

# The Cost Advantages of Using a Hosted Unified Communications Service

## A Total-Cost-of-Ownership Guide for Small and Mid-sized Businesses (SMBs)



## Introduction: Making UC Affordable

The Web has empowered organizations large and small to collaborate and conduct commerce globally. As a result, smaller businesses can compete with much larger organizations that might be located anywhere in the world.

A challenge for small and mid-sized businesses (SMBs), though, is finding the funding to scale their communications systems to rival the rich functionality and flexibility that bigger competitors with dedicated IT staffs deliver to their employees and customers. Budget restraints can make procurement of new on-premises IP telephony and unified communications (UC) solutions too expensive for many SMBs. Upfront capital costs are often prohibitive, as is the requirement for on-site staff resources to manage the UC equipment and application services.

The traditional way of implementing enhanced IP telephony features has been to install UC call server equipment (sometimes called an IP PBX) on site and purchase the software licenses and software update subscriptions needed to cover all the employees who will be using the system. Upfront capital investments coupled with ongoing maintenance and software license management are unaffordable for many smaller businesses, which are concerned primarily with their core business, not telecommunications.

This situation has driven interest in hosted UC services – services that allow smaller organizations to use an external service provider’s UC infrastructure and simply pay a monthly flat fee per user or an aggregate usage fee. Depending on the vendor and the breadth of the service, hosted UC services might be referred to as “hosted/virtual PBX,” “hosted UC,” “communications as a service” (CaaS), “UC as a service” (UCaaS), or “cloud UC services.”

Whatever the moniker, the setup allows SMBs to enjoy the economies of scale of very large organizations. Resources are shared among thousands of customers, which lowers the incremental amount paid by each. Among the resource costs that can be shared: telephony/UC call server equipment, real estate, power, security, software (including patching and updating), management and staff expertise.

When using cloud UC services, SMBs offload the upfront capital expenditures associated with buying an IP PBX/call server and software licenses to the UC hosted service provider. They also avoid the cost of technology refreshes. Cloud solutions enable SMBs to get the features and capabilities they need over the Internet, rather than installing and maintaining their own UC infrastructure incurring greater real estate, energy and staffing costs.

### Unified Communications Defined

Unified communications, or UC, is a bundle of integrated IP telephony-centric features and capabilities. These include basic Internet phone calling; traditional enhanced phone features such as call conference, transfer and forward; and a mix of enhanced communications features and capabilities.

Which enhanced communications features are available depends on the supplier, but they might include any or all of the following:

- Instant messaging (IM), or chat
- Presence (user availability)
- Fax over IP
- Web & Video conferencing
- Integrated inbox for emails, voicemails, missed calls and faxes
- Extension of some or all features to mobile devices
- Ability to make and receive office phone calls from anywhere in the world with Internet connectivity.

Basic and enhanced UC features alike lie at the foundation of most businesses’ ability to intercommunicate and collaborate among employees and to efficiently serve customers.

Smaller organizations like retailers, banks, healthcare clinics and school districts are focused on succeeding with their primary business rather than telecommunications. Technical and operational aspects of today’s advanced communications systems come with increased complexity and costs that often exceed an SMB’s expertise and budget. (see Table 1).

<b>Table 1. What Do You Buy?</b>	
<b>When You Procure Your Own UC System</b>	<b>When You Use a Hosted UC Cloud Service</b>
<ul style="list-style-type: none"> <li>• Handset for each employee</li> <li>• Power-over-Ethernet switches</li> <li>• WAN router for each site (if not already in place)</li> <li>• Internet service for each site (if not already in place)</li> <li>• Gateways for PSTN connectivity</li> <li>• IP PBX/server</li> <li>• Software Licensing fees</li> <li>• Maintenance fees (average 18% of system cost per year)</li> <li>• Subscription fees for software updates</li> <li>• Management and monitoring tools</li> <li>• Vendor-specific training (\$1,000 to \$5,000 per staff member)</li> <li>• Ongoing operational costs, internal and external (percentage of worker’s salary devoted to UC operations)</li> <li>• Public telephone network long-distance services and local telephone (or SIP trunking) services</li> </ul>	<ul style="list-style-type: none"> <li>• Handset for each employee</li> <li>• Power-over-Ethernet switches</li> <li>• WAN router for each site (if not already in place)</li> <li>• Internet service for each site (if not already in place)</li> <li>• Per-user one-time activation fee</li> </ul>

Sources: Nemertes Research, Joanie M. Wexler & Associates

### Considering the Tradeoffs

The on-premises solution has some advantages for larger organizations. It leaves security behind the business’s own firewall and does not require an Internet connection for telephony if all users are local. But, remote workers would still need some network access to the technology to access the public switched telephone network (PSTN). And while the cloud service solution requires much less staff expertise and time, it does involve managing the vendor relationship with the provider. It also needs greater Internet bandwidth and relies on trusting the cloud provider with most security issues. The solutions are equal in the number of physical phones needed along with LAN and router requirements, as shown in Table 2.

Table 2. UC: Owning vs. Hosting Cost/Complexity Comparison for SMBs

Consideration	On-Premises System	UC Cloud Service	Winner
Real Estate Costs	SMB must provide rack space for UC call server and related equipment	No real estate required except for on-premises network router	Hosted UC service
Power/Cooling Costs	SMB pays monthly energy bill	Cost included in service fee except for router	Hosted UC service
Phone Costs (Capital)	New IP phones and softphone licenses might be required	New IP phones and softphone licenses might be required	Equal
PSTN Connection and Administration Costs	Procured and managed by SMB staff	Procured and managed by UC provider	Hosted UC service
Network Connections	Internet connections for remote teleworkers necessary when IP phones or softphones are deployed. PSTN lines (or SIP trunks) still required to receive dial tone	Internet connections for remote teleworkers necessary when IP phones or softphones are deployed. PSTN dial tone procurement bundled into the service	Hosted UC service (slight)
Disaster Recovery	At least two sites with UC equipment, power and cooling required	Built into the service. Required WAN connection to cloud creates single-point-of-failure/ possible reliability issue	Hosted UC service (slight)
Staffing	Requires IT staff familiar with UC vendor's equipment to procure, deploy, configure and manage. Requires telecom expert(s) to negotiate PSTN contracts, manage carrier, handle monthly billing	Requires part-time liaison to manage hosted provider relationship	Hosted UC service
Technology Refresh	Installed by customer and, depending on how often technology is updated, requires time, effort, and expense with each upgrade	Happens automatically, behind the scenes, usually at no extra cost	Hosted UC service
Sources: Delphi, Inc.; Joanie M. Wexler & Associates			
Smaller organizations focus budget dollars on resources and work processes that relate directly to their core businesses and less on on-site telecom staffing and solutions.			

Premises-based call server equipment often comes with features that users might not need but increase the price. SMBs often overprovision software licenses and maintenance subscriptions to prepare for potential growth, thus paying for more resources than are necessary. By contrast, cloud-based services usually can be subscribed to on a feature-by-feature basis, thereby avoiding a larger license fee for unused features and giving SMBs greater control over which features they offer to which users. Since SMBs usually subscribe to hosted services on a per-user basis, they pay as they go, rather than purchasing unused capacity upfront.

Flexibility is another consideration. Moves, adds and changes can be accomplished in a matter of minutes, versus days required to free up IT staff (if available on site) or to call in the UC vendor to help assist.

### Sample Pricing Comparison

Comparing pricing can be difficult, because vendors price their UC features differently; some are included in bundles while others are sold a la carte. Below is a total cost of ownership comparison between ShoreTel's low priced SMB UC on-premise offering and 8x8's hosted UC solution.

**Use Case Assumptions:** The sample comparison assumes 55 users distributed across three sites, with 25 users located at two sites and 5 users at one site. Features include unlimited calling, all traditional basic and enhanced PBX telephony features (call waiting, call transfer, three-way call conferencing, caller ID, auto attendant, etc.), Internet faxing for 10 users, online conferencing for 10 users, call recording and presence (user availability).

Table 3. Hosted Service Versus On-Premises Equipment: A Sample Comparison		
<b>Upfront Costs</b>		
	<b>8x8 (hosted UC service)</b>	<b>IP PBX (on-premises)</b>
Capital equipment, phones, activation fees, software/mobility licenses	<b>\$7,824*</b>	<b>\$36,086**</b>
Training and installation	<b>0</b>	<b>\$22,169</b>
<b>TOTAL Upfront Costs</b>	<b>\$7,824</b>	<b>\$58,255</b>
<b>Monthly Fees</b>		
Carrier fees (including trunk charges and local/long-distance usage charges)	<b>\$1,850</b> (per formal 8x8 quote)	<b>\$2,475</b> (estimating approximately \$45 per user*** x 55 users)
Maintenance	0	<b>\$510</b> [18% of system cost per year (\$6,119) divided by 12 months]
External IP faxing (10 users)	0 (included)	<b>\$143</b> (eFax, list price)
External Web conferencing (10 users)	0 (included)	<b>\$390</b> (Citrix GoToMeeting, list price with yearly discount)
Mobile device support	0 (included)	Included in upfront license costs
<b>TOTAL Per Month Recurring Fees</b>	<b>\$1,850</b>	<b>\$3,518</b>
<b>Yearly Totals</b>		
Total Year 1	<b>\$30,024</b> [7,824+ (1,850 x 12)]	<b>\$100,471</b> [58,255 + (3,518 x 12)]
Total Year 2 (maintenance and service fees only)	\$22,200	<b>\$42,216</b>
Total Year 3 (maintenance and service fees only)	\$22,200	<b>\$42,216</b>
Total Year 4	\$22,200	<b>\$42,216</b> + Technology Refresh Expenses (Unknown)
<b>Cost Savings with Hosted UC Service, Years 1 - 4</b>		
<b>\$70,447 – Year 1 Savings</b> [\$100,471 – \$30,024] + 20,016 – Year 2 Savings [\$42,216 – \$22,200] + 20,016 – Year 3 Savings [\$42,216 – \$22,200] + 20,016 – Year 4 Savings [\$42,216 – \$22,200]		
<b>\$130,495</b> TOTAL COST SAVINGS over 4 years, not counting tech refresh \$\$		

Source: 8x8 Competitive Analysis

\* Includes 55 Polycom SoundPoint IP 550 phones and a one-time activation for each of 55 users. Does not include shipping/handling/tax.

\*\* Uses discounted ShoreTel equipment pricing for IP PBX sample costs, because ShoreTel is known as a competitively priced solutions vendor. ShoreTel site configurations assumed are as follows:

- Site 1 with 25 users: One ShoreTel Voice Switch T1K and one ShoreTel SG-30
- Site 2 with 25 users: Two ShoreTel SG-120s and one SG-30
- Site 3 with 5 users: One ShoreTel SG-90 (support for 4 analog trunks and additional 50 phones)
- One ShoreTel Distributed Voice Server located at one site for backup telephony features and applications
- 55 ShoreTel IP Phone 265s
- Does not include shipping/handling/tax
- Assumes typical ShoreTel discounting on based on deal size.

\*\*\* T1/FT1/PRI/SIP trunking prices and calling plan prices will differ based on location and volume. A price of \$45 per user is used in this sample to account for all trunking and local and long-distance usage charges at all three sites. For example, let's assume a T1 trunk at each site. T1s vary widely in price from about \$200 to \$1,200, depending on location and contract. The average of the two is \$700. If each of three sites had a \$700 T1 trunk, total trunk charges would be \$2,100. Those charges divided by 55 users is about \$38 per user. Local/long-distance charges of \$7 per month per user on top of the trunk charges are used as a conservative estimate of usage fees.

## Hosted UC Provider Considerations

The business case outlined makes a compelling argument for considering a hosted UC service. It's important to compare similar packages when evaluating different hosted UC providers.

### Feature Sets

Different UC providers have different business models and different feature sets. SMBs might have to pay extra for features from one provider that are included for free with another provider. If special services, such as IP faxing and Web conferencing, aren't offered from a UC provider, SMBs will have to purchase these services from a third party. In this case these services may not be as well integrated as if they were all purchased from the same vendor.

On the other hand, SMBs might not need the extra features that come bundled for a premium in a vendor's base service. As shown in the Hosted service vs. On Premise equipment comparison, make sure to account for all cost components for the desired solution when conducting an evaluation.

### End-to-End Control

Another consideration is how the service is built – whether the provider relies on one or more partners like Broadsoft or Amazon.com to develop and deliver their UC services. When multiple providers are involved, application integration and support coordination can become problematic.

8x8 develops and manages its own software and network infrastructure and doesn't rely on any other providers to deliver services. <sup>1</sup>The company has complete control over customers' service experience and system uptime. If a problem should arise, there is a single point of contact with no finger-pointing between multiple providers.

### Mobile Support

Not all providers offer support for mobile devices. If accessing UC services on Apple iOS and Google Android platforms is important, SMBs should make sure these platforms are supported and the cost. 8x8 includes mobile device support in its basic UC offering at no extra charge.

## Summary

Organizations today are looking to streamline expenses and reduce complexity wherever possible. SMBs have limited budgets for dedicated telecommunications and IT staff and need to focus their resources on their primary business. The cost and complexity comparisons presented in this paper indicate that SMBs looking to minimize telecommunications spending should consider a hosted UC service. This would enable SMBs to offload significant upfront capital expenditures, and let the service provider worry about technology updates.

Complexity carries a cost that is difficult to measure but generally translates into time. Calculating man-hours saved by not having to procure, install, maintain, troubleshoot, and refresh equipment is one way to quantify the benefits associated with selecting a hosted rather than a self-managed solution.

When comparing UC hosting providers to premises-based vendors, SMBs should account for all the variables, including the features and capabilities needed. This will increase the accuracy of total cost of ownership comparisons.

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<sup>1</sup> 8x8 has spent more than 25 years developing its UC technology platform and holds more than 97 patents.