



Microsoft Lync Transforms Business Communications

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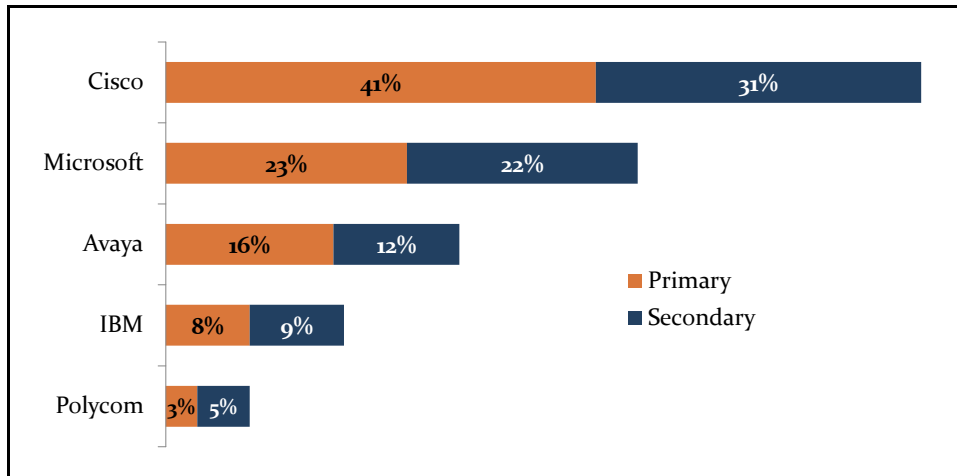
Introduction

Unified communications (UC) has been a market in the making for more than a decade, with a focus on bringing together all collaborative applications. The coming together of communications and collaboration technology opened the door for many new vendors to enter a market historically dominated by voice-centric solution providers.

Microsoft, with its latest release of Lync, provides a high-quality collaboration-centric alternative to the traditional UC solutions. Many organizations have begun to take a serious look. In fact, a 2012 ZK Research survey on UC purchasing intentions shows Microsoft and Cisco are now the two dominant vendors in this rapidly evolving market.

ZK Research
A Division of Kerravala Consulting

Exhibit 1: “Who is your preferred primary and secondary UC vendor for your deployment or planned deployment?”



Source: ZK Research, 2012

However, enterprise customers have decades of investments in legacy telephony infrastructures and related business processes that need to be bridged to the Lync all-IP environment. Many companies use Lync for chat and presence but continue with legacy telephony infrastructure for voice communications. This significantly limits the benefits organizations can realize with their UC migration.

This paper will provide guidance on why and how companies should leverage Lync for enterprise voice communications as well as presence, chat or other functions.

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Section II: The Value of Migrating to Lync Enterprise Voice

Organizations that migrate to an IP-based communications platform such as Microsoft Lync will realize benefits that can address a number of enterprise challenges. Typically new technology is deployed to lower costs, improve productivity or create a competitive advantage. Lync addresses all three of these challenges. Specifically, Lync will provide the following benefits:

- **Lower the cost of communications:** The cost savings from deploying Lync comes from many factors. Exhibit 2 (below) shows the main cost-savings areas and where savings are derived from. The relative percentages of each category will vary by organization based on calling patterns, long-distance plans and other factors.
- **Improved worker productivity:** Employee productivity can be realized by integrating UC functions into business applications. Lync should be thought of as a development platform as well as a UC suite. As Lync matures in the workplace, corporate developers and software

vendors will integrate Lync functionality, such as presence and click-to-call, into applications to create new functionality.

- **Creating a competitive advantage:** In addition to being a tactical application used to lower communication costs, Lync can be used strategically to help organizations leapfrog competition. This can be accomplished through creation of communications-enabled business processes (CEBPs). Development of Lync-integrated applications streamlines business processes and creates new processes with communications at the center. Customer service, collaboration and mobile processes are areas that organizations will focus on initially. Additionally, companies can improve business agility with Lync. Lync Enterprise Voice enables convergence of multiple services onto a common IP network. Corporations can leverage Lync to rapidly respond to business requests, such as call-center improvements.

Exhibit 2: Cost-Savings from Lync are Multifaceted

Long-distance charges	→	Free on-net calls, least-cost routing
Trunking costs	→	Consolidation of trunks
Maintenance	→	Reduction in spares, faster upgrades
IT personnel	→	Reassignment of staff
Moves, adds and changes	→	Elimination of MAC costs
Mobility	→	Wi-Fi calling, unified messaging

Source: ZK Research, 2012

Lync enterprise voice also enables transition to SIP trunking. While the most obvious benefit of SIP trunking is cost savings through trunk consolidation, there are many benefits above and beyond simple cost savings. SIP trunks are used primarily to access the PSTN, but over time SIP trunking can provide a roadmap to B2B video services, wide-band audio and other advanced features. SIP trunking will play a key role in helping organizations migrate to cloud-based UC, proving advanced services and even further cost savings.

Section III: Planning Risk-Free Migration to Lync Enterprise Voice

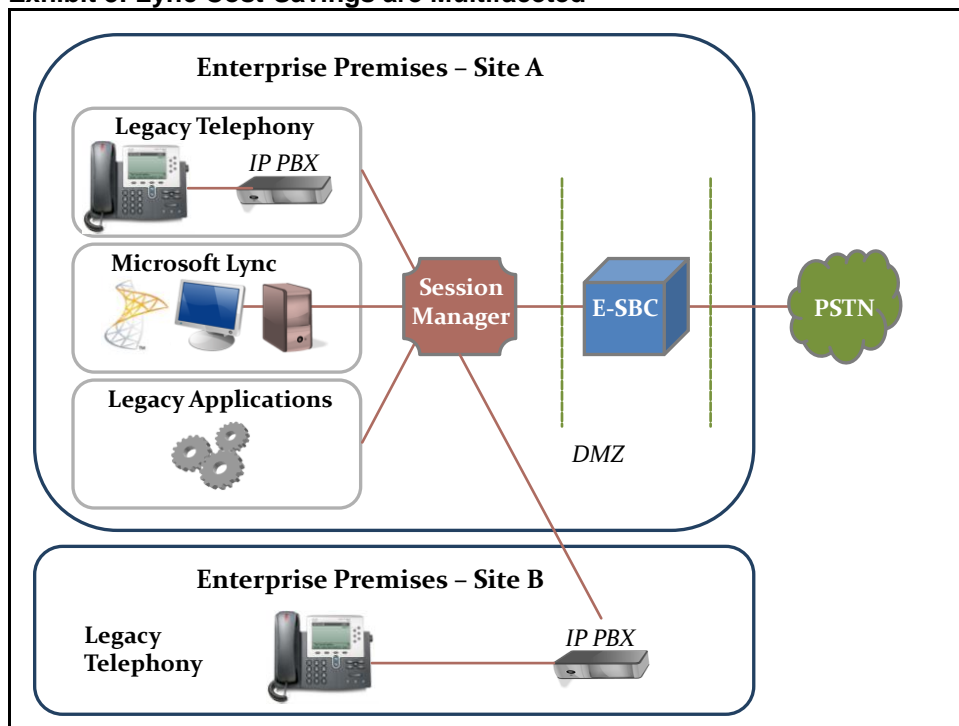
While many organizations use Microsoft Lync for desktop functions, IT leaders are tasked with developing a cost effective, low-risk migration to Lync voice to maximize the investment. Migration to Microsoft Lync does not mean rip-and-replace of existing systems; it's possible to balance the need to protect legacy investments while building new business benefits. Companies must cap spend in legacy infrastructure while developing a plan to grow Lync voice. Those considering migration to Lync voice should consider a plan that builds business benefits, such as:

- **Consolidate trunks and migrate to SIP trunking services:** This can significantly reduce PSTN access costs, improve flexibility and future-proof the network.
- **Migrate users to Lync Enterprise Voice:** Provide a choice of Lync and/or legacy end points for call initiation and delivery, which offers Lync HD voice quality and application integration (click-to-call, etc.).

- **Implement mobile UC:** Deploy Lync client for mobile devices. This will increase worker reachability and eliminate legacy seat licenses.
- **Migrate to Lync-enabled applications:** Build Lync widgets into legacy software, protecting the investment in applications and accelerating the retirement of legacy PBXs.

While this plan seems straightforward, organizations will encounter a number of challenges along the way. This includes security issues, and interoperability challenges when interconnecting to legacy infrastructure and applications. These problems can be addressed by a tandem enterprise session border controller (E-SBC) and session manager. The session manager can significantly reduce complexity when integrating Lync into legacy networks by normalizing protocol differences, managing dial plans, routing sessions and providing a common trunk-side interface for business applications. An E-SBC provides a demarcation between the SIP trunking service and the on-premise communications systems that enables IT managers to protect against security threats, route sessions across multiple trunk providers and maintain service in the face of an outage. Exhibit 3 shows the role positioning of E-SBCs and session managers in a Lync environment.

Exhibit 3: Lync Cost-Savings are Multifaceted



Source: ZK Research, 2012

E-SBCs and session managers can create an environment that bridges legacy voice systems with Lync environments. Key consideration points are:

- **Microsoft Lync scales faster and easier:** Since many of the interoperability and migration functions can be controlled in the session manager, Lync rollouts can be done much faster and with fewer problems. Session-management capabilities act as a central point of integration and normalization with non-Lync systems, including media gateways, H.323 systems, etc. The E-SBC also shoulders all of the tasks related to media termination and call handling between Lync and non-Lync systems.
- **E-SBCs can be used in the wide area:** This includes service assurance, SIP trunking termination, and cost management through least-cost voice routing.
- **Session management features:** These can be used in the internal network to simplify dial plans, normalize multivendor environments and support legacy applications tied into the communications infrastructure.
- **E-SBCs build-in scalability:** E-SBCs offload media processing functions (such as transcoding and encryption) from the Lync Mediation Server and push them to the network.
- **Lync and legacy environments can be bridged together:** This enables features like advanced simultaneous ring, and helps migrate users with minimal disruption.
- **Security for Lync SIP trunking applications is best done through an E-SBC:** The E-SBC provides functions such as VoIP firewall, protection against DoS attacks, fraud detection and encryption of signaling protocol and media.

The session manager can be thought of as a vendor-neutral UC element that provides a point of control between legacy infrastructure and Lync voice functions. In addition, the session manager plays a key role in enabling interoperability between Lync video and third-party video end-points, as well as to provide mobility services. E-SBCs are a must-have technology for any Lync deployment that connects with the PSTN.

There are many E-SBC and session management vendors on the market today with varying degrees of functionality. Vendor selection should consider the enterprise's strategic direction, as well as vendor capabilities and product functionality. If Lync is the enterprise's go-forward communications strategy, these critical network elements shouldn't be sourced from a legacy communications vendor, because this

will prolong dependence on the legacy infrastructure and make the transition more difficult.

The following are key criteria for evaluating vendors.

- **Dedicated focus on IP:** An E-SBC needs to provide IP-to-IP functionality. Products with TDM interfaces and legacy interfaces are more often gateways without the full range of services required.
- **Highest levels of security:** The E-SBC plays a critical role securing the Lync environment, meaning it must have a broad range of security features.
- **Load-balancing capabilities:** In addition to session management capabilities, the E-SBC can load balance traffic to and from the Lync Mediation Server pool. It can also optimize costs and QoS across multiple SIP trunks
- **Microsoft Lync optimized:** Lync has advanced functionality (E.164 addressing, media bypass, etc.) to optimize performance and scalability. Choose an E-SBC vendor that understands Lync protocols and fully supports these features.
- **Proven session-management capabilities:** If you plan to implement a cap/grow strategy, you'll need to administer dial plans across the Lync and legacy systems, normalize protocol differences, incorporate trunk-side Web 2.0 APIs and route sessions based on policies.

Section IV: Next Steps for Microsoft Lync

Once an organization has implemented a cap-and-grow strategy for Lync, IT leaders should start thinking about the eventual retirement of the legacy infrastructure and how Lync should be leveraged next. Forward-looking IT leaders should consider Lync a strategic platform to build a collaboration strategy around, rather than a replacement for legacy phone systems. The following can be considered a roadmap for making the most of Lync:

- **Start with IM and presence:** Initially deploy Lync in parallel to the communications infrastructure, and enable basic Lync capabilities such as IM chat and presence. This gets users familiar with communicating through the Lync client through augmentation of their current collaboration tools.
- **Enable Lync Enterprise Voice to run in parallel with traditional voice infrastructure:** There are three possible scenarios for this step, depending on the company's ability to accept change. Companies with the most risk tolerance can move directly to Lync for voice. Companies that wish to be a bit more conservative can enable simultaneous ring where the Lync client and traditional phone will ring at the same time. The most conservative approach is to leave the legacy phone for external communications and use Lync for internal calls. This will require two DID numbers, one for the legacy PBX and one for Lync. No matter the scenario, it's important to train users to click-to-call on Lync. The session manager's Active Directory interface provides an easy way for administrators to manage transitions from one phase to another.
- **Make Lync the primary voice service:** Using Lync's simultaneous ring, users can direct incoming calls to ring an alternate number, such as a mobile phone. This gives users an incentive to start migrating to Lync to enjoy the extra call termination flexibility.
- **Retire the legacy PBX system:** Once the majority of users are using Lync voice, it's time to retire the legacy system and migrate the rest of the users. It's important to note that before the PBX can be fully retired, any business application that is built on the legacy PBX (click-to-call, CTI apps, etc.) must be moved to Lync.
- **Formal implementation of Lync mobile as part of a bring-your-own-device (BYOD) plan:** The Lync mobile rollout likely started with road warriors and mobile professionals. IT leaders should use mobile Lync as a key component of any BYOD plan. Lync mobile will allow workers to collaborate more effectively.
- **Roll out Lync video:** Lync 2013 has powerful video capabilities. Video can significantly improve the retention of information and make meetings run more efficiently. Companies should look to leverage Lync video as another channel for enterprise collaboration.
- **Integrate advanced collaboration strategies:** Determine the best place to integrate Web 2.0 applications for impact across the Lync and legacy infrastructures. A session manager with Web 2.0 API provides a common trunk-side point for integration.
- **Development of Lync-enabled applications:** The world of communications tools and business applications have been islands in the past, with a few exceptions, such as call centers. Long term, CIOs should consider building Lync functionality directly into Web applications and other business tools to remove human latency and streamline business processes. Building features such as click-to-call and click-to-chat do not have to be complicated CTI projects with Lync, as it was designed to be a development platform.

Section V: Conclusions and Recommendations

Collaboration has become a key initiative for many organizations today. Competitive advantage is based on being able to make the best possible decisions in as short a time as possible using the best skill sets from the right people. Microsoft Lync is at the heart of this. In addition to being a powerful collaboration tool, Lync Enterprise Voice provides an excellent next-generation alternative to legacy communications that can bridge communications and IT together. Organizations that choose to deploy Lync will have a much more agile communications environment that is lower cost to operate and provides streamlined business processes. To help get started, ZK Research makes the following recommendations:

- **Start deploying UC immediately:** Whether a greenfield deployment or a migration from legacy telephony, many benefits beyond cost savings will be realized through deployment of a leading UC application suite such as Microsoft Lync. Waiting to deploy puts your organization at a competitive disadvantage.
- **Leverage the power of enterprise session border controllers and session managers:** A standalone session manager will take care of scalable external security, common address and dial plan management, policy-based routing and multivendor interoperability. In addition, E-SBCs that support advanced Lync functionality will complement and optimize a Lync investment. Use a session manager as a vendor-neutral middleware platform to help transition to an all-IP environment.
- **Think platform, not product when it comes to UC:** While UC does replace many current legacy technologies, the real power of UC is its ability to transform the way we work and collaborate. To fully take advantage of this, think about today's communications needs and also consider the outlook for three to five years.