White Paper

Multimedia Communication Services:

What enterprise decision-makers want and are willing to pay for!

NORTEL NETWORKS™

Introduction

To make prudent decisions regarding Voice over IP (VoIP) services rollout, service providers have asked for quantitative information regarding the value of multimedia communication services to the marketplace. Up to now, market research of this type has been very limited. For this reason, Nortel Networks commissioned Pollara, Inc., a leading market research firm, to execute a research exercise focused on understanding the value of these services to enterprise decision-makers. The results of this research initiative—which estimates relative services values, pricing, and expected market penetrations—provide the valuable insight to the VoIP services market that our carrier customers have been looking for.

This white paper will provide a high level overview of the study and highlight some of the most interesting findings. For more details on any of the information included in this white paper, please contact your Nortel Networks representative.

Multimedia Communication Services enterprise research initiative

In order to most accurately answer the question, "What services do enterprise decision-makers value and how much are they willing to pay for these services?" we designed a comprehensive research process. The first step of this process was to obtain qualitative information that could be used to design quantitative surveys including conjoint analysis to determine relative feature values. The qualitative research included telephone interviews of CIOs of large enterprises, as well as focus groups of small and medium enterprise decision-makers. The results of qualitative research were leveraged to create a more detailed survey which received responses from more that 600 U.S. enterprise decision-makers. The results of this survey are statistically representative of the U.S. enterprise population.

The survey was segmented between small, medium, and large enterprises. The segmentation was based on number of telephone extensions within the enterprise—small (4 to 40 lines), medium (41 to 200 lines) and large (201 lines or above). The results were weighted according to the current U.S. business distribution. In addition, the decision was made to focus the study on the high VoIP opportunity sectors, including health care, education, government, hospitality, finance/insurance/real estate, and business services.

This research had four primary goals: determine the current enterprise timeline for transition to VoIP communications, understand the purchasing criteria for VoIP communications services, identify the current barriers to adoption, and determine the value of new multimedia services in the marketplace. For the latter question, the new multimedia services were assumed to be a subset of the services available today from the Nortel Networks Multimedia Communication Server 5200.

The focus group participants were provided with an actual demonstration of the various services. The survey included pictures of the MCS 5200 Multimedia PC Client and Personal Agent to give participants a visual representation of the services. These efforts provided research participants with a high-level understanding of the services included in the research and how they would be delivered and used. However, care was taken not to educate the survey participants or to provide additional information about the services beyond that which would be conveyed in typical service provider promotional activities.

Figure 1. U.S. enterprise Voice over IP transition timeline

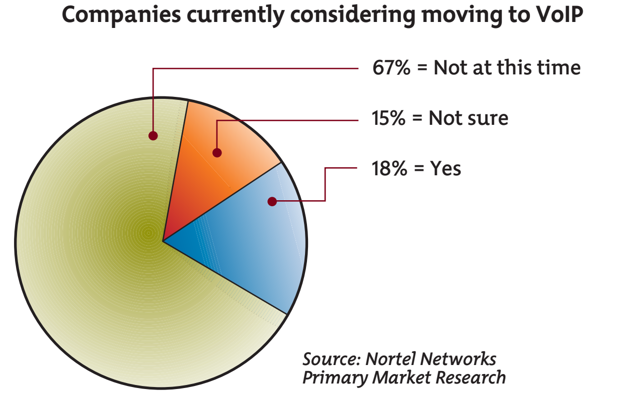
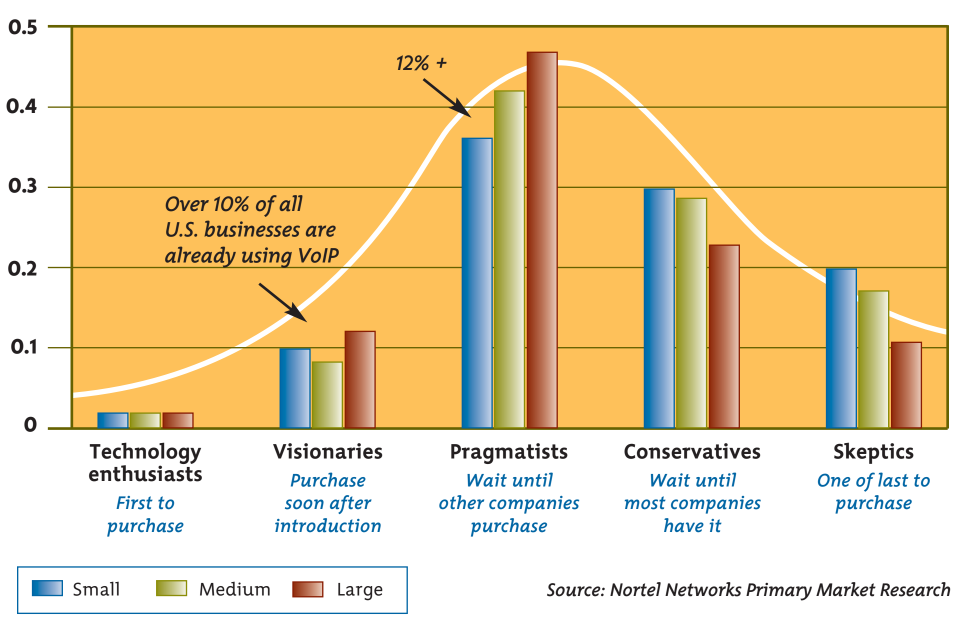


Figure 2. VoIP purchase timeline—all U.S. enterprises



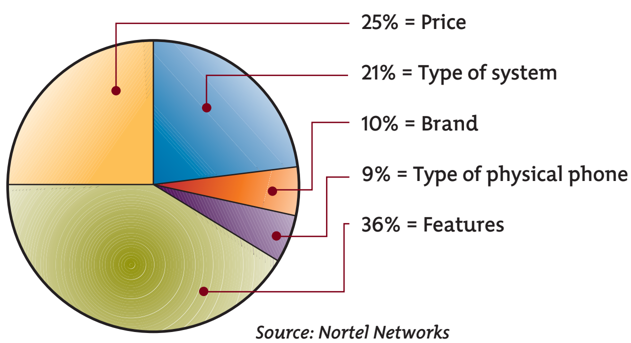
The first question addressed by the research was, "What proportion of businesses are currently considering moving to VoIP?" Our research suggests that 18 percent of all businesses are currently considering moving to VoIP in at least one of their company's locations, with a majority indicating they will be purchasing before the end of the third quarter of 2003.

The implication of this is significant—our estimates suggest that one-tenth of the U.S. VoIP market will be decided this year.

Our research further indicates that 10 percent of the enterprise market has already begun adoption of Voice over IP equipment. *Figure 2* provides a current view of the Voice over IP adoption timeline. The technology enthusiast segment accounts for a very small proportion of the small, medium, and large enterprise market—less than 5 percent in each segment. Meanwhile, the visionaries account for roughly 10 percent of the market.

Considering that the visionaries and the technology enthusiast segments account for roughly 15 percent of the entire market, our research would suggest that we're on the cusp of mass market adoption of VoIP equipment.

Figure 3. VoIP purchasing decision



Source: Nortel Networks Primary Market Research

Figure 4. Services rankings

Service	Centrex user	PBX user
Remote access	1	6
Multi-party conference calling	2	2
Dynamic call handling	3	5
Video calling	4	12
Call screening and routing	5	3
Office hoteling	6	9
Secure instant messaging	7	8
Instant file transfer	8	4
Unified messaging	9	7
Plug-and-play phones	10	1
Video conferencing	11	10
PC application sharing	12	11

Significant value delta

Based on willingness to pay from conjoint analysis research

Communications management | Multimedia and collaboration

Source: Nortel Networks Primary Market Research

The Voice over IP adoption decision

We included conjoint analysis in the research to determine the weighting of the decision factors in the purchase of a VoIP offering in an enterprise environment. The results of that analysis indicate that enterprises are price sensitive, with price accounting for 25 percent of the decision to purchase these types of systems. We also discovered that enterprises are much more likely to be driven to this technology for the features, which accounts for 36 percent of the decision to purchase.

Interestingly, the type of system (defined as either a PBX-based system or a Centrex-based system) is also an important driver in the purchase of VoIP—accounting for 21 percent of the decision to purchase. Comparatively, brand is a less important consideration, accounting for only 10 percent of the decision to purchase.

Finally, we included a number of different types of physical phones that could be included with these services—defined as either IP phones, soft clients that would run on their PC, or architecture that would allow them to access many of these services using their existing phones. The type of phone accounts for only 9 percent of the decision to purchase.

Value of features

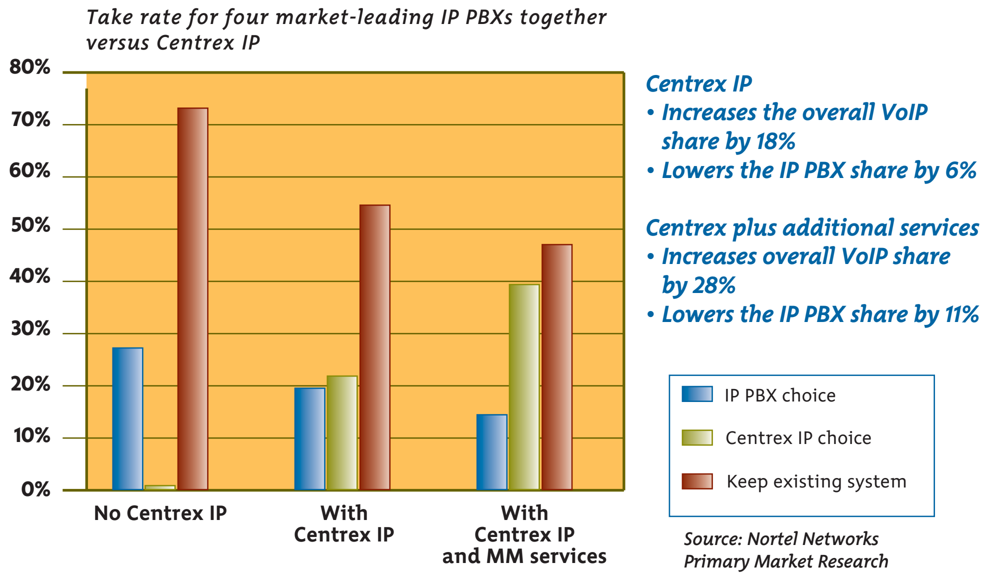
We tested the features on two types of systems: Centrex and PBX systems. What we found is a slightly different impact on demand depending on which type of system the features were added to.

If these features were added to a PBX service offering, the features that would have the greatest impact on increasing demand would be plug-and-play phones, call screening and routing, multi-party conference calling, and instant file transfer.

If the features were added to a Centrex offering, the features that would have the greatest impact on increasing demand would be remote access, multi-party conference calling, real time call handling, and desktop video calling. It is interesting that remote access is the highest valued feature to Centrex targets. Remote access would allow end users to use their SIP-enabled phone on their laptop while they were out the office. Overall, the features that have the greatest impact on demand relate to the needs of managing communications among end users, rather than adding new multimedia functionality. It's interesting to note that users who currently have PBX or Centrex systems place different importance on certain types of features.

Plug-and-play phones are particularly attractive to those with PBX installations, probably because it eliminates much of the cost and hassle associated with moves, adds, and changes. Meanwhile, the relatively low impact that desktop video calling has on PBX users may relate to the need for their in-house staff to support these applications.

Figure 6. Choice share impact Centrex IP vs. IP PBX



Source: Nortel Networks Primary Market Research

Revenue and penetration opportunity

What is the value of these services in terms of dollars and demand? *Figure 5* shows the demand/revenue curve of a Centrex IP offering into the marketplace.

This illustration shows that next-generation services ***do*** add significant value to a Centrex IP offering. Since this service is usually priced on a monthly basis, any shift upward in the demand/revenue curve can represent a substantial revenue increase over time.

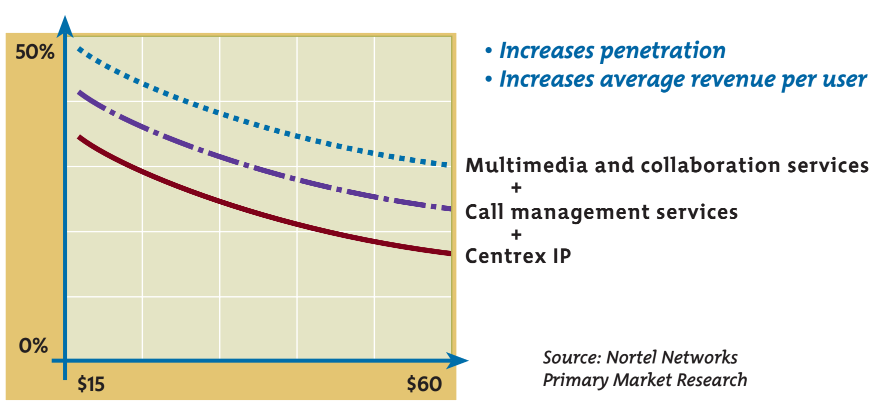
Centrex IP vs. IP PBX

Figure 6 shows the impact of the introduction of a Centrex IP offering into the marketplace. This illustration is based on three scenerios:

In the first scenerio, Centrex IP is not offered into the marketplace, resulting in some penetration by IP PBX offerings. In the second scenerio, Centrex IP is offered into the marketplace. Finally, in the third scenerio, Centrex IP service—complete with interactive multimedia services—is offered into the marketplace.

The research indicates that introducing a Centrex IP offering into the VoIP marketplace does impact the IP PBX penetration, but also increases the overall VoIP penetration—and in the case of a full-featured Centrex IP offering, overall VoIP penetration is increased by 28 percent. The bottom line is that introducing a Centrex IP offering into the marketplace with interactive multimedia services almost doubles the penetration rate of the Centrex IP offering.

Figure 5. Next-generation services add quantifiable value to Centrex IP



Source: Nortel Networks Primary Market Research

Price customers are willing to pay for Centrex IP in a market that also offers leading IP PBXs

The Multimedia Communication Server 5200

The evidence is in. Multimedia Communication services greatly increase the potential for Centrex IP adoption. How can you take advantage of this opportunity? The services included in this research are available to be deployed into your broadband services delivery infrastructure today!

The services were based on the Multimedia Communication Server 5200. The MCS 5200 is Nortel Networks multimedia services engine, and will work in conjunction with the Succession* Communication Server 2000 as an integrated multimedia feature server to deliver these services along with existing Centrex services to your customers—today!

Summary of findings

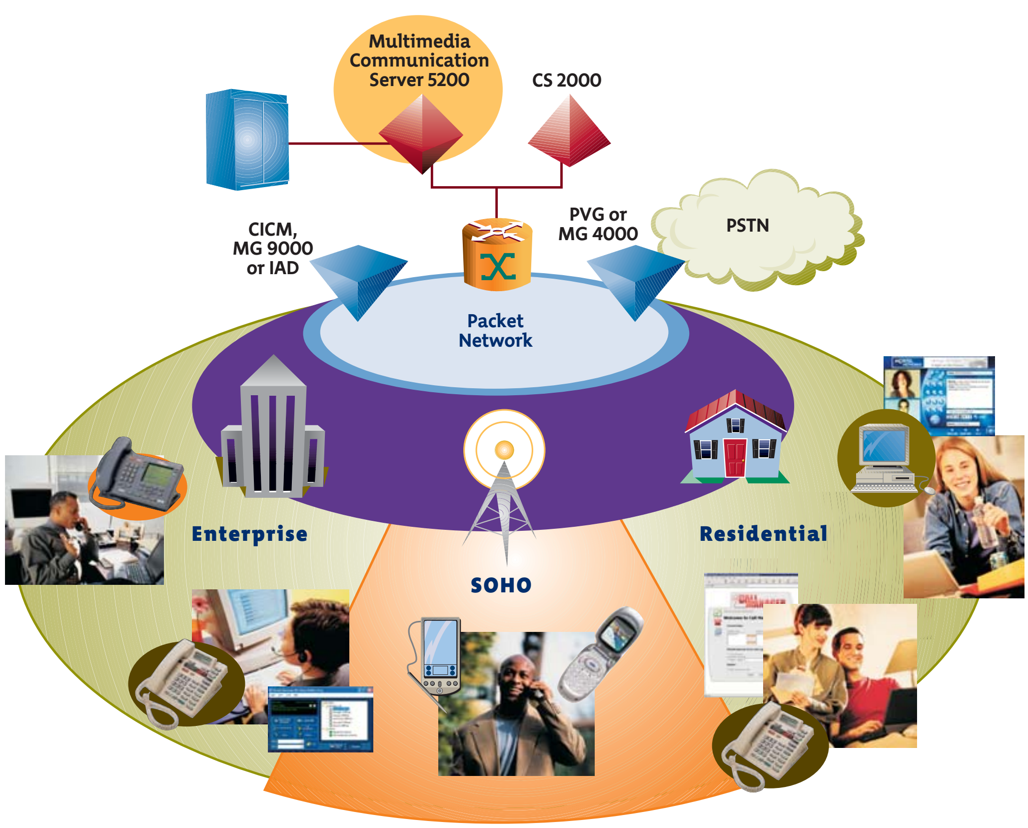
The research shows that there is a large market opportunity for next-generation multimedia services in the enterprise—especially with small and medium businesses.

In addition, now is the time for us to be working with our enterprise customers to help them in their Voice over IP purchase decision. As was stated earlier in this paper, the majority of businesses currently considering VoIP will purchase this year!

From a Centrex perspective, we find a strong indication that these interactive multimedia services also add quantifiable value to a Centrex IP offering. In fact this type of combined offering not only takes market share away from IP PBX offerings, but it also increases the overall Voice over IP market penetration.

What's the next step? Contact your Nortel Networks representative to engage the Nortel Networks MarketForce team—they are ready to apply the results of this research to your specific market opportunity today!

Figure 7. Multimedia Communication Server 5200



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

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

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

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

In Asia:
Nortel Networks Asia
6/F Cityplaza 4,
Taikooshing,
12 Taikoo Wan Road,
Hong Kong

NORTEL NETWORKS™

Nortel Networks is an industry leader and innovator focused on transforming how the world communicates and exchanges information. The company is supplying its service provider and enterprise customers with communications technology and infrastructure to enable value-added IP data, voice and multimedia services spanning Wireline, Wireless Networks, Enterprise Networks, and Optical Networks. As a global company, Nortel Networks does business in more than 150 countries. More information about Nortel Networks can be found on the Web at:

www.nortelnetworks.com

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

NN104044-090803