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EBOOK

5 Steps To Smart Manufacturing





Is your network intelligent enough for smart manufacturing?

Manufacturers recognize that smart manufacturing will be a deciding factor in their ability to increase efficiency, reduce costs, win customers, and drive revenue.

But there are multiple challenges in accelerating the move to smart manufacturing.

These include the ability to effectively leverage a broad range of technologies—IoT, AI, edge computing, and robotics. More technologies can mean greater complexity for already stretched IT teams, who are also under pressure to address challenges around cyber security and data protection. At the same time, the volatility of the past two years has highlighted the importance of rapid adaptability for manufacturers.

To better understand the situation for high-tech manufacturers, we commissioned a study, conducted by Forrester Consulting on behalf of Aruba—High-Tech Manufacturing Begins With High-Performance Networking and Security Solutions. It gathered insights from 272 business and IT decision-makers from high-tech manufacturers across the APAC region.

This study revealed the many challenges high-tech manufacturers need to address in order to forge a path to smart manufacturing. In this eBook, we pick up on the study's findings, focusing on five key challenges that we see and how Aruba Edge Services Platform (ESP) helps to overcome them so you can connect what matters most.

A commissioned study conducted by
Forrester Consulting for Aruba.

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1 Drive revenue growth

Manufacturers are looking to move to smart manufacturing in order to innovate and drive revenue growth. But outdated infrastructure and siloed systems are limiting innovation. The adoption of smart manufacturing relies on the integration of technologies such as AI, automation, robotics, and Industrial IoT (IIoT) to take the business forward. By tapping into the potential of these technologies, manufacturers can accelerate production, improve quality, increase yield, reduce waste, and address labor shortages. But leveraging the full potential of these technologies depends on a reliable and high performing network.

How we help

Aruba Edge Services Platform provides a unified solution that modernizes networking and security to create a solid foundation for smart manufacturing. It connects technologies, enables automation, simplifies management, and increases agility. It's ready for IIoT devices at scale and enables you to harness the potential of your edge data. The insights you gain can deliver valuable business outcomes, such as improving product quality, making you more responsive to customers, and boosting efficiency. In this way, Aruba ESP empowers high-tech manufacturers to accelerate innovation and drive revenue growth.

74%

of manufacturers say revenue growth is a top priority*





2 Improve operational efficiency

Inefficiencies in production and operations cost manufacturers time, money, and opportunity, making it more difficult to stay competitive. Inefficient production processes may erode a competitive advantage through increased order processing or impede new product time to market. Inefficiencies in operations, such as the traditional divide between information technology (IT) and operational technology (OT) function hinder business agility. Decisions take longer to implement, and IT resource remains focused on day-to-day tasks, rather than strategic projects. This is why automation is prioritized by manufacturers for improving efficiency.

How we help

Aruba Edge Services Platform helps high-tech manufacturers realize efficiency benefits through integrated network management, AI-powered automation, and scalability. Aruba's unified infrastructure provides the visibility, control, and enforcement capabilities required by a decentralized, IoT-driven network. Automation makes everything faster—troubleshooting, scaling of users and locations, and operational AIOps. Edge-to-cloud security automates security policy assignment for connected devices, combating cyber-attacks at scale. Aruba's single, secure platform also allows for the effective unification of IT and OT, improving efficiency.



Improving production efficiency is a priority for

73%

of manufacturers*



3 Increase flexibility and agility

The ability to rapidly and proactively adapt to change is a priority for manufacturers. This supports business continuity in unpredictable circumstances and enables the organization to capitalize on emerging opportunities. Becoming an adaptive enterprise means being highly flexible and having the ability to adjust routines or processes in near real-time in response to business or market changes. This requires connectivity and control across devices, machines, data, and people, wherever your facilities are located.

70% of manufacturers listed becoming an adaptive enterprise as a top business priority*

How we help

To enable adaptability, Aruba Edge Services Platform delivers high-performance connectivity and security from edge to cloud, across wired, wireless, and WAN networks. With intelligent edge infrastructure, you can capture and analyze data at the edge for faster insights. Remote management of devices from a single console enables rapid rollout of changes. Plus, Aruba ESP allows for ease of integration with other vendors, so you can respond rapidly and effectively to events within the company and in the market, supporting business continuity.





4 Build business resilience

Manufacturers are facing multiple challenges when it comes to business resiliency, which is why it's expected to be a key focus in 2023. Data privacy and security are the main concerns as these issues are hampering efforts to scale operations. This is exacerbated by the rising numbers of IoT devices and remote sensors, plus the legacy divide between IT and operational technology (OT) systems. Higher levels of network complexity are making it harder for IT teams to troubleshoot, with siloed tools adding to the workload and increasing the risk of downtime. In parallel, the business needs the network infrastructure to be resilient and capable of handling the big data sets required for AI initiatives. This is why network modernization and a robust approach to security is crucial.

How we help

Aruba Edge Services Platform delivers consistency and resilience, with a modern, secure network. Edge-to-cloud security provides a built-in foundation for Zero Trust and SASE frameworks, addressing the requirements of a decentralized, IoT-driven network. Data can be analyzed at the edge, eliminating the costs, latency, and compliance issues caused by back-hauling data. Aruba ESP also reduces the workload for IT. Automated network management constantly monitors performance and keeps the network optimized without their input. AI-powered troubleshooting helps IT solve problems 90% faster, before they affect production. In this way, network security and resilience underpins business resilience for manufacturers.

66%

of manufacturers say enabling consistent network operation is a top priority*





5 Save resources with remote monitoring

High-tech manufacturers are striving to reduce costs and achieve more with existing resources. Sending IT staff to sites to do hands-on management is time-inefficient and costly. Fixes take longer to implement, and this increases the risk of production targets being missed. To optimize resources and improve response times, network managers need the ability to proactively identify and diagnose network issues remotely, and to take action to solve them before they impact end users and productivity.

How we help

With Aruba Edge Services Platform, IT teams gain visibility and control over the network through a single console. This simplifies and improves IT operations. The ability to leverage a cloud native platform to manage, monitor, and troubleshoot the network significantly reduces the need to send IT staff to sites. In addition, it streamlines day-to-day network management by using AI to automatically fix issues before they affect users or devices. This removes the burden from IT teams, enabling them to focus on higher value projects.

69%

of manufacturers say end-to-end networking visibility and control comprising WLAN, switching, SD-WAN, and remote access can help them achieve business goals*





Aruba ESP is the intelligent network for smart manufacturing

Wherever you are on the path to smart manufacturing, Aruba Edge Services Platform can help to accelerate your journey with an intelligent network and edge-to-cloud security.

Aruba Edge Services Platform is already powering smart manufacturing for businesses across the globe. Yours can be next.

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*Source: A commissioned study conducted by Forrester Consulting on behalf of Aruba—"High-Tech Manufacturing Begins With High-Performance Networking And Security Solutions", March 2022