



Boost productivity

Building a productive workforce with Microsoft® Skype for Business®
and Hewlett Packard Enterprise

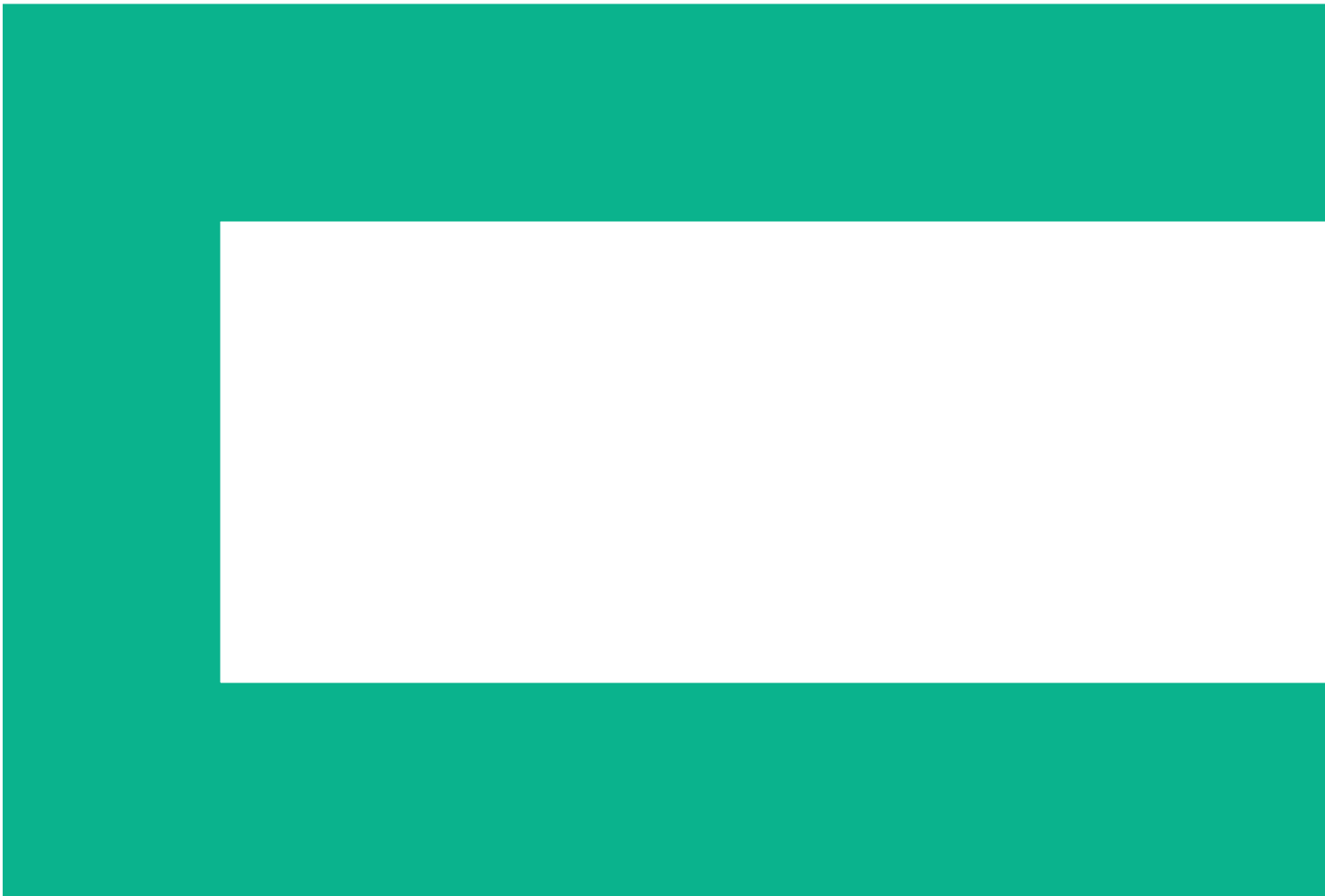




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Building a productive workforce with Microsoft SfB and HPE

HPE delivers the complete, end-to-end unified communications and collaboration solutions and services you need to improve decision making, increase customer satisfaction, and drive business results. HPE Flex Solutions for UCC with Microsoft Lync 2013 get you up and running quickly, and help you improve your network to grow your business.

Improve business outcomes

Better decisions, faster

- Pull together meetings on-the-fly
- Share information from any source
- Get the right information to the right people with fewer clicks

Unleash mobile productivity

- Leverage all the devices your employees use, in the office and at home
- Enable rich multimedia communications and online meetings
- Empower employees to engage clients and coworkers even when they are away from their desks

Empower your workforce and improve business results with Microsoft SfB and HPE

Microsoft SfB is ushering in a new era of business communications where conventional phone calls give way to rich collaborative experiences that blend voice, video, instant messaging, and information sharing. Ideal for today's small and midsize businesses (SMBs), SfB can help you boost business results by streamlining decision making, unleashing mobile productivity, and improving customer interactions.

Small and midsize businesses like yours are under continuous pressure to increase worker productivity and collaboration to compete in today's global economy. With SfB, your employees can take their office communications solutions with them wherever they go. They can fully engage colleagues and customers—conduct Meetings, share PowerPoint presentations, make voice and HD video calls—from home, office, or the road. Better still, SfB can help you cut travel expenses with online meetings, reduce telephone bills with Session Initiation Protocol (SIP) trunking services, and avoid international calling costs for travelling employees with Internet calling. You can even connect with customers and partners on Skype.

You may need to upgrade your network to support the increased performance and resiliency demands of Microsoft SfB. Unified Communications and Collaboration (UCC) traffic is more bandwidth-intensive and delay-sensitive than traditional data traffic. Slow or unreliable connectivity can lead to subpar voice and video quality, dropped calls, diminished worker productivity, and poor customer interactions.

This paper provides a blueprint for ensuring a successful SfB rollout and explains how HPE can help you streamline SfB design, acquisition, and deployment tasks with bundled configurations and professional services from HPE channel partners.

Three steps for ensuring a successful SfB rollout

As with any other IT project you need to carefully plan and execute your SfB deployment. HPE recommends a phased approach that protects and extends previous investments, contains risks, and minimizes disruptions.

Step 1: Perform a network assessment

Older data networks, optimized for desktop computers and client-server applications often can't meet the increased performance and reliability demands of today's mobile applications and rich media communications solutions. Unified communications platforms, smartphones, and tablets introduce a variety of capacity planning, network engineering, and network administration challenges—especially for SMB IT organizations with limited resources and expertise.

To ensure a successful SfB rollout and make the most of your investment you may need to upgrade your network to support bandwidth hungry, delay-sensitive UCC traffic. And you may need to introduce new management applications to ensure reliable connectivity and high-quality user experiences across devices and locations.

It is important to perform a network assessment to identify what changes may be required to support SfB. It is especially important to examine your wireless LAN (WLAN) infrastructure. Most legacy wireless networks were designed for occasional laptop use and were intended to support basic data applications like email, Web browsing, and guest users. Many were primarily designed to support public spaces like lobbies, reception areas, and conference rooms.

You may need to upgrade your wireless infrastructure to support the influx of smartphones and tablets and to ensure high service quality for SfB traffic. Spotty coverage, poor audio or video quality, or frequently dropped connections can lead to decreased worker productivity, frustrated users—even lost revenue.

HPE Channel Partners can help you evaluate the readiness of your current network infrastructure to support SfB. Our experienced partners can assess your current wired and wireless networking infrastructure and make detailed recommendations for optimizing network performance and reliability and simplifying network administration.

Step 2: Conduct a proof-of-concept

Carry out a proof-of-concept (PoC) before deploying SfB throughout your entire business. A PoC will help your IT team get up to speed. They will gain familiarity with the technology, get a feel for what it takes to move users over to the new system, and identify the steps necessary to ensure quality user experiences and secure and reliable services.

The PoC will help you ensure SfB works as advertised, identify any necessary changes to administrative systems and practices, formulate rollout plans and costs, and give you the confidence to move forward with full-scale deployment.

Execute your proof-of-concept in a small office or a single department. Use the small-scale PoC to validate SfB and assess the impact of the full-scale rollout on your organization:

- **Design and planning**—what network changes will be required to support SfB?
- **Migration**—how will you move users and phone numbers over to SfB?
- **Usability**—does SfB offer all the features and functions your users require? Does it operate as expected?
- **Support systems and practices**—what changes are required to support SfB and enable high-quality user experiences?
- **Training**—how will you train users on the new system?

The proof-of-concept will help you avoid surprises and ensure a successful rollout. Don't have the time and staff to carry out a PoC? HPE can help you set up and execute your PoC. HPE channel partners can help you put together a PoC plan, define and measure success criteria, and identify steps for streamlining mainstream adoption and ensuring a successful launch.

Step 3: Deploy Skype for Business in phases

You can minimize disruption and contain risks by rolling SfB out across your business in a staged fashion. After completing a PoC, begin your rollout by deploying SfB to specific user groups or in smaller offices. As you gain experience implementing and supporting SfB, incrementally install it in larger departments and sites. You may also want to deploy SfB functionality in phases. For example, get started by implementing instant messaging, voice chat and desktop sharing capabilities. Next introduce PBX-like capabilities and voicemail and decommission your legacy phone systems. Then rollout supplemental services like video chat and audio conferencing.

If your business is like most small and mid-sized businesses, you may not have the time and resources to size up new platforms, re-engineer your network, and implement new administrative systems. HPE can help you accelerate your success with HPE Flex Solutions for UCC with Microsoft Lync 2013. Our predefined configurations streamline SfB design, acquisition, and deployment tasks, helping you get up and running quickly and easily, while freeing up your valuable IT resources to focus on business innovation.

Designed to support 250, 500, or 1,000 users, HPE Flex Solutions for UCC with Microsoft Lync 2013 are workload-optimized base configurations right-sized for small and mid-sized business headquarters, campus, and branch office locations. You can easily customize HPE Flex Solutions for UCC to meet your particular requirements. And you can easily extend them as your business grows. Best of all, HPE Flex Solutions include SfB-qualified, standards-based solutions that integrate with your existing infrastructure, so you can protect and extend previous investments and avoid “rip-and-replace” upgrades.

HPE Flex Solutions for UCC help you:

- Simplify procurement, integration, and deployment—they are based on pre-tested and predefined reference architectures
- Expand your SfB implementation as your business grows with flexible and scalable configurations
- Eliminate vendor lock-in and protect investments with standards-based solutions
- Free up IT staff and budget for core business initiatives

HPE Flex Solutions jumpstart SfB deployment

Eliminate risk and complexity

- Built according to industry best practices
- Lync-qualified
- Delivered by joint HPE and Microsoft partners with years of experience



Accelerate your business

Faster decision making, problem resolution, and responsiveness



Eliminate lock-in

Standards-based, customizable Flex Solutions



Empower your workers

With SfB, your workers can communicate anywhere, anytime, using whichever SfB-approved device they prefer



Deploy with confidence

Built on the foundation of the 30-year HPE/Microsoft Frontline Partnership



Access from almost any mobile device

Support for Android, iPhone, iPad and Windows® Phone



Save time and money

With unified voice, video, messaging, and collaboration

Figure 1. Accelerate business results with HPE Flex Solutions for UCC with Microsoft Lync 2013

Accelerate success with HPE Flex Solutions for UCC

Built on HPE and Microsoft's 30-year **Frontline Partnership** and leveraging **HPE Just Right IT** solutions for small and midsize businesses, HPE Flex Solutions for UCC help you:

- Ensure superior SfB user experiences
- Support skyrocketing smartphone and tablet growth
- Optimize reliability and economics
- Simplify network administration, monitoring and troubleshooting

Optimizing the user experience

Employee and customer interactions are critical to the success of small and midsize businesses. To keep your business running smoothly your employees need to communicate efficiently amongst themselves and with customers and partners. Poor SfB service quality can diminish user productivity, impair customer interactions, and impede SfB adoption. But ensuring high service quality for UCC traffic can be tricky, especially for SMB IT personnel who aren't steeped in networking technology. **HPE's Network Optimizer SDN Application** is specifically designed to simplify the process.

HPE Network Optimizer streamlines SfB deployment and administration, and improves IT productivity by consolidating and automating Quality of Service (QoS) policy management functions. It delivers a better user experience that fosters SfB user adoption and reduces ongoing operational expenses.

Software-defined networking or SDN is a new standards-based approach for building more flexible and programmable networks. HPE's Network Optimizer SDN Application for Microsoft Lync uses SfB SDN APIs to streamline network administration. Rather than configuring QoS parameters device-by-device using cryptic command line interfaces, your IT administrators can define universal QoS policies that are automatically instantiated across the network. This cohesive approach eliminates manually intensive, error-prone configuration tasks, while ensuring superior service quality for SfB users.

Supporting skyrocketing smartphone and tablet growth

Mobile technology is transforming the workplace. Today's small and midsize business workers are no longer tethered to the office phone system. Armed with smartphones and tablets, your on-the-go employees are always on-line, always collaborating—from any place, at any time. To accommodate this style of working, there's a good chance you'll need to upgrade your WLAN infrastructure as part of your Lync rollout. HPE offers a wide range of Microsoft Lync UCOIP-qualified WLAN solutions including a variety of Aruba 802.ac Instant Access Points access points to help you boost capacity, extend coverage, and ensure predictable Wi-Fi service across all your facilities.

HPE WLAN solutions are engineered to meet the increased WLAN performance demands that accompany SfB high-throughput nature. HPE optimized WLAN architecture with Aruba Instant—highlight enterprise grade performance, deployment simplicity, architecture flexibility and the ability to identify and prioritize SfB voice and video traffic. HPE Aruba Instant Access Points dynamically optimize Wi-Fi performance as users roam and RF conditions change, automatically steering clients to a better Access Point for higher performance and security. They provide improved delivery and better quality of service of business critical applications due to the Instant's capability to identify SfB voice and video traffic. Aruba Instant's have Intrusion Detection Systems as well as firewall capabilities to provide network security for all devices, mobile or IOT.

Increasing SMB Penetration, currently just 12% of small businesses and 28% of medium businesses use UCC solutions. But over the next 12 months, 17% of small and 35% of medium businesses say they plan to deploy a UCC solution, potentially doubling year-over-year penetration¹.

Mobility is critical to SMB productivity

- 67% of small and midsize businesses view mobile solutions and services as critical to the business²
- 2x Revenue Growth for SMB that adopt mobile technologies and 8 times as many jobs³
- Enterprise Collaboration tools can eliminate up to 75% of time employees waste looking up information, scheduling meetings and needlessly duplicating communications⁴

¹ SMB Adoption of Unified Communication and Collaboration (UCC) on the rise. Laurie McCabe, Oct 11, 2016 sourced from SMB Group: 2016 SMB Communication, Collaboration and Mobile Study.

² Louis Columbus "Roundup of Small and Medium Business—Cloud Computing Forecasts and Market Estimates" Forbes/Tech, May 4 2015

³ Huffington Post, "For Small Business, Technology is Creating, not Costing Jobs". April 16, 2014

⁴ Information Age, Mobile Communication: Bring New-World Communication to the Enterprise" 15 Jan 2015

Optimizing availability and economics

Your business communications system is the lifeblood of your business. If your phone system goes down you can lose sales, frustrate customers, and tarnish your brand. You need to ensure your new IP-based communications systems are as predictable and reliable as the conventional systems you are replacing. HPE MSR Series routers support integrated routing, switching, security, and voice services with modular WAN/LAN and PSTN (Public Switch Telephone Network) gateway connectivity options to ensure secure and reliable connectivity for Lync. Ideal for remote office/branch office deployments, the HPE MSR Series routers also offer flexible least cost routing and toll-bypass capabilities to help you reduce branch office telephony expenses.

Certain MSR router models support an optional **Microsoft Lync Survivable Branch Communications Module (SBM)** that preserves SfB calls during wide area network (WAN) failures. The Lync UCOIP-qualified SBM supports a variety of WAN backup options including PSTN (via analog or T1/E1 circuits) and 4G wireless interfaces. In the event of a WAN connectivity failure inter-company calls are carried over the backup interface.

ECS improves customer interactions with HPE and Lync

Enterprise Computing Solutions replaced its legacy voice network with an end-to-end networking and UCC solution from the HPE and the Microsoft Frontline Partnership.

Business results

- Improved collaboration and customer service
- Increased competitiveness with fast response
- Lowered TCO, with ROI < 2 years
- Cut communications costs by more than 50%

Simplifying network monitoring and troubleshooting

If your business is like most SMBs, you may not have the IT resources and expertise to take on a complex networking project. You'll need tools to simplify your SfB rollout and eliminate ongoing management complexity.

Aruba AirWave delivers a powerful and easy-to-use network management solution for multi-vendor wired, wireless, and remote networks. This powerful tool not only allows you to monitor your entire access network but also helps you improve the user experience with rich analytics.

As the number and adoption of mobile devices and IoT increase in the mobile workplace, the first thing that stands in the way of scalable growth is the lack of tools and resources for network operations teams to maintain visibility to all things connected to the network infrastructure.

AirWave can proactively monitor critical non-RF metrics such as the time it takes for a mobile device to associate with a Wi-Fi radio, authenticate to a RADIUS server, gather an IP address through DHCP, and resolve names for DNS services. IT teams can monitor Wi-Fi coverage in a time-lapse, significantly reducing the time it takes for wireless network engineers to troubleshoot the toughest Wi-Fi performance issues. With Aruba AppRF, IT can get detailed analytics on mobile app quality and bandwidth usage to make intelligent decisions on QoS policy assignments for devices and users. UCC Dashboard Unified Communications applications running on your network can quickly expose performance problems in your wired and wireless network infrastructure. The UCC dashboard provides rich visibility into Unified Communications applications such as Skype for Business and all Wi-Fi calls running on your network. Armed with this visibility, network administrators can quickly find the root cause of poor call performance.

The UCC mobile dashboard in Airwave provides visibility into Skype for Business traffic, real-time voice and video calls, and wireless network performance. The interactive dashboards make it easy to correlate call quality with client and network health, access call diagnostics, and view performance over time.

HPE offers the Aruba Central Cloud Management platform for smaller, less complex IT environments that prefer to manage their Instant network from the cloud. The Aruba Central Cloud Management platform offers IT administrators a simple, secure, and cost effective way to manage their Instant WLANs as well as integrated capabilities such as guest WiFi and application analytics.

“Converging our voice and data networking into a single Microsoft and HPE UCC platform enabled us to reduce costs, improve responsiveness to customers and achieve fast ROI.”

– Dave Butler, CEO, Enterprise Computing Solutions

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Aruba ClearPass is a Policy Management Platform allowing IT to assert and enforce trust on every user and device on the wireless, wired and VPN network. To do this, ClearPass leverages real-time, trusted, contextual data—a person’s role inside an organization, device and app attributes, location and insight from third party security solutions—to create policies that satisfy highly mobile security needs.

ClearPass works across multivendor networks by replacing outdated legacy AAA with context-aware policies. It offers profiling, BYOD and guest onboarding services, and integrates with MDM, EMM, firewall, and SIEM solutions from other vendors. Massive scalability and load-balancing ensure that ClearPass will meet evolving business needs. Through real-time interaction with third party best of breed security solutions, ClearPass offers automated threat protection and recovery for devices that represent risk, with minimal hands-on IT interaction.

The Aruba ClearPass Profiler is an entry level, standalone profiling solution which provides complete visibility into your wire and wireless network. Network devices and their attributes can be categorized for quick and easy identification. Remember, security starts with identifying devices!

Gain a leg up on the competition with Microsoft SfB and HPE

In today’s global marketplace small and midsized businesses face more challenges than ever. To compete in today’s global economy, your workers need to efficiently conduct business and fully engage colleagues and clients from any place, at any time. Microsoft SfB-optimized solutions from HPE can help you unleash mobile productivity and collaboration while reducing cost, complexity, and risk.

Gain a competitive edge with HPE:

- **Accelerate deployment and eliminate guesswork** with HPE Flex Solutions for UCC with Microsoft Lync 2013
- **Improve decision making, information sharing, and customer interactions** with unified voice, video, and collaboration
- **Empower your mobile workforce** with anywhere, anytime, any device access
- **Boost IT productivity** with end-to-end management, unified wired and wireless networking, and software-defined networking
- **Save money** by reducing unnecessary travel and containing ongoing operations expenses

To learn more about how HPE and Microsoft SfB can help you boost productivity and gain a leg up on the competition, visit hpe.com/info/justrightit-prod.

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4AA5-6273ENN, March 2017, Rev. 2