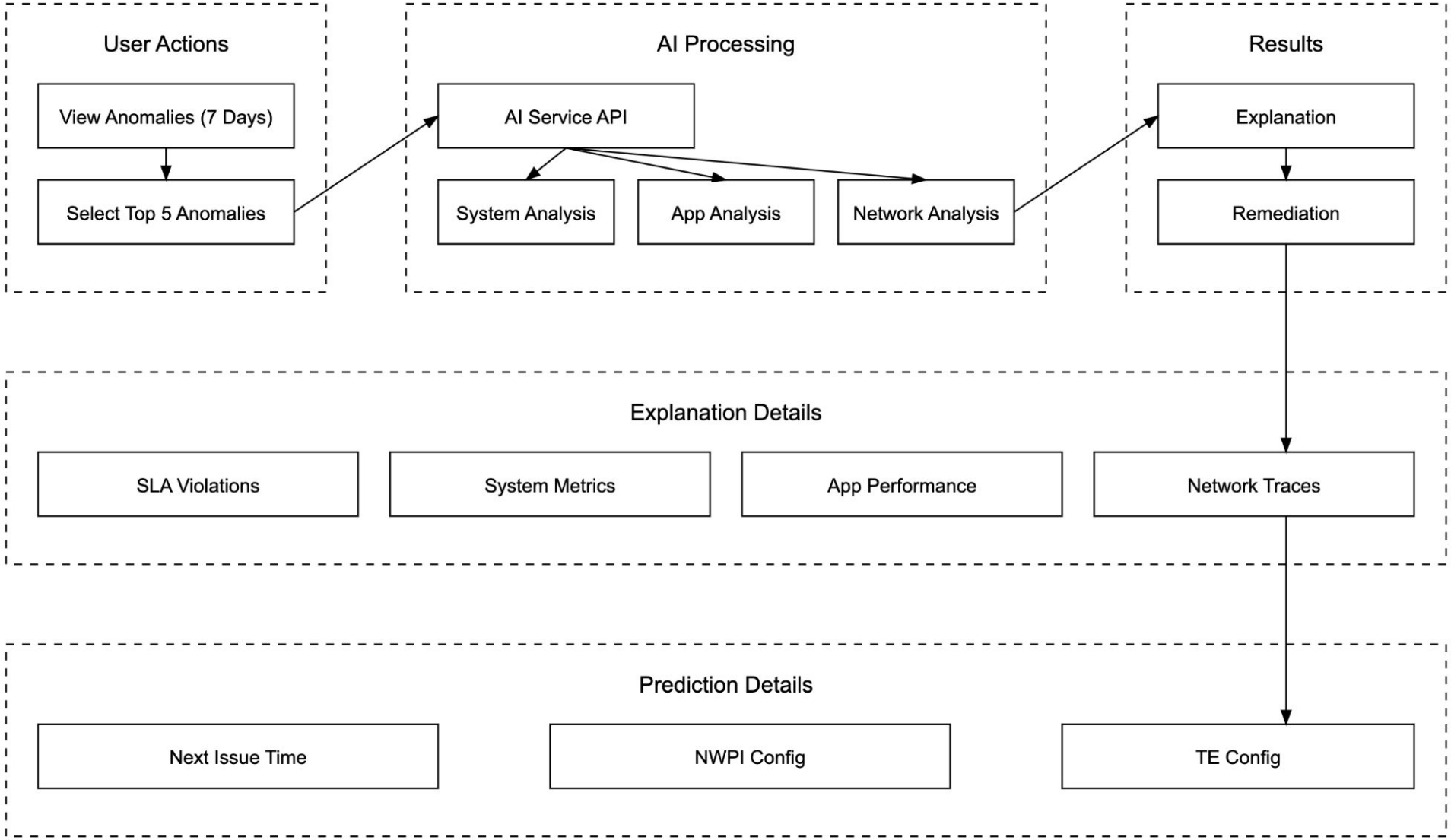
   - SLA Violations happened at the anomaly time and the impacted Apps.
   - System-level details at the anomaly time: CPU, Memory and Link Utilization.
   - App-level details at the anomaly time: app usage, top apps, QoE Score for apps.
   - Any NWPI / TE Traces Summary available at the anomaly time.

   B. **Suggestion** for Remediation. Example: Enable FEC in case of packet loss on tunnels.

   C. **New Problem Prediction** for the next 7 days:

   - Time prediction for the next Issue
   - Automatic Configuration of NWPI and TE traces for the predicted time and site.

Call Flow



Technical Marketing Engineers