›THIS IS **THE WAY**

›THIS IS NORTEL

White Paper

Voice over IP and multimedia services take root in the U.S. enterprise, igniting global commerce and enhancing employee interaction

A Nortel primary research study

Recent Nortel primary market research shows Voice over IP (VoIP) has become firmly established in the mainstream of enterprise telephony. Along with the rapid advancement of VoIP, there is growing recognition among business decision makers that complementary multimedia applications provide valuable business benefits beyond what voice-only solutions can offer. The market research also shows a strong preference for carrier-hosted service delivery models that enhance, rather than replace, existing telephony infrastructure. This level of interest in new multimedia services and new service delivery models indicates a turning point in the communications industry. Service providers need to recognize the quickly emerging multimedia transformation in the enterprise market and position themselves for the new revenue opportunities it will create.

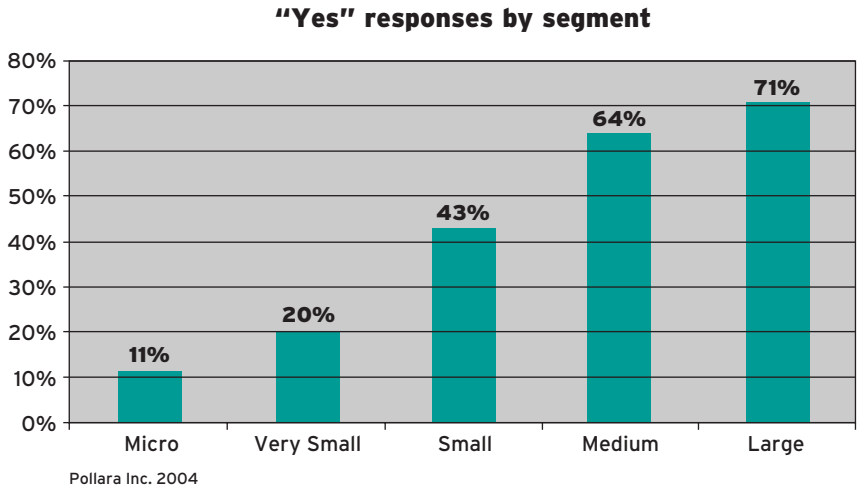


Figure 1. Are you considering purchasing additional Voice over IP technology in the next two years?

VoIP becomes the standard for enterprise communication

The 2004 study of 550 U.S. enterprise decision makers, conducted by Pollara Incorporated on behalf of Nortel, confirms that Voice over IP has become a mainstream technology. The results of the Discrete Choice Analysis study are representative within a +/- 1.5 percent margin of error for the U.S. business population. VoIP deployments are growing quickly, with 28 percent of U.S. enterprises studied currently using some type of VoIP within their business, while 16 percent have IP telephones. These VoIP deployment statistics represent a 180 percent increase from our 2002 study and show significant VoIP adoption in all businesses segments.

Momentum in the VoIP market is showing no signs of slowing, with 43 percent of enterprise decision makers polled saying they are planning new or additional VoIP purchases within the next 24 months and nine percent saying they already have plans to upgrade or replace their current phone system with VoIP within a year! Even 15 percent of companies who described themselves as "the last to purchase new technology" use VoIP today. This data clearly shows VoIP as a key part of the enterprise IT strategy today.

The enterprise evolves — dramatic change is under way

The definition of a "typical" U.S. enterprise is changing dramatically. Once the stuff of large corporations, technologies such as advanced wireless devices, wide area networks and virtual private networks are now transforming business communications for even the smallest businesses. The dramatic improvement in availability and affordability of these technologies has resulted in three major changes to the U.S. enterprise workforce: growing geographic dispersion of employees/businesses, a more mobile workforce and an increase in part-time or full-time telecommuting.

Our market research shows that most of the U.S. businesses studied are multi-site, with 27 percent of large and 22 percent of medium businesses indicating that they have international offices. Even among small businesses (4 to 40 phone extensions), 76 percent have more than one location. This data clearly indicates that recent advances in voice and data communications have enabled businesses to more easily locate their employees or business functions closer to customers and suppliers. In many cases this includes moving portions of the business offshore. One only has to turn on the television or pick up a newspaper to see evidence of the growing globalization trend that has been highlighted by the U.S. media throughout the year.

34 percent of the enterprise decision makers surveyed indicated 10 percent or more of their employees are considered mobile workers. Although mobile workers, in the form of sales representatives and service workers, have always been a sizable portion of the work force, improvements in the data and voice communication tools available to them have significantly changed the way they work. Now, more than ever before, employees can maintain the same level of productivity whether in the office or on the road. Executives who travel extensively are still able to manage the day-to-day operations of the enterprise. The resulting hands-on executive experience has brought a new level of visibility to the productivity-enabling attributes of these new data and voice communications tools and has provided a better understanding of technology within the higher echelons of the organization.

This is an important point for service providers to understand for two reasons. One, it enhances the chances for IT funding when there is strong executive support. Secondly, the traveling executive offers a new means to introduce technology products into the corporation without going directly through the normal IT gatekeepers. Hosted services offer a unique opportunity to position trial services with executive audiences so they can experience the benefit first-hand rather than wait for the IT department to take the initiative.

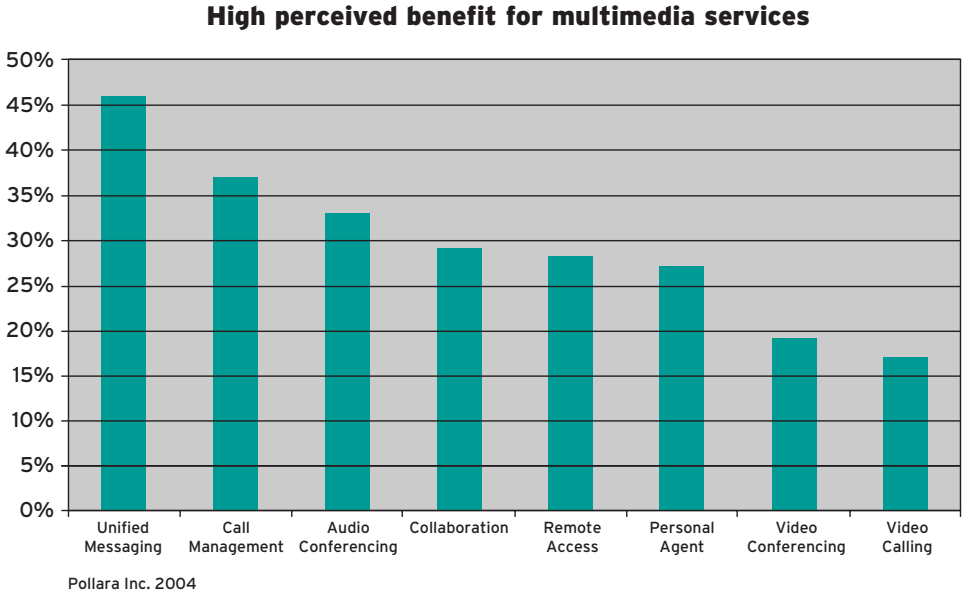
Another significant change in U.S. business practices is the growing acceptance for remote workers, i.e., teleworking. Driven by growing environmental concerns, scarce skill sets, and a desire to accommodate flexible work schedules of the 21st century family, telecommuters, both part-time and full-time, are becoming standard features of the enterprise workplace. In fact, 11 percent of the U.S. businesses studied have a formally defined telecommuting program today. Large businesses are the most likely to support teleworkers, with 20 percent of those surveyed indicating they have a formal telecommuting program.

The culmination of these major changes in the enterprise workforce has produced a fertile ground for VoIP. VoIP has the advantage of leveraging the data network — in particular the Internet — to span the distances between dispersed employees. Enterprises have found that they can leverage the ubiquitous nature of IP networks to lower access and long distance expenses while, at the same time, creating a seamless voice network that offers uniform services regardless of location. Our market study found that 45 percent of businesses with 10 or more locations use VoIP today. This investment in corporate VoIP infrastructure opens the door for complementary communications services that provide additional value from the same network investments.

Searching for a better way — growing demand for enterprise multimedia services

Dispersed employees need an effective set of tools to replace the collaborative and personal human interaction once found in the traditional office setting.

Figure 2. Would more than half of the employees in your company benefit from this service?



While VoIP is certainly one of the tools to enable this, enterprise decision makers are looking for other means of improving collaboration between dispersed workers. Multimedia communications offer a means to improve employee collaboration. To quantify the opportunity for new multimedia communications services, we provided a short description of several new services and then asked our respondents if they felt their company would directly benefit from each service.

As the results above indicate, U.S. enterprise decision makers have a high level of interest in a variety of multimedia services. The results show a relatively large untapped market for new multimedia services, with all of the services described producing a positive response. The multimedia services with the highest level of interest included Unified Messaging, Call Management Tools and Audio Conferencing, i.e., those services that have a large productivity impact or offset other business expenses such as travel and remote worker support.

It's all about delivery — a new view of hosted services

So, what is the preferred method for delivering new multimedia services? The enterprise voice market is currently dominated by premises equipment vendors that account for well over 80 percent of all voice networks. Given that, one could easily assume that enterprises will automatically look to their existing equipment vendors to provide new services. However, our research indicates this is not the case.

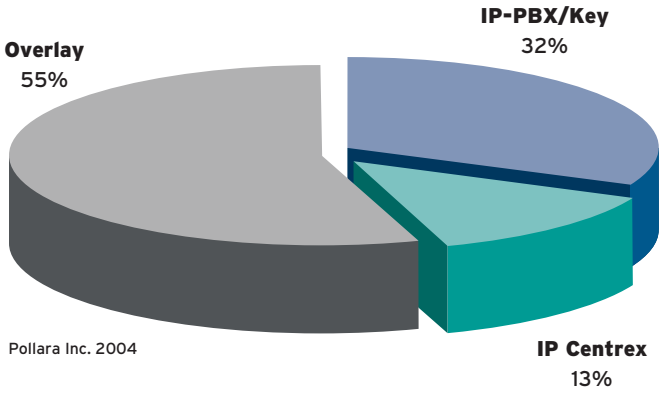


Figure 3. How would your company prefer to purchase new multimedia features?

When given the option of purchasing carrier-hosted services that overlay their existing voice system, 55 percent of respondents said they would prefer that option, leaving only 32 percent selecting an IP-PBX replacement. (See Figure 3.) If you include the 13 percent who said they would prefer to move to a fully-hosted Centrex IP and multimedia service, the carrier-hosted options represent 68 percent of the market opportunity. This preference for a hosted model is a surprising change in preference from what we have seen in the traditional voice model. This also represents a significant new revenue opportunity for carriers as enterprises become more willing to open their networks to external services.

We also saw considerable interest in purchasing wireless (phone/PDA) software that could extend multimedia services from the enterprise communication system to a company's mobile employees.

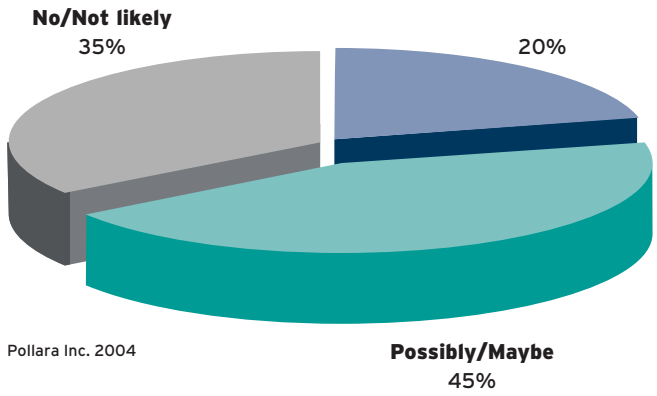


Figure 4. If you could purchase communications software for your employees' wireless phones or PDAs that would work with your communications system for voice call logs, instant messaging and presence etc., would you?

Counting the money — translating desire to revenue

Now on to the question most service providers are interested in: how much revenue do these new services represent? To better understand and quantify the value of multimedia services with today's customers, we used a research method known as Discrete Choice Analysis.

Discrete Choice Analysis allows potential customers to choose between groups of product offers at various price points. This method identifies which product offers are the most attractive and provides an estimate of the price customers would be willing to pay for those offers. By repeating this process many times with various offers, one can create a simulation tool that models customer behavior in a given market. The results of the Discrete Choice Analysis study are representative within a +/- 1.5 percent margin of error for the U.S. business population.

Using this method, the study modeled the value of an overlay multimedia service in the U.S. enterprise marketplace. (For clarification, "overlay multimedia" was described to participants as a group of multimedia services that enhanced their existing phone line with a group of hosted IP services.) As you can see in Figure 5, the results show both a significant interest in purchasing multimedia services and a significant willingness to pay above and beyond the cost of their existing voice services. For example, a hosted service bundle that included all the multimedia services shown in Figure 2 and priced at $35 per user per month would garner 36 percent choice share among enterprise decision makers.

In other words, based on the responses of 550 U.S. enterprise decision makers, **36 percent of U.S. enterprises are willing to pay an additional $35 per user each month for a multimedia service bundle that enhances their existing voice service!** This indicates considerable revenue opportunity yet to be tapped in most markets. Many new entrants are vying to take pieces of this multimedia opportunity but the evidence indicates a hosted offer that leverages the existing voice service to provide a unified communication solution could have a big advantage. Voice service providers are in a unique position to capitalize on this bundled service opportunity.

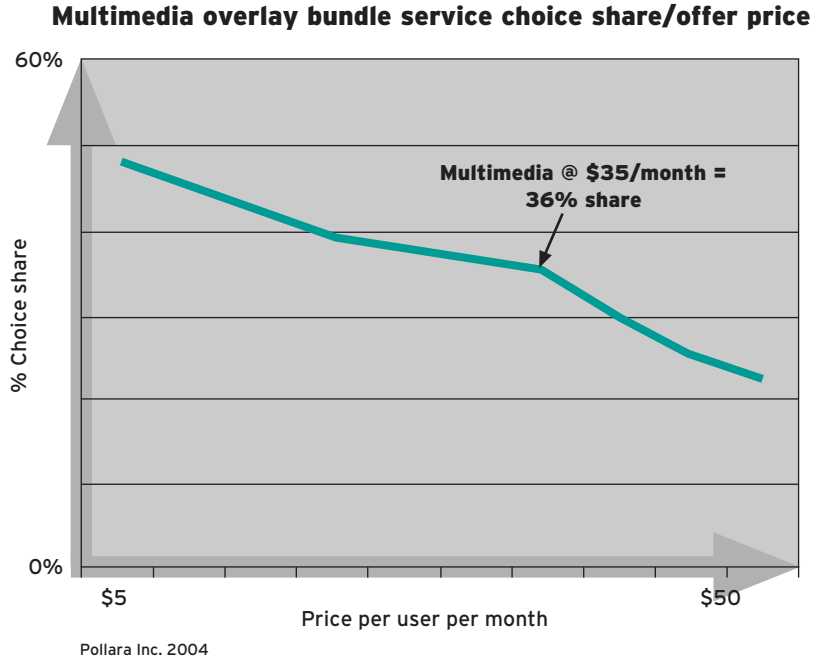


Figure 5. Using a conjoint analysis market simulation tool, this chart shows how overlay feature bundles would behave in the theoretical market model created using the data from our study. For example, a bundle that included a full set of multimedia services (specifically the services shown in Figure 2) to enhance an existing voice line could draw 36 percent choice share at $35 per month.

...complementary multimedia applications provide valuable business benefits...

Something you do...

The market research sponsored by Nortel and conducted by Pollara provides valuable insight to the changing communication needs of the enterprise workforce. For many of today's employees, *work* is no longer someplace you go; instead, *work* has become something you do.

Today, U.S. enterprises have widely adopted VoIP to accommodate an increasingly geographically-dispersed workforce requiring flexible work arrangements, teleworking and mobility. For the same reasons, new multimedia communications tools are poised to follow the momentum created by VoIP. Multimedia services facilitate collaboration between dispersed workers and enhance personal productivity regardless of location.

Changing attitudes are opening the door for service providers who are interested in providing hosted services. The enterprises in our study indicated they would most likely purchase a hosted multimedia service that overlaid their existing voice network rather than purchase a CPE solution.

In summary, enterprises are ready and willing to purchase these new multimedia services as they become available with the right delivery model.

Enterprise decision makers are looking for service providers to help them connect their employees in the most flexible and efficient way with the best tools they can afford. Nortel's Multimedia Communication Server (MCS) 5200 provides the means for service providers to target this potentially lucrative segment of the enterprise market, helping enterprises everywhere enhance the human experience with tools that facilitate communication and collaboration across any distance or location. The MCS 5200 is a carrier-grade platform that delivers an integrated suite of hosted multimedia services to both TDM and IP-based voice services.

For more information on the MCS 5200 and how to take advantage of the Multimedia Communication Services opportunity, please visit: *http://www.nortel.com/mcs5200*

In the United States:
Nortel
35 Davis Drive
Research Triangle Park, NC 27709 USA

In Canada:
Nortel
8200 Dixie Road, Suite 100
Brampton, Ontario L6T 5P6 Canada

In Caribbean and Latin America:
Nortel
1500 Concorde Terrace
Sunrise, FL 33323 USA

In Europe:
Nortel
Maidenhead Office Park, Westacott Way
Maidenhead Berkshire SL6 3QH UK

In Asia Pacific:
Nortel
Nortel Networks Centre
1 Innovation Drive
Macquarie University Research Park
Macquarie Park NSW 2109 Australia
Tel: +61 2 8870 5000

In Greater China:
Nortel
Sun Dong An Plaza
138 Wang Fu Jing Street
Beijing 100006, China
Phone: (86) 10 6528 8877

Nortel is a recognized leader in delivering communications capabilities that enhance the human experience, ignite and power global commerce, and secure and protect the world's most critical information. Serving both service provider and enterprise customers, Nortel delivers innovative technology solutions encompassing end-to-end broadband, Voice over IP, multimedia services and applications, and wireless broadband designed to help people solve the world's greatest challenges. Nortel does business in more than 150 countries. For more information, visit Nortel on the Web at **www.nortel.com**.

For more information, contact your Nortel representative, or call 1-800-4 NORTEL or 1-800-466-7835 from anywhere in North America.

NN110620-021705

NORTEL