



APPLYING TECHNOLOGY. AMPLIFYING RESULTS.

TWD WHITE PAPER

Assessing Unified Communications Readiness for Small and Medium-Sized Businesses





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Performing a thorough assessment of current UC readiness and an evaluation of options for deployment is critical for the long term success of this important investment.

Introduction

Today's workforce is increasingly mobile and distributed, demanding more and better options to stay connected. Tech-savvy employees are introducing devices and applications that give them the flexibility to work from anywhere with easy-to-use, high-quality collaboration tools. While businesses can reap the benefits of greater efficiency and productivity from users, they also inherit the administrative burden of managing and maintaining multiple technologies that often arrive piecemeal and create long-term interoperability problems. Without a strategy and policies to unify applications, multiple devices and communications infrastructure, businesses can end up with a hodgepodge system that frustrates workers and customers alike.

Unified Communications (UC) is the commonly used term for the process of integrating an organization's spectrum of communication and collaboration technologies. However, the exact UC structure and the path for getting there varies based on the needs and resources of the particular organization. This process holds particular challenges for leaders of small and medium-sized businesses (SMBs) who can't afford to be distracted from the important work of running their company. Fortunately, there are now options that make it easier for companies of all sizes to afford and implement a UC solution.

New Opportunities for Unifying Communications

The early adopters of UC had the resources to invest in state-of-the-art solutions from leading hardware and software vendors—solutions that were out of the reach of SMBs. But newer platforms and delivery models for UC make it possible for SMBs to afford enterprise-grade communications and collaboration technologies. The biggest change is the introduction of cloud technology and managed service solutions that don't force a business to pay high upfront costs for physical assets that inhibit flexibility or require highly skilled staff for operation and maintenance. These innovations allow SMBs to adopt a UC structure that meets their particular business needs and offers the kind of scalability that accommodates growth.

Assessing UC Readiness

SMBs can get a full range of features including VoIP, presence, messaging, email, audio, video and web conferencing, but they might choose to implement their UC solution in stages. The business owner will need to evaluate the value of current assets, identify gaps that will prevent a successful UC implementation and formulate a path forward that can be supported by available resources. It is critical that an organization make an assessment of its readiness to move to a UC environment.

Following are eight of the important areas that any business should consider before moving forward with UC.

- 1. Number of users**
- 2. Types of devices**
- 3. Networking equipment**
- 4. Type of connectivity**
- 5. Network security**
- 6. Network redundancy**
- 7. IT Support**
- 8. Assessment capability**



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1. How many users are/will be accessing the system?

A UC solution needs the appropriate bandwidth to efficiently handle the quantity of users on the system at any given time, and planning should anticipate growth at least a few years into the future. Key determinations include:

- What is the impact of adding UC components such as audio and video to the business's network infrastructure?
- How many simultaneous users will push the network to maximum capacity?

2. What types of devices are/will be used?

Usability is the critical factor for successful adoption of UC tools. Consider the end-user experience with all of the different types of devices that will be connected via the UC solution. Questions to answer include:

- How many diverse device types does the UC solution need to support? Does the business need to only support personal computers and smartphones, or will the solution need to integrate a wide variety of devices with different operating systems: wired phones, projection systems, interactive whiteboards, conference room tablets, etc.?
- How does the diversity of connected devices and the quantity of connected devices impact the network and the way other devices work on it?
- Are the devices that the business or employees use interoperable with the desired UC solution; if not, how easily could they be reconfigured to operate on the UC solution?

3. What type of networking is being used vs. what's needed?

The type of networking equipment can have a dramatic impact on network performance. Networks are capable of using a protocol called Quality of Service (QoS) to prioritize important traffic types.

Networking equipment can be categorized into three classes: consumer class, limited managed class and fully managed class. With an unmanaged switch (i.e., a consumer-class switch), all network traffic is sent as it is received. No differentiation or fragmentation is assigned to types of traffic or traffic order. This means that as one person is sending a large video file over the network, a large portion of the available bandwidth is taken, potentially starving out other applications, such as voice. Assessment of existing QoS metrics (bandwidth, jitter, latency) will help determine equipment needs.

- Consumer Class—Generally capable of handling a site with fewer than 10 users, there is not much to management and configuration of these types of switches.
- Limited Managed Class—Though still not capable of QoS capabilities, these systems have some management functionality and when paired with business-grade Internet services, can be suitable for up to 50 users.
- Fully Managed Class—With packet management capabilities and QoS configurable for each port, fully managed network equipment is recommended for businesses with more than 50 users.

4. What type of connectivity is available vs. what's needed?

Adequate bandwidth provisioning is a critical component of a successful UC deployment. Workers are frustrated and businesses are hampered by slow connections and dropped calls. In addition to the number of users, other considerations such as number of locations and types of applications will determine the necessary capacity and speed. Additional locations means the possibility of multiple networks and decisions about how to centralize a UC solution.

The way users access a network has a major impact on their overall experience of remaining connected. Virtual private networks (VPNs) provide secure access for remote



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connections and can even be enabled through applications on mobile devices, but often require additional steps to login. The freedom and flexibility offered by WiFi is weighed against potentially faster hardwire connections. If WiFi is used as the primary source of connectivity, the system must be engineered for uniform speed and quality, and devices need to be configured to automatically connect to different 'hotspots' as employees move about and among locations. (See TWD's **Wireless Services Solution Spotlight** to learn more about the Wireless 2.0 approach to centralizing wireless connectivity.)

5. How is the network being secured?

A business's UC solution establishes vital communications channels, facilitating internal and external discussions over text-based, audio and video platforms. A comprehensive network security solution incorporates physical security infrastructure and digital security applications to help a business mitigate threat risk. What types of firewalls are provided on existing equipment and how well are they working? With the potential that UC provides for greater access through more devices and more locations, what other security protocols might be needed?

6. What redundancy is available?

Guaranteed service availability. It's what businesses need and what users expect, but it can't happen without redundant capabilities. For UC, that means constructing or choosing a solution that can shift seamlessly from one connection to another, whether a network outage is the result of weather disruption or a man-made cause. An assessment of UC readiness should take into account the level of tolerance for any downtime and the need for human intervention to restore service.

7. What in-house support and expertise is available?

Whether the UC solution is on-premise or in the cloud, proper support can be a challenge. For an on-premise UC solution, businesses might have difficulty finding and retaining enough IT staff with the expertise to monitor and maintain the environment 24/7/365 and to keep up with the latest advances in UC technologies and offerings. Businesses that opt for a cloud-based delivery model automatically reduce some of that burden because the responsibility for the largest portion of operations and maintenance is handled by the cloud provider. In either case, a business may find it preferable to outsource all or most of the IT functions with a subscription-based, fixed cost solution that alleviates the uncertainty of operating and labor costs.

8. Are qualified resources available to conduct a UC readiness assessment?

To make the best choice among the available UC solutions, a complete and accurate assessment of the current network environment can eliminate potential deployment risks. Some businesses may be in a position to answer these questions on their own, but may then need expert advice on the type of solution that would best fit their business goals and budget. Others might benefit from having outside UC professionals handle the evaluation from the beginning in order to advise on the right mix of tools and delivery model.

Many organizations have been able to implement innovative communications and collaboration technologies without outside help—but did not have the engineering expertise that a UC specialist would bring to the equation. Later, frustrations with performance and reliability can begin to surface because these technologies were built on top of an infrastructure that was ultimately incapable of supporting them. Poor performance leads workers to abandon the technologies reducing the value of the financial investments and the potential for improved productivity.



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Business owners of all sizes now have choices available to them in how they progress toward a unified communications environment and in how they pay for it. Performing a thorough assessment of current readiness and an evaluation of options for deployment is critical for the long term success of this important investment in the company's future.

About TWD

TWD is a technology solutions company that for more than 20 years has served as a trusted partner in delivering the highest quality systems and services to all types of customers, from large federal agencies in highly secure environments to commercial companies and non-profits. Our customers choose us to solve their communication and collaboration needs, taking a holistic view of their current technology investments and customizing solutions to deliver compelling value in the form of lower costs and higher productivity—whether on-premise or from the cloud—whether customer owned or by way of a TWD managed service. For additional information on TWD, please visit www.twd.com.

To schedule a UC Readiness Assessment consultation email us at sales@twd.com.

