The Total Cost of Unified Communications

by Zeus Kerravala | September 2008

Executive Summary

Yankee Group's vision of an Anywhere Enterprise™ is an organization where its employees can connect to whoever and whatever they need to wherever they are. It's a simple concept but one that is difficult to implement given the silo-like nature of communications, network technology and applications. Unified communications (UC) promises to bring these worlds together and enable workers to better understand which co-workers are available, what their preferred mode of communication is and how to best connect with them.

Because of this desire to collaborate better, unified communications has become a priority for many organizations, with many UC elements on organizations' road maps for the next 2 years (see Exhibit 1). Along with customer demand comes vendor hype, and the market is currently flooded with traditional network vendors, communication vendors and application vendors delivering various UC solutions. However, based on interviews with IT decision-makers and members of the reseller community, the two vendors that have captured most of the short-term momentum are Cisco and Microsoft, both of which have a unique perspective on the market.

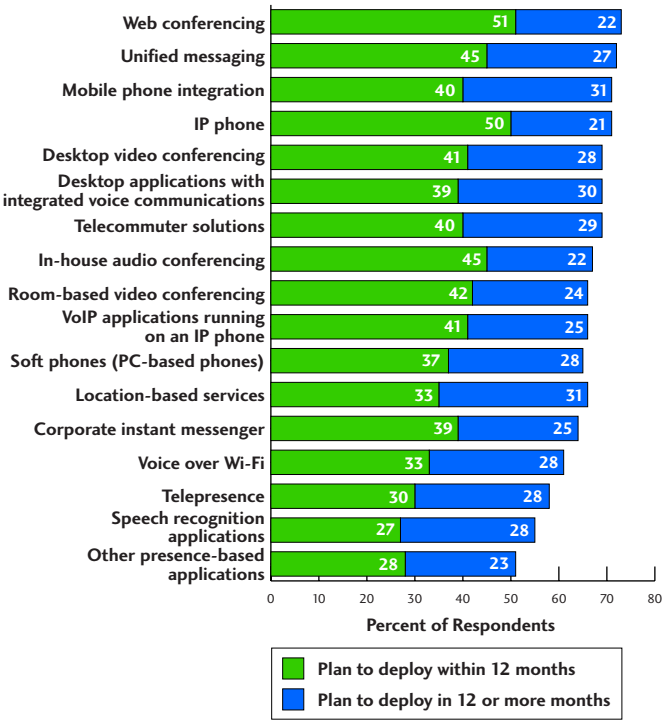
Cisco's UC vision is to empower people to connect, communicate and collaborate across a diversity of workspaces utilizing the intelligent network to provide services. Microsoft believes UC resides only in software and exists on top of the network. This creates one vision with two paths to get there, each with differing cost elements.

This Report breaks down the cost elements of both Cisco's and Microsoft's UC solutions and provides several scenarios that compare the two solutions. The TCO model used in this Report validates that Cisco's network integrated approach provides economies that a "layered on" approach does not. An apples-to-apples comparison shows the Cisco solution ranges from 5% to 50% less expensive than a comparable Microsoft solution.

Exhibit 1

Unified Communications Is a Priority for Enterprises

Source: Yankee Group, 2008



This custom publication has been sponsored by Cisco.

Table of Contents

I. Unified Communications Defined

As the corporate workforce has become more dispersed and mobile, enterprises have added more communications tools to help workers collaborate with one another more efficiently. When the majority of workers resided in one office location, communicating with co-workers was as simple as walking over to another work area. Today, in enterprise-class corporations, approximately 90% of workers reside outside the corporate headquarters. Communicating with fellow workers, business partners, suppliers or other people in a company's extended community has become very difficult. To combat this problem, workers have been given a myriad of communications tools. Telephony, e-mail, voicemail, presence and instant messaging, mobile phones, and audio and web conferencing tools are just a sample of the number of communications tools available today. Although each of these tools provides value on its own, the value is limited because the end user needs to independently manage each tool and moving information across the tools is not seamless.

To streamline communications, enterprises' focus has shifted to creating a unified experience across these tools in the users' workspace. The market for unified communications (UC) is still relatively young. Throughout this Report, the definition of UC that will be used is as follows.

Unified communications must include one of the two foundational technologies:

- **Presence:** The ability to understand another user's availability and communications preference. Because of consumer instant messenger tools, presence is typically tied to chat. However, presence can be associated with not only users, but also devices such as medical equipment and alarm systems as well as documents.
- **Voice over IP (VoIP):** VoIP has been positioned by many vendors as the underlying foundation for unified communications because of its ability to have speech integrated into corporate applications and business processes. Additionally, many corporations we have interviewed build their UC strategy on top of their VoIP deployments.

The two foundational technologies are a requirement for unified communications because these will be the technologies that, in the long term, get integrated into corporate applications. VoIP and presence will eventually be ubiquitous technologies accessible from almost any corporate application. In addition to the foundational technologies, a UC solution also needs to include two or more of the following:

- **Conferencing:** The ability to provide real-time, multipoint conferencing through either web, audio or video conferencing tools.
- **Unified messaging:** Unified messaging is the integration of voicemail into e-mail. It allows users to "see" their voicemails in their inbox as if they were e-mails. This enables users to forward, catalog, store and treat voicemails in the same manner as e-mails.

- **Instant messaging/chat:** Instant messenger was made popular with consumers and has slowly made its way into the enterprise.
- **Click to call:** This feature allows users to click on a phone number embedded in an application and have it automatically dialed.
- **Mobile phone integration or fixed mobile convergence (FMC):** One of the most difficult challenges for workers today is to manage the multiple phone numbers a user has. The promise of FMC was initially to enable users to have a single phone number that could call the desk phone when users are at their desk and the mobile phone when users are roaming. Today, FMC can extend all corporate communication tools to a mobile worker, enabling the user to collaborate from anywhere.
- **Speech recognition:** The ability to have technology recognize voice patterns and convert them into commands such as dialing numbers, erasing voicemails or accessing corporate systems, which becomes very important as mobile computing continues to grow. Although devices continue to evolve, speech recognition makes it much easier for users to work under certain conditions.
- **Telecommuter solutions:** These solutions provide corporate collaboration and communications tools to telecommuters and they have been one of the primary drivers for UC and VoIP deployments. These solutions allow workers to have the same work environment at home as they do in the office.
- **Soft phone:** Soft phones, or PC-based phones, allow workers to use their PC or laptop as their desk phone. This allows road warriors to "mobilize" their desk phones, and make and receive calls as if they were in the office even though they might be across the globe.
- **Contact center:** The contact center was an early adopter of integrating telephony into business applications. Providing screen pops and other enhanced telephony features has allowed call center agents to streamline processes while improving customer service.
- **Video communications:** Using video to communicate adds another dimension for users to collaborate with one another. A user's ability to learn and retain information is greatly improved through the use of video.
- **Telepresence:** This is more than just video conferencing; it's the lifelike recreation of a face-to-face meeting using video. A telepresence solution should include not only the video, but also room design, acoustics and other elements that make the experience as lifelike as possible.

UC is a very broad term and has become a major initiative for many organizations. Because the term is so broad, many companies claim to be unified communication vendors but do not fit the above definition. For example, a video conferencing vendor may be part of the UC ecosystem, but it does not provide a UC solution because neither of the foundational technologies is part of the solution.

II. The Total Cost of Unified Communications

The breadth of unified communications and the multiple solution approaches have made solution evaluation very difficult for most organizations. Couple this with a challenging economic environment and it's clear that a framework for how to think about UC and all its components is needed.

There are many facets of UC that need to be considered when trying to calculate TCO. The main categories that will be used in the TCO model for this Report are detailed in the following sections.

Unified Communications Software

The software portion of the cost model can be the most confusing. Different vendors bundle different pieces of software. Some solutions run only with specific versions of e-mail or other applications that UC will integrate with. Software costs include all software licenses, client access licenses (CALs) and maintenance charges (which include software and hardware support), software patches and technical support. In this model, the costs for Microsoft include the following:

- Server licenses
- Windows Core 2007 CAL
- Outlook 2007 software
- Exchange Server 2007 Standard CAL or Exchange Server 2007 Standard CAL plus Enterprise CAL
- Office Communicator software
- Office Communications Server (OCS) Standard CAL or OCS Enterprise CAL

The costs for Cisco include:

- Cisco Unified Communications Manager
- Cisco Unified Presence
- Cisco Unified Personal Communicator
- Cisco Unity
- Cisco Unified Workspace Licensing (CUWL), which includes server licenses

Unified Communications Hardware

The hardware element of the cost model is slightly easier to understand than the software elements. For the purposes of this model, we included all hardware required to enable unified communications functionality but did not include network infrastructure such as routers, switches, security devices or other hardware related to the basic operations of a network. The underlying assumption is that the corporation will have a network in place for normal business operations.

Microsoft hardware costs include:

- IP phones and video cameras
- Exchange Server hardware
- OCS hardware
- OCS hardware support
- Voice or unified messaging gateway for connectivity to TDM PBX to access PSTN
- Geomant messaging waiting indicator (MWI) hardware and software

Cisco hardware costs include:

- IP phones and video cameras
- Cisco Unified Communications Manager server(s)
- Unified Messaging server(s)
- Unified MeetingPlace server(s)
- Voice and unified messaging gateways if TDM PBX interfaces are required

Maintenance and Support Costs

These are costs related to maintaining the hardware and software as well as technical support costs. This is often not considered when companies are doing a TCO analysis.

Microsoft maintenance and support costs include:

- Exchange Server hardware costs
- Legacy PBX maintenance
- Traditional PBX gateway support
- Geomant support fees
- Annual costs for Microsoft support incidents
- Software Assurance—server licenses
- Software Assurance—client software and access
- Microsoft support services for technical support

Cisco maintenance and support costs include:

- Cisco SMARTnet for essential operator services
- Unified Communications Software Subscription

Deployment and Other Costs

These are costs associated with deployments and upgrades of the UC solution. The costs can include professional services, upgrade costs, personnel costs and other one-time fees associated with the deployments.

The Cisco and Microsoft solutions will be compared across the four major categories of UC software, UC hardware, maintenance and support costs, and deployment and other costs. Although the vendor approaches differ, Yankee Group feels this is a close apples-to-apples comparison of the two solutions.

III. Comparing the Cisco and Microsoft Total Cost of Ownership

To create a fair evaluation of the two solutions, the TCO analysis was done across a range of company sizes with differing UC needs (basic and advanced—to be defined later). The TCO analysis (including assumptions and calculations) was conducted in partnership with Cisco Systems Inc. Yankee Group further audited the results by conducting primary interviews with UC purchasers, evaluators and channel partners to verify the accuracy of assumptions and calculations under the particular scenarios presented here.

To simplify the study, a number of TCO assumptions were made:

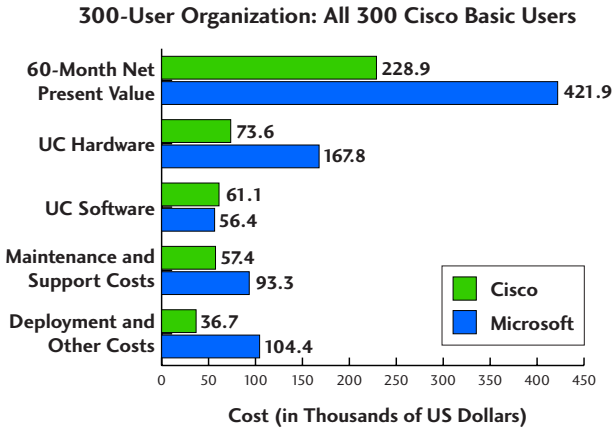
- The number of IP phones would be identical for each solution.
- The customer is currently a Microsoft customer.
- Full unified communications is assumed to be the desired solution.
- The customer is currently running Exchange 2003, but not Exchange 2007.
- A basic Cisco user is defined as requiring IP phone, voicemail, mobility, video, unified messaging and presence.
- An advanced Cisco user includes Cisco Unified Mobile Communicator and MeetingPlace.
- A 35% discount is given to Cisco customers for hardware and software, and 15% for services. Based on channel and customer feedback, these are an accurate representation of discounts given to Cisco customers.
- A 25% discount is given for Microsoft software, and 15% for Microsoft hardware. These discount levels were also validated with channel and customer feedback.
- The solution was leased from both vendors and the costs were compared during a 5-year period. The lease term from Cisco was 60 months and 36 months for Microsoft, which is consistent with Microsoft upgrades based on Software Assurance. Although the lease terms were different, the tool calculated net present value (NPV) based on 60 months to create an apples-to-apples comparison.

The above assumptions were the key ones used for solution comparison. Exhibits 2 through 6 present five scenarios that compare the two solutions.

The customer in Exhibit 2 would be considered a small enterprise, but the cost difference for the Cisco solution is approximately half of the cost of the Microsoft solution.

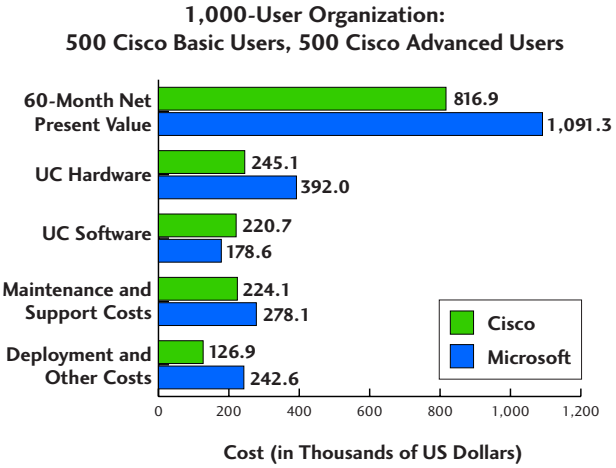
The customer in Exhibit 3 is a typical midsize enterprise with an even split of basic users and advanced users. Even with the advanced functionality, the Cisco solution is approximately 25% less expensive over a 5-year period.

Exhibit 2
Scenario 1
Source: Yankee Group, 2008



Cost Analysis: Cisco is 45.8% less expensive over 5 years.

Exhibit 3
Scenario 2
Source: Yankee Group, 2008

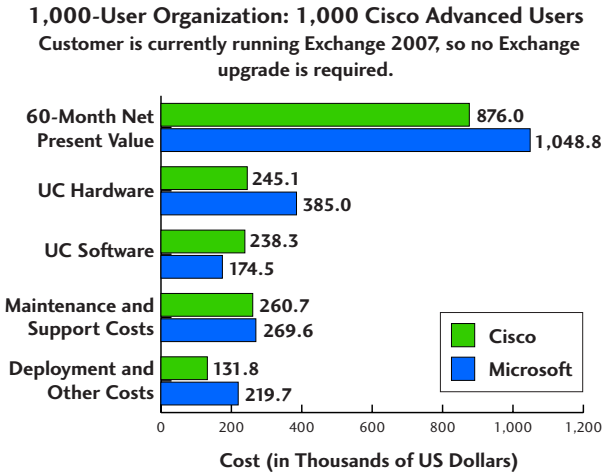


Cost Analysis: Cisco is 25.1% less expensive over 5 years.

Although the scenario in Exhibit 4 provides a very "Microsoft favorable" environment, since the customer is currently running Exchange 2007, the Cisco solution is still 16.5% less expensive than the Microsoft one.

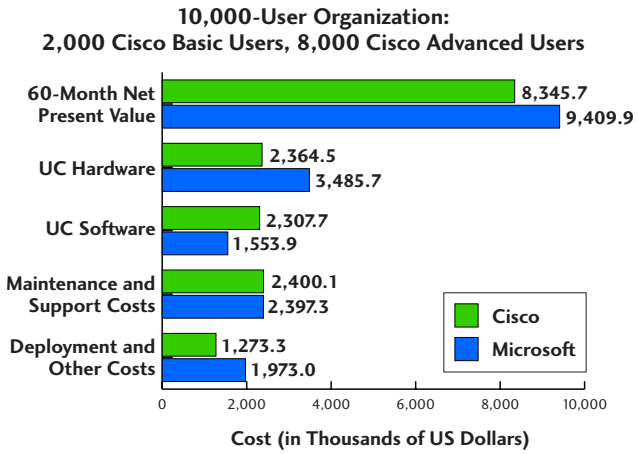
The enterprise in Exhibit 5 would be considered a very large enterprise. This is assuming that all of the users are in locations of less than 100 people. If the assumption is made that there are only 20 locations with more than 100 users, the Cisco cost rises minimally but the Microsoft cost rises to approximately $10.5 million based on the fact that additional hardware is required in the Microsoft solution for locations with more than 100 employees.

Exhibit 4
Scenario 3
Source: Yankee Group, 2008



Cost Analysis: Cisco is 16.5% less expensive over 5 years.

Exhibit 5
Scenario 4
Source: Yankee Group, 2008

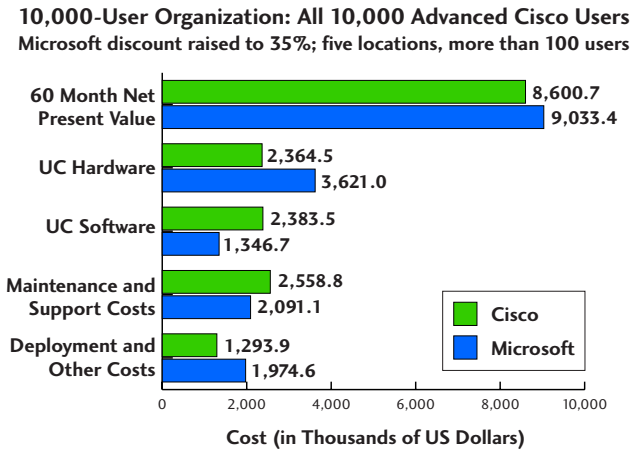


Cost Analysis: Cisco is 11.3% less expensive over 5 years.

The scenario in Exhibit 6 also provides Microsoft with a favorable solution with a discount level higher than normal and all 10,000 Cisco users having the advanced solution. At this size these solutions are comparable in price although the Cisco solution is slightly less expensive.

Based on the results of the tool, Microsoft's premium over Cisco is anywhere from a mere 5% to as high as just less than 50% depending on the configuration. Cisco's hardware costs are much less than Microsoft's, while Microsoft's software costs are less expensive than Cisco's. Cisco's maintenance number is typically less expensive because Cisco's SMARTnet includes TAC support for troubleshooting, but Microsoft customers need to pay for Microsoft support services to receive technical support.

Exhibit 6
Scenario 5
Source: Yankee Group, 2008



Cost Analysis: Cisco is 4.8% less expensive over 5 years.

IV. Conclusions and Recommendations

IP networks, enterprise mobility and corporate collaboration initiatives will continue to add fuel to the already-hot UC fire. For most organizations, UC is more of a "when" rather than an "if," with UC moving into mainstream deployments moving forward. Companies that deploy UC and integrate UC into business processes will enjoy an early mover advantage and gain competitive advantage over competitors. Organizations that wait run the risk of falling behind and having to react to market trends.

However, early adopters do run the risk of overpaying for solutions due to a lack of industry benchmarks or even strong one-off case studies to learn from. With that in mind, we make the following recommendations:

- **Make an informed, apples-to-apples comparison.** Contrary to much of the recent media hype, "VoIP as you are" is not always the least expensive route. The TCO tool shows a price advantage for Cisco ranging from near parity to a significant price advantage.
- **Deploy UC now including VoIP.** There are significant productivity benefits to be gained from deploying UC. By deploying UC with VoIP, customers can use the cost savings from VoIP to offset the cost of other UC capabilities.
- **Make a platform decision, not a product decision.** Unified communications is more than just the tools on the desktop. UC will eventually be integrated into our corporate applications and business processes, bridging IT and communications. Evaluate vendors on their ability to deliver the foundational technologies as well as some of the other advanced features.
- **Evaluate vendors on their historical success.** Experience matters when it comes to communications. Building an enterprise-grade communication system requires more than just lots of developers and a vision. Challenge your vendor partners to show your existing customers where UC solutions are currently running in an environment similar to yours.
- **Start small to measure the benefits.** One of the big mistakes companies often make in deployment is starting with an unmanageably large number of users. Start with one small deployment in a branch or department. Learn from that deployment. Measure the benefits and use those as benchmarks for a larger deployment.

Yankee Group

Yankee Group has research and sales staff located in North America, Europe, the Middle East, Africa, Latin America and Asia-Pacific. For more information, please contact one of the sales offices listed below.

Corporate Headquarters

Prudential Tower
800 Boylston Street
27th Floor
BOSTON, MASSACHUSETTS 02199
617-598-7200 phone
617-598-7400 fax
info@yankeegroup.com

Europe
56 Russell Square
LONDON WC1B 4HP
UNITED KINGDOM
44-20-7307-1050 phone
44-20-7323-3747 fax
euroinfo@yankeegroup.com

Yankee Group | the global connectivity experts™

A global connectivity revolution is under way, transforming the way that businesses and consumers interact beyond anything we have experienced to date. The stakes are high, and there are new needs to be met while power shifts among traditional and new market entrants. Advice about technology change is everywhere—in the clamor of the media, the boardroom approaches of management consultants and the technology research community. Among these sources, Yankee Group stands out as the original and most respected source of deep insight and counsel for the builders, operators and users of connectivity solutions.

For 37 years, we have conducted primary research on the fundamental questions that chart the pace and nature of technology changes on networks, consumers and enterprises. Coupling professional expertise in communications development and deployment with hundreds of interviews and tens of thousands of data points each year, we provide qualitative and quantitative information to our clients in an insightful, timely, flexible and economic offering.

Yankee Group Link

As technology connects more people, places and things, players must confront challenging questions to benefit from the changes: which technologies, what economic models, which partners and what offerings? Yankee Group Link™ is the research membership uniquely positioned to bring you the focus, the depth, the history and the flexibility you need to answer these questions.

Yankee Group Link membership connects you to our qualitative analysis of the technologies, services and industries we assess in our research agenda charting global connectivity change. It also connects you to unique quantitative data from the dozens of annual surveys we conduct with thousands of enterprises and consumers, along with market adoption data, comprehensive forecasts and global regulatory dashboards.

Yankee Group Link Research

As a Link member, you have access to more than 500 research reports and notes that Yankee Group publishes each year. Link Research examines current business issues with a unique combination of knowledge and services. We explore topics in an easy-to-read, solutions-oriented format. With the combination of market-driven research and built-in direct access to Yankee Group analysts, you benefit from the interpretation and application of our research to your individual business requirements.

Yankee Group Link Interaction

Our analysts are at your further disposal with data, information or advice on a particular topic at the core of a Link membership. We encourage you to have direct interaction with analysts through ongoing conversations, conference calls and briefings.

Yankee Group Link Data

Yankee Group Link Data modules provide a comprehensive, quantitative perspective of global connectivity markets, technologies and the competitive landscape. Together with Link Research, data modules connect you to the information you need to make the most informed strategic and tactical business decisions.

Yankee Group Consulting

Who better than Yankee Group to help you define key global connectivity strategies, scope major technology initiatives and determine your organization's readiness to undertake them, differentiate yourself competitively or guide initiatives around connectivity change? Our analysts apply Yankee Group research, methodologies, critical thinking and survey results to your specific needs to produce expert, timely, custom results.

Yankee Group Signature Events

Yankee Group conferences, webinars and speaking engagements offer our clients new insight, knowledge and expertise to better understand and overcome the obstacles to succeed in this connectivity revolution.

www.yankeegroup.com

The people of Yankee Group are the global connectivity experts™—the leading source of insight and counsel for builders, operators and users of connectivity solutions. For more than 35 years, Yankee Group has conducted primary research that charts the pace of technology change and its effect on networks, consumers and enterprises. Headquartered in Boston, Yankee Group has a global presence including operations in North America, Europe, the Middle East, Africa, Latin America and Asia-Pacific.