

Reliable Hybrid WAN Solution for Manufacturing Line

Like the other industries, manufacturing has the need to meet connectivity demands from employees, customers, suppliers and partners from disparate locations. Real-time sharing of information on a stable WAN connectivity is always a key to business success because manufacturing always push towards efficiency across all of its operations. The industry has been under constant pressure to improve supply chain efficiencies and techniques. New technologies such as cloud applications, AI and IoT, have helped optimize operation efficiency, stock management and online ordering methods.

Adapting new technologies are making factories more efficient and responsive, and helping manufacturers stay ahead of competitors. However, new technologies require a stable WAN connectivity that comes with high bandwidth and low latency. Besides, business-related applications must have higher priority to bandwidth resources for greater performance. In order to gain a competitive advantage, this places pressure on manufacturing networks to improve network performance and efficiency. Manufacturing industry has to find a way to upgrade the network infrastructures to cope with these trends.

Challenges

- Increasing numbers of devices for guests, associates, and application servers
- Intelligent and secure Internet connectivity for increasing use of cloud applications
- Reliable access for critical applications, for example, order planning
- High-performing Internet access and quality-of-service for real-time applications
- Growing business expansion
- Factory security

Q-Balancer is an intelligent hybrid multi-WAN solution that enables manufacturing to integrate any combination of Internet services they may have. Those services include LTE, MPLS, fibre and broadband services. The solution incorporates an ability to dynamically direct traffic across network paths based on the characteristics of applications. As a result, the business applications can be assigned to the path with greater bandwidth and/or lower latency, which ensures application performance.

Q-Balancer delivers an agile and robust network that ensures connectivity for business-critical applications, and allows IT teams to govern their network traffic with flexible PBR (policy-based routing), and QoS that prioritizes types of data traffic. Its of dynamic traffic steering means critical systems, for example, order planning, always take the best path across the outbound connections, and can proactively avoid packet loss, latency and other issues.



Benefits and Business Outcomes

Cost Saving – Expensive MPLS can be replaced with low-cost 4G LTE or broadband connections. This saves a substantial cost without compromising the quality.

Resiliency – Protect factory from network downtime by automatically moving traffic of critical applications to active broadband connections in the event of link failure.

Data Efficiency – Cloud-based applications are locally directed to the Internet rather than sent through the data center, while critical applications are still backhauled to the centralized data center via MPLS service. Enough bandwidth is always allocated to critical applications, while latency-sensitive applications are always assigned with the most responsive path.

Increased Worker Safety – Increase worker safety and lower insurance rates by using surveillance systems and wireless sensors in dangerous work environments.

Data Security – All traffic is encrypted as it leaves a site, from factory-to-factory or factory-to-DC. Q-Balancer inbuilt firewall can be configured to protect networks against unauthorized access.

Scalability – Enable manufacturers to establish new branch network quickly, for example, a new offshore factory, where MPLS may be expensive and take a long time to wait.

Time Saving – Cut down provisioning times and the associated costs for new sites. Q-Balancer Management System enable

manufacturers to monitor enterprise-wide network from a central console, and so network issues will be detected sooner.