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ISSUE PAPER

HOW TO KEEP UCC COSTS DOWN AS COMPLEXITY GROWS

Compare vendors and assess your Total Cost of Operation

By Robin Gareiss
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How to Keep UCC Costs Down as Complexity Grows

Now is the time to compare vendors and assess your Total Cost of Operation

By Robin Gareiss
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Compass Direction Points:

- **Most deployments remain on-premises, but movement is toward cloud and hybrid IPT/UCC deployments.** Research shows 52.4% of IP telephony and 48.1% of UCC deployments are on-premises. An evaluation of all architectures is crucial to gain the most benefit from your solution.
- **Conduct a thorough cost assessment.** Total cost of operation has increased in the past year, so it's time to re-examine what you're spending.
- **ShoreTel TCO is lowest.** In Nemertes' 2016 TCO research, ShoreTel customers spend the least on their IPT and UCC solutions.

Executive Summary

With the growing adoption and complexity of Unified Communications and Collaboration, IT leaders must conduct a thorough assessment of architecture, providers, features and operational costs. Evaluating those costs is not a straightforward initiative, not only because of multi-vendor environments, but also because companies are shifting architectures to hybrid or cloud.

Nemertes has conducted research to analyze real-world cost data, including capital, implementation, and operational costs. The research helps companies compare how overall costs change based on the provider selected. Most important, it includes ongoing operational costs, which are hard to factor into a business case until the IT staff actually must manage the provider in question. This paper documents those costs and provides the three different sample outputs from a cost model developed by Nemertes, populated with the research data.

We entered in the cost model actual data from companies with 100 employees, 750 employees, and 1,500 employees. In each of these cases, whether cloud or on-premises, ShoreTel is the least expensive solution over a five-year assessment.

The Issue

IP telephony and UCC technologies are rising to the top of many IT priority lists, driven by the need to improve communications internally and to bolster customer experience. What's more, the number of applications included as part of UCC are growing, as are the integration requirements between communications and enterprise apps. Given the expanding scope of UCC, it is not surprising that costs to implement and operate the apps are increasing.

As a result, it's imperative for IT leaders to build solid business cases, examining total cost of operations among providers to ensure the best possible decision. For example, initial acquisition costs (licensing and associated capital) may be very appealing, but the unknown implementation and ongoing operational costs can rapidly erase any cost benefit associated with those lower initial costs. For example, initial acquisition costs for Microsoft often are lower than Avaya, Cisco, or ShoreTel. But ongoing operational costs are lower with ShoreTel than any of the providers, making the total cost of operations over time much less.

Total Cost of "Ownership" isn't as relevant as it once was, particularly with emerging cloud and hybrid architectures. Now, we analyze Total Cost of "Operations," which better reflects the importance of ongoing operational costs. Uncovering those true, real-world operational costs can be a challenge, if not impossible without research or substantial experience at previous organizations.

For 11 years, Nemertes has conducted research to substantiate the costs by interviewing and surveying hundreds of companies. This year's study includes input from about 300 companies that are using various combinations of IP telephony and UCC, architected in the cloud, on-premises, or both. This report provides insight into the overall adoption trends, the movement to cloud and hybrid environments, and all associated costs. It also provides examples of cost comparisons between providers. Though IP telephony often is a part of UCC, we separated the two for this study. IP telephony simply includes voice communications, while UCC includes instant messaging, presence, audio/video/web conferencing, and unified messaging—typically in an integrated suite.

IPT/UCC Adoption Trends

On-premises architectures continue to be the most prevalent across both IP telephony and UCC, but that's changing. As of the 2016 research, almost half of organizations have adopted some IP telephony cloud services, compared to 29% in 2015. For UCC, more than half of companies have adopted cloud services, compared to 26% in 2015.

Most organizations also use more than one provider for IP telephony and UC capabilities. During discussions with IT leaders, the majority say they would like to consolidate on a single vendor for all apps, but the reality is that it is not happening with the exception of small and the low-end of midsize companies. Among companies with fewer than 1,000 endpoints, 41.1% use the same provider for IP telephony and UC suite. It's worth noting that another 11.3% only have IP telephony and use a single provider, compared to only 28.6% of those with 1,000 or more endpoints.

Move to Hybrid, Cloud

We expect the market to segment in a few ways when it comes to architecture decisions. The drivers toward those decisions—as well as the benefits or fallout—vary by company. Figure 1 describes the architecture "camps" that are possible. Single-vendor, single-architecture environments typically are the most efficient to manage. IT staffs only need expertise in one provider's technology. When on-prem, they only manage one provider and only have to train employees to use one user interface. When in the cloud, they only manage one partner and focus on user adoption of one service.

In moving to a hybrid deployment, IT leaders should pay particularly close attention to integration of feature sets and call control. Look for a provider that offers a common platform for its cloud or on-premises solutions, ultimately delivering the same user experience regardless of the platform. From an IT management standpoint, this means call control, features, and user interface are based on the same underlying technology. Although IT staffs still must manage the technology and the partner relationship, the integration challenges with a common platform are greatly minimized.

Architecture	Providers	Typical Company	Benefit / Concern
All on-premises	Single	Small	Single system is easy to manage / Responsible for day-to-day management when it could be offloaded to cloud provider
	Multiple	Large, often because of mergers	Best-of-breed features; depreciate what's installed and avoid cost of upgrade to single vendor / Requires knowledge of multiple systems, increasing costs to manage and integrate
All cloud	Single	All sizes, heavily weighted toward small and midsize	Consistent service so easy for user training / Loss of some control, potentially more staff to manage service
	Multiple	Few use today, but will apply to any size company that needs specific feature	Will enable best-of-breed philosophy to add capability primary cloud provider does not offer / Cloud-to-cloud integration will be a challenge
Hybrid	Single	Primarily small and midsize	Gradual migration from on-prem to cloud, using single provider (and potentially same platform) eases management, or planned hybrid architecture more seamless with single vendor / Easier, less costly to adopt either cloud or on-prem
	Multiple	Large, usually in the midst of migration	Few benefits to this architecture; usually not the end goal / Significant challenges to managing and integrating multiple vendors across on-prem and cloud

Figure 1: Architectural Differences

A Look at Costs

As stated, Nemertes has gathered detailed costs for IP telephony and UCC for several years. We gather data on capital, implementation, and operational costs, each of which includes sub-components. (Please see Addendum for details on the costs.) Costs have been dropping since 2011, but in the past year, on-premises costs generally have increased among all providers in both IP telephony and UCC. (Please see Figure 2.)

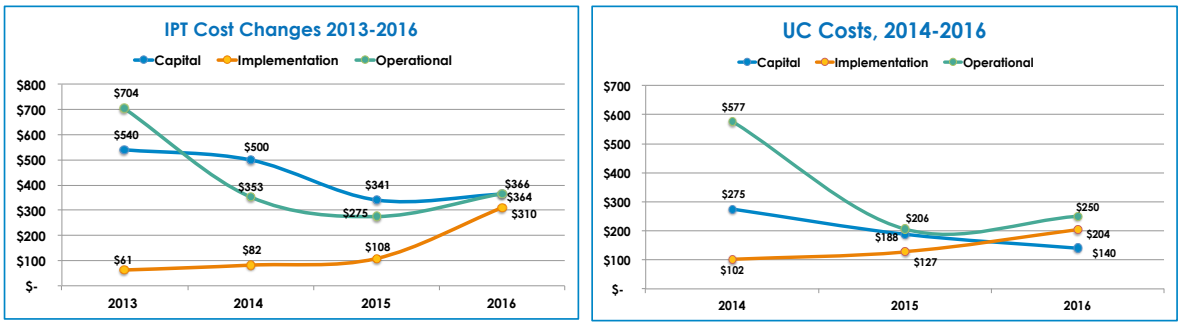

Figure 2: On-Premises Cost Changes

Capital

Capital costs are increasing slightly with IP telephony and decreasing with UCC. In IP telephony, costs increased 7% year over year, driven primarily by companies buying new devices, such as headsets and video phones, along with capital, such as SBCs. We do not find providers increasing their prices for IP telephony capital. For UCC, capital costs dropped year over year by 25%. The decrease is not surprising, given the competitive landscape and providers battling for customer acquisition.

Implementation

Year-over-year implementation costs nearly tripled with for IP telephony, and they rose by 60% for UCC. In both cases, the increase is driven by additional time spent planning and engineering. Additionally, companies are devoting more resources during the implementation phase to integration of IP telephony with additional functions (contact center, mobile enablement, collaboration apps), and integration of UC with enterprise apps (ERP, CRM, analytics). And in both cases, companies are using more third-party professional services and systems integrators, which add to implementation costs.

Operational

For both IP telephony and UCC, ongoing operational costs are increasing (32% and 21%, respectively). IT staffs are not growing, while demands from business units are. Therefore, more are using managed services. In addition, they are spending more on training of the IT staff to prepare for new integrations and service delivery architecture changes. And finally, equipment maintenance costs are increasing.

Historical Costs

In evaluating on-premises costs from recent years, ShoreTel most frequently had the lowest and Microsoft the highest first-year costs—a combination of capital, implementation, and the first year of operational costs, noted above. (Please see Figure 3.)

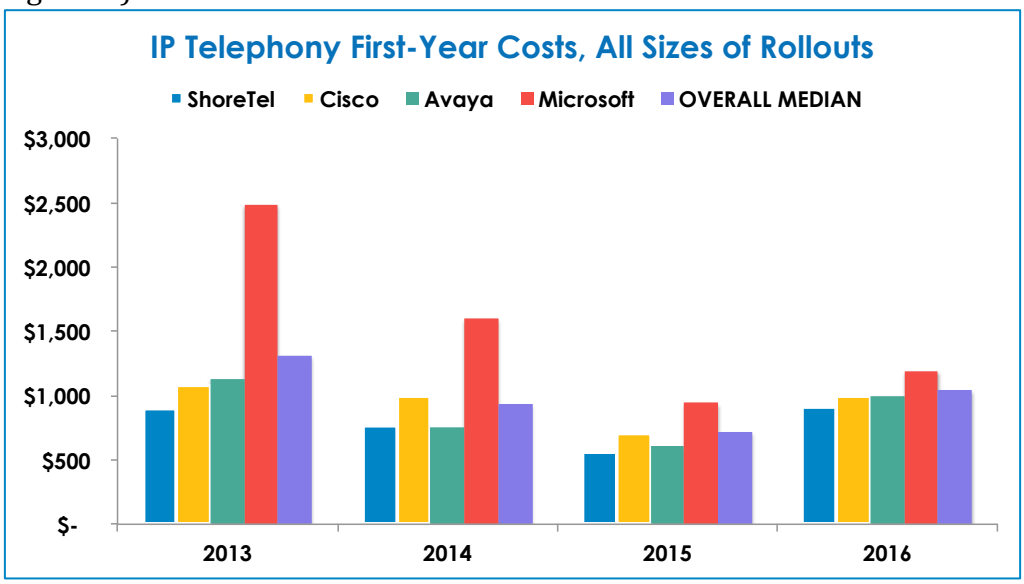

Figure 3: IPT First-Year Costs, All Sizes

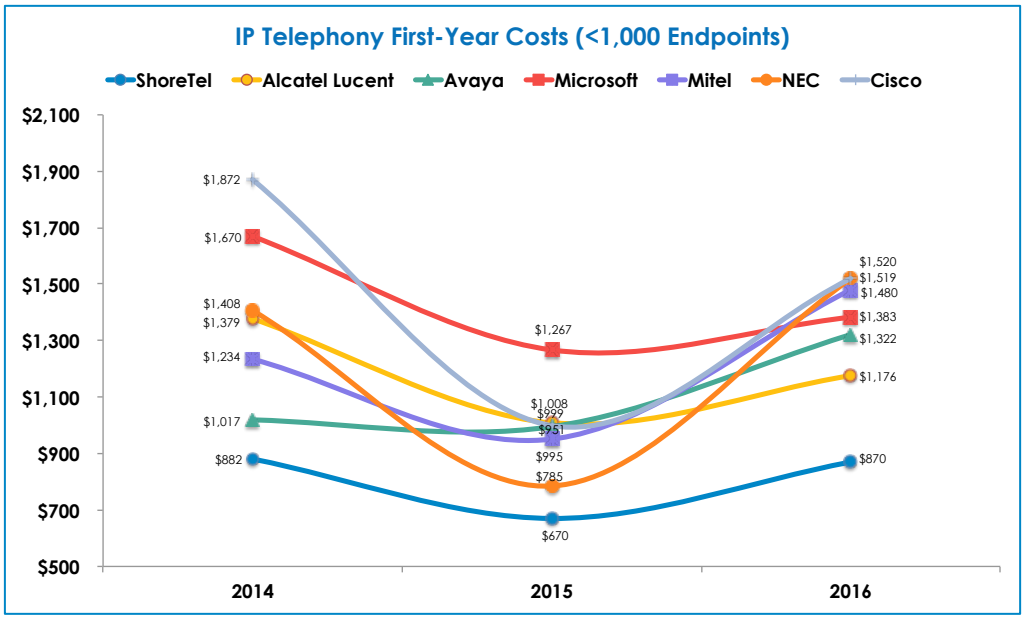

Figure 4: IPT First-Year Costs, Rollouts With <1,000 Endpoints

When evaluating first-year costs for specific sizes of rollouts, more providers emerge. For example, among companies with fewer than 1,000 endpoints, ShoreTel, again, has

the lowest first-year costs per endpoint, and either NEC or Cisco has the highest per endpoint. Though ShoreTel's capital costs are greater than median, its implementation and operational costs are the lowest of all providers. NEC's high implementation costs and Cisco's high operational costs contributed most to their highest costs. (Please see Figure 4.)

Cost Model Tool

Nemertes has taken the data compiled in its UC TCO research, and populated it in a cost model tool. The 2016 project included interviews with 25 IT leaders, and pre-qualified, electronic surveys of another 274 companies with more than 100 employees. To augment the research with additional data from smaller companies, we conducted another survey focusing on 341 companies with fewer than 100 employees.

We analyzed the data by size of organization and by provider, normalizing cloud costs by number of licenses and on-premises costs by number of endpoints. We then populated the tool with default data from our research, along with data entry that IT professionals can enter to customize the output to their own unique configurations.

Cost Model Examples

We evaluated three scenarios: Companies with 100, 750, and 1,500 employees. In each figure that follows, readers can see actual output from the tool, populated with our 2016 data.

In each scenario, ShoreTel demonstrates the greatest cost savings and lowest overall cost over a five-year period, when compared to the industry average and various providers for both on-premises and cloud. (The tool can run calculations for several vendors; we simply selected vendors randomly for illustrative purposes.)

We assume each company starts with an on-premises deployment (and associated numbers for staffing, IT budget, equipment maintenance, managed services, etc.) of widely used vendors–Cisco (100-employee example), Avaya (750-employee example), and Microsoft (1,500-employee example). We then compare with a selection of providers the ongoing operational costs of running those environments with a complete change to a new on-premises rollout or cloud service.

For cloud services, we factor in initial implementation of the service, monthly subscription, and ongoing operational costs for staffing and managed services. The cloud analysis includes an option to rent handsets. In the scenarios we ran, we opted to not include handsets in the analysis (either rented or purchases) because actual

prices after negotiations are consistent for like-for-like handsets, regardless of vendors.

Note that our research generally shows staffing actually goes up during at least the first two years of a cloud deployment, so cost savings do not always happen. In evaluating the cloud scenarios for 750 and 1,500 employees, the lack of cost savings is driven by the staffing operational costs to manage the solution and the partner, the initial implementation costs, and the monthly subscription costs. The real-world costs for each of those components varies by provider and is reflected on the cost model output.

The on-premises charts illustrate annualized savings over the existing solution. We calculate the cost over the five-year term, and annualize it to show the relative cost savings among vendors. We then show what the relative annual costs are for each solution—the first year being the highest because it incorporates capital and implementation costs. In scenarios where companies spread out the deployment beyond the first year, the capital, implementation, and additional operational costs would follow from the year of installation.

The cloud charts also show annualized cost savings over the existing solution. As our research demonstrates, costs drop for small rollouts moving to the cloud. However, as the rollout sizes increase, the savings over the existing solutions are not as common.

In ShoreTel's case, the savings are sizable, in some cases. We found that ShoreTel's implementation costs are about the same or more than competitors, but research participants who used ShoreTel devoted fewer IT staff members to managing the solution and relationship than did those using competitors. Additionally, ShoreTel's actual subscription costs were lower than competitors. So over a five-year period, the savings adds up. ShoreTel's operational costs have been the lowest or nearly the lowest since Nemertes started the research 11 years ago.

Scenario 1: 100-Employee Financial-Services Firm, On-Premises

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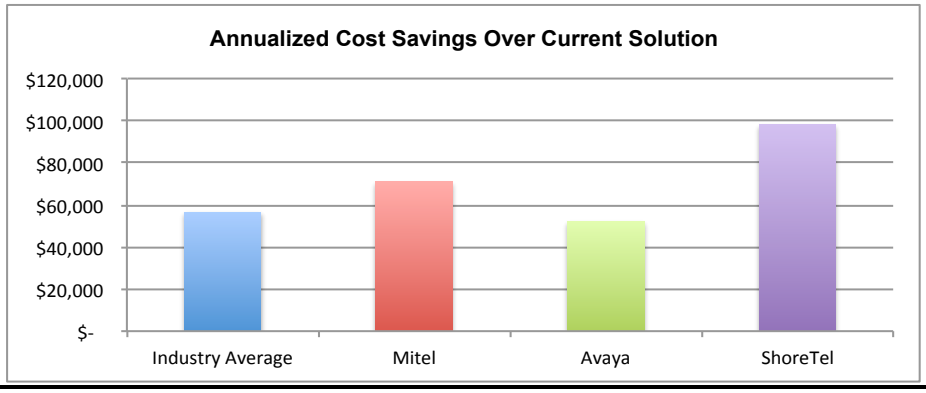
TCO Overview for IP Telephony/UC On-Premises

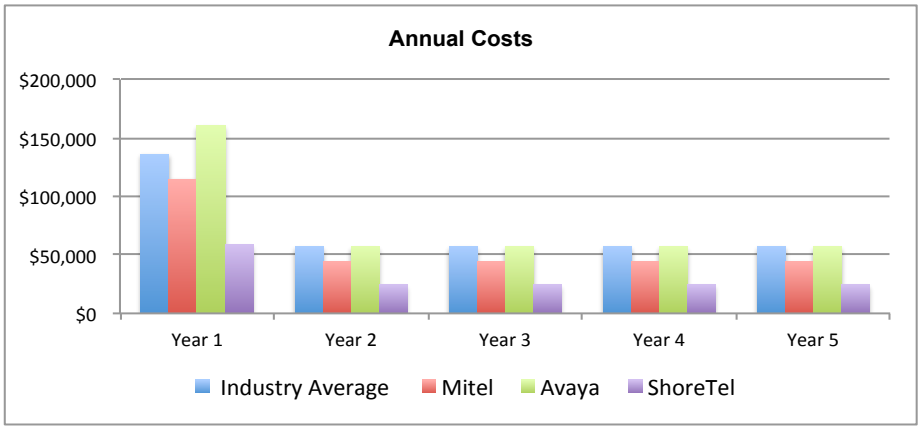
Prepared for: Mary Smith Acme Corp IPT/UC ANALYSIS

On-Prem Cost Analysis

The Nemertes Cost Analysis Tools has calculated the following results for your organization. This section provides an overview of the cost benefits of this technology.

Your annual savings with Industry Average:	$56,681	
Your annual IPT/UC savings with Mitel:	$71,296	
Your annual IPT/UC savings with Avaya:	$52,116	
Your annual savings with ShoreTel:	$98,400	
Years for cost analysis:	5	
Best 5-year financial gain	**$491,999**	with ShoreTel
Percentage of annual revenue saved	0.39%	
Percentage of annual IT budget saved	8%	





Scenario 1a: 100-Employee Financial-Services Firm, Cloud

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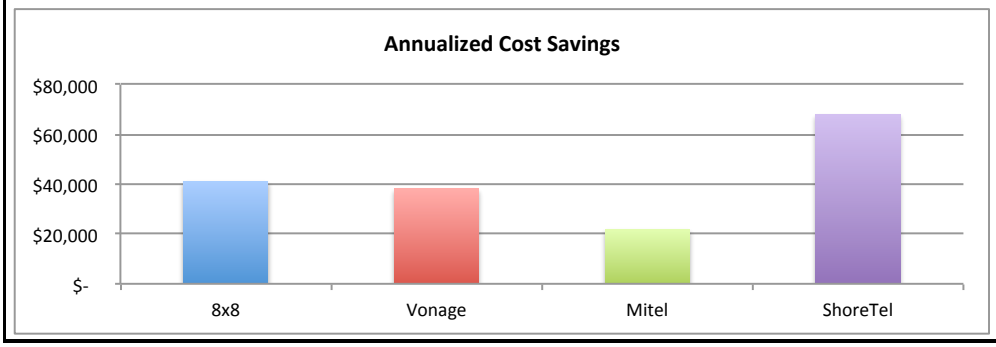
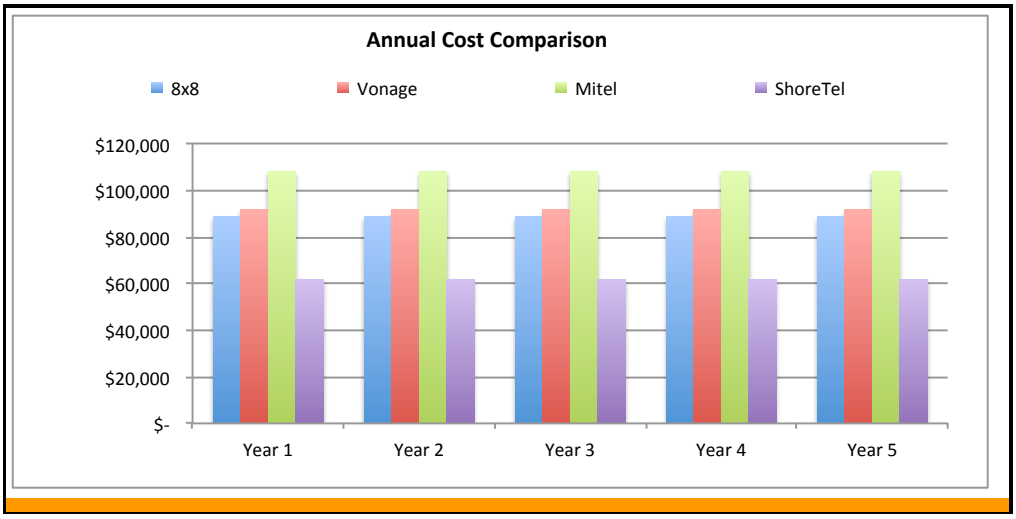
TCO Overview for IP Telephony/UC Cloud

Prepared for: Mary Smith Acme Corp IPT/UC ANALYSIS

Cloud Cost Analysis The Nemertes Cost Analysis Tools has calculated the following results for your organization, comparing costs for your current solution with cloud offerings. This section provides an overview of the cost benefits of this technology.

Your annual savings with 8x8:	$41,079	
Your annual savings with Vonage:	$38,125	
Your annual savings with Mitel:	$21,808	
Your annual savings with ShoreTel:	$67,916	
Years for cost analysis:	5	
5-year financial gain	**$339,579**	with ShoreTel
Percentage of revenue saved	0.27%	
Percentage of IT budget saved	5%	





Scenario 2: 750-Employee Manufacturing Company, On-Premises

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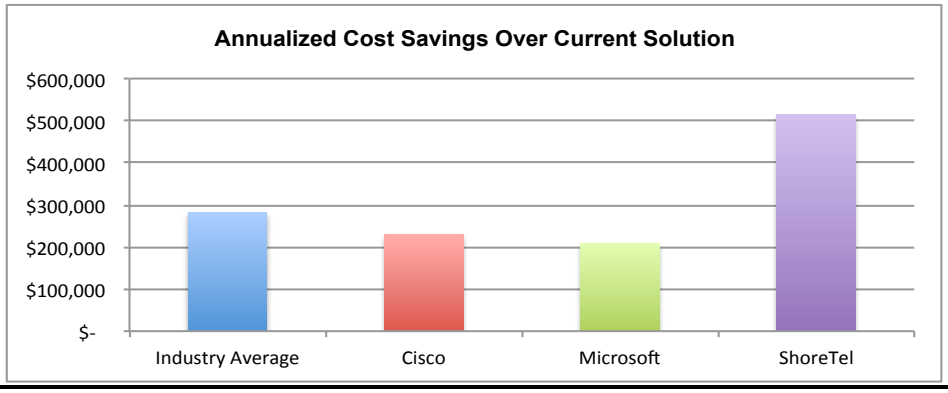
TCO Overview for IP Telephony/UC On-Premises

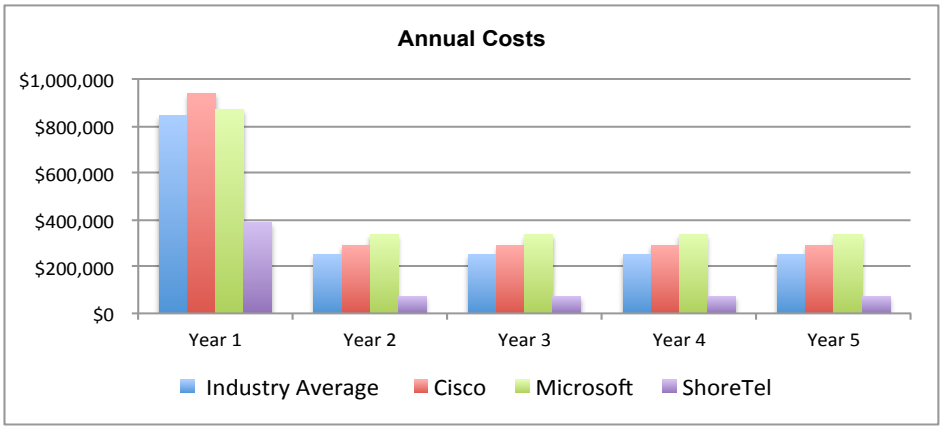
Prepared for: Mary Smith Acme Corp IPT/UC ANALYSIS

On-Prem Cost Analysis

The Nemertes Cost Analysis Tools has calculated the following results for your organization, comparing costs for your current solution with ShoreTel's new Cloud and On-Site offerings. This section provides an overview of the cost benefits of this technology.

Your annual savings with Industry Average:	$281,840	
Your annual IPT/UC savings with Cisco:	$229,158	
Your annual IPT/UC savings with Microsoft:	$207,372	
Your annual savings with ShoreTel:	$514,524	
Years for cost analysis:	5	
Best 5-year financial gain	**$2,572,618**	with ShoreTel
Percentage of annual revenue saved	0.30%	
Percentage of annual IT budget saved	11%	





Scenario 2a: 750-Employee Manufacturing Company, Cloud

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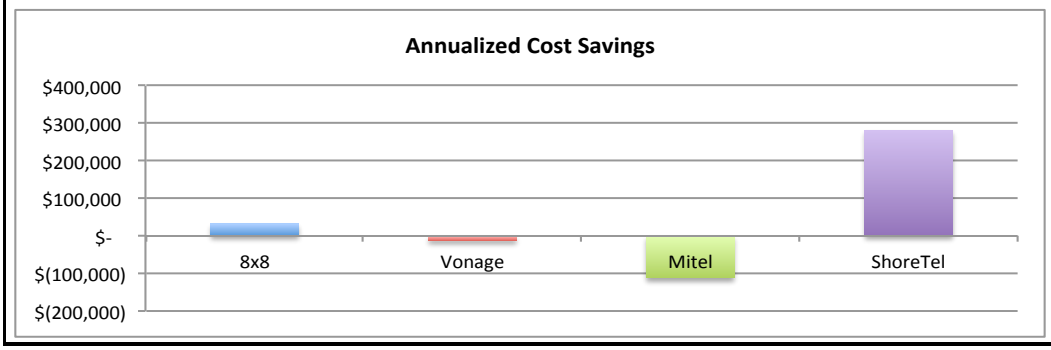
TCO Overview for IP Telephony/UC Cloud

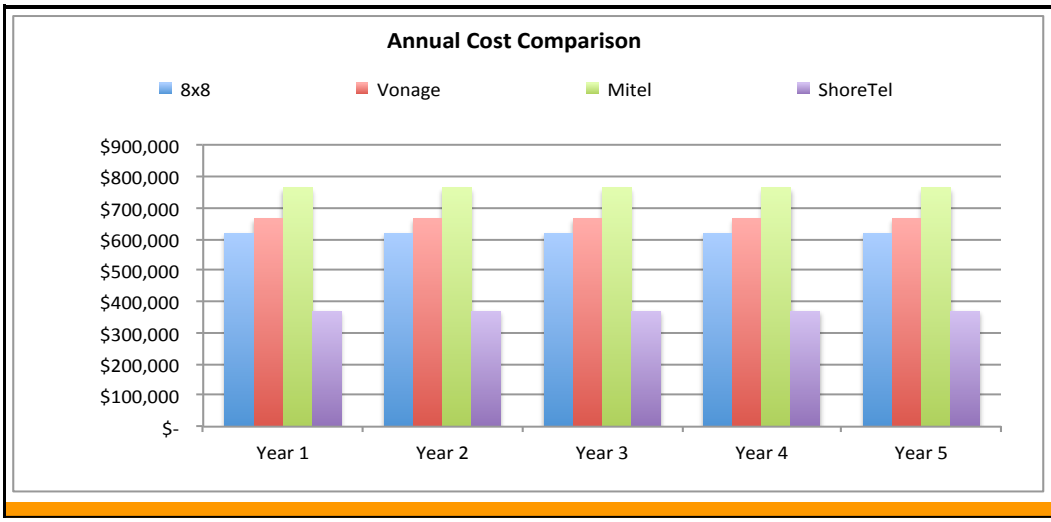
Prepared for: Mary Smith Acme Corp IPT/UC ANALYSIS

Cloud Cost Analysis

The Nemertes Cost Analysis Tools has calculated the following results for your organization, comparing costs for your current solution with cloud offerings. This section provides an overview of the cost benefits of this technology.

Your annual savings with 8x8:	$32,031	
Your annual savings with Vonage:	($12,841)	
Your annual savings with Mitel:	($111,962)	
Your annual savings with ShoreTel:	$281,912	
Years for cost analysis:	5	
5-year financial gain	**$1,409,560**	with ShoreTel
Percentage of revenue saved	0.17%	
Percentage of IT budget saved	6%	





Scenario 3a: 1,500-Employee Healthcare Company, On-Premises

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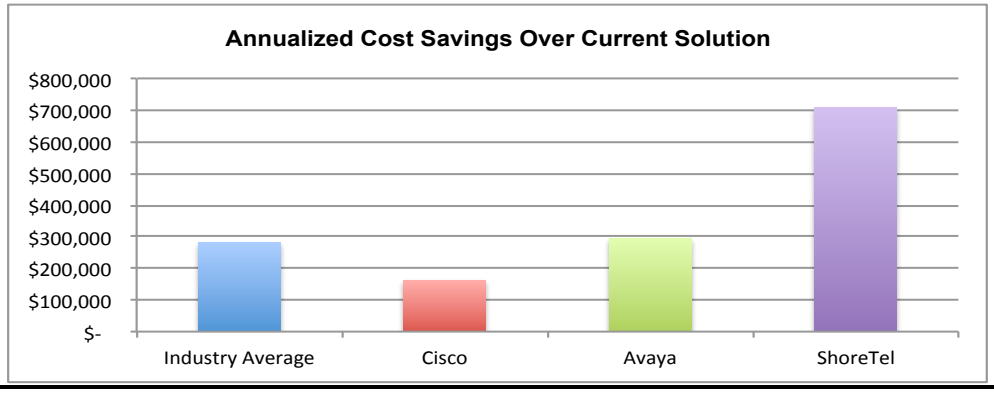
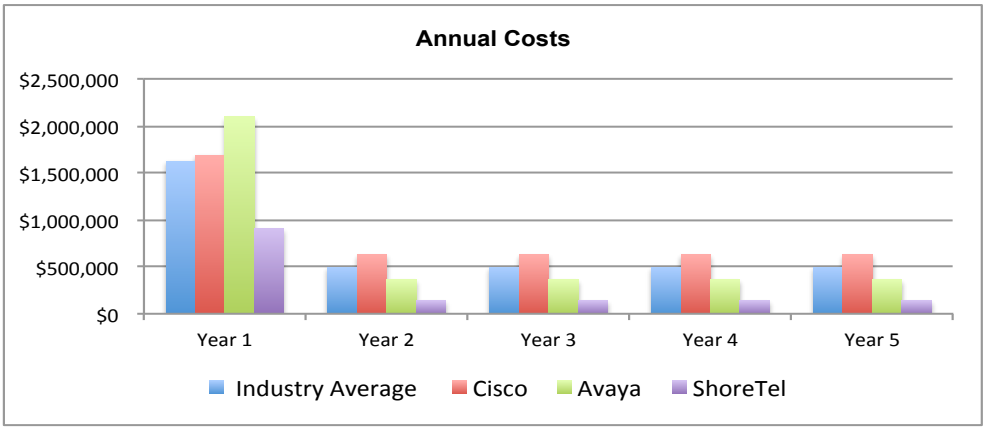
TCO Overview for IP Telephony/UC On-Premises

Prepared for: Mary Smith Acme Corp IPT/UC ANALYSIS

On-Prem Cost Analysis The Nemertes Cost Analysis Tools has calculated the following results for your organization. This section provides an overview of the cost benefits of this technology.

Your annual savings with Industry Average:	$280,521	
Your annual IPT/UC savings with Cisco:	$163,154	
Your annual IPT/UC savings with Avaya:	$293,277	
Your annual savings with ShoreTel:	$709,058	
Years for cost analysis:	5	
Best 5-year financial gain	**$3,545,292**	with ShoreTel
Percentage of annual revenue saved	0.24%	
Percentage of annual IT budget saved	9%	





Scenario 3b: 1,500-Employee Healthcare Company, Cloud

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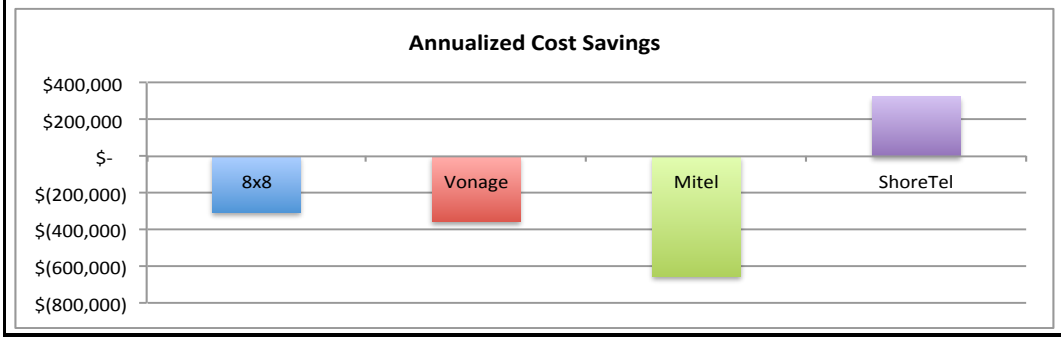
TCO Overview for IP Telephony/UC Cloud

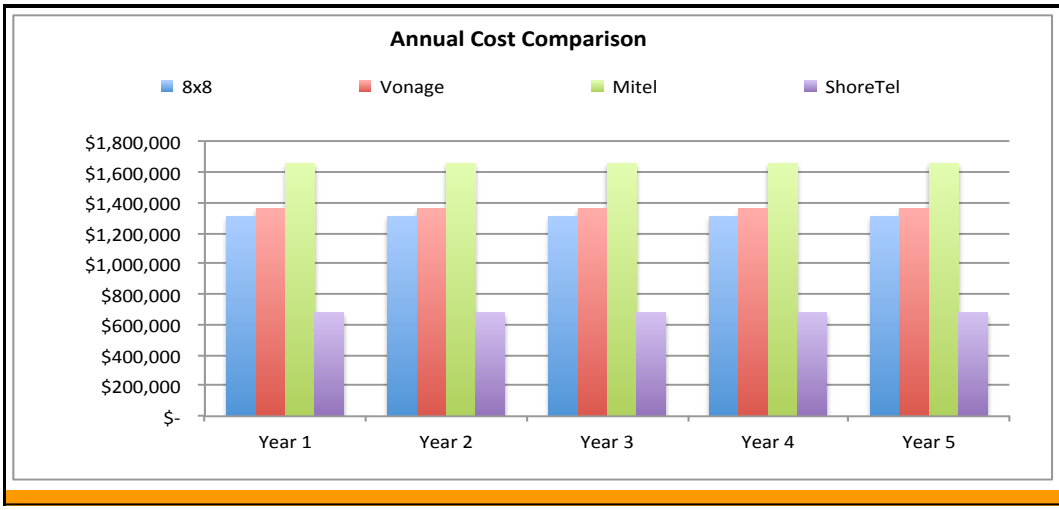
Prepared for: Mary Smith | Acme Corp | IPT/UC ANALYSIS

Cloud Cost Analysis

The Nemertes Cost Analysis Tools has calculated the following results for your organization, comparing costs for your current solution with cloud offerings. This section provides an overview of the cost benefits of this technology.

Your annual savings with 8x8:	($305,408)	
Your annual savings with Vonage:	($354,457)	
Your annual savings with Mitel:	($653,432)	
Your annual savings with ShoreTel:	$325,123	
Years for cost analysis:	5	
5-year financial gain	**$1,625,613**	with ShoreTel
Percentage of revenue saved	0.11%	
Percentage of IT budget saved	4%	





Conclusion and Recommendations

IP telephony and UCC deployments are increasingly broad and complex. More apps are included in the integration for an overall Unified Communications strategy. And although IT leaders would like to centralize on a single provider and a single architecture, that does not happen frequently enough.

Providers are rapidly improving their on-premises, cloud, and hybrid solutions. In particular, they are aware that many organizations want hybrid architectures, either temporarily as they transition from on-premises to cloud, or permanently for various business reasons. Selecting a provider with a common architecture is crucial to success in technology, vendor, and end user management.

Along with an increased focus on how UCC solutions can make the company more effective and productive, IT leaders must re-examine costs. Moving to cloud may do wonders for agility, but organizations often do not save money. So if cost-savings is the primary driver, be sure to evaluate all costs and determine which vendor will achieve that goal. Regardless of which architecture ultimately wins, selecting a provider with an affordable operational cost is the most important TCO component (vs. capital or implementation). Operational cost figures extend much longer than the one-time capital or implementation costs.

Addendum

Nemertes gathers cost data in the following areas:

Measurement	Includes	Formula On-Prem	Formula Cloud
Capital	PBX, endpoint devices and licenses, servers, other hardware. In some cases, bundled licenses include certain UC apps	=(staff time * loaded hourly rate)+3rd party costs / number of endpoints	=total capital costs / number of licenses
Implementation	Staff time and third-party consultants and integrators	=(staff time * loaded hourly rate)+3rd party costs / number of endpoints	=(staff time * loaded hourly rate)+3rd party costs / number of license
Operational	Staff time, equipment maintenance, 3rd party managed services, training and certification. Monthly service for Cloud services	=((number of FTEs * average annual loaded salary) + (equipment maintenance + managed services + training/certification)) / number of endpoints	=((number of FTEs * average annual loaded salary) +(equipment maintenance + managed services + training/certification)) / number of licenses