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The Ultimate Guide to

# Cloud Network Management

IT Action Plan for Fast Growing Small Businesses

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# Executive Summary

***Provisioning and managing high-quality network access represents massive opportunity – and massive risk.***

***It is critical that SMBs get it right***

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While business data is not a balance sheet item, business' data use or abuse of can make - or break it.

Small and Medium Businesses (SMBs) are organizations that have less than 1000 employees. SMBs do well to isolate the business priorities in their IT Networking Action Plan. A network that “just works” is table-stakes for any business. However, SMB IT departments face high technical and logistical hurdles to that expectation as the network footprint expands.

Failure to meet that expectation incurs significant business and reputation risk. Failure to secure and monitor the network can be just as harmful.

Cloud-based network management offers significant benefits by overcoming challenges that commonly plague on-premise deployments.

SMBs find sustainable growth from cloud-based network management with its:

- Fast deployment
- Simplified management
- Richer visibility

Reputation risk through poor user experience, operational risk through poor performance, and compliance risk through poor security and monitoring **require SMBs to take a good look at cloud-based network management solutions.**

This whitepaper describes a realistic action plan for successfully providing good bandwidth to customers, employees, and even guests quickly through cloud-managed networking via the Cisco Meraki SMB solution.

# Significant Challenges Come with Expanded Network Access

Real-world networking considerations can constrain business growth if poorly managed. With such constraints comes pain – both to users and the business.

Issues Common to Networking Expansion Projects:

- Customers can't connect easily
- Network speed is too slow
- Network vulnerabilities
- Compliance reporting gaps
- Asset tracking challenges

A major pain point for most SMBs is the added time and logistics of manually configuring every router, switch, and access point in the network. Expanding geographic footprints make it even more challenging. In addition, while monitoring the performance and operational state for each network component is manageable when there are only a handful of devices, **each added device brings a complexity and vulnerability multiplier.**

Businesses who wish to grow by expanding the network footprint need a management solution that scales well and meets the business goals while returning a good ROI. **These days, increasing the business footprint should not require an equal increase in IT support personnel.**



# An Action Plan to Safely Expand IT Networking

Advances in technology have brought advantages to small businesses, particularly with networking expansion projects. However, as with any initiative, success depends largely on the viability of its plan. As the scope of expansion increases, so does the importance of the plan's objectives.



*If you don't know where you're going, any road will work.*

– Henry Kissinger

IT network deployment best-practice is to focus on the business priorities and support those priorities with proven methodologies and protocols. Many business focus on the technology as opposed to the outcome they are looking to drive.

A solid IT action plan should include the following top-level objectives:





## Goal #1: Deploy and Install Faster

Progressive organizations seek to **reduce the compounded cost** of networking by **minimizing the time spent in provisioning its installation**. Cloud-based management brings significant efficiency to network additions.

Network components that can deliver zero-touch deployment will keep IT managers from spending hundreds, if not thousands, of hours devoted to packing, configuring, repacking and shipping each device.

For example, devices configured by robust cloud tools will find a network path, check for software updates, and fetch configuration staged earlier without prior unboxing.



## Goal #2: Simple Network Device Management

A distinct advantage of centralized network management is the ability to **verify that all devices are connected and updated with current versions of software.**

Cloud-based management brings this advantage to SMBs. They include insight into health and performance of all devices.

Typically, the management tool is multi-tenant and highly flexible, streamlining collaboration among internal and outsourced IT resources.



## Goal #3: Retain Visibility of Network Activity

In addition to monitoring all network devices, centralized network management provides visibility into all the network activity. Because network activity is fed to a secure, centralized system, it can be **monitored from any location**. Unplanned downtime, sudden drop of bandwidth, or even suspicious data transmissions on ports can be surfaced.

Another critical component is out-of-band data management; data that belongs to the organization will have different protocols assigned to it than data such as public web pages provided to guests, for example.





## Goal #4: Find Added Value from Fixed Assets

Inherent processes of cloud-based networking offer points of value heretofore unknown to traditional on-prem deployments. For example, new cloud-based networking devices can provide metrics useful to marketing and sales campaign platforms.

By managing the network through standard cloud technologies, SMBs can often find ways to **provide key data points to CRM and campaign reporting tools**, thereby sweating assets for greater value.

Another example is the integrated Facebook login for guest access provided by Cisco Meraki.

# Cloud-Managed Networking to Achieve Your Networking Goals

Cloud management provides centralized control and visibility over the entire SMT IT networking stack without excessive complexity. Such advantages are always beneficial, but they are critically important during a time of rapid business development.

It should be noted that without a centralized management solution, none the combined business priorities mentioned earlier are possible during IT networking expansion.

The primary interaction of any IT network is typically in three stages. Each presents an opportunity for business efficiency:



Centralized cloud-based management facilitates seamless operation for each stage, thereby delivering advantages previously accessible to the larger resources of enterprise organizations.

However, in addition to delivering features to support the business priorities mentioned earlier, **a robust cloud-based networking management solution offers technical superiority over on-prem deployments.**

These benefits are readily available and simplified so that SMB IT departments can manage with little additional overhead.



# Benefits of Cloud-Managed Networking

## **Low Overhead**

Cloud-based network management solutions typically deploy quickly and easily. Their deployment and installation require little training or dedicated staff yet offers comprehensive control over the entire network. In addition, they can be managed from any device, including those employees (or the business already own). For SMBs looking to reduce fixed costs, a major advantage of cloud-based deployment is that it puts the power of network management into devices already owned or maintained for no added expense and with no added security risk.

## **Remote Management**

Network devices that are provisioned and managed from the cloud can often adjust to discrete location-based considerations without need of a local IT resource. For example, one office location may have greater density or even radio signal interference than another. Using a centralized management console, administrators can remotely detect such issues, and issue configuration commands to optimize the device's performance.

## **Dynamic Performance Optimization**

Specialized cloud-based network devices such as Cisco Meraki are designed to perform internal optimization to match Quality of Service (QoS) parameters, RF interference, prioritize bandwidth by current application use, and even perform real-time security forensics.

## **Enterprise-Grade Security for Smb Environments**

With the affordability of distributed cloud technology, good network management solutions perform 802.1x and native Active Directory integration for identity-based security. They also instantiate Layer 3-7 firewall rules based on group or location policy. Guest network access can be safely provided with firewall isolation and compliance to usage terms and conditions.

In addition to user and data security, cloud-based solutions bring best-in-class authentication to corporate administrators. Two-factor authentication, role-based administration, and admin audit are typically large gaps in SMB IT security. Cloud-based solutions help to remove that business risk.

# Benefits of Cloud-Managed Networking (cont.)

## **Future-Proof**

Cloud-based network devices can be kept up-to-date without disruption to the entire organization. Updates are controlled and issued to maintain equipment value and ensure optimal performance, automatically, concurrent with technological advances.

## **Sustainability**

Cloud-based network management offers more robust management during times of disaster. It removes the vulnerability of a single on-premise management application. Traditional green initiatives common to leading data centers also make cloud-based networking a good option for the planet.

## **Reports & Monitoring**

Cloud-based network management offers enterprise-class network insight for smarter SMB network management. IT admins can receive (or navigate to) regular reports on the health and activity of each device and user in the network at defined inspection levels. Granular reporting on individual user activity, as well as overall activity of a network group (or child level group) is delivered to a specified managers' desktop, tablet, or mobile device. As important, appropriate response mechanisms can be performed on those devices.

Trigger events, such as activity on an access point limited to specific hours of operation, can be immediately surfaced so that management can perform the appropriate response. Cisco Meraki's Dashboard Insights provides detailed information from high-level analytics to granular forensics. Multi-site locations can be managed or configured from a single interface. The same interface that can report on a single user's activity through drill down analysis of suspicious activity.



# The Strategic Path Forward

Centralized control from a redundant cloud management tool offers SMBs the deployment, management, and reporting tool they need to compete against enterprise organizations – to maximize business opportunity while at the same time minimizing business risk.

Perhaps most important, such a solution **ensures a consistent user experience appropriate for the growing SMB brand.**

A good IT action plan will identify the business objectives and priorities leading to the cloud-based networking solution with the best ROI.

Learn more about how Cisco Meraki successfully solves the business problems of SMB IT network expansion.

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CONSULTANT**



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