Skype for Business accelerates modern collaboration at Microsoft

Microsoft employees need to connect anytime, anywhere, on any device. In Microsoft IT, our unified communication strategy with Office 365 Enterprise E5 Skype for Business helps accelerate our digital transformation. Skype for Business provides broad collaboration and productivity benefits—without borders and barriers. Skype for Business helps our business meet its need for greater productivity, and it adds dramatic business value.

Making Skype for Business the standard

To make Skype for Business the standard for enterprise presence, voice, and conferencing, we knew that it needed to meet specific user and business requirements. We decided to prove the business case within Microsoft, which is a large, complex, and global enterprise—the perfect test bed.

Microsoft faces lots of user challenges, such as supporting and securing a Bring Your Own Device (BYOD) culture, meeting connectivity challenges, and supporting mobility scenarios, all across many geographies. On the business side, we wanted to adopt Skype for Business as a cloud-based telecommunications service provider, and realize significant efficiencies and cost savings by moving away from costly and high-maintenance third-party PBX, international dialing, and conferencing systems.

New Skype for Business services

Overall, Microsoft manages 114,000 employees in more than 775 site locations. Like other software services at Microsoft, Microsoft IT manages unified communications (UC) at Microsoft. We deploy Skype for Business to every new employee, and we use Skype for Business at every business touchpoint. Microsoft is using new and advanced Office 365 Enterprise E5 Skype for Business telephony capabilities and realizing tremendous value. They include:

- **Cloud PBX.** A modern and cloud-based voice infrastructure that supports standard telephony functionality. Worldwide, we’ve de-commissioned 141 legacy PBX systems, which has saved us more than $4 million in six years.

- **PSTN (public switched telephone network) calling.** The ability to make and receive traditional phone calls through the Cloud PBX infrastructure. We host more than 9 million Skype for Business calls per month, of which 2 million are routed through Cloud PBX. Notably, more than 50 percent of these calls are made remotely, away from Microsoft corporate network connectivity.

- **PSTN conferencing.** A simplified meeting process, which supports both dial-in and dial-out conferences. Dial-in conferencing lets users call a local number to join Skype for Business meetings from any phone. Dial-out conferencing lets us add a user to an active Skype for Business meeting by connecting to their phone from Skype for Business. Overall, PSTN conferencing saves us 95 percent in outsourced audio/video costs.

Our Skype for Business journey has lasted for many years. We’ve partnered across five Microsoft product teams, and seven IT teams to make it happen. Although we’re moving Skype for Business to the cloud, we’ve found that IT continues to need to partner closely with network and infrastructure teams. Almost any component within our IT infrastructure can impact Skype for Business, such as networking conditions, wireless upgrades, and so on.

Empowering digital transformation

Let’s talk about a few scenarios that show how the new Skype for Business features empower our digital transformation. Perhaps you can identify with some of these.
Supporting a roaming salesforce

Field sales might be our most critical group to support. They’re always on the road, and don’t have the benefit of our stable corporate network, so their calls are often affected by network anomalies. Field sales relies heavily on unified communications to get work done. They often connect over external wireless networks, and they’re the most affected by network quality variability and reliability issues. Through the dial-in feature of PSTN Conferencing, our field personnel can participate in Skype for Business meetings, even without a stable internet connection.

Transforming training

When we deliver training through Skype for Business, we’re not limited by the constraints of booking a conference room, or flying people in to attend in person. This means that we can be lean, and quickly develop and deliver sessions as needed. Training sessions can also be recorded and watched offline at a later, more convenient time.

The training experience itself has become much more interactive when delivered through Skype for Business. With document sharing and instant messaging (IM) features built in to Skype for Business, attendees can ask questions over IM during trainings, and get their answers in real time. Polling and Whiteboard features quickly get people involved in training, and let presenters quickly tailor their content accordingly.

Enabling productivity

Our teams use Skype for Business and other Office 365 Enterprise E5 products to communicate, collaborate, and share meeting documents—all in one place. In addition to voice calls, by using Skype for Business, you can share content, add IM, add attachments, co-author Office documents, and turn a voice call into a video call. In fact, 89 percent of our Skype for Business meetings use these app sharing features. We can complete processes in real time with Skype for Business—giving back time to our employees—and realize tremendous cost savings.

Our configurations

We have more than 200,000 active Skype for Business users, including employees, partners, and vendors. Over 19,000 of our partners are federated and authenticated in our Skype for Business infrastructure. Federated partners can see presence information, and use Skype for Business to communicate with Microsoft. Today, roughly 13,000 of our Skype for Business users are fully cloud-based, 64,000 are in a hybrid configuration, and the remainder are hosted on-premises.

Our hybrid configuration typically consists of using the cloud for IM, presence, and conferencing, with voice being on-premises. Our hybrid configuration is temporary, until we can host all of our Skype for Business users fully in the cloud, anywhere in the world.

Our goal is to host all of our enterprise users in the cloud for efficiencies and cost savings. As we aggressively roll out voice services globally, we move more workloads from on-premises to Skype for Business in the cloud.

The value proposition

We’ve seen significant cost savings and dramatic adoption rates at Microsoft. Skype for Business has shown tremendous value for Microsoft. Overall, migrating to PSTN conferencing and enterprise voice saves us nearly $124,000 per day. When it comes to travel, we avoid 45,000 trips per year, which represents a $93 million savings. Some of these data points show the transformation of unified voice and what it brings in cost savings and productivity gains to our business. Note that your costs and savings—associated with implementation activities such as decommissioning a PBX infrastructure, deploying Skype for Business, and acquiring licenses—may differ from those of Microsoft. Table 1 summarizes the savings we’re realizing.
Table 1. Value and adoption

<table>
<thead>
<tr>
<th>Skype for Business</th>
<th>Detail</th>
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<tbody>
<tr>
<td>Conferencing savings realized</td>
<td>Nearly $124,000 per day</td>
</tr>
<tr>
<td>Travel cost savings realized</td>
<td>$92 million per year (45,000 trips)</td>
</tr>
<tr>
<td>Enterprise voice adoption</td>
<td>127,000 users</td>
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<tr>
<td>IM messages hosted</td>
<td>More than 130 million per month</td>
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<tr>
<td>Video calls hosted</td>
<td>44,000 monthly peer to peer video calls</td>
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<tr>
<td>External partners federated</td>
<td>19,000 authenticated and federated partners</td>
</tr>
<tr>
<td>Remote use</td>
<td>More than 50% are remote participants (not on corporate Microsoft network)</td>
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</tbody>
</table>

Cloud PBX

PBX systems manage calls after they’re inside of your enterprise, like routing calls to extensions, direct lines, or an attendant. In the past, PBX systems were on-premises, managed by a third party, and required significant hardware investments. Cloud PBX—cloud-based call management—delivers familiar business phone call control and management features, such as call waiting, directly from Office 365.

With Skype Cloud PBX, we no longer have to contract with a traditional telephony carrier for services, use traditional phone hardware, or use an on-premises PBX. Calls are routed over the Internet. Cloud PBX hardware support and management usually happens at an IT datacenter, rather than at a dedicated PBX site. We can even replace proprietary and expensive dedicated desk telephones with lower-cost headsets.

In the past six years, we’ve decommissioned 70 percent of our owned PBXs, while migrating to Cloud PBX. This represents more than $2,500 saved—per day. At the same time, our enterprise voice sites have grown by 238 percent.

Table 2 highlights these data points.

Table 2. Cloud PBX

<table>
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<th>Cloud PBX</th>
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<tr>
<td>PBX infrastructure realized</td>
<td>70% legacy PBX sites decommissioned, moved to Skype Cloud PBX</td>
</tr>
<tr>
<td>Cost savings</td>
<td>Nearly $700,000 per year</td>
</tr>
<tr>
<td>Enterprise voice site implementation</td>
<td>Skype for Business enterprise voice sites up 238%</td>
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PSTN calling

Combining Cloud PBX with the PSTN calling service creates a complete enterprise telephony experience for our end users, with Microsoft as the provider. A fast and flexible provisioning environment is supported by Office 365 and the power of the Microsoft global network.

The PSTN calling service connects private telephony exchanges to the PSTN. A typical scenario has a caller using a legacy land line, or a cell phone, in situations where Voice over IP (VoIP) is challenging. PSTN calling routes a call to a traditional telephone number that is outside of your own organization, such as a person, or to a different organization that has its own PBX.

With the combination of Cloud PBX and PSTN calling, operations are optimized, and in many cases, tasks are completely automated by Office 365. Consider the impact on corporate moves, or new hire scenarios. Before, telecom managers had to perform PBX programming to assign users to specific phones. Today, phone numbers and presence information are automatically associated with a user account through Office 365. The information follows that user to any physical location, computer, or mobile device. Today, moving to a different office can be as simple as picking up your laptop, and connecting to the network.

We make and receive calls using Skype for Business, using existing phone numbers and calling plans. With PSTN calling, you assign users to subscription-based plans either for domestic calling, or local and international calling. Table 3 shows how many calls we’re hosting, and how many enterprise voice users we’re supporting.

Table 3. PSTN calling

<table>
<thead>
<tr>
<th>PSTN calling</th>
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<tr>
<td>Monthly calls</td>
<td>9 million (approximately 2 million are cloud-based)</td>
</tr>
<tr>
<td>Overall adoption</td>
<td>131,000 enterprise voice users (approximately 20,000 are cloud-based)</td>
</tr>
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</table>

PSTN conferencing

PSTN conferencing includes both dial-in and dial-out functions. Dial-in PSTN conferencing simplifies the meeting process—it lets us add telephone access, also referred to as an audio bridge—to meeting invitations at the time of scheduling. That way, attendees can join a meeting from any telephone with a local or toll-free phone number. Dial-out PSTN conferencing lets online meeting attendees add others to a meeting by dialing their phone number.

Dial-in PSTN conferencing helps when attendees can’t connect to the Internet, don’t have a stable Internet connection, or don’t have audio access from their PC, tablet, or laptop. In Skype for Business, a user chooses to join a meeting by dialing either a toll-free or a local dial-in number—as provided in the Skype meeting invitation—instead of using the Join Skype Meeting option (it’s VoIP). Dial-out PSTN conferencing gives us the flexibility of easily adding meeting attendees simply by dialing their phone number.

Using PSTN conferencing services—built directly into Skype for Business—means that we don’t have to outsource conferencing to third parties. As a result, we’ve dramatically decreased our voice infrastructure costs. We’ve eliminated lots of costs associated with third-party conferencing services, such as per-minute national/regional or international tolling, and audio/video support.
Table 4 highlights some of these data points.

Table 4. PSTN Conferencing

<table>
<thead>
<tr>
<th>PSTN conferencing</th>
<th>Detail</th>
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<tr>
<td>Audio/video costs reduced</td>
<td>Down 95% ($8 million per year)</td>
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<tr>
<td>Per-minute international tolls</td>
<td>Eliminated, saves $5,200 per day</td>
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Key Takeaways

We have more than 200,000 employees, vendors, and partners using Skype for Business within our own enterprise, and the adoption statistics and tremendous savings realized tell their own story. Skype for Business communication and collaboration features have permeated all aspects of our workplace, and we continue to aggressively migrate all of our users to the cloud.

Skype for Business in Office 365 simplifies how people get work done in any organization, with one simple experience—that includes chat, voice, video, and sharing—that people can use inside and outside the organization, regardless of location. These capabilities, as part of Office 365, fundamentally change what can be expected from a global telecommunications service provider.

We’re taking advantage of new Office 365 Enterprise E5 Skype for Business capabilities—they’re helping us replace a costly legacy telephony infrastructure with one that is cloud-based and extremely efficient. PSTN calling and conferencing services provide a complete and simplified enterprise telephony experience for our end users.

For more information

Microsoft IT

microsoft.com/ITShowcase

Learn more about Office 365

Learn more about Skype for Business

Reinventing the modern business ecosystem

Improving service quality in Skype for Business

Optimizing network performance for Microsoft Office 365

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