

Open Telecom Ecosystem Lab (OTEL) AI-Assisted Telecom Testing & Validation

Start Your Journey

Empowering the telecom industry to accelerate innovation and simplify network integration with new AI testing and validation capabilities in the Open Telecom Ecosystem Lab (OTEL).

Rapid Evolution of Telecom Technologies:

- 5G, edge, and AI are transforming telecom, driving faster testing, integration, and seamless interoperability in multi-vendor ecosystems.

Increased Complexity:

- Telecom solutions' complexity demands advanced testing to ensure reliability and performance.

Time-to-Market Pressure:

- Communication Service Providers face fierce competition, where testing delays risk missed opportunities and revenue loss amid demand for faster service deployment.

Shift to Automation and AI:

- The industry is embracing AI-driven automation to streamline operations, cut costs, and enhance efficiency, making AI capabilities essential.

The Need

The Goals

Accelerated Testing and Integration

- **Accelerate Time-to-Market for Telecom Solutions** - Enable CSPs and telecom partners to deploy network functions faster through automated testing.
- **Enhance Testing Efficiency and Accuracy** - Reduce testing errors and effort with AI-driven automation and insights.

Enhanced Decision-Making with Real-Time Insights

- **Empower Multi-Vendor Collaboration** - Provide a secure, centralized lab for seamless vendor collaboration.

Improved Efficiency and Collaboration

- **Drive Adoption of Open, Interoperable Telecom Ecosystems** - Support open standards and multi-vendor interoperability with advanced integration tools.
- **Deliver Measurable Business Value to Customers** - Help to enhance efficiency and service quality with AI-assisted testing.

Introducing the **OTEL SIP AI-Assistant**, which dynamically interacts with SIP's data lake, including OTEL Inventory Management, Telemetry Infrastructure, Test Result Management, and Workflow Testbed Reservation Management.

Enabling Telecom Test Engineers to:

- Generate automation scripts from test plans and optimizes workflows.
- Offers contextual guidance for complex tasks like testbed setup and resource allocation.
- Troubleshoots errors using logs and suggests actionable fixes.
- Cross-reference test coverage vs uploaded test plans ensuring completeness.

Enabling Telecom Test Managers to:

- Delivers faster insights through automated executive reporting and customer-specific dashboards.
- Increases predictive accuracy to detect and prevent recurring failures using historical telemetry.
- Optimizes operations by expanding automation coverage and reducing manual effort across CI/CD pipelines.
- Improves customer impact with tailored analytics and benchmarking that boost satisfaction.

The Solution

Delivering

Accelerated Testing and Integration

Streamline script creation, workflows, and troubleshooting to speed up 5G and telecom edge deployment, matching the fast-changing telecom landscape.

Enhanced Decision-Making with Real-Time Insights

Deliver alerts, reports, and KPI tracking for actionable insights, enabling proactive issue resolution and resource optimization.

Improved Efficiency and Collaboration

AI-enhanced automation and analysis cut effort, reduce errors, and enhance collaboration, ensuring cost savings and smoother integration.

By Advancing Telecom Testing in OTEL

System Under Test

Radio Access Network

5G Core

OSS / BSS

Horizontal Cloud

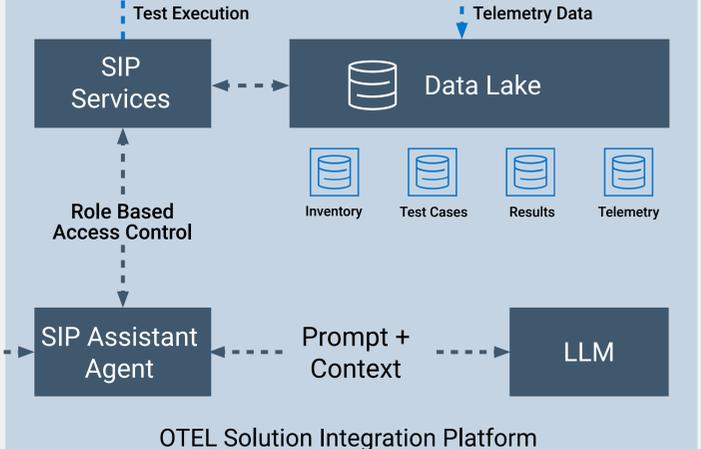
Dell Technologies Telecom Servers and Switches

OTEL SIP AI-Assistant Chatbot

What are the features of the AI-Assisted Telecom Testing & Validation solution?

Key features include:

- Script Generation & Review
- Troubleshooting Assistance
- Version Control Support
- Embedded Documentation Chat
- Integration with CI/CD Tools
- Conversational Dashboard Builder



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