



Building a Telecommunications CMDB Foundation to Improve Service Visibility and Operational Efficiency

Challenge

A leading broadband infrastructure and telecommunications provider had invested in ServiceNow Telecommunications Service Management (TSM) but was not realizing the full value of the platform. Critical network inventory data existed across multiple systems, limiting visibility into how infrastructure components supported customer-facing services and restricting the organization's ability to leverage ServiceNow for proactive operations.

The company needed a reliable configuration management database (CMDB) that could serve as a single source of truth for telecommunications assets and services. Without a standardized data foundation, teams struggled to quickly assess service impacts, resolve incidents efficiently,

and manage infrastructure changes with confidence.

During strategic operational reviews, leadership identified opportunities to reduce mean time to resolution (MTTR) for network incidents and improve change success rates. These discussions revealed that certain outside plant and inside plant inventory systems remained disconnected from ServiceNow workflows, creating visibility gaps and operational inefficiencies.

Solution

As a trusted technology partner, INSPYR Solutions collaborated with the client to design and implement a comprehensive CMDB strategy aligned with ServiceNow best practices and the organization's operational objectives.

Our team established the CMDB



The CMDB transformed from a repository of technical assets into a strategic operational platform.

as the central system of record for telecommunications infrastructure by aligning the environment with ServiceNow's Common Service Data Model (CSDM) and Telecommunications Network Inventory (TNI) framework.

Key components of the solution included:

- Creating a standardized CMDB architecture that connected network infrastructure, services, and operational workflows through a single source of truth.
- Developing integrations that synchronized outside plant assets, including fiber topology, cabinets, splitters, and network interface devices, into ServiceNow through the Identification and Reconciliation Engine (IRE).
- Integrating inside plant infrastructure, including routers, switches, circuits, interfaces, racks, and IP address management data, to improve inventory accuracy and visibility.
- Configuring ServiceNow Discovery capabilities, including MID Server deployment, network device classification, and automated discovery schedules to support ongoing data quality.
- Establishing relationships between physical network assets and customer-facing services, enabling teams to quickly assess business impacts and make more informed operational decisions.

Through close collaboration with stakeholders, INSPYR Solutions delivered a scalable CMDB foundation designed to support future automation, governance, and network management initiatives.

Outcome

The implementation established a sustainable CMDB framework that significantly improved data quality, operational visibility, and service management capabilities across the client's telecommunications environment.

The organization established measurable governance standards through the ServiceNow CMDB Health Dashboard, including targets of 95 percent completeness, less than 1 percent duplicate configuration items, and 98 percent freshness for discovered assets.

With trusted infrastructure and service relationship data now available within ServiceNow, the organization realized several key benefits:

- Improved visibility into network dependencies and customer service impacts, enabling faster incident triage and resolution.
- Enhanced change management success rates through better understanding of infrastructure relationships before maintenance activities occur.
- Reduced manual effort through automated inventory synchronization, discovery processes, and data governance controls.
- Increased confidence in operational decision-making through a trusted and centralized source of network infrastructure data.
- A scalable foundation for future network automation, discovery expansion, and digital transformation initiatives.

Most importantly, the engagement transformed the CMDB from a repository of technical assets into

a strategic operational platform that supports proactive telecommunications service management and maximizes the value of the organization's ServiceNow investment.

Client Profile

The client is a broadband infrastructure and telecommunications organization that designs, builds, and operates open-access fiber-optic networks supporting communities, businesses, utilities, and government entities. The company provides network design, construction, operations, and technology services that expand connectivity and support modern digital infrastructure initiatives.

Technologies Supported

ServiceNow Telecommunications Service Management (TSM), ServiceNow IT Operations Management (ITOM) with CMDB, Discovery, and IT Service Graph Connectors

About INSPYR Solutions

Technology is our focus and quality is our commitment. As a leading expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our tailored offerings include a wide variety of professional services, project solutions, managed services, and talent resources, all bolstered by our strategic partnerships with cutting-edge technology services. By always striving for excellence and focusing on the human aspect of our business, we work seamlessly with our talent and clients to match the right solutions to the right opportunities.