

Managed Service Experience Insights Technology Service Description

Overview of Service

NTT's Managed Service Experience Insights is an extension of our Managed Campus Networking portfolio, providing Network Layer insights natively integrated into the NTT Managed Networks solutions service offering and the Managed Campus Networks (MCN) platform. SEI extends the MCN Managed Campus solution by enabling the creation of sophisticated synthetic monitoring tests that offer actionable visibility into how users experience accessing critical business applications, whether in the Cloud or on-premises, from multiple locations on the network. The Managed Service Experience Insights service supports the following:

- Continuous Path Quality Monitoring: Gain visibility into connection quality for proactive issue identification and swift troubleshooting.
- Path Discovery: Visualizes the traffic paths between agents and internet destinations, allowing you to view the latency of each hop at regular intervals, during latency spikes, and in real time.
- Multiple Agent Formats: SPEKTRA Edge Appliance Agents, docker agents for network devices, and cloud environments enable comprehensive coverage of critical nodes in the network.
- Variety of Target Formats: Monitor managed targets in the client environment and public endpoints with various target formats, including ICMP, HTTP, UDP, and Speed Test Targets.
- Speed Testing: Assess connection throughput at regular intervals or in real time.
- Flexible and Robust Alerting: Implement proactive performance monitoring, rapidly identify issues, and expedite problem resolution with customizable alerts.

Service Experience Insights seamlessly becomes a part of the Managed Campus service offering, creating a comprehensive network monitoring solution by deploying agents at each site using the SPEKTRA Edge Appliance and lightweight Docker agents

The Client Insights service will be supported in accordance with the NTT processes described in the *MCN Statement of Work* and *Specific Terms* documents.

Client Responsibilities and Prerequisites

In addition to the pre-requisites documented in the MCN Statement of Work, the following technology specific pre-requisites are applicable.

- Client network infrastructure that supports hosting of container-based applications (only applicable for deploying docker containerized probing agents).
- For deployments utilising the SPEKTRA Edge Appliance, the SPEKTRA Edge Appliance Technology Service Description must be additionally consulted.

Technology Specific Operations

Monitors

The following monitoring metrics and analytics are available via the NTT Services Portal as part of the Campus Insights service.

| Monitor | Description | Alerts | Performance Info | Resolution | Poll Interval (sec) |
|-------------------------|--|--------|--|--|---------------------|
| Ping Loss | Number of ping packets lost, displayed as a percentage, between a Target of Interest and a client defined location. | ✓ | Loss between a Campus Insights agent and a SaaS or Cloud based Location of interest between two Campus Insights agents | Engineering Teams will diagnose and try to solve the issue and escalate to the Client if needed. | N/A |
| Latency | Time taken to reach the target of interest from client defined location. | ✗ | Latency between a Campus Insights agent and a SaaS or Cloud based Location of interest between two Campus Insights agents | Engineering Teams will diagnose and try to solve the issue and escalate to the Client if needed. | N/A |
| Jitter | Variation of time delay to the target of interest from client defined location. | ✗ | Jitter between a Campus Insights agent and a SaaS or Cloud based Location of interest between two Campus Insights agents | Engineering Teams will diagnose and try to solve the issue and escalate to the Client if needed. | N/A |
| Number of Hops | Number of hops a packet takes between a Target of Interest and a Client Defined Location and the latency between each hop. | ✗ | The number of hops between a Campus Insights agent and a SaaS or Cloud based Location of interest between two Campus Insights agents | Used for Insights | N/A |
| Throughput (speed test) | Measures the speed, in Mbps, between two agents at Client Defined Locations | ✗ | Throughput between two Campus Insights agents | Used for Insights | N/A |
| HTTP availability | Measures access to web resources through the Hypertext Transfer Protocol (HTTP). | ✓ | Monitors the network quality from the agent to the host server (does not monitor applications) | Engineering Teams will diagnose and try to solve the issue and escalate to the Client if needed. | N/A |
| HTTP Response | Measures the total response time between the agent and target. | ✗ | Total time to complete the HTTP request between an agent and the target. | Used for Insights | N/A |

Configuration Management

Service Experience Insights is a full SaaS offering; therefore, device configuration backups are inherent to the solution and are executed automatically with the built-in toolsets to the SPEKTRA Service Experience Insights Cloud. All Service Experience Insights configuration backups are stored in the SPEKTRA Service Experience Insights Cloud itself as part of Management Orchestration.

Firmware Maintenance

There are no specific requirements for firmware maintenance of the technology. Firmware maintenance is administered in accordance with the standard MCN processes. Refer to the MCN Common Network Management Service Description for further information.

Supported Configurations

Managed Service Experience Insights static agents are deployable on any network infrastructure that supports Docker runtime container based third party applications but has only been extensively tested on Cisco Catalyst 9K series switches. Consult the NTT Deals Desk to confirm whether the intended infrastructure supports containerized Docker runtime environments.

Optionally, the SPEKTRA Edge Appliance can be provided by NTT where the infrastructure is not capable of supporting Docker containers or where the deployment of a hardware appliance is preferred. The SPEKTRA Edge appliance is connected to a suitable network device such as a switch and the agent operating on the appliance is then configured accordingly.

Limitations

- Service Experience Insights configuration backups are limited to only the current running version.
- It is not possible to schedule or perform on-demand backups of the Service Experience Insights configuration.

Service Requests

A list of service requests available for this technology can be found in the MCN Request Catalogue.

Technology Transition Tasks

In addition to the standard transition tasks described in the MCN Statement of Work, the following technology specific transition tasks are included:

- Client will define Locations and Targets of Interest in a template provided by NTT during the onboarding phase.
- Client will identify which network infrastructure under management by NTT will have Campus Insights agents deployed onto it. (docker only)
- Once administrative privileges are granted to NTT, a scheduled maintenance window will be agreed with the client, during which time NTT will deploy Campus Insights agents onto the network infrastructure identified by the client.
- NTT will configure Managed Service Experience Insights based on the Locations and Targets of Interest defined by the client during onboarding.
- NTT will provide client defined users access to NTT Services Portal through which Managed Service Experience Insights analytics can be viewed.
- NTT will provide Managed Service Experience Insights software usage documentation.
- For deployments utilising the SPEKTRA Edge Appliance to host the software, consult the SPEKTRA Edge Appliance Technology Service Description for additional transition tasks.

Note:

Any tasks not explicitly described under the Technology Transition Tasks are implicitly excluded from transition.

Reporting & Analytics

The following pre-defined reports and analytics are available via the NTT Services Portal. For more detailed information on available reports and analytics, and their usage, please consult the NTT Campus Insights end user manual.

| Report or Dashboard View | Description | Usage |
|-----------------------------|---|---|
| Map Widget | The Map Widgets shows locations where Service Experience Insights agents are deployed around the globe. | The Map Widget is available via the Services Portal. Clients can drill down into locations of interest via the view. Also, client can get a view of the services which needs attention due to degraded performance against configured threshold values. |
| Service Experience Insights | This dashboard widget provides a view of service experience of all deployed Service Experience Insights software agents with respect to packet loss, jitter and latency, to the targets of interest | The dashboard widget provides statistical and trend insights of packet loss, jitter and latency from deployed agents to the targets of interest. This can be used to further have a graphical view of these measurements over time. |