



Unified Communications Guide: Staying On-Premise or Going to the Cloud

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Introduction

For any business that has recently migrated from legacy telephony – TDM – to VoIP, consideration for Unified Communications cannot be far behind. The same is equally true for those who have been on the VoIP path for some time. Unified Communications has matured considerably in 2012, and to whatever extent the business is using VoIP, you should be viewing this as the foundation for bigger and better things, which is precisely what UC has to offer. While some businesses will be perfectly happy moving over to VoIP, others will want the richer set of benefits which come with UC, and that is the audience this guide has been written for.

Unified Communications offers compelling benefits that go well beyond VoIP, and even a basic deployment can serve a business well, regardless of your IT resources or expertise. In this regard, IT limitations should not stand in the way of UC, and the focus of this guide is to assess the options that provide viable solutions for any type of use case scenario.

The virtues of UC require a separate analysis, and if you need a primer on that, our Ziff Davis guide ([title/URL here](#)) is a great place to start. Moving beyond that, businesses face a fundamental decision point in terms of the deployment model when deploying UC. There are two basic paths to follow, and each has strong merit – retain your premise-based environment for communications applications, or adopt some level of cloud-based UC, either to complement or even replace your existing infrastructure.

Aside from evaluating these options, this guide will review the market landscape of UC providers, as well as discuss the key considerations for each one. The factors supporting a premise-based decision will differ from those that favor the cloud, and each is reviewed herein to help readers make an informed decision on the path they should take for UC.

Once you have made the decision to adopt UC, an equally important choice looms right away in terms of the deployment model. Given the ever-changing nature of UC, the path taken here requires careful consideration. Not only do you need the right model to support today's applications, but it must also be flexible enough for the new applications that will add richness to UC and deliver benefits specific to your business.

There are two basic paths for deploying UC, and each is defined below, followed by a review of their pros and cons. Once you have this level of understanding, it will be easier to determine which is best for your business, as well as to evaluate the leading offerings from UC vendors.

Deployment Model #1 – Premise-Based

This would describe the norm today, and is based on how the phone system is deployed. In most cases, this means a PBX (private branch exchange) or a KTS (key telephone system), where the system is located and managed onsite, usually by the IT department. Larger businesses may have a team or department solely dedicated to telephony, but that is becoming less common with the migration away from TDM to VoIP.

Another characteristic of being premise-based is ownership. Most businesses own their phone systems, although leasing options do exist. This stems largely from the fact that legacy systems were capitalized hardware acquisitions, and while successor IP telephony solutions are less costly, many businesses still prefer ownership to other models. Among businesses that do not own their telephony, legacy Centrex has been the prime alternative, where the system is essentially leased from a service provider. As VoIP continues to displace TDM, this model is giving way to the cloud, which appeals to a broader range of businesses.

Deployment Model #2 – Cloud-Based

The term “cloud” can be defined in many ways, and has only recently become viewed as a platform for UC. In short, cloud is a deployment model whereby a UC solution resides mostly or even entirely in a data center environment. Variations exist, not just the extent to which the solution is offsite, but also whether the data center is operated

by the business, or a partner, such as a service provider. Another variable is the degree of control the business wants, with a public cloud being the low end of the scale, and a private cloud being the most secure.

Defining these further is beyond the scope of this guide, but the main point is that the cloud is gaining traction as a home for communications applications and solutions like UC. These offerings have been available for several years, mainly known as hosted or managed services, which have been offered almost exclusively by smaller, independent service providers. Under the broader umbrella of cloud, UC can now be offered by an expanding range of providers such as telcos or cable operators, as well as pure play Internet-based players who are not native to the telephony business.

Pros and Cons for Each Deployment Model



Before addressing the pros and cons of each, it should be noted that a third model exists, which is a compromise between these two. This is known as a hybrid model, where a business retains some elements of a UC solution on premise - such as VoIP - but adds other applications via the cloud. This provides more flexibility, and allows businesses to deploy UC regardless of how much legacy infrastructure they want to keep. Hybrid deployments can be more complex, and as adoption grows, we will examine this model in a future guide.

Premise-based UC – Pros

- **Path of least resistance** – easy transition from VoIP, especially if dealing with the same vendor – both for IT and end users
- **Mission critical** – when telephony is deemed too important to outsource, deploying on-premise UC ensures this does not change
- **Control** – important for IT departments that want to maintain control over their networks and the applications supported by them
- **Lower TCO** – cost of ownership can be lower over time, as acquisition cost is incurred in full up front

Premise-based UC – Cons

- **Acquisition cost** – as with a PBX, the upfront cost may be prohibitive, especially for a smaller business
- **IT limitations** – deployment may be too complex for available resources or expertise
- **Integration** – regardless of IT expertise, challenges may arise getting UC solution to properly support existing telecom infrastructure
- **Upgrades/enhancements** – onus falls on IT to ensure applications are current and rolled out on a timely basis

Cloud-based UC – Pros

- **Less capital-intensive** – cloud is an Opex investment, making it more appealing for businesses with limited or variable cash flows
- **Cost certainty** – cloud model is based on a fixed monthly cost per subscriber
- **IT-friendly** – ideal solution for businesses with limited/no IT, or looking to downsize IT
- **Mitigates complexity** – UC is new and can be complex to deploy – cloud takes this worry away
- **Flexible** – easy to scale UC coverage up or down, depending on needs of the business
- **Enables virtualization** – great for businesses that want to expand cost-effectively and leverage virtual options such as outsourcing telephony and supporting remote workers
- **Always current** – cloud solutions are automatically updated, so you always have the latest versions of applications
- **Business continuity** – a key benefit of hosted, and is especially helpful for businesses located in extreme climates or where broadband service is unreliable

Cloud-based UC – Cons

- **Loss of control** – hosting offsite means IT must rely on external resources and support teams to manage day-to-day communications
- **Short track record** – cloud is fairly new for UC, and concerns still exist about reliability, security, scalability, etc.
- **Vendor stability** – another reality of being new, long term viability of vendors is not proven
- **Data security/industry compliance** – some industries require data to be physically onsite, and with cloud, businesses can never be fully certain where exactly their data resides
- **Debatable TCO advantage** – generally, leasing is more expensive than owning over time; the lower initial costs of cloud will, at some point, give way to the ongoing costs of having UC hosted

These factors are not comprehensive, but provide a solid foundation for deciding which path to follow for UC. Every deployment situation is unique, and the above points will be relevant to your business by varying degrees.

Market Landscape

The last section in this guide provides further guidance by describing ideal scenarios for each model, but before that you must also consider the UC vendor landscape, which follows below.

Once you have determined the deployment model for UC, the vendor offerings need to be considered. Before doing that, however, you should have a clear plan as to what you want from UC. In short, there are four basic types of UC offerings, and while some vendors can address them all, others are more focused or specialized. These are summarized in Table 1 below, which presents an easy-to-follow framework to match up a solution for your needs.

Table 1 – Summary of UC Solution Types

Type of UC Solution	Characteristics
Basic	<ul style="list-style-type: none"> • Basic and few applications beyond VoIP – such as limited audio conferencing, messaging, presence, desktop integration, etc. • Value proposition is based on low cost, simple deployment and ease of use • Main focus is supporting landline services in the office • Offering is telecom-centric – primarily a modest upgrade from legacy phone system
Enhanced	<ul style="list-style-type: none"> • Richer features and applications for voice • Multimodal integration – voice, data and video • Full integration with Microsoft Active Directory and/or IBM Sametime • Increasing emphasis on supporting video, and subsequently becoming less telecom-centric • Mobility support becoming a key value driver, especially for BYOD • Designed for scale, both in terms of number of applications and number of end users • Value proposition is built around personal productivity, with an emphasis on using presence to support real-time collaboration
Comprehensive	<ul style="list-style-type: none"> • Same as Enhanced, but with a broader, more strategic focus • Value proposition is based on CEBP – communications enhanced business processes – which integrates communications applications with other platforms such as CRM or ERP to help automate and streamline processes that make the business more competitive

Type of UC Solution	Characteristics
Niche	<ul style="list-style-type: none"> • Specialized solutions focused usually on a type of application, technology or vertical market requirement • Prime example by type of application would be a UC offering built mainly around video calling, but also has limited voice and/or data features • Prime example by type of technology would be a UC offering based on a virtualization platform • Prime example by type of market would be contact centers, which have a distinct set of needs that UC can address

Voice Vendors

With these distinctions in mind, the following tables summarize the leading offerings for both premise-based and cloud-based UC. The vendors here reflect our view of the leading offerings, but others certainly exist, and you are encouraged to consider a broader field of UC providers. Before reviewing these tables, it must be noted that the UC market is still evolving, not just for the offerings themselves, but the range and type of vendors who have some variation of a UC solution or suite of applications.

To keep the scope of this guide manageable, the baseline criterion for a UC offering is having some form of telephony upon which UC applications are layered. This still makes for a wide pool of vendors to consider, so a number of variations have been excluded, which will make your initial decision-making process simpler. The following types of providers and offerings are not included in our analysis:

- Pure play cloud telephony services such as VoIP or hosted PBX – but not offering much else.
- Pure play video calling or collaboration services – but no telecom and not much else.
- Pure play cloud or data center providers – primarily offer IT-based services, and sometimes telephony, but not UC.
- Incumbent telco UC offerings – their solutions will be based on the vendors covered in this guide, and we are not evaluating the carriers here.
- Competitive carrier UC offerings – similar to incumbents, these come from either a large range of CLECs serving regional customers, or SIP trunking providers – all of whom can add variations of UC to their voice services.

- Microsoft and IBM – these two vendors dominate the desktop, and certainly have UC solutions, especially Lync from Microsoft – but lack a core telephony capability. Virtually all the vendors in the tables below must integrate with these platforms to have a viable UC offering.

Finally, before considering these tables, the following commentary will add some context to better understand the nature and nuances of the UC vendor landscape.

- Many vendors, especially those from the telephony space, offer both types of UC. Their roots are with premise-based systems, but as the market evolves, they must now also offer cloud, even though it will cannibalize their installed base of legacy customers.
- Major vendor UC solutions will have both an enterprise and SMB edition.
- Many vendors now offer a suite of UC solutions – this market is far from standardized. Typically there will be an entry level solution and richer variations to serve more complex needs.
- Vertical applications are becoming another common variation from a basic UC solution – such as contact center, mobility, video, etc.
- UC offerings are constantly evolving, especially cloud-based since these are quite new. The tables below reflect current offerings, but these are all subject to change as vendors try to keep up with this rapidly-moving market.

Table 2 – Leading Premise-Based UC Offerings

Vendor	Premise-Based Offering	Level of UC
Aastra	Unified Communications	Enhanced
ADTRAN	NetVanta	Enhanced
Alcatel-Lucent	Open Touch	Enhanced
Avaya	Unified Communications/Flare	Comprehensive
Cisco	UC Manager	Comprehensive
Interactive Intelligence	Customer Interaction Center (CIC)	Niche/Comprehensive
Mitel	Unified Communications and Collaboration	Enhanced/Niche

Vendor	Premise-Based Offering	Level of UC
NEC	Univerge 3C	Enhanced
ShoreTel	Unified Communications	Enhanced
Siemens	OpenScope UCC	Comprehensive
Toshiba	IPedge UC	Enhanced

Table 3 – Leading Cloud-Based UC Offerings

Vendor	Cloud-Based Offering	Level of UC
8x8	Virtual Office Pro	Enhanced
Avaya	Aura – UC Managed Services	Comprehensive
Broadcore	Unified Communications	Enhanced
CallTower	Unified Communications	Enhanced
Cbeyond	BeyondVoice	Basic
Cisco	Hosted Collaboration Solution	Comprehensive
Cypress Communications	UCaaS	Enhanced
Interactive Intelligence	CaaS	Niche/Comprehensive
Mitel	Mitel AnyWare Infrastructure as a Service	Comprehensive
ShoreTel	Sky UC Suite	Comprehensive
Siemens	Cloud Communications	Comprehensive
Thinking Phone Networks	Unified Communications	Enhanced
Toshiba	VIPedge	Basic
West IP Communications	Unified Communications	Basic
WVT (Alteva)	Hosted UC	Enhanced

Key Considerations for Your UC Deployment Path



To help streamline your thinking, the following are ideal scenarios when considering premise-based or cloud-based paths for deploying UC.

Ideal Scenarios for Premise-Based UC

Scenario #1 – Phone System Replacement

- Your legacy system has reached end-of-life, and you have already decided this is the right time to both adopt VoIP and some form of UC
- Legacy system was in use a long time, employees are not very tech savvy, and you want to minimize disruption making this change
- UC vendor's premise-based solution meets your UC needs and interoperates easily with existing network environment

Scenario #2 – Maintain Ownership and Control

- Business has a strong culture of ownership and this extends to communications
- Comfortable with legacy model of buying the solution and not having ongoing payments
- Telecom viewed by management as being too mission-critical to outsource
- IT has the resources and expertise to manage UC on-premise

Ideal Scenarios for Cloud-Based UC

Scenario #1 – Cost Reduction Imperative

- Management mandate of cost reduction leads to scaled back IT resources and the need to reduce communications costs; hence the move to VoIP and now UC
- Capital budget reductions rule out any major spending on premise-based systems and favor investments with minimal ongoing costs
- Fiscal plans dictate as much cost certainty as possible, which makes the fixed, monthly per-subscriber model of cloud UC attractive
- Cost-tightening mandate is leading the business to outsource as much as possible, including IT and network infrastructure

Scenario #2 – Ongoing Complexity

- Legacy telephony was manageable, but current level of IT expertise/resources is not enough for UC, and the “do more with less” mantra is not likely to change any time soon
- Key driver for UC is flexibility, which helps the business be more agile – but the underlying complexity to provide this is beyond what internal resources can deliver
- UC capabilities will keep evolving, and IT has higher priorities to ensure that all the updates, enhancements, additions, etc. are properly deployed
- As UC becomes more widely used, expectations for network uptime and performance will only increase – the cloud provides better business continuity and disaster recovery options than a premise-based solution

Conclusion

Your decision to adopt UC is a great step forward, and in time, the business will be glad you did. This guide has been prepared to help you evaluate the two basic deployment paths and to get a better understanding of the vendor landscape. Our guidance is not meant to be definitive, but will provide a solid foundation for further research and to ensure you focus on the right things.

To conclude, our main message is that both options are viable, and a case can be made for either premise-based or cloud-based UC. The better you understand your needs and priorities, the easier it will be to choose the right path.

With that said, you need to keep in mind that your UC deployment is not an absolute either-or decision. You can remain premise-based when starting with UC, and if it makes sense to switch to cloud later on, that can work as well. Similarly, you can fully move to the cloud with UC, but if the business finds it wanting, there is nothing stopping you from going back to being premise-based.

Finally, there is the hybrid model cited earlier. This provides the best of both worlds, and allows a business to take an ad hoc approach by keeping some core features on-premise, and then adding cloud-based UC applications as your needs and comfort level dictates. Before you can consider hybrid, though, you need to first be grounded in the two basic options covered in this guide.

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