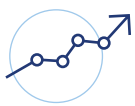


## CASE STUDY



# How SŽ sped up incident resolution and got a clear overview of its infrastructure thanks to IP Fabric

CLIENT



### Revenue

34 Billion CZK per annum



### Size

17,000 permanent staff



### Network Topology

6,300 connected sites

## About

SŽ's main task is to ensure the operation, maintenance, modernization and expansion of the Czech Republic's railway network, with a current total length of over 9,377km. This includes amongst other items 6,719 bridges, 166 tunnels and 1,082 train stations.

## Challenge

SŽ needed a solution that could help the documentation and inventORIZATION of their network, which is widely distributed amongst thousands of locations across the Czech Republic. Another key requirement was that the chosen tool or platform should drastically improve and simplify troubleshooting, reduce downtime, improve security support easy network operation.

## Solution

A complete inventory of the network was created during the first day that the platform was implemented. The process was entirely automatic and SŽ got a complete overview of its network and its state. This saved hundreds of manhours and increased accuracy.

SŽ, a company with over 17,000 employees distributed across over 6,300 location, uses its network to manage and operate its expansive national infrastructure and to ensure safe and reliable operation. The company is made up of a number of organizational teams, which use the network for a number of different tasks, such as the collection, analysis and logging of data about rail transport, energy management, investment and inventory monitoring, distributing documentation, managing building projects, electronic communications and video conferences and IP telephony.



## Challenge

The size and complexity of a very widely distributed network made inventoring and management very difficult to do manually.

Another impulse to find an automated inventory and audit solution was the need to simplify and improve the tenders for external service organizations.

A key requirement was that beyond inventoring, the tool could also be used for network management and to prevent downtime and improve security.



## Solution

After the solution was installed on a virtual service and the initial setup was completed, IP Fabric completely mapped the whole of SŽ's network and all its devices.

IP Fabric automatically discovered and highlighted weak points in the network topology and configuration and enabled their simple resolution, which improved network stability and security.

Thanks to an awareness of the current network state and clear identification of requirements, the process of choosing external service providers and organizations was greatly simplified.



## Benefits

Automation discovery of new network components or devices simplifies the process of handing over new modernized implementations and sites from suppliers. The ability to compare the current and historical state of the network at the topology level and even down to the individual device configuration level ensures any human error is clearly flagged.

IP Fabric's clear and intuitive user interface ensures key information is presented in an easy to understand manner and enables this data to be shared with other teams or external organizations.

The platform's network verification functionality not only helps with operations, but also with network security.

## Customer's take on IP Fabric

*IP Fabric significantly reduces required time and human resources and enables the rapid response to internal requirements or network incidents.*

*„IP Fabric enabled my team to save a lot of time during the diagnosis and identification of issues in our network. A huge advantage is the ability to generate network map diagrams, which provide a clear overview of connections protocols, devices and simplify the identification of non-standard setups or situations. The automatic report generation completely freed up the hands of my team during regular device and network inventoring.“*



**Miloš Matějka**

NETWORK OPERATIONS & DIAGNOSTICS  
MANAGER,  
Správa železnic, státní organizace