Enterprises Stand To Recoup Millions Using UC

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Executive Summary

In early 2011, the Webtorials Editorial and Analyst Division reported that in small and mid-sized businesses (SMBs) of 10 to 500 employees, knowledge workers[1] spent about four hours per day performing non-productive tasks. The report also indicated that those hours could be reduced by implementing unified communications (UC) applications and systems.[2] You could intuit that larger enterprise organizations would benefit in the same way. After all, enterprises usually have more robust infrastructures in place to support the enhanced communications capabilities that deliver associated productivity (time and cost) savings. To test this hypothesis, we conducted a parallel study in early 2012 that focused on enterprises with more than 500 employees.

Even among our technically sophisticated survey base, we found that enterprises were actually losing more productivity time to routine tasks than their SMB counterparts. They spent, on average, more than five hours per day on time-consuming but unproductive activities, such as trying to reach colleagues and coordinate meetings – tasks that are prime candidates for streamlining using a comprehensive UC system that automates many of these processes. Getting such fully featured UC systems in place often requires the involvement of multiple suppliers, and getting their systems to interoperate isn't possible without Session Initiation Protocol (SIP) support in the UC.

So we asked respondents about the percentage of this non-productive time they thought could be recovered by "*the implementation of a fully functional, SIP-based unified communications infrastructure.*" Based on their responses, we calculated that a company with 5,000 knowledge workers could recover more than $61M per year. Note, too:

The median number of employees in the 2012 enterprise response base was 8,700. If one assumes that the median respondent has 100% knowledge workers, the annual savings are a whopping $107M annually.

These calculations are limited to knowledge workers. Expanding SIP-based UC into other areas of the workforce, such as dispatch for service companies, enhanced manufacturing and sales, could result in significant additional savings.

[1] Knowledge workers" are employees who rely substantially on telecommunications and IT capabilities as an integral part of their duties.
[2] 2011 Unified Communications and Cloud-Based Services Report

Enterprise Priorities

Before we jump into the survey data and math used to calculate these and other potential savings, it's important to look at what respondents said were their top IT priorities in the enterprise, and those priorities centered around cost containment. As shown in Figure 1, reducing the cost of IT is both the top priority and the most difficult one facing enterprises.

One significant way to contain costs is by improving business processes used by knowledge workers. This can be achieved, in part, using a fully featured UC implementation, as mentioned, because such systems automate much of the laborious and time-consuming tasks employees currently undertake to communicate with one another and with customers. UC automation leaves them with more time available to do "real work."

Figure 1: Most Important vs. Most Difficult Enterprise IT Priorities

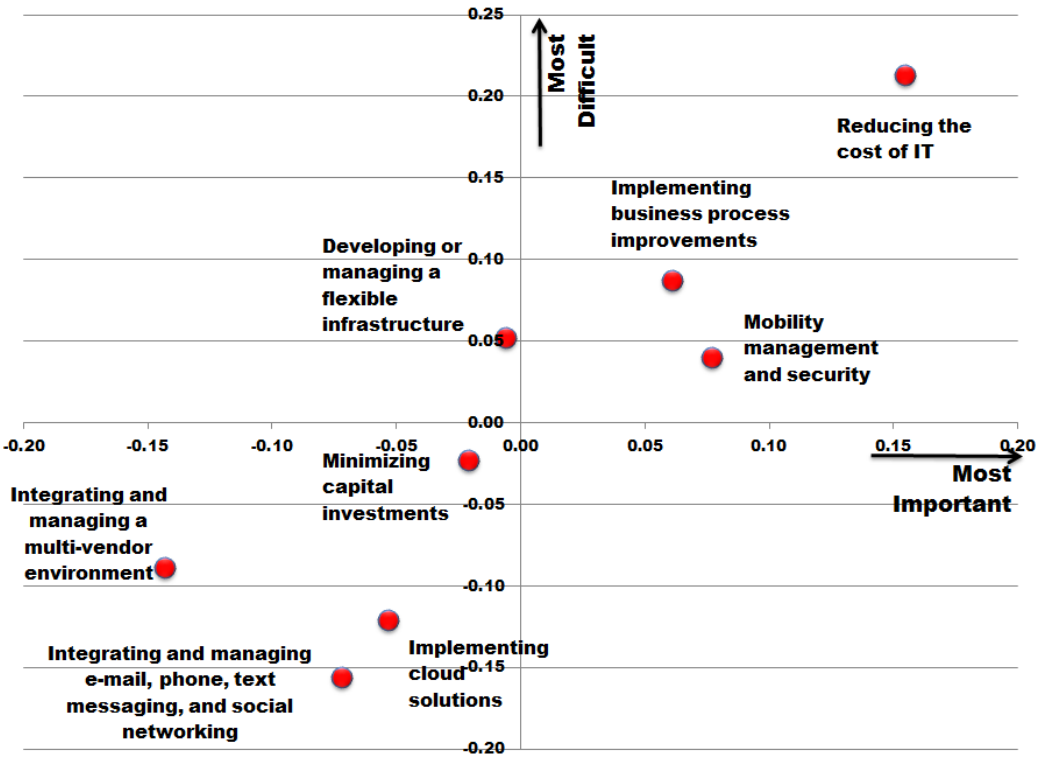

***Figure 1** was derived by taking the mean percentage of each response and then plotting the deviation from the mean. Thus, functions more important than the rest and those more difficult than the rest are shown in the upper right quadrant. Similarly, least important and least difficult functions are in the lower left quadrant. The respondents were queried about the IT projects they considered the most important and the most challenging/difficult. In each case, they were asked to choose no more than four of the tasks or functions shown near the red bullets.*

It is not particularly surprising that "*Reducing the cost of IT*" ranked #1 in both the "*most important*" and "*most challenging*" categories. Several supporting areas related to reducing and containing costs also tracked with this finding. For instance, *"Implementing business*

process improvement" was a major factor both in importance and difficulty. This, therefore, forms one of the major tenets of the remainder of this report:

Business processes today are a major drain on economic resources.

And as mentioned, business processes are also an area that can be readily addressed by the implementation of comprehensive UC systems because of their automation and time-savings benefits. Also, respondents appear willing to invest in UC capabilities, as indicated by the intermediate importance and relative ease of *"Minimizing capital investments"* shown; in other words, the IT goal of minimizing capital investments and its related difficulty were far out-shadowed by the primary goal and challenge of containing costs overall.

Thus, the remainder of this report focuses on these two integrally linked primary areas, *"Reducing the cost of IT"* and *"Implementing business process improvement,"* and quantifies the potential associated savings. Note that the data collected for this report concerning the enterprise tracks closely with responses to a similar question that Webtorials asked of smaller organizations and reported on in its "2012 SMB Communications Plans and Priorities" report.

Time-Savings Analysis

The Executive Summary asserted: *"The median number of employees in the response base was 8,700. If one assumes that the median respondent has 100% knowledge workers, the annual savings are a whopping $107M annually."*

This statement can't be made lightly, so this section documents, step-by-step, the data gathered and, where applicable, the assumptions to justify this claim. The first step was to ask *"How much time per day do you think the average knowledge worker in your organization spends on the following tasks?"* The options and average results were as follows:

» Trying to contact customers, partners or colleagues……	**1.41 hours**
» Trying to find key business information ……..……	**1.44 hours**
» Dealing with unwanted communications (spam, unwanted calls, etc.) ……..	**0.58 hours**
» Duplicating communications with multiple channels (email, phone, etc.)…..	**0.81 hours**
» Attempting to schedule meetings etc. with people in our organization……	**0.85 hours**

Thus, ***the average knowledge worker spends just over five hours per day being less than fully productive.***

Some of this time could be recovered by implementing appropriate tools. But the question is how much of this time could be recovered, especially since the user base is highly sophisticated[3] and can be assumed to already be optimizing some UC capabilities?

To quantify the anticipated savings, we asked the survey base: *"What percentage of knowledge workers' time spent on each of the following tasks do you believe could be recovered by implementing a* ***fully functional SIP-based UC infrastructure****?"*

The emphasis was placed on implementing a SIP-based UC infrastructure because getting a fully functional UC system deployed is likely to involve multiple vendors and the integration of their respective products and services. Doing so might be a significant step for many of the respondents who currently have a single-vendor solution only in place.

For each of the categories, the expected time-saving results were as follows:

» Trying to contact customers, partners or colleagues……	**26%**
» Trying to find key business information ……..	**21%**
» Dealing with unwanted communications (spam, unwanted calls, etc.) ……..	**15%**
» Duplicating communications with multiple channels (email, phone, etc.)……	**28%**
» Attempting to schedule meetings etc. with people in our organization……	**27%**

The average potential time saved overall was 23%.

In order to make the results as realistic as possible, we couldn't assume that all workers have a 40-hour work week. In particular, highly compensated workers tend to work significantly more. The base was asked: *"How many hours per week do you estimate each knowledge worker works (in each yearly base salary category)?"*

The results were as follows:

» Under $50k	**42 hours**
» $50k - $90k	**47 hours**
» $90k - $120k	**51 hours**
» Over $120k	**54 hours**

Thus, based on the time saved, average time worked and time recovered for each of the five categories of tasks defined earlier, ***the time recovered is 1.21 hours per employee per day***.

[3] Among the users, 79% of respondents considered themselves to be technically "Above Average" or "Extremely Savvy."

Cost-Savings Analysis

Now that the time savings have been justified, the final step is to convert this time into dollars. This is a multi-variable problem, but a number of factors were included to account for as many factors as possible. For example:

- An average wage for each category of employee was assumed.
- The base wages were adjusted to accommodate for benefits by applying an industry-standard factor of 30% overhead.
- It was assumed that 48 weeks per year were actually worked when accounting for vacation, holidays and sick leave.
- Hours worked per week were considered.

Accounting for these variables resulted in an average adjusted hourly rate (shown in Figure 2) for each of the four salary ranges.

Figure 2: Determining Real-World Wages

Salary Range	Base Wage	Salary with Benefits	Hours / Week	Annual Hours	Hourly Rate
Under $50k	$35,000	$45,500	42	2179	$20.88
$50k to 90k	$70,000	$91,000	47	2417	$37.65
$90k to $120k	$105,000	$136,500	51	2618	$52.14
Over $120k	$150,000	$195,000	54	2748	$70.95
Adjusted hourly wage per category of worker					

Thus, we are able to calculate an annual savings for each salary category of knowledge worker based on the hourly rate (52-week rate) and the savings of 288 hours per year (1.2 hours per day over 48 weeks [1.2*5*48]).

The average savings is about $13,000 per year per employee.

However, simply multiplying this savings by the number of employees does not accurately reflect savings for a given company, because the total savings are dependent on the distribution of salaries within a given company. For instance, a credit card processing center might have a large number of modestly compensated employees while an engineering-oriented company might consist primarily of highly compensated employees.

In order to model these savings, we assumed a distribution of salaries as shown in Figure 3.

Because the distribution in this example assumes a modest salary distribution, the average savings per employee is about $12,300 per employee as compared with the average of

$13,000 mentioned above with an assumption of equal numbers of employees in each category.

Figure 3: Adjusting for Salary Distribution

Knowledge Workers	Salary Distribution	500	2,500	5,000	8,700
Under $50k	20%	$601,359	$3,006,796	$6,013,592	$10,463,649
$50k to 90k	35%	$1,897,788	$9,488,938	$18,977,876	$33,021,503
$90k to $120k	35%	$2,627,674	$13,138,368	$26,276,737	$45,721,522
Over $120k	10%	$1,021,683	$5,108,416	$10,216,832	$17,777,287
Total Savings		$6,148,504	$30,742,518	$61,485,036	$106,983,962

Savings for companies with various numbers of knowledge workers with a fixed salary distribution.

Thus, we return to our assertion in the Executive Summary:

The median number of employees in the response base was 8,700. If one assumes that the median responder has 100% knowledge workers, the annual savings are a whopping $107M annually.

Summary

The intent of this survey and subsequent analysis was to measure the economic impact of implementing a fully functional SIP-based UC infrastructure in an enterprise. The analysis presented here is limited to a certain extent by the necessity of assuming the characteristics of a prototypical company but provides readers with the tools to calculate a quantifiable savings by adjusting the parameters to fit their own company.

The messages remain constant:

- ***Enterprises are losing many hours of productivity per employee because of not having readily available interoperable tools for UC. Such tools would automate many time-consuming tasks associated with setting up meaningful communications with colleagues, customers and others.***

- ***A typical enterprise can recover millions of dollars per year – possibly even hundreds of millions – by implementing a more fully functional and interoperable UC infrastructure.***

SIP's Relationship to Unified Communications

In Webtorials' 2012 enterprise UC study, the reference to "the implementation of a *fully functional* ***SIP-based*** *Unified Communications infrastructure"* was carefully worded. There are several reasons for this.

First, since the survey response group is a technically sophisticated base, there is good reason to believe that at least some degree of UC has already been implemented in respondent organizations. However, this implementation to date – even if based upon a proprietary implementation of SIP – is very likely limited to a single vendor's product set. Further, the extent of implementation at this point is difficult to define.

Asking about a "fully functional SIP-based" infrastructure is intended to allow the respondents to project additional savings that could be realized by augmenting their current implementations. Further, the reference to SIP is intended to imply the possibility of multivendor interoperability.

At the same time, one must be careful to note what SIP does and does not do. While SIP does not guarantee interoperability among multivendor UC systems, interoperability is impossible without it. SIP's function is to provide a standardized signaling system for establishing communications pathways among elements in a full implementation of UC that includes voice over IP (VoIP), instant messaging (IM), video and other types of media sessions. You could think of SIP as providing the same set of functions over TCP/IP for multimedia communications as Signaling System No. 7 (SS7) provided for traditional voice call processing, in that it does the following:

- Locates the user and determines which end system will be used in the proposed session
- Learns the user's availability
- Determines the capabilities available at the user end system for the session
- Establishes the session
- Manages the session

In short, while SIP does not guarantee interoperable UC, the protocol provides a necessary and enabling foundation for disparate UC systems to be able to work together. It does so by setting up a framework for the five functions listed above to which multivendor UC providers can adhere.

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The primary author of this study was Steven Taylor.

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www.Webtorials.com

Division Cofounders:

Jim Metzler
jim@webtorials.com

Steven Taylor
taylor@webtorials.com

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