

## Discover:

- How networking technologies are changing business operations.
- What's driving these trends?
- Why do businesses need to rethink their networking solutions?
- Where are the business advantages to be gained?

## Summary

Small to medium-sized businesses (SMBs) face numerous challenges, and achieving operational efficiency involves recognizing the benefits that technology can provide. While networks are essential for business growth, scaling them poses significant challenges and expenses.

Traditionally, this necessitated substantial capital investment, often met with reluctance. While the necessity is understood, there's also an awareness of the rapid pace of technological change. Advantages gained through new infrastructure today become short-lived, given that new applications demand functionalities that weren't even considered before.

This stands as one of the driving factors behind the increasing adoption of Network as a Service (NaaS). According to a report by HPE Aruba Networking, 72% of respondents concur that as-a-service consumption models deliver superior IT agility compared to traditional models. NaaS offers numerous advantages to SMBs, accompanied by minimal drawbacks. Which is good when you have limited resources and capital. The report delves into evolving network technologies and the underlying trends propelling them, subsequently outlining the necessity for SMBs to reconsider their networking solutions.





We're living in a world that's becoming increasingly integrated with technology and it's impacting the way businesses operate. In the past, small to medium-sized businesses (SMBs) could operate on the basics, but this is changing as consumer expectations start impacting business operations.

At every level, consumers have become accustomed to utilizing mobile phones and tablets for research, transactions, and connectivity, regardless of their location. It has become the standard to anticipate companies to provide services seamlessly, irrespective of their scale. Offering explanations based on sluggish or intermittent networks, or system downtimes, is increasingly seen as nearly inexcusable.

Numerous businesses encounter the challenge of operating with outdated network systems that struggle to meet evolving demands and expectations. In their efforts to stay current as their operations expand, many have resorted to adding or partially upgrading legacy systems. However, the rapid pace of technological advancement and evolving user needs often outpace these endeavours.

These challenges pose obstacles to local teams when trying to scale and be competitive within their industries. The continual need to address immediate issues becomes a significant impediment to sustained growth. To progress, SMBs must proactively seek solutions to overcome these challenges.

## The Problems Local Community Business Faces

- Networks often suffer from fragmentation and unnecessary complexity due to access being routed through a combination of isolated wireless, wired, and virtual private networks.
- Access control is commonly handled via a virtual LAN network, which is approaching obsolescence and lacks scalability.
- Many businesses are currently utilizing wireless networks designed for wide coverage rather than high capacity. However, these networks struggle to meet the demanding requirements imposed by large user volumes and the resource-intensive multimedia applications users anticipate using.
- Networks and security systems were originally designed for users who accessed the same applications from identical ports using consistent devices daily. But that's not how today's users operate. They are highly mobile and want to be able to maintain access to systems at any time, from anywhere, and with any device - including personal devices.
- Legacy systems often lack the capacity to provide robust security against the multitude of existing cyber threats. As networks become increasingly interconnected, it's quite easy to neglect vulnerabilities that could leave a business exposed. Given the rising frequency of cyberattacks targeting SMBs and especially local community businesses, this concern has become more pronounced.





#### **Networking as a Business Advantage**

- As technology remains integral to every business, designing infrastructure to accommodate modern work methods becomes imperative. This includes considering the capability to scale up or down in response to diverse marketplace factors.
- Agility is key for SMBs who want to stay competitive.
   This can be attained by developing an IT infrastructure with the right technology that can easily support multiple applications in multiple locations with different devices.
- Up-to-date infrastructure improves a business's security posture. Partnering with a Managed Service Provider (MSP) enables a more proactive approach to cybersecurity risks and threats. Typically, they also have access and relationships with leading vendors (ex. HPE Aruba Networking) that can provide additional expertise and options.

Technology can be a great equalizer, giving SMBs the ability to compete in the broader market without being constrained to a specific location or industry. Achieving this demands the presence of suitable IT infrastructure and expertise to scale, adapt, identify market risks, and seize opportunities.

Part 2 of this report delves into how businesses can harness pivotal trends, their connection to identifying necessary infrastructure for supporting business functions, and optimal implementation methods to establish a secure and stable network.

## The Impact On Businesses Like Yours:

- Competitive Disadvantage SMBs often face a competitive disadvantage, grappling with efficiency challenges as they operate reactively. This issue is compounded by outdated, insecure, and inefficient networks and systems.
- Increased Risk Exposure –
  Outdated systems harbor
  well-known vulnerabilities that
  are both easily exploitable and
  challenging to secure. SMBs
  are increasingly falling prey to
  cyberattacks due to the lack
  of consistent prioritization for
  system updates.
- Pressure on IT Resources SMBs often lack the financial
  capacity to maintain the
  necessary expertise to
  proactively address risks.
  Overextended IT teams are
  expected to resolve diverse
  issues, leading to unrealistic
  workloads and high staff







In a rapidly evolving world characterized by heightened connectivity and complexity, merely adhering to trends or adapting to consumer demands isn't enough. Small and medium-sized businesses (SMBs) must proactively focus on enhancing their resilience, agility, and competitiveness. This strategic imperative hinges on recognizing the forces propelling key trends and strategizing how to leverage these dynamics for a distinctive business edge.

### Mitigating Cyber Attacks as an SMB

The trend of cybercriminals focusing on large multinational corporations and financial institutions is diminishing and moving to a more local and regional focus. These entities have significantly invested in bolstering their security measures, making it more arduous for unauthorized access to their data and systems. This shift has led threat actors to recognize small and medium-sized businesses (SMBs) as more susceptible targets, especially when these businesses operate on outdated and fragmented infrastructures, making them easier prey with often greater impact given their significance in a community.

"They're very loyal to the tech directors and tech coordinators and tech coaches across this state."

John Simi - Director Of Technology at Memphis University School In the absence of a robust network security foundation, the likelihood of security gaps increases. To counter this, network and security teams must collaborate closely to thwart cyberattacks, employing industry-recognized security frameworks like Zero Trust or Secure Access Service Edge, concepts backed by companies such as HPE Aruba Networks. The adoption of new network architectures can necessitate an upgrade of existing infrastructure which makes it even more critical to have the right integration partner and the right technology that you can grow with.

The tactics used by threat actors to breach company defenses are rapidly evolving, creating an ongoing challenge to maintain the upper hand in cybersecurity. Yet, a proactive approach involves addressing acknowledged vulnerabilities within the existing infrastructure.





Identifying potential vulnerabilities, outdated hardware, and optimal new technologies presents its own set of challenges. Given their limited exposure to diverse industries and potentially lacking first-hand experience of the havoc wreaked by cyberattacks, many SMBs lack the capacity to effectively mitigate these risks.

Engaging an experienced local Managed Service Provider (MSP) specializing in networking (ex. Central Technologies in Tennessee), can prove invaluable. They possess the expertise to conduct comprehensive audits that unveil vulnerabilities and pinpoint avenues for enhancement. Through continuous monitoring and rigorous testing, these MSPs contribute to fortifying a company's overall security posture.

# Upgrading Technology, Without Breaking The Budget

Major corporations are faced with the intricate challenge of staying up-to-date of the latest innovations. These ongoing advancements are of paramount importance but are also susceptible to rapid obsolescence. This predicament calls for a delicate balance: the adoption of appropriate and cost-effective technologies must be counterweighted by the necessity for adaptability within evolving business and technological landscapes.

In contrast, smaller enterprises frequently defer updates to their infrastructure due to the burden of high costs and competing priorities. Enter NaaS, a remedy that not only proves economical but also aligns adeptly with budgetary limitations. This shift empowers businesses to transition from significant one-time outlays to more manageable month-bymonth arrangements, all while effectively tending to their technological prerequisites.

Interestingly, a survey unveiled that an impressive 41.3% of respondents finance NaaS through regular operational budget funds (OPEX), surpassing the employment of capital expenditures (CAPEX). To overcome this challenge, numerous companies are embracing NaaS. For some, it integrates into routine OPEX, while others categorize it as a CAPEX. The IT departments weave NaaS into their daily fiscal plans, while finance departments interpret and incorporate it within their financial statements. What makes NaaS stand out is its pay-as-yougo approach, which effortlessly fits in with the way operational expenses work.

# Local Businesses, Faster Decision Making

An advantage that SMBs hold over larger companies is their agility in decision-making. Unburdened by intricate processes, they can swiftly pivot as required. However, capitalizing on business opportunities is frequently limited by an SMB's ability to scale rapidly. Not only does acquiring adequate human resources pose a challenge, but without the right infrastructure, additional personnel cannot contribute effectively to delivery.

NaaS provides the benefit of swift scalability, allowing SMBs to efficiently adjust their capacity as required. This capability enables streamlined operational costs and enhanced agility. SMBs can scale network resources on demand, avoiding unnecessary expenses during periods of slowed growth. Such flexibility becomes an asset for SMBs, particularly in times of economic uncertainty.



## **Outsourcing Technical Expertise**

As technology evolves, it's challenging even for large companies to retain the expertise needed to stay updated of all these developments. For SMBs, it's practically impossible. This is why it makes sense to partner with an MSP and leverage their industry expertise when needed. Here are several ways an MSP can help:



**Analysis** - Assessing whether the current technology is suitable for its intended purpose involves identifying existing gaps, evaluating functioning features, and pinpointing areas that could be improved.



**Implementation** - Having the right expertise to understand how network changes should be executed is crucial to prevent oversights that might result in future complications.



**Monitoring and maintenance** - Implementing regular monitoring and maintenance represents a proactive approach to ensuring effective system operation. Given that IT teams are frequently stretched thin with numerous responsibilities, having a partner who can oversee these tasks proves to be highly valuable. According to an HBR report, installing and configuring networks can take up 50% of an IT team's time.



**Understanding Local Nuances** - Working with local or regional MSP's provide confidence for the business and time savings in communication and problem solving. Both factors when dealing with mission critical infrastructure and employees.

Working with a MSP enables SMBs to gain access to the technical expertise needed, without taking on monthly overheads of full-time IT staff. The added benefit is that the expertise is broader as MSPs work with multiple industries. This strategy also grants IT personnel greater freedom, allowing them to dedicate their efforts to essential tasks rather than being absorbed in the intricacies of network management.





"They're extremely knowledgeable about what they sell. When they tell you that they wouldn't sell junk to you, you know that they mean that because they are living with it day to day as they support other institutions."

Ben Howard - Director of IT at Maryville College

#### **Enabling Transformation That Isn't Hype**

Studies show that more than 60% of business leaders see NaaS as a strategic enabler for transformation. Constant innovation in technology makes it challenging for organizations to keep pace. Whether it is access to HPE Aruba Networks new 12000 MHz of 6 GHz spectrum with Wi-Fi 6E, new wireless encryption security with WPA3, or new work from home "branch of one" capabilities, the speed of innovation can cause equipment to become outdated too quickly to address today's dynamic climate. New technology also makes it challenging to find and train personnel in the time and budget that you need.

In addition, NaaS offers expedited access to new technologies, backed by support and expertise. As SMBs seek to revolutionize their customer engagement at an operational level, the availability of cutting-edge technologies and advanced expertise provides a notable edge. When new features and functions are properly updated, security is enhanced. Every business wants to improve operational costs, optimize infrastructure, gain access to new technologies, and advance expertise without management burdens. Now there is an option to do that very thing.



# PART THREE Growth Requires a Good Foundation



While most businesses start small, few have the desire to stay that way. When business leaders contemplate establishing a strong groundwork for expansion, the emphasis generally revolves around strategy, products, services,

and comprehending customer needs. These are all essential but fall flat without the technology infrastructure that can support growth plans.

Some of the most disruptive brands became successful from very humble beginnings (consider Airbnb for example) because they understood that they needed to have the right infrastructure in place to support their business plans. An idea must not only be practical but also efficient, with the capacity to scale effectively.

Contrasting disruptors with typical SMBs reveals a key distinction: while most SMBs perceive network infrastructure as an essential expenditure, disruptors recognize it as a pathway to secure a competitive edge in the market. Part of this is the complex nature of networks and not having the expertise internally to manage them effectively. Limited IT staff coupled with increasing security needs creates a compelling case to partner with an MSP.

Exploring the potential for enhanced business value involves the creation of a tailored networking solution. Consider these four benefits:

- 1 Rapid Deployment: Costly disruptions and downtime can be minimized. Partnering with an MSP experienced in network solutions allows for a quicker and smoother setup, reducing disruptions significantly.
- 2 Simplified Operations: Maintaining seamless system functionality necessitates continuous monitoring and the capacity to swiftly troubleshoot and resolve issues. Leveraging the heightened expertise provided by MSPs empowers SMBs to sustain operational efficiency.
- **3 Strong Security:** An efficient and up-to-date networking solution contributes to enhanced security by ensuring that only authorized individuals have access to the data they require on the network.
- 4 Powerful Scalability: A network that seamlessly expands alongside business growth paves the way for operational success. This aids SMBs in sidestepping the challenges linked to deciding when to invest in additional network infrastructure.





## Conclusion

#### **Providing Choices For Your Business**

As network management becomes progressively intricate, IT organizations are increasingly turning to cloud-native network management tools and collaborating with providers that integrate automation and AI. This strategy aims to expedite troubleshooting processes and facilitate more effective network management.

However, one of the largest benefits is overcoming obsolescence typically associated with IT infrastructure. Through NaaS, technology maintains constant updates, preventing companies from being burdened with outdated software or hardware incompatible with new applications.

NaaS also allows for more flexible financing which is attractive in uncertain economic conditions. It provides SMBs the advantage of having high-performing networks that are both scalable and secure.

Embarking on a successful project begins with choosing the right partner, even better, the right local partner. An example in the South is a company called Central Technologies—an experienced Managed Service Provider (MSP) that has revolutionized network solutions for schools, libraries, municipalities, and SMBs across Tennessee.

Their track record in deploying Network as a Service (NaaS) solutions speaks for itself. At Central Technologies, they comprehend the intricacies of networking in the modern landscape and also might bump into you in the grocery store. Local MSP's are dedicated to helping you navigate the complex world of technology to achieve your goals.

When you collaborate with an MSP, you're not just getting a partner; you're gaining a reliable ally committed to your success. Is your SMB seeking network reliability and the flexibility to scale as you grow? Network as a Service (NaaS) could be the game-changer your SMB is looking for. Unlock secure, high-performing networks without stretching your budget.



#### **Certifications and Awards**

Central Technologies, Inc has been the recipient of multiple industry certifications and awards over the years.

- Bicsi RCDD Certified
- CWNA Certified Wireless Network Administrator
- Intel Technology Platinum Partner (2012, 2013, 2014, 2015, 2016, 2017, 2018)
- Extreme Networks Diamond Partner
- HPE/Aruba Platinum Partner
- HellermanTyton Certified Installers and Partner
- Commscope Certified Partner
- Lifesize Authorized Partner
- Lenovo Authorized Service Provider
- ASUS Authorized Service Provider
- Ekahau Certified Survey Engineers
- Certified Wireless Security Engineers
- CompTIA Security+ Engineers
- Aruba Certified Mobility Professionals (ACMP)
- Aruba Certified Switching Professionals (ACSP)
- Aruba Certified ClearPass Experts (ACCX)
- Aruba Certified Edge Experts (ACEX)
- Aruba Certified Design Experts (ACDX)

