

How to make your LAN modernization work



The traditional workspace is transforming. Flexible technologies are essential to deliver applications and data to diverse, dispersed devices. These changing working patterns are putting huge demands on the LAN. Orange Business and HPE Aruba Network together can optimize your LAN infrastructure to enhance performance, simplify visibility, and shore up security.

According to Gartner, the big return to the office is underway. Enterprises have quickly learned that users will not tolerate dropouts and disconnects from the office LAN, especially as most have honed their video-first communications skills over the past few remote-working years.

But many LANs are now running below par due to both a pause on upgrades during the pandemic and the ensuing chip shortage. Old equipment running out-of-date software also opens up vulnerability gaps that expose enterprises to attack. Further, some newer applications and wireless use cases are incompatible with legacy networks.

Re-thinking the LAN

Wired and Wireless LANs are pivotal to all enterprises. They are now being asked to support higher bandwidths, larger numbers of devices, an explosion of real-time applications, such as HD

videoconferencing, and, of course, reliable access to off-premise, cloud-based SaaS applications.

To improve the digital employee experience, enterprises should review their wired and wireless LANs and consider taking advantage of new technology and service options. While there are many moving parts to consider for such an upgrade, cost being the most obvious, there are additional points that should be factored into your decision.

Are you looking to upgrade your wired and wireless LAN? Here are 6 considerations to ensure your network suits your current needs now – and into the future.

- 1** Understand your traffic.
- 2** Deploy flexible and scalable wireless connectivity.
- 3** Include the LAN in all end-to-end cybersecurity strategies.
- 4** Adopt observability for comprehensive visibility across the network.
- 5** Enable network automation for flexibility and agility
- 6** Central control and provisioning streamline management



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The modern LAN must be highly extensible to meet evolving user needs and support a seamless and consistent experience for demanding applications like video conferencing and, soon, virtual reality. By adopting a streamlined and scalable design, the LAN can utilize resources efficiently and expand easily to accommodate future growth, ultimately reducing costs and ensuring the network remains adaptable for years to come.

When putting together your LAN modernization strategy, look to tick the boxes outlined below:

1 Understand your traffic

The characteristics of your LAN traffic have likely changed dramatically over the past few years. You will need to understand the raw volume of traffic on your network, and not just on an average day, but on peak days when everyone is in the office and watching the latest Teams meeting with the CEO. Importantly, you also need to identify the requirements of each of your applications/use cases, as each might have different network needs (productivity suites, collaboration tools, up/downloads, security cameras, thermostats, etc).

This important exercise will help inform other decisions, such as WAN and Internet bandwidth, optimal cloud connections, and security options. Be sure to add forecasted business growth into your calculations, not only to ensure great future user experience but to help obtain the budget needed to deliver it. As you can see, this knowledge is pivotal for a successful upgrade. Working with an experienced integration partner can help ensure this is well understood and documented.

Planning for network capacity and checking against business objectives is essential when upgrading a network. Use an AIOps analytics platform to look at historical LAN usage data to guide network capacity decisions. Include any future network projects that may impact the performance of the network IoT deployments, which will alter data flows.



2 Deploy flexible and scalable wireless connectivity

Unless you've upgraded recently, it is time to refresh your wireless network to keep up with the organization and your users' pace of change and ensure access to the latest capabilities.

Upgrading to WIFI6 gives you greater bandwidth, device capacity, reduced latency, and improved battery efficiencies for connected IoT devices and sensors. Through extended wireless options, you can benefit from BLE options, waypoint finding, and even tacit presence detection.

If you need even more bandwidth or want to futureproof your deployment even further, it would be worth jumping to WIFI 6E. When considering this migration, recognize that the spectrum required for 6E deployments is still being addressed country by country.

In all scenarios, optimal access point placement and power requirements may change, so finding a global system integrator who can accelerate the deployment of the best wireless solution for your business and ensure it integrates seamlessly with your infrastructure is essential.

3 Include the LAN in all end-to-end cybersecurity strategies

Threat vectors are growing and becoming more sophisticated. The addition of dynamic network segmentation keeps traffic secure and separate, ensuring that users and devices can only communicate with destinations consistent with their roles.

This control mechanism unifies role-based access and policy enforcement across wired and wireless networks. With granular-role-based access permissions, dynamic segmentation automatically blocks users, and the endpoint is quarantined in cases of an attack, for example.

Protecting how your users and guests connect to the internet and other systems is paramount, and this is a step towards enabling a zero-trust strategy that will give you end-to-end protection across your infrastructure.

Zero trust enhances your security posture: always verify and trust no one or any device. Zero trust network architectures focus on authentication, authorization, and continual risk management. Before accessing the network, all devices and users are identified, authenticated, and given the minimum amount of access required.



4 Adopt observability for comprehensive visibility across the network

Visibility is a critical consideration for your LAN deployment. It enables your organization to monitor the behavior of traffic on the network. This allows you to improve efficiency and performance while enhancing security posture and providing faster troubleshooting.

Traditional standalone monitoring tools do not offer the rich visibility today's networks require, offering incomplete views into the condition of assets and network activity. Observability goes further, allowing you to look deep inside your network's internal health and answer questions about its state, application performance, and end-user experience.

Combine Artificial Intelligence for IT Operations (AIOps) with Observability to enable your network teams to monitor and manage the infrastructure and applications proactively, identify issues, and remediate them quicker than ever before.

AIOps eliminates manual troubleshooting tasks, reduces average resolution time by as much as 90% for common network issues, and increases network capacity by up to 25% through peer-based configuration optimization.¹



5 Enable network automation for flexibility and agility

By 2026, 50% of enterprises will use AI functions to automate Day 2 network operations, compared with fewer than 10% in 2023. Day 2 operations include maintaining, monitoring, and optimizing the network.²

End-to-end cloud-native network automation and orchestration automatically configure LAN and WAN infrastructures. This reduces configuration drift, automates security patching, and delivers optimized performance, all while maintaining the security policies that are the foundation of zero trust.

Choose a solution that will automate your network deployment and carry out ongoing network configurations and security operations, delivering business value through reduced downtime and wasted person-hours.



6 Central control and provisioning streamline management

Upgrading to a centrally managed orchestrator greatly simplifies network provisioning and delivers a more efficient and consistent network for your users – all facilitated by the observability and automation previously discussed. The system should offer historical reporting capabilities and a live dashboard revealing the current status of all users and sites. This should include the ability to run posture checks quickly to validate that corporate compliance policies are being followed.

Central controls also allow your administrators to react quickly if security threats are identified, allowing for problematic devices to be quarantined if further remediation is required.



For LAN success, engage with Orange Business and HPE Aruba Networking

Today's wired and wireless LANs go beyond providing simple connectivity. They need to be highly secure and deliver insights on network performance and user behaviors using analytics to predict any IT problems and retain high-quality performance and a competitive edge.

Via the best-of-breed partnership between HPE Aruba Networking and Orange Business, customers can access a flexible infrastructure and a high level of automation designed to meet their specific needs.




HPE Aruba Networking provides secure edge-to-cloud networking solutions using AI-based machine learning to deliver simpler, faster, and more automated networks that analyze data to help businesses succeed.

HPE Aruba Networking delivers built-in security as the foundation for zero trust, extending the security controls applied to your branch network to the cloud. Its unique AIOps solutions produce the most reliable outcomes based on extensive data that train machine learning models to produce actionable insights.

Orange Business uniquely brings together networking and connectivity expertise with the agility of a global digital solutions integrator – working to make digital transformations both efficient and sustainable. Its team of experts encompasses unparalleled consultancy, design, integration, delivery, and management of networking solutions to this partnership.

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-  **11 CyberSocs bringing together the best expertise in threat analysis**
-  **17 SoC around the world, monitoring and responding to events 24/7/365**
-  **5 Major Service Centers (MSCs) located on all continents for 24/7 support**

For further details on the Orange Business and HPE Aruba Networking LAN offering, please get in touch with us here
<https://www.orange-business.com/en/contact>

Sources:

1. Aruba AIOps AI-powered automation <https://www.hpe.com/psnow/doc/a00096282enw>

2. Gartner hype cycle for I&O automation 2023 <https://www.gartner.com/doc/reprints?id=1-2F27UOAT&ct=230921&st=sb>

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