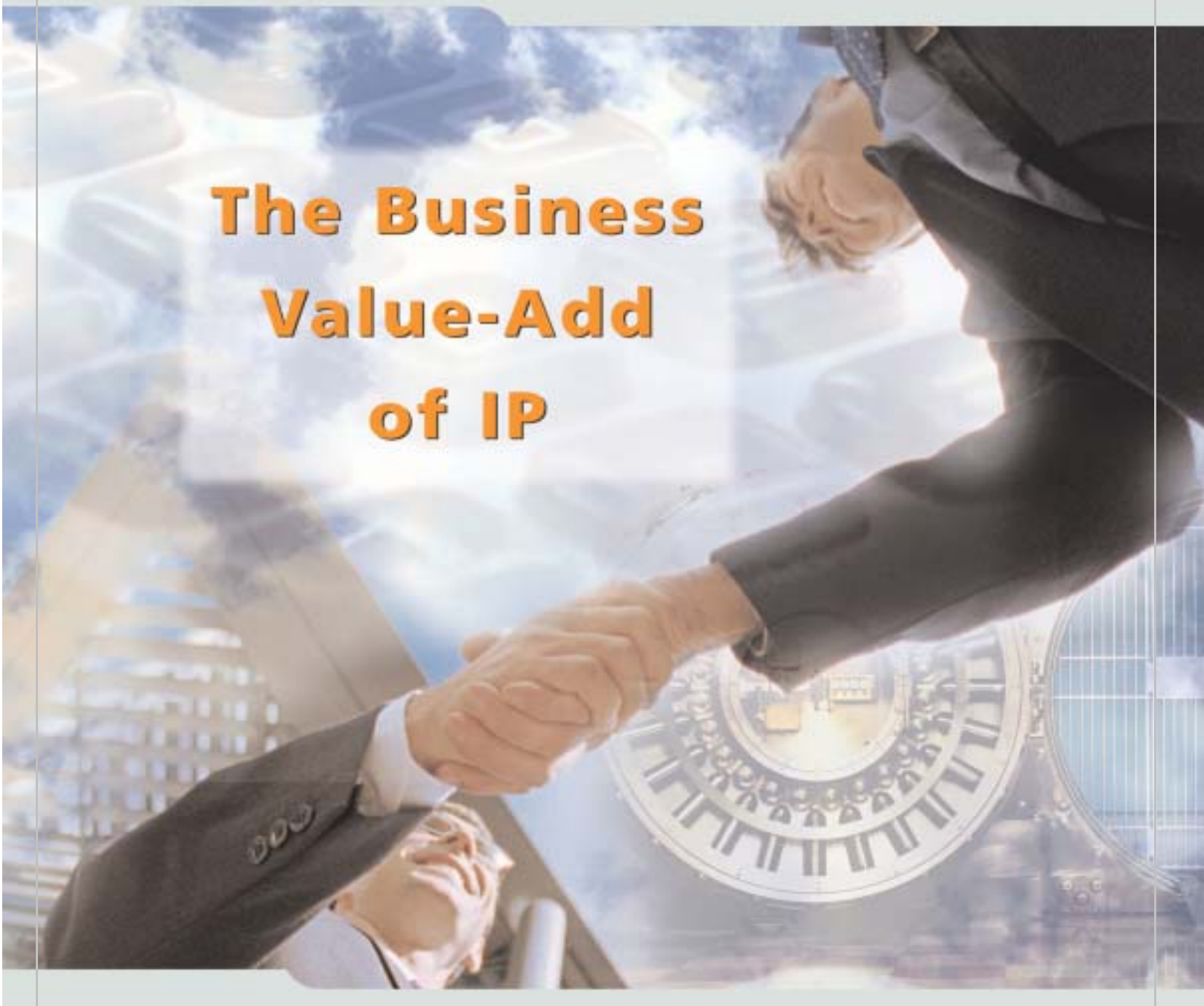
A MITEL NETWORKS POSITIONING PAPER

IP TELEPHONY



The Business Value-Add of IP

MITEL | it's about YOU

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Introduction and Paper Objective

"Innovation and therefore the future belongs to IP and IP oriented systems."

- Joe Buzzanga, Product Manager, Enterprise Converged Communications, Dialogic/Intel.

Today, enterprises considering migrating from TDM to IP-based systems are not making investment decisions based on technology platforms but rather on the wherewithal to achieve critical business imperatives: reduce the total cost of ownership, improve business communications and improve employee productivity and mobility. As such, organizations are investing in 'business solutions' – platforms, devices and applications – that will revolutionize the way they work and compete in the marketplace.

The purpose of this paper is (1) to explore the economic and strategic rationale for investing in IP, and (2) to provide an overview of the inputs, assumptions and business parameters used to generate the Mitel Networks ROI calculator for Voice-over-IP (VoIP).

Mitel Networks – it's about YOU

In 1997 Mitel Corporation made a company-wide decision to invest in IP technology, recognizing early on that the only way to deliver compelling and powerful applications to the end user was through the power of convergence. Today, Mitel Networks has an extensive and impressive portfolio of IP-based platforms and applications that makes life for YOU – the organization and the end user – easier, more efficient and productive.

Mitel Networks Solution Portfolio

The following diagram provides a snapshot of the applications, devices and platforms that make up the Mitel Networks enterprise solutions portfolio. At Mitel Networks, we customize each of our solutions for the different horizontal and vertical markets that we support. The following illustrates the IP Solution Portfolio for the Education Sector.

Education Example:

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Mitel Networks IP Platform

Mitel Networks 3300 Integrated Communications Platform (ICP) Product Description

The 3300 ICP is the proven, resilient converged communications platform that adds feature-rich IP telephony and advanced user applications to corporate local and wide area networks (LAN/WAN). Readily scalable, the 3300 ICP can efficiently serve the needs of users in small, medium and large enterprises with single and multiple locations. It integrates rich call handling, telephony features and networking built on Mitel Networks' three decades as a leader in voice communication. And it includes an exclusive suite of embedded user applications for simplifying and enhancing collaboration, messaging, mobility, teleworking, and access to network services. All are easily accessible via the industry's most extensive portfolio of desktop devices – and all readily managed via web-based embedded system management.

The 3300 ICP is a resilient network appliance that adds feature-rich IP telephony and advanced user applications to the corporate LAN/WAN.

Business Motivations for Investing in IP

Business drivers, not technology innovations, are powering the market momentum around VoIP. The business drivers can be summarized as follows:

1. Reduce Total Cost of Ownership ✓
2. Improve Business Communications and Customer Service ✓
3. Improve Employee Productivity and Mobility ✓

Business motivations will drive the adoption of IP Platforms and IP-based Applications.

1. Reduce Total Cost of Ownership (TCO)

One of the first and steadily endorsed motivations for moving to IP is the requirement to reduce the total cost of ownership (TCO) to the organization. The ability to put voice over the LAN and/or WAN yields a list of hard and soft cost benefits that can be realized by the organization depending on the deployment scenario.

The following provides high-level cost considerations only. For more detailed information please refer to 'Mitel Networks VoIP Business Exploration and ROI Tool Assumptions'.

VoIP is appealing to single-site organizations for the following reasons:

a) **Cabling Capital Cost Avoidance.** Cabling, for the most part, is a one-time cost saving realized only in the case of a Greenfield (new build) deployment. As a general rule, the cost reduction by running a single Cat5 cable to the desk versus a Cat5 and a Cat3 is approximately 40% (35%-45%).

b) **Minimize the Cost of Telephone Moves, Adds and Changes (MACs).** It is estimated that an organization can realize annual savings of 75% - 100% per telephone MAC in an all-IP network.

c) **Reduced Network Maintenance Expense**: An organization can decrease and/or eliminate the cost associated with maintaining standalone voice equipment.

Today's organizations are evolving both in size and footprint due to a number of forces including mergers and acquisitions, globalization, and technology advancements. A key challenge for these organizations is the integration and management of their telecommunications infrastructure as they expand and evolve.

In addition to the benefits listed above, VoIP is enabling multi-site organizations to derive solid savings from:

- **Voice Circuit Consolidation**:
  - **T1 PRIs, Fractional T1 PRIs and Analog (POTS) Lines**: An organization can reduce the number of trunks to the Public Switched Telephone Network (PSTN) by moving some or the majority of its traffic over the data network (organizations will typically maintain at least one connection to the PSTN for E911 calls).

- **Dedicated Point-to-Point T1s**: If an organization has dedicated point-to-point T1 networking for interoffice traffic, these connections can be entirely eliminated by moving to VoIP, saving the organization a ***minimum*** of $500 U.S. per month per T1.

- **IP Toll Bypass**

  The amount of savings derived from IP toll bypass will vary depending on the location and call volume at each of the organization's sites.

  - IntraLATA Toll Charges: a local toll call is a call made outside a company's local calling area but still within the carrier's service area. Pricing varies significantly but can be as high as $0.11 per minute. (WCOM 2001: 'IntraLATA calls will be charged $0.11 per minute for calling within the state'.)
  - InterLATA Toll Charges: While the savings are less compelling in North America where long-distance charges are as low as $0.06 to $0.029 a minute, they are significant in countries such as Europe or Latin America where considerable long-distance and local access charges still apply. While the average price of an international call to the U.S has more than halved over the last five years, it still contributes significantly to an average cost of $0.35 USD per minute (source: International Telecommunications Union 2001 www.itu.int).

Teleworking or remote site working is another area that organizations are looking at to reduce costs, improve employee productivity and mobility, and improve business communications. While the environmental, operational, and productivity benefits of teleworking have long been proven, technology previously put a ceiling on the extent to which the benefits could be realized. Today, with the advent of affordable broadband technologies (i.e. cable modem and xDSL) and IP-based hardware/software systems that satisfy the ease of use, scalability, security, and functionality requirements of the business market, remote site working is finally taking off. According to Gartner Group, the number of teleworkers worldwide in 2003 is expected to quadruple to 137 million (up from 36 million in 2000). We believe this is just the beginning of a new work reality.

- **Teleworking benefits organizations in the following ways:**
  - Improved employee productivity (studies indicate anywhere between 10% and 40% for corporate teleworkers and 10% and 26% for remote agents) and morale
  - Real estate savings (savings vary widely depending on location; however, studies suggest anywhere between $3,000 and $13,000 U.S. per corporate office per year and an average of $975 U.S. per agent per year)
  - Reduced absenteeism costs (ITAC survey suggests 63% cost savings on average)
  - Improved employee retention and recruiting ("Many companies that use remote agents are reporting lower than average annual turnover rates of 8% or lower." http://www.tmcnet.com/cis/1002/1002cccms.htm)
  - Environmental benefits – *Officials in Houston, Los Angeles, Philadelphia, and Washington are now heavily promoting teleworking campaigns to improve the environment in their metro areas.*

- **IP-based teleworking solutions offer organizations additional benefits such as:**
  - Network savings (the monthly recurring cost for a cable modem or xDSL connection is on average 60% less expensive than an ISDN BRI line)
  - Eliminate toll charges on interLATA and intraLATA calls if applicable
  - Equipment cost savings – The Mitel Networks Teleworker Solution costs less than $100 U.S. per teleworker (excluding the IP phone)
  - Installation and configuration cost savings – The Mitel Networks Teleworker Solution is a true plug & play solution!

2. Improve Business Communications and Customer Service

In addition to driving down the total cost of ownership (TCO), IP is helping organizations improve business communications and customer service.

A. Improve Business Communications

HOW? The unified communications network (integration of work sites and communications systems) for seamless interoffice communications.

- By leveraging the 3300 ICP, organizations are able to seamlessly and cost-effectively extend corporate phone features and IP-based applications to employees regardless of location, thereby encouraging better communication and collaboration. Furthermore, by linking work locations together, organizations are able to avoid or reduce the cost of equipping smaller sites with the same capabilities as the larger sites.

HOW? Work without borders

- The number of mobile professionals is growing at a staggering rate thanks in large part to broadband and wireless networks, portable and powerful computing devices, and application development and integration. There is a tremendous incentive for organizations to invest in solutions that increase the productivity, efficiency and revenue targets for high-power mobile professionals. International Data Corp. (Framingham, MA) forecasts that the number of mobile professionals will grow from 16 million in 2001 to 21 million in 2006, driving the most technology investment of any mobile segment.

  While traditional PBX systems limited the degree to which work could be mobilized, IP systems are responding to the pent-up demand for increased flexibility. IP platforms can be used to extend applications irrespective of network or device type to users at their place of work (fixed or mobile). Organizations that run large contact centers, for example, are realizing tremendous savings and improved operations by allowing contact center agents to work out of their homes or a designated remote location. According to an article published in TMC's October 2002 edition, "Call center managers employing a remote workforce have noted a 12% increase in productivity." This, in addition to improved staffing, retention and job satisfaction, real estate savings and in some cases, savings on agent salaries is making teleworking a very attractive option for contact center managers.

B. Improve Customer Service

HOW? The Multimedia Contact Center

Customer service is the cornerstone of the contact center industry making it “the most frequently talked about touch-point of customer satisfaction”. As such, a key component to ensuring maximum service levels is investing in the right technology. As a longstanding partner, Mitel Networks continues to prove its commitment to the contact center industry by developing new technology and solutions that drive quantifiable business efficiencies. The Mitel Networks Contact Center Solutions (CCS) portfolio is a modular suite of feature-rich, web-based applications for streamlining contact center management and enabling advanced multimedia customer interaction. From call center to contact center, Mitel Networks is enabling the following possibilities:

- Customer-defined interactions (customer defines the communication medium). Example: click-to-talk, web callback.
- Enhanced customer service/collaborative communication: agent is able to leverage a variety of media and applications to improve the quality of the customer interaction e.g. content push, white board session, videoconference.

3. Improve Employee Productivity and Mobility

Technology investment cycles are ultimately driven by changes in the way we do business. Today’s business climate is placing growing pressure on individuals, groups and organizations to work harder, longer and smarter to overcome the challenges brought on by globalization, virtualization of the workplace and narrowing communication timeframes. The combination of these forces is driving us closer to the attainment of real-time business.

Consider the facts:

Increased Reach, Increased Expectations

- The International Data Corporation (IDC) estimates that 31 billion person-to-person e-mails were sent each day in 2002. This number is expected to grow to 60 billion each day by 2006. *Source: Gretel Johnston, IDG News Service, "You've Got Mail!" (Sept. 26, 2002).*
- The average office worker in the U.S. sends and receives between 60 and 200 e-mail messages each day. *Source: Kevin Craine, www.educomts.com, "Here Come the Lawyers. Is Your IT Department Ready?"*
- Studies have found that the average executive receives more than 40 voice mail messages a day, 60 e-mail messages, 25 faxes and a couple dozen "While You Were Out" slips. *Source: Kevin Davis, Selling Systems LLC.*
- Approximately one third of all messages sent or received are viewed as time-sensitive. *Source: Ipsos-Reid email study*
- By 2004, senders will expect a 1-hour response to e-mail. *Source: Gartner Group*

More Mobile Workers

- The number of mobile workers in the U.S. will increase by 12.7 M between 2001 and 2006, from 92 M to 105 M. In contrast, the number of workers who are not mobile will actually decline by 2 M through 2006, down to 53.8 M. *Source: IDC, 2001*
- One in four enterprise employees spend the majority of their time out of the office.
- Currently, two-thirds of managers work out of the office for five or more days a month.
- Gartner research estimates that within two years almost 40 percent of all salaried employees will spend half their working time away from the office.

More Remote/ Distributed Workers (telecommuters, knowledge workers, and collaborative workers)

- According to ITAC, there were some 28 million American workers teleworking at least one day a week in 2002. By 2006, ITAC expects upwards of 50 million people, or 30% of the American workforce, will be teleworking.
- By 2005, In-Stat expects more than 60% of the workforce to be considered remote.
- Reduction in business travel is heightening demand for collaboration solutions (e.g. audio, data and videoconferencing).
    - More than 40% of people in the U.S. workforce are taking fewer trips.
    - More than 70% are interested in alternatives to travel.
    - 63% rate access to collaboration technology as very important (up from 44% before Sept. 11) Wainhouse Research, September 4, 2002.

More Communication Devices

- By 2003, [mobile] users will average four devices per person (META Group, "*Mobile Millennium: The Next (Pervasive) Generation,*" December 1999).

While technology was, and continues to be, developed for the purpose of facilitating communication, individuals and organizations are increasingly fraught with the time-consuming task of managing e-mails, voice mails, faxes, pages, instant messages, conference calls, and videoconferences across a myriad of devices. According to recent information from Gartner Group, employees spend an average of 49 minutes every day replying to e-mail and almost a quarter of workers spend over an hour a day checking their messages. Not only is the onslaught of communications impacting employee productivity, but also key business issues such as operational efficiency, business performance and revenue generation. As such, technology is now being applied to develop applications to manage – filter, sort, prioritize, categorize, store, retrieve and forward – our various communication mediums and communication devices. **Unified Communications** is the name given to the category of applications that promises to restore order to this communications chaos.

Unified Messaging (UM), a subset of Unified Communications (UC), was introduced in 1999 to provide users with "consolidated access to all communication modes through a single portal". UM satisfies the first level of enterprise communication requirements – those communications that are non-real time. "Unified Communications (UC) technology extends UM by adding real-time access to contact lists, as well as automatic dialing and teleconferencing services" (Source: Computerworld).

The study findings below provide some insight into productivity benefits that can be achieved by investing in UM/UC.

- Com Group Time/Motion Study:
  - Out-of-office employees experienced a 70 percent gain in productivity for time spent checking messages, while in-office Unified Messaging users experienced a 53 percent gain.
- The Radicati Group Study:
  - Unified messaging systems generate 25 to 40 minutes of additional productivity per employee per day and can reduce IT support and administrative costs up to 70 percent.
- Intel:
  - Usage study involving 100 participants revealed the following: (1) 14 percent of people saved more than 3 hours a week using Unified Messaging (2) 33 percent saved between 1 and 3 hours (3) 39 percent saved less than one hour, 6 percent reported no savings (4) the remaining 8 percent were not applicable. (Source: http://www.intel.com/eBusiness/pdf/it/pp023102.pdf)

Mitel Networks has worked out a very clear and engaging Unified Communications strategy for optimizing and virtualizing the organization. From its fundamental commitment to VoIP, its leadership position in telephony, and its emerging role in the applications market, Mitel Networks is empowering organizations to enrich and expand all aspects of voice-driven communications.. *Any TIME, Any PLACE, Any MEDIUM, Any WAY*.

- **Any TIME**: The Mitel Networks solution portfolio enables both planned and opportunistic (real-time) communications/ access to communications (e.g. voice mail, e-mail, fax) as per an end user's needs.
- **Any PLACE**: Leveraging the capabilities of the 3300 ICP, Mitel Networks provides support for fixed, in-building wireless and mobile/ telework communications allowing users the freedom to work without the boundaries of space and time.
- **Any MEDIUM**: Mitel Networks lets the end user determine the device (desktop appliance, Softphone, wireless phone, PDA) and communication types (voice, data, video) according to his/her work requirements and communication preferences. Unique within the industry, Mitel Networks' **Your Assistant** provides the common GUI and Mitel Networks' **speech-enabled** technology provides the common VOI (voice user interface) across all Mitel Networks devices and applications – whether it is a messaging, conferencing, or contact center application. Because the product line is tightly integrated with the call handling capabilities of the 3300 ICP and leading business tools including Microsoft Outlook, Internet Explorer, MSN Messenger, Goldmine, ACT! and Lotus Notes, essential call functionality, profile settings and contact information are made available across all communication mediums. By integrating these interfaces across the Unified Communications portfolio, Mitel Networks makes it easy for a user to move from one device or application to another with maximum comfort and ease of use.
- **Any WAY**: While the Mitel Networks solution portfolio provides true end-to-end unified communications – truly a first in the industry – individual products can be bundled according to an organization's requirements.

To evolve and ultimately to succeed in business, an organization's communications strategy must be aligned with its fundamental business goals. TDM systems defined the rules of engagement for voice communications back in the early 1960s. To be recognized as a viable contender, IP systems have had to prove their ability to consistently match the service quality and reliability of their TDM predecessors. Mitel Networks IP systems not only deliver uncompromised voice services to the business market but also enable a large number of new communication possibilities. There is no question that organizations will soon (if they are not doing so already) routinely web-enable a business presentation, video-enable a business call, or seamlessly move from a wireline to a wireless network mid-conversation. It is by taking advantage of these innovations that organizations will streamline costs, and improve employee productivity, employee mobility, and business performance.