Use Case



IOTA 1G M12

Enhancing Train IT Network Monitoring with IOTA 1G M12



Seamless operation of IT networks on mobile trains is a critical aspect of modern rail transportation systems. Expansion of digital connectivity turns trains into moving data hubs, where the need to monitor and maintain network performance in real-time is paramount.

The IOTA 1G M12 offers a game-changing approach to monitoring IT networks on mobile trains. High performance and reliability make it a great asset to get access and visibility into remote networks.

With the development of the IOTA 1G M12, specifically for railway customers, engineers leverage IOTA's powerful network capture and analysis capabilities directly at key capture points without the need to be there physically.

Benefits

- · Effectively track and optimize network performance on trains remotely, resulting in a fast MTTR
- Remote, real-time statistics on closed LAN networks
- Internal storage of capture files so remote analysis does not consume limited cellular bandwidth
- · Historical data analysis helps to track intermittent issues without having to re-run tests at a high financial cost
- Meet IT regulations to use TAP for data access
- M12 connector integrates with existing hardware

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Overview

M12 connector

The IOTA 1G M12 is designed to capture traffic and analyze networks with industrial-grade equipment like trains. The M12 connector features a rugged design, capable of withstanding harsh environmental conditions such as vibrations, temperature fluctuations, and moisture.

Seamless data collection and analysis

The IOTA 1G M12 is strategically placed within the train's IT network infrastructure, capturing real-time data from various key capture points. The IOTA can be set up once and used in many testing and troubleshooting scenarios, saving costs and time, as testing in these environments can take years to prepare.

Secure data access

Featuring an integrated TAP, the IOTA captures network data without impacting security or performance, meeting requirements that enforce the use of purpose-built traffic capture hardware on trains. The IOTA maintains the network connection even in case it loses power, and it also passes PoE.

Remote analysis and performance tracking

Engineers and network administrators can access the IOTA remotely, enabling them to analyze network performance without physically being on the train. This capability is particularly advantageous for troubleshooting and optimizing network performance, as it eliminates the need for engineers to board the train each time an issue arises and helps them access data from LAN networks.

Historical data and real-time analysis

The IOTA 1G M12 facilitates real-time monitoring and stores historical network data. This data can be invaluable for trend analysis and long-term performance evaluation. Engineers can review past network behavior, identify recurring issues, and make informed decisions to optimize network infrastructure and efficiency.

Find out more about IOTA: profitap.com/iota