

eBook

# The importance of Internet redundancy for 24/7 factory locations





Welcome to the Intelligent Internet platform

## 24/7 factories need Internet redundancy for business continuity

In the relentless environment of a 24/7 factory, ensuring uninterrupted operations is not just a goal but a necessity. Factories must meet stringent production schedules, maintain quality control, and support complex logistical functions.

In this context, Internet redundancy emerges as a crucial element for business continuity. By providing a backup pathway, Internet redundancy ensures seamless operations even amidst potential Internet disruptions.

Please enjoy this eBook containing eight use cases for why Internet redundancy is indispensable for 24/7 factory locations in the age of Industry 4.0.

# 8 Use cases for Internet redundancy in 24/7 factory locations



## 1. Minimizing downtime and production interruptions

Internet connectivity is the backbone of modern factory operations.

From real-time monitoring and automated systems to supply chain management and internal communication, almost every aspect of a factory relies on a stable Internet connection.

A single outage can halt production lines, disrupt automated processes, and lead to significant productivity losses. Redundant Internet connections act as a critical fail-safe, providing an alternative link if the primary connection fails.

This minimizes downtime, prevents production delays, and keeps the factory operational around the clock.



## 2. Ensuring reliable communication

In a 24/7 factory, effective communication is essential for coordinating activities, managing staff, and troubleshooting issues.

Internet redundancy ensures continuous access to vital communication tools such as email, VoIP, and instant messaging platforms.

This uninterrupted communication supports seamless coordination between different departments, facilitates remote troubleshooting, and enables quick decision-making — crucial elements for maintaining operational efficiency in a continuously running factory environment.



## 3. Supporting real-time monitoring and control systems

The integration of Internet of Things (IoT) devices and industrial automation systems is now commonplace in modern factories. These systems monitor and control machinery, track production metrics, and manage inventory.

A stable Internet connection is essential for these systems to function effectively.

Redundancy ensures that real-time data from sensors and control systems remain accessible, allowing for consistent monitoring of production parameters, early detection of issues, and prompt responses to anomalies.

This, in turn, safeguards product quality and operational stability.





## 4. Maintaining supply chain integration

Factories rely heavily on a connected supply chain for just-in-time inventory management, order processing, and logistics coordination. Internet redundancy helps maintain the continuous flow of information between suppliers, the factory, and distributors.

This connectivity is crucial for managing supply levels, scheduling deliveries, and avoiding bottlenecks in the production process.

Redundant connections ensure that supply chain integrations remain active, preventing disruptions that could lead to production delays and inventory shortages.





## 5. Facilitating remote access and management

The management of a 24/7 factory often involves remote oversight of operations, particularly during different shifts.

Internet redundancy allows managers and technical staff to access factory systems remotely without interruption, even if the primary connection goes down.

This capability supports remote troubleshooting, system updates, and real-time oversight, enhancing the factory's responsiveness to issues and maintaining continuous operational control.



## 6. Enhancing cybersecurity resilience

Redundant Internet connections also contribute to cybersecurity resilience by segregating different types of traffic or providing backup pathways in case of a cyber-attack on the primary connection.

This segregation can help isolate critical systems and maintain secure, continuous operations. In the event of an attack or Internet service disruption, redundancy ensures that the factory can switch to a secure backup connection, reducing vulnerability to data breaches and minimizing operational risks.



## 7. Supporting compliance and reporting

Many factories are subject to regulatory requirements that mandate continuous data collection and reporting on various aspects of production and environmental impact.

Redundant Internet connections help ensure that data logging and reporting systems remain operational, avoiding non-compliance due to Internet outages. This continuity is essential for meeting legal obligations, maintaining transparency, and avoiding penalties.



## 8. Long-term cost efficiencies

While the initial setup costs for Internet redundancy might seem significant, it is a cost-effective measure in the long term.

The potential financial impact of production stoppages, missed deadlines, and lost revenue far outweighs the expense of maintaining redundant connections.

Internet redundancy mitigates the risks associated with connectivity failures, protecting the factory from significant financial losses and enhancing overall operational reliability.





Welcome to the Intelligent Internet platform

## Get “always-on” connectivity for your 24/7 factory

In the high-stakes environment of a 24/7 factory, Internet redundancy is not a luxury but a necessity for ensuring business continuity. It safeguards against production interruptions, supports critical communication, and maintains the integrity of automated systems and supply chain integrations.

By implementing redundant Internet connections, with **Fixed Wireless Access** 4G/LTE/5G from Expereo for example, factories can enhance their resilience, maintain consistent operations, and uphold their commitment to continuous production and high-quality output.

The investment in Internet redundancy ultimately fortifies the factory's ability to adapt to challenges and sustain uninterrupted operations, crucial for success in today's competitive manufacturing landscape.

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# Learn more about Internet redundancy options from Expereo

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