

# Unified Messaging Time Saving Study

*Published by ComGroup, Incorporated  
February 2004*

*COMgroup, Inc.  
4030 Lake Washington Blvd.,  
Suite 303  
Kirkland, WA 98033  
[www.comgroup-inc.com](http://www.comgroup-inc.com)  
425.462.0770*



## Table of Contents

Introduction.....	1
Background.....	1
Methodology.....	2
Study Findings .....	3
Representative Cost & Saving Projection.....	6
Conclusion .....	8

## ***Introduction***

This document describes a study performed to identify and quantify the time savings associated with implementing Applied Voice & Speech Technologies CallXpress® with unified messaging, and provides estimates of cost savings and payback period on the investment. The conclusions in this report are supported by time and motion studies and a review of other published reports. In addition to providing test lab results and other results indicating rapid cost-recovery, a chart is provided that calculates the savings a representative company might experience. This document demonstrates that CallXpress with unified messaging recovers some or all of the costs associated with implementation within the first year and offers significant cost savings well into the future.

## ***Background***

Unified messaging brings together a variety of message types in a single, easy-to-use interface. Unified messaging is typically referred to as the unification of two or more applications including voice mail, fax store-and-forward, and electronic mail in a single, easy to use system. CallXpress unified messaging provides access to all received messages – voice, fax, and e-mail—together, through either the telephone or computer. When traveling, a telephone might be the easiest way to access messages, although a laptop computer or Web-browser could be used as well. When in the office, typically the e-mail interface is used to manage and access voice, fax and e-mail messages.

A Frost and Sullivan study<sup>1</sup> published in 1999, indicated that companies implement computer telephony products for a variety of reasons. Cost-savings ranked number three in a list of reasons why companies implement these types of systems. Rated higher than cost savings were improved worker productivity and improved contact with existing/potential customers. So while it has been shown that there are other valid reasons to select and implement a unified messaging system, the purpose of this study is to quantify the cost savings associated with its common uses. AVST provides this study to support an organization's business case to justify the purchase of a unified messaging system.

AVST has found that many of their clients are combining their voice and data communications departments, and have reported that a unified approach saves a great deal of time and effort in supporting their users. AVST believes that consolidating voice and fax messages in the e-mail client is a logical approach, as many companies already have an e-mail system that is already unified messaging-ready, such as the current releases of Microsoft Exchange® and Lotus Notes®. Current AVST users demanded an easier way to manage increasing volumes of communications. AVST users indicate they believe it is critical to keep their remote and traveling employees as well informed as those employees in their headquarters locations.

Other companies in this industry have conducted studies and published results indicating the value of unified messaging systems. These studies indicate substantial advantages.

These studies, however, have typically relied solely on user surveys for their conclusions, which does not enable the potential purchaser to quantify actual business savings.

AVST's study has selected three communications challenges that are frequently reported by its client base, where unified messaging can provide solutions. This study identifies and documents the time required to perform these communications functions, first using the typical manual systems found in most offices and then using unified messaging systems and services. Using time and motion studies conducted in AVST's Usability Lab, this study details specific tasks performed both in an office environment and by mobile professionals.

## ***Methodology***

The information presented in this report is based on a variety of primary and secondary research methods. Initial research consisted of time and motion studies conducted in AVST's Usability Lab to identify actual savings associated with performance of specific business tasks, both with and without unified messaging. The primary products used by participants in the AVST Usability Lab included:

- CallXpress, including RightFax™ from Captaris
- Lotus Notes® from IBM Corporation
- Microsoft Exchange® and Microsoft Word® from Microsoft Corporation

The time and motion studies conducted in AVST's Usability Lab consisted of gathering typical office users, acquainting them with traditional faxing, voice mail, and e-mail operations and timing a variety of office activities using these methods. After establishing benchmarks using traditional methods, these same users received training on CallXpress unified messaging and were asked to repeat their earlier tasks. Times were again measured and savings calculated. In addition, the required training time was observed.

The test participants were office users typically well acquainted with traditional methods, but almost all were unfamiliar with unified messaging. The time and motion portion of this study documents time saving for three general areas of communications functions that can also be supported inside a unified messaging system:

- 1) time savings for an in-office staff member, using a networked computer, using a single graphical interface for accessing and reacting to e-mail, voice-mail, and faxes, versus the same staff member using three separate computer or manual systems for these functions
- 2) time savings for a remote staff member or traveling employees, using dial-up networking to connect a remote computer, using a single graphical interface for accessing and reacting to e-mail, voice-mail, and faxes, versus the remote staff member using three separate computer or manual systems to perform these functions

- 3) time savings for in-office staff responsible for sorting and distributing received faxes (incoming) or for administrative staff sending faxes (outbound)

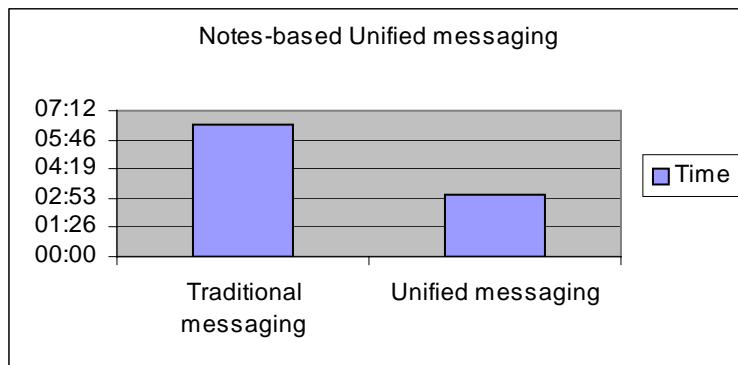
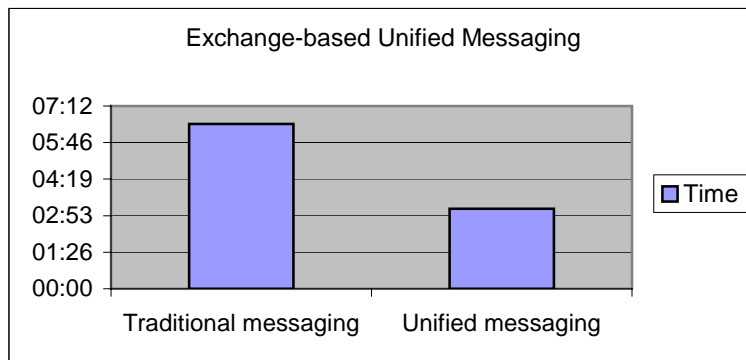
Secondary research consists of other unified messaging studies that support the conclusions drawn in various portions of this report. Where these are used the source is identified.

### **Study Findings**

The following provides a summary of the findings of the time motion study in the three areas being examined:

#### **In-office Staff Member, Graphic Display of all Message Types in a Single Interface**

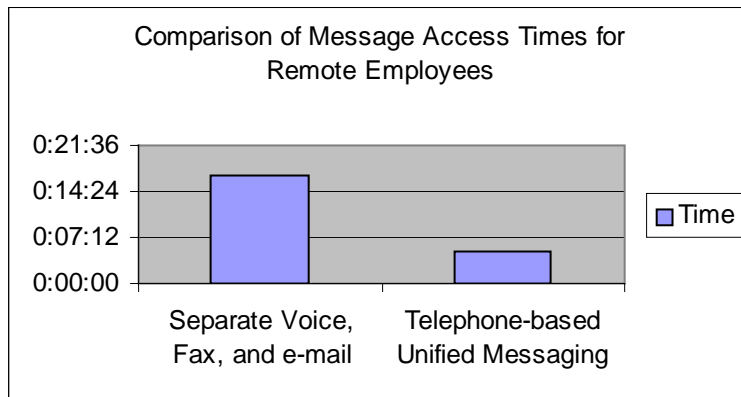
Displaying all message types – voice, fax, and e-mail – in a single interface provides significant productivity gains for office professionals. Users can quickly identify and act on a particular message type, receive message notification in a consistent manner, and respond to all message types in a consistent fashion. The following graph demonstrates the observed savings in a session where lab users checked all three message types – voice, fax, and e-mail – using traditional means and with unified messaging. The CallXpress unified messaging portion of the tests was run using both Lotus Notes and Microsoft Exchange. Similar results were obtained for both Notes and Exchange as shown below.



Using unified messaging, the sample voice, fax, and e-mail messages were effectively managed in less than half the time it took with traditional manual methods.

### **Remote and Traveling Employees, Graphic Display of all Message Types in a Single Interface**

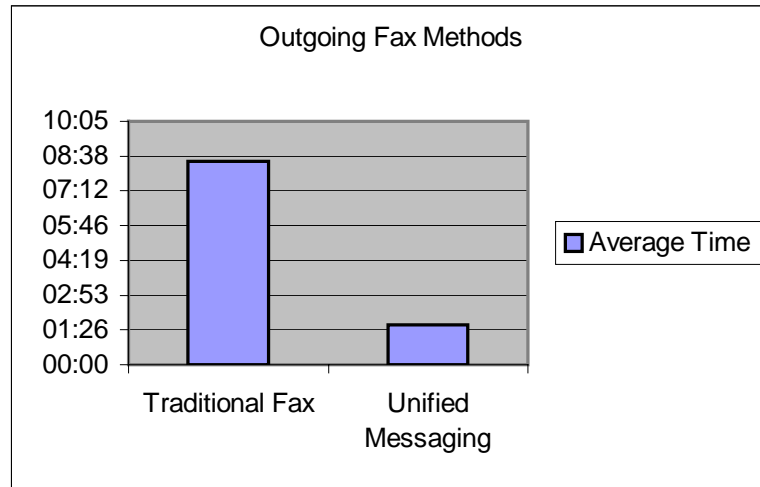
Providing information to remote and traveling employees often requires a main-office employee to locate the remote/traveling employee to ensure that information is delivered. With unified messaging, all three message types are delivered to the remote employee's single mailbox in whatever form is desired – voice, fax or e-mail. The remote employee uses the device that is most comfortable or accessible for dealing with specific messages. For example, a remote professional could access all three message types through the telephone, dialing in over a modem to synchronize their inbox, or through a web browser interface. Another notable benefit of unified messaging is notification – allowing the unified messaging system to automatically notify the user of new messages based on rules defined by the user.



The study observed an average time of almost 17 minutes for a remote or traveling employee to access all three message types using traditional means. With CallXpress unified messaging, all three message types were accessed in just over 5 minutes. This is a savings of 12 minutes each time that all messages are checked.

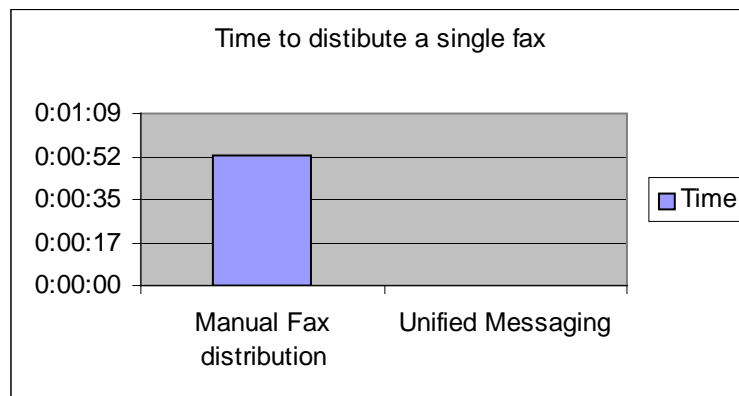
## In-office Staff, Sending and Receiving Faxes

The time and motion studies conducted in the AVST Usability Lab showed a time savings of 80% for unified messaging over the total time required to send a fax in the traditional manner.



These results are comparable to the numbers traditionally used by RightFax dealers in preparing cost-benefit analyses<sup>2</sup> for stand-alone fax servers. The average time observed to send a fax using traditional methods was 8 minutes and 25 seconds. With unified messaging, this same document was faxed in 1 minute and 39 seconds. When multiplied by the number of fax pages sent daily by an organization, the calculated cost savings adds up significantly.

Savings were also observed with the receipt of faxes. With unified messaging, faxes are delivered directly to the intended recipient, eliminating the time required to distribute the fax. This study observed an average time of almost one minute to deliver a single fax document when a batch of faxes are delivered to a user at the same time. This observation was made in a controlled environment where there were no distractions to slow employees down.



The chart above is accurate. With unified messaging properly planned and implemented, faxes can be delivered directly to the desktop, eliminating distribution time entirely.

Substantial timesavings are found with unified messaging since employees are able to send and receive faxes without leaving their workstations. A study conducted by Snaps, Inc., a reseller of RightFax<sup>3</sup>, for example, reports that companies moving from traditional manual faxing to a RightFax fax server solution save more than \$18,000 per year. This study assumes 30 employees per fax machine sending 25 faxes per day at 10 minutes each. The mean burdened hourly labor cost is \$20 per hour.

### **Representative Cost & Savings Projection**

This study shows three areas of potential savings in which CallXpress with unified messaging rapidly pays for itself when properly planned, implemented, and managed. Using only these three areas of costs savings, the following table shows the projected costs and savings for a representative company installing AVST's CallXpress systems.

Implementation costs were calculated through surveys and experience with system sizes and the number of users served. Typical software costs for CallXpress with unified messaging is between \$85 and \$190 per system user. This per seat cost tends to decrease as system size increases since more users are handled by a single server. Representative estimated values were used on the average time savings per day, the average hourly salary, and the resulting daily cost savings based on information gathered from AVST clients using the CallXpress system.

#### **Example #1:**

The following example illustrates a 200-user system with 20 remote/traveling employees. Conservative values were used for average salary cost per hour, many companies will experience much higher costs. Costs were estimated at \$190 per seat for CallXpress unified messaging software bundle including software (CallXpress and RightFax), voice and fax cards, and client seat licenses.

	Office-based	Remote/traveling	Total
Number of employees	180	20	200
Time-savings (in hours/day)	0.25	0.4	
Average hourly salary cost	\$12	\$25	
Savings per day	\$540	\$200	\$740
System costs	\$34,200	\$ 3,800	\$38,000
Payback in days			51.35

The system in Example #1 above pays for itself in 51.35 business days, exclusive of desktop hardware/software, server hardware [etc]. An organization's results will vary with changes in the variables.

**Example #2:**

The following example uses the same 200-user system with 20 remote/traveling employees, but with higher cost estimates and lower cost savings. Costs were estimated at \$190 per seat for CallXpress software including software (CallXpress and RightFax), voice and fax cards, and client seat licenses, plus an additional \$250 per seat for additional desktop hardware and software, additional e-mail server hardware and software, internal and external technical support costs, and internal and external training.

Again, representative estimated values were used on the average time savings per day, the average hourly salary, and the resulting daily cost savings based on anecdotal information gathered from AVST clients using the CallXpress system. The cost savings in this example assumed that first day savings are lower, but will scale up over time as more applications are activated, and more users are placed on the CallXpress system, based on a phased implementation process.

	Office-based	Remote/traveling	Total
Number of employees	180	20	200
Time-savings (in hours/day)	0.125	0.20	
Average hourly salary cost	\$12	\$25	
Savings per day	\$270	\$100	\$370
System costs	\$79,200	\$8,800	\$88,000
Payback in days			237.84

The system in Example #2 above pays for itself in 237.84 business days, with all hard and soft dollar costs included. Using approximately 240 business days per year, this system has a payback period of less than one year. Again, an organization's results will vary with changes in the variables.

## **Conclusion**

This study has examined three functions or communication challenges many organizations typically face, all of which can be addressed using unified messaging systems and services. For each of these functions, the testing in the AVST Usability Lab substantiates that valuable timesavings are possible using the CallXpress system versus a combination of separate electronic and manual systems.

Any organization that needs to understand the value of a Unified Messaging system, and then justify the purchase of a Unified Messaging system, must consider the per hour costs associated with their staff performing these (and other) routine and repetitive communication functions. The timesavings and the associated dollar cost of the time used for these functions can be calculated, and these amounts can be set against the total purchase cost of the CallXpress system. Given that employee time has an identifiable value, and that a measurable amount of this time can be saved, the calculated payback period recommends unified messaging systems as a good investment.

The actual value of these timesavings must be realized through the effective reallocation of this saved staff time to more productive use, in meeting the organizations goals and/or doing more profitable work. The effective and profitable use of this saved time is a management issue for any firm which implements one of these systems, and outside the scope of this study and report. It is clear, however, that valuable timesavings are possible for any firm that will take advantage of this opportunity.

---

<sup>1</sup> Frost and Sullivan U.S. Unified Messaging Report 1999

<sup>2</sup> A good example of this is the ROI Calculator created by Snaps, Inc. available at [www.snapsinc.com](http://www.snapsinc.com)

<sup>3</sup> For additional information, refer to the ROI Calculator at [www.snapsinc.com](http://www.snapsinc.com) or <http://www.captaris.com/>