Secrets Revealed: Brilliant Simplicity and Lower TCO
1. Introduction - Brilliant Simplicity

There are many real world examples of how simplicity makes end-user experiences better. This not only makes for more pleasant interactions, but also reduces the cost of interacting with a solution.

When Apple introduced the iPhone back in 2007, the front facing-screen featured only a single home button. This was in stark contrast to the other smartphones at the time that had a confusing array of buttons. By keeping the design simple, Apple’s new breed of phone made using a smartphone easier and less time consuming than existing ones. The result was increased productivity and less time spent navigating.

Similarly Google’s homepage has remained relatively unchanged over the years, containing just a search box without the clutter of ads or links. The design is so simple that it eliminates the confusion of navigating through the visual noise when searching for Internet content. On the other hand, Yahoo’s homepage is quite different, overloading the senses and taking more time to load due to all of the images and links. It’s no wonder Google commands over two-thirds of the U.S. search market share compared to Yahoo’s 13 percent share as of June 2012.

Obviously the user interface is not the only reason for the popularity of Apple and Google. However, all things being equal, the simpler design reduces complexity, resulting in a better end-user experience and increasing productivity.

Unified Communications (UC) systems are no exception to the added benefits of brilliant simplicity – often resulting in significant cost savings over time.

What does ShoreTel mean when we say our solutions are “Brilliantly Simple?” ShoreTel has worked hard and invested heavily to ensure that end users can take advantage of the latest developments in communications technology without having to spend a lot of time learning how to use them.

As Einstein once said:
“Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius – and a lot of courage – to move in the opposite direction.”

The following sections describe the components that make up the total cost of ownership of a UC system and how businesses can lower their total cost of ownership (TCO) by selecting a simple yet sophisticated solution.

2. Defining total cost of ownership

Determining the total cost of ownership for any asset requires a comprehensive view of the entire lifecycle.

When purchasing a car, a consumer must take into account not only the upfront purchase price of the car, but the ongoing maintenance of the car, gas mileage, cost of insurance, resale value, in addition to other factors. Furthermore, the latest car with all the fancy bells and whistles may not be the best choice if a buyer wants to have a low total cost of ownership. The more bells and whistles there are, the higher the likelihood that something can break.

Businesses evaluating UC systems should similarly consider both the initial cost of a communications solution as well as the costs of maintaining the system over its lifespan. In addition, in order to have a low TCO, deploying a simple-to-use, easy-to-manage solution may be the right choice.

So what are the cost categories for a Unified Communications system? These costs fall into two buckets: upfront costs and ongoing costs.

3. Upfront costs

Many times, businesses looking at selecting a Unified Communications system will focus solely on the initial cost of the system. Price is the most visible, tangible cost, and becomes a basis of comparison between different vendors. However, some vendors who focus on presenting prospects with a lower price may be hiding initial costs of which businesses are unaware or don’t take into account. Below is a comprehensive list of upfront costs including both capital and operational startup costs.

Capital cost
Capital costs include the cost of hardware, software, and licenses. These are usually included in a quote from a vendor. In addition to these costs, however, are the costs of getting the system up and running and getting administrators and users up to speed on using the system.
Deployment cost

The complexity of a UC system can greatly affect the cost of deployment. For example, a January 2012 research report from Aberdeen Research found that out of 236 end-customers surveyed, the number of hours required to deploy a single phone for different UC systems varied from a low of 0.88 hours for a ShoreTel system to as long as 2.38 hours for an Avaya Aura system.

![Figure 2: Labor time and costs for IPT deployments](image)

The big discrepancy in time and cost it takes to deploy a phone is due to the simplicity of the ShoreTel system. To deploy a ShoreTel phone, all an administrator has to do is plug the phone into the network and the ShoreTel HQ server automatically detects it and uploads the latest phone firmware code to the phone. After an automatic reboot, the phone is placed into a pool of available phones ready to be assigned to a ShoreTel switch. What could be simpler than that?

Training cost

When looking at upfront costs, there is also the cost of learning how to use a UC system. Once again as you might expect, the more complex the system, the longer it takes to learn how to use it. Some vendors even recommend certification for those who will be responsible for administering their system, thus requiring multiple costly training courses and certification exams. In the Aberdeen survey cited above, the upfront training costs reported by end-users ranged from a low of $2,333 per administrator for ShoreTel to a high of $6,767 per administrator for a Cisco Unified Communications Manager system.
ShoreTel has the lowest training cost due to its ease of use and single management interface. Other systems require learning several discrete applications such as voicemail, presence, or conferencing, each with a different user interface and way to manage the application, resulting in more time and money spent on learning how to use the overall system.

4. Ongoing costs

Once a business is finished getting a UC system up and running, the ongoing costs of operating and maintaining it can really add up over time. This includes not only the headcount required to manage the system but the cost of maintenance and support contracts, recurring training, and electricity consumption.

System management

The complexity of a system can greatly affect the number of headcount required to manage a UC system. For example, if a solution is fully integrated with a single interface and upgrade procedure, it may require only one or two administrators. However, if a system has separate applications that have different upgrade procedures for each, management of the system may require more headcount.
In the Aberdeen Survey of 236 different businesses, the average number of headcount required to manage 1,000 phones ranged from a low of 1.81 full time equivalent employees for ShoreTel to 5.45 for Cisco Unified Communications Manager – more than three times the headcount. ShoreTel has an integrated IP Telephony and Unified Communications system with a single interface for managing the entire system. On the other hand, Cisco’s solution was built through acquisition, resulting in multiple applications, each with a different interface and upgrade procedure.

Furthermore, the more complex a solution, the more expertise is required to administer the system. The more expertise required to administer the system, the higher the salary the administrator will command.

<table>
<thead>
<tr>
<th></th>
<th>FTEs per 1,000 phones</th>
<th>Average salary per system management FTE</th>
<th>Average system management salary cost per 1,000 phones</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShoreTel (n=31)</td>
<td>1.18</td>
<td>$58,000</td>
<td>$105,000</td>
</tr>
<tr>
<td>Cisco UCM (n=52)</td>
<td>5.45</td>
<td>$83,000</td>
<td>$454,000</td>
</tr>
<tr>
<td>Cisco UCM Express (n=22)</td>
<td>2.25</td>
<td>$72,000</td>
<td>$163,000</td>
</tr>
<tr>
<td>Microsoft OCS/Lync (n=31)</td>
<td>2.85</td>
<td>$75,000</td>
<td>$214,000</td>
</tr>
<tr>
<td>Avaya Aura CM (n=14)</td>
<td>3.05</td>
<td>$59,000</td>
<td>$181,000</td>
</tr>
<tr>
<td>Avaya IP Office (n=15)</td>
<td>3.02</td>
<td>$54,000</td>
<td>$164,000</td>
</tr>
<tr>
<td>TDM Legacy PBX (n=44)</td>
<td>7.26</td>
<td>$52,000</td>
<td>$375,000</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, January 2012
Moves, adds, and changes

One of the most common tasks of a UC system administrator is to perform Moves, Adds, and Changes (MACs) for users. Typical examples of reasons for performing MACs include, an employee moving offices, adding a new hire, or an employee getting married and changing their last name. All of these events require making a change to the UC system. Can you imagine the timesavings an administrator would experience if he or she only had to make one change to a single user interface versus having to make these changes to multiple applications in multiple interfaces?

<table>
<thead>
<tr>
<th></th>
<th>ShoreTel (n=24)</th>
<th>Cisco UCM (n=31)</th>
<th>Microsoft OCS/Lync (n=20)</th>
<th>All telephony (n=118)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes per MAC-D</td>
<td>6</td>
<td>17</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Average annual salary system management</td>
<td>$58,000</td>
<td>$83,000</td>
<td>$75,000</td>
<td>$52,000</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, January 2012

Figure 6: The cost of MAC-D service orders

The Aberdeen survey results are consistent with what would be expected. They show that the time it takes to perform a MAC varies from a low of six minutes for a ShoreTel system to as much as 17 minutes for a Cisco Unified Communications Manager system.

Recurring training

Today’s fast changing environment includes many advancements that are supposed to make our lives easier. However, to keep up with these advancements, administrators have to stay current with their knowledge. This is true especially with complex solutions.

Cisco requires that certifications be renewed every three years. This significantly adds to the cost of managing a UC system over the life of the system. On the other hand, if a system is simple to use (and from a vendor that values ease-of-use), the ongoing training requirements are much less. In 2011, ShoreTel introduced the SA-100 UC appliance to complement its line of ShoreTel switches. The management of the SA-100 for instant messaging, presence, and Web conferencing is integrated into the existing ShoreTel Director administrative interface, thus providing increased functionality without the need to learn a new interface.

The Aberdeen survey once again shows that simplicity can lower TCO for recurring training as well. The survey shows that the annual cost of recurring training ranges from a low of $551 per year for ShoreTel to as much as $6,391 for Cisco Unified Communications Manager Express.
Maintenance and upgrades

Businesses typically purchase maintenance and support contracts to ensure that their system remains in working order and contains the latest updates. However, not all vendors have the same way of providing such services.

Cisco has separate contracts for hardware support, software support, and software upgrades. ShoreTel, in contrast, has a single maintenance contract for software and hardware that includes free software upgrades. A much simpler way of doing business.

In addition, because the ShoreTel system is highly reliable, the annual cost of maintenance per phone is much lower than other vendors.

<table>
<thead>
<tr>
<th></th>
<th>Annual maintenance costs per phone</th>
<th>Annual software assurance per phone</th>
<th>Combined maintenance/assurance per phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShoreTel (n=11)</td>
<td>$40.20</td>
<td>$29.75</td>
<td>$69.95</td>
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<tr>
<td>Cisco UCM (n=57)</td>
<td>$64.41</td>
<td>$107.00</td>
<td>$171.41</td>
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<tr>
<td>Microsoft OCS/Lync (n=35)</td>
<td>$65.01</td>
<td>$64.50</td>
<td>$129.51</td>
</tr>
<tr>
<td>TDM Legacy PBX (n=44)</td>
<td>$42.88</td>
<td>$43.24</td>
<td>$86.12</td>
</tr>
<tr>
<td>All IP Systems (n=101)</td>
<td>$59.61</td>
<td>$57.57</td>
<td>$117.18</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, January 2012

Figure 7: Recurring training cost per administrator by solution

Figure 8: Enterprise telephony maintenance and assurance costs
Other ongoing cost factors

Electricity consumption can also influence the total cost of ownership for a UC system. Servers can eat up electricity and require cooling systems as well. A UC system that keeps the system simple and minimizes the number of servers required can further reduce total cost of ownership.

Network costs, long distance charges and trunking costs also add to the overall TCO of a solution. The differences between vendors for these costs are typically small but should nevertheless be included in a comprehensive TCO analysis.

5. Time frame of analysis

The time period for a TCO analysis is an important consideration that may influence a decision one way or another. How long will a new communications system last? Historically, legacy communications systems have lasted for tens of years. However, with today’s fast changing advancements in IP communications, a more appropriate timeframe for a TCO analysis may be seven to 10 years.

6. ShoreTel TCO Tool

ShoreTel prides itself on leading the Unified Communications industry with the lowest total cost of ownership. Not only does third-party research such as the Aberdeen survey confirm this, but ShoreTel makes it easy for end-users to see the difference with the ShoreTel TCO tool.

This tool incorporates third-party data and comes up with detailed estimates for total cost of ownership for various vendor solutions.

Figure 9: ShoreTel TCO Tool interface
7. ShoreTel TCO Tool examples

The following data illustrates some of the differences in total cost of ownership using the ShoreTel TCO tool as a basis of comparison.

100-user, single site, 10-year TCO comparison

The following comparison shows the difference in TCO for a 100-user, single-site deployment.

Figure 10: Total cost of ownership comparison 100 users, single site (pre-tax cash outlay)
500-user, 3-site, 10-year TCO comparison

The following comparison shows the difference in TCO for a 500-user, three-site deployment with 300 users at the headquarters site and 100 users at each of the two remote sites.

Figure 11: Total cost of ownership comparison 500 users (pre-tax cash outlay)
1,000-user, 7-site, 10-year TCO comparison

The following comparison shows the difference in TCO for a 1,000-user, seven-site deployment with 700 users at the headquarters site and 50 users at each of the six remote sites.

![Figure 12: Total cost of ownership comparison 1,000 users (pre-tax cash outlay)](image-url)
5,000-user, 20-site, 10-year TCO comparison

The following comparison shows the difference in TCO for a 5,000-user, 20-site deployment with 3,100 users at the headquarters site and 100 users at each of the 19 remote sites.

As you can see from the above examples, ShoreTel’s total cost of ownership is significantly lower than the solution from other vendors across a variety of scenarios. The bulk of the cost savings come from system management costs. As described previously, the more simple the UC solution, the easier it is to manage the system and the less headcount is required.
8. Summary

Applying the simplicity principle to selecting a Unified Communications system can result in significant cost savings over time. The total cost of ownership of a simple solution such as that from ShoreTel makes deployment easier, learning easier, and management easier as shown by third party end user surveys. We encourage businesses evaluating different UC systems to explore the total cost of ownership by using the ShoreTel TCO tool. Please contact your local ShoreTel reseller or send your inquires to info@shoretel.com.

About ShoreTel

ShoreTel is a provider of business communication solutions whose brilliantly simple unified communications platforms, applications and mobile UC solutions promise a new rhythm of workforce engagement and collaboration. With costly complexity eliminated by design from its award winning, all-in-one IP phone system, UC and contact center solution, and its industry leading hosted business phone system, workers enjoy a freedom and self-reliance that other providers can’t match. Users have full control to engage and collaborate, no matter the time, place or device, for the lowest cost and demand on IT resources in the industry. ShoreTel is headquartered in Sunnyvale, California, and has regional offices and partners worldwide. For more information, visit shoretel.com or shoretelsky.com.