



>BUSINESS MADE SIMPLE

Unified Communications
Evolution not Revolution

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July 2007

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Introduction – Problem Statement

- > Communication habits are changing
- > IT decision makers are looking for ways to improve costs and productivity while leveraging their existing investment in telephony systems



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A new communications model is emerging driven by a new generation and new technologies. To compete successfully in this space we need to understand the new market and communication trends.

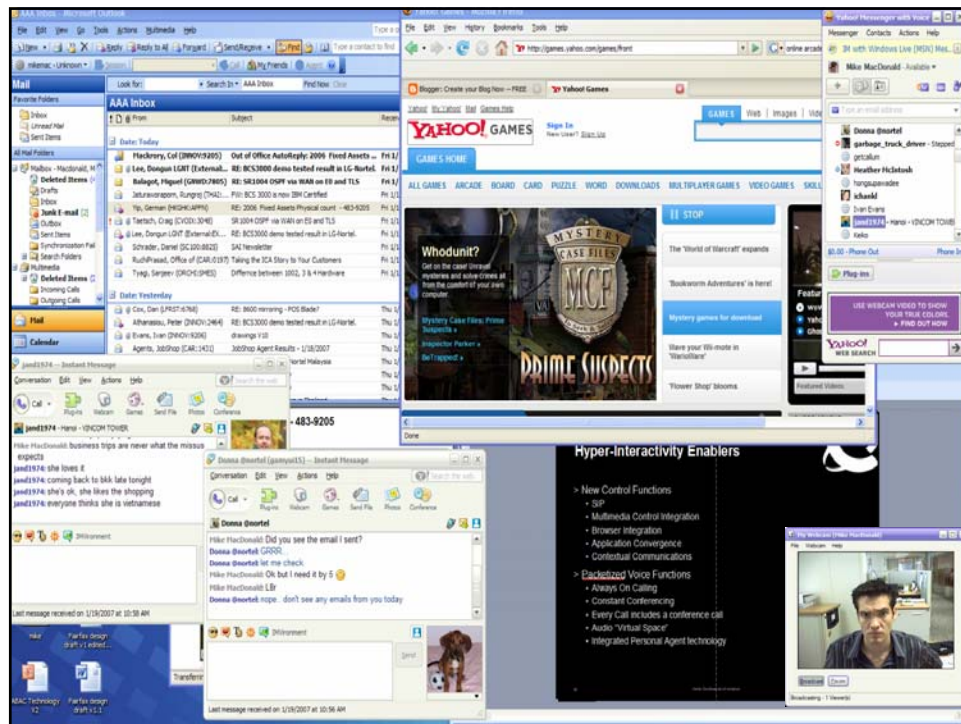
- > Generational
 - Driven by technology
 - Different communication habits
 - New expectations
 - IM → Email → Voice
 - SMS → Voice
- > Communication efficiency
 - Ease of use
 - Unified messaging
 - Desktop and infrastructure convergence
 - Integration with business processes



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Nortel Corporate Presentation





Generational Habits

> Pew Foundation studied Internet habits of college students in 2002 and found that they are early adopters and heavy users of technology.

- All students surveyed began using computers at least by the time they were teens, and a fifth were computer-literate before the age of eight
- 72 percent check e-mail daily
- 85 percent own their own computers
- 26 percent of college students use instant messenger on a typical day
- They routinely use the Internet to help with their coursework and use e-mail to communicate with their professors

By the 2010 we will have moved from a workforce that often has to be sold on unified communications to one that demands unified communications

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The Net Generation



> In a survey of 7,705 university and college students:

- 97% own a computer
- 94% own a cell phone
- 56% own an mp3 player
- 76% use Instant Messaging.
- 15% of IM users are logged on 24 hours a day/7 days a week
- 34% use websites as their primary source of news
- 28% own a blog and 44% read blogs
- 49% download music using peer-to-peer file sharing
- 75% of students have a [Facebook](#) account [13]
- 90% of college students have a myspace account and almost all teenagers over the age of 16 have one as well.
- 60% own some type of expensive portable music and/or video device such as an [iPod](#), [Zune](#), etc.

Connecting to the Net.Generation: What Higher Education Professionals Need to Know About Today's College Students, Reynol Junco and Jeanna Mastrodicasa (2007)

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New Expectations



> Expectations for Unified Communications

- Presence embedded throughout all applications provides instant click-to-call and collaboration through ubiquitous access

> Expectations for Real-time Access

- Demand for instant gratification for digital information exchange
- Immediate information
- Change from an "I don't know how" to a "Google it" mindset

> Expectations for Personalization

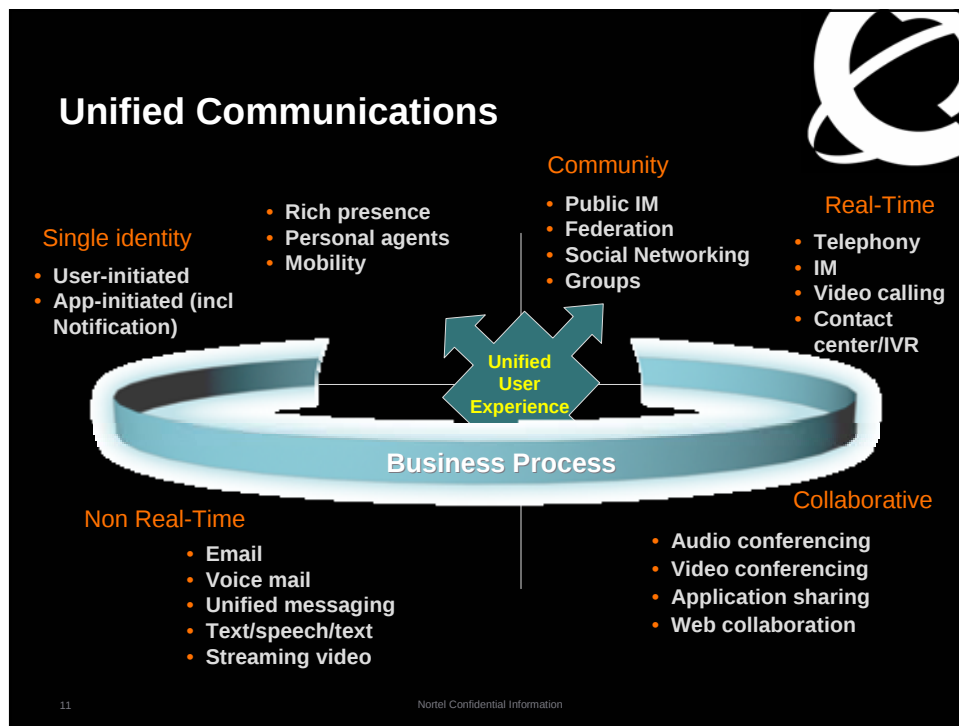
- Control over personal digital world from customized homepages with wallpapers, ringtones, RSS feeds to colorful accessories for products

> Expectations for Community

- Need for a larger and more diverse social network muting geographical and ethnic diversity
- Group and swarm behavior to problem solving

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Drivers for UC

- > Growing complexity of managing, securing and using multiple modes of communications (phones, cellular, e-mail, voicemail, IM, etc.) to support increasingly mobile, global organizations
- > Implementations of IP Telephony and multimedia communications often deliver inconsistent and/or below expected Quality of Experience (QoE), which in turn reduces productivity or impacts the customer service experience
- > Business processes too often include people-based delays which carry with them large time and cost issues.
- > Organizations need to reduce the total cost of ownership (TCO) even as they deliver richer communications capabilities that make them more competitive

The Nortel logo is in the top right corner.

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Unified Communications

Solving The Hyperconnected User Challenge

- > Puts the user in control
 - Where, when, who, how
- > Simplifies the user experience
 - Unified Client (desktop and mobile, phone)
 - Integration with email
 - Integration with Desktop apps
 - Collaboration tools
 - Single mailbox
- > Delivers consistent QoE
- > Addresses employee facing or customer facing environments

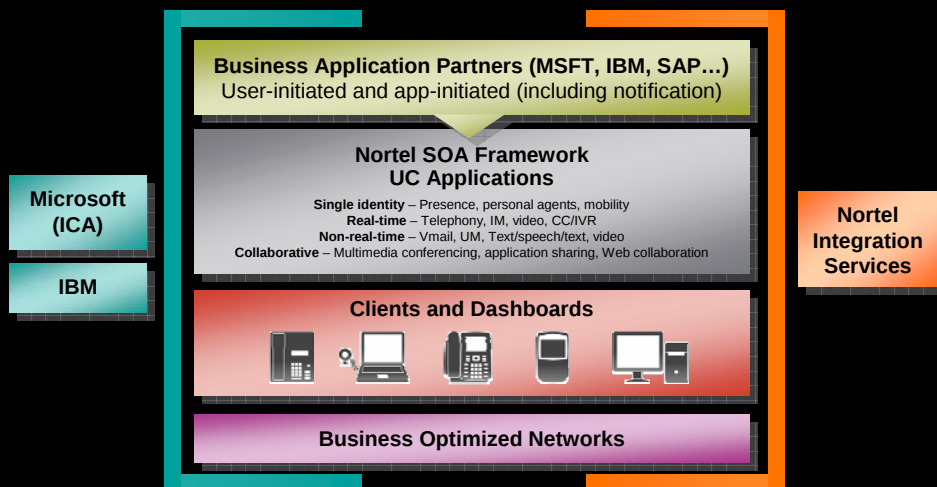


Communicating at the Speed of Thought

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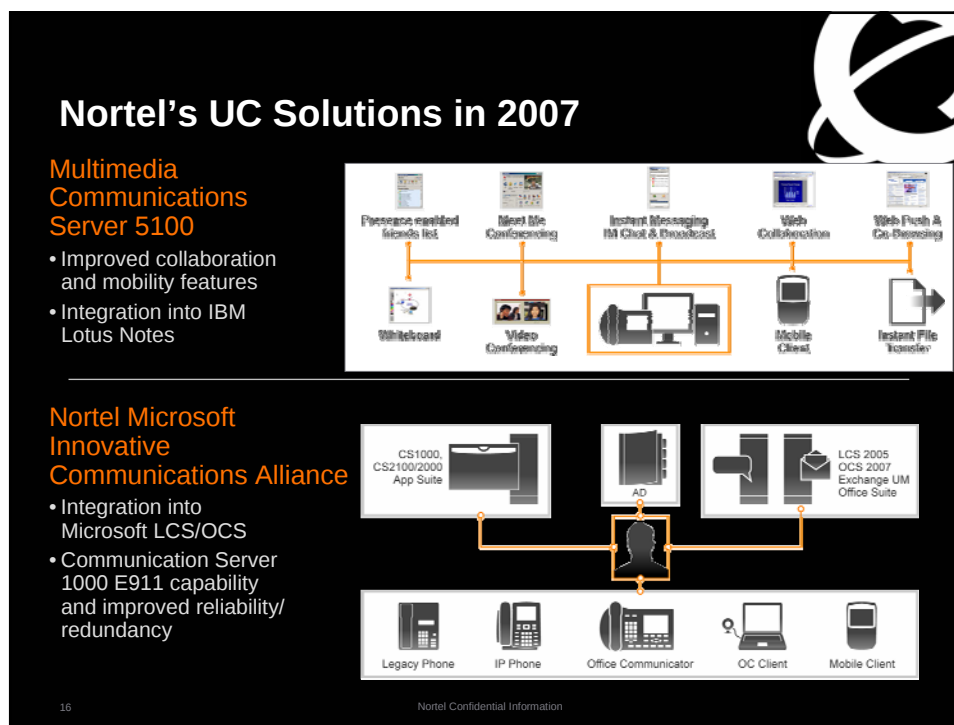
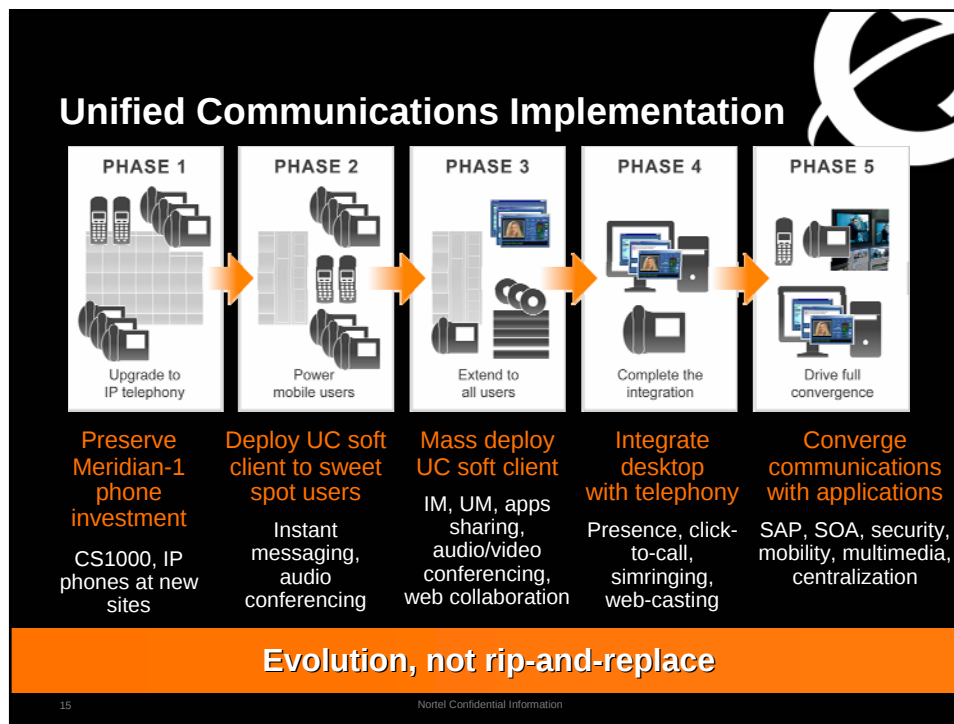
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Nortel UC Solutions

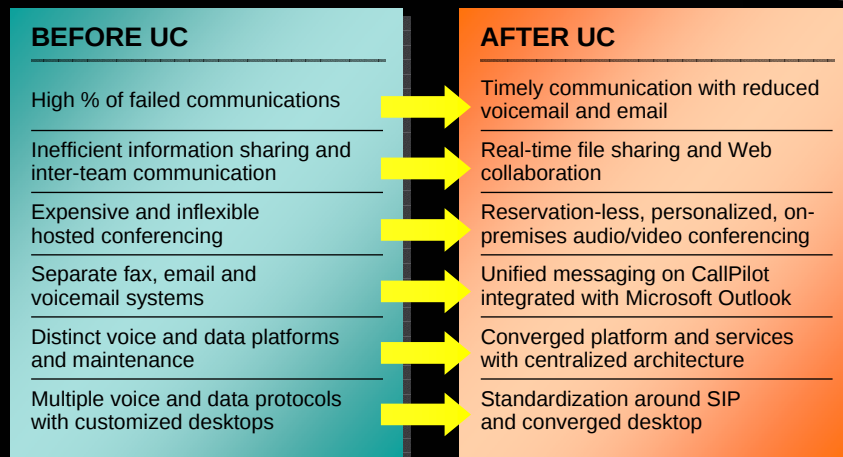


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Improvements from UC Implementation



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Cost Savings from UC

IP Telephony

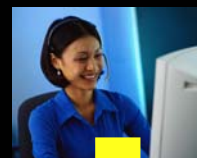
- \$50-\$100 per user from moves/adds/changes (MAC)
- 50% off from branch office telephony management
- 25-75% off trunking and toll charges
- 40% off cabling at new sites
- \$50/month/mobile user off LD and calling card fees

Conferencing

- \$668/year/user from travel avoidance – Forrester study

Real Estate

- \$8-\$16K/year off per home-based or branch office worker compared to a worker at headquarters

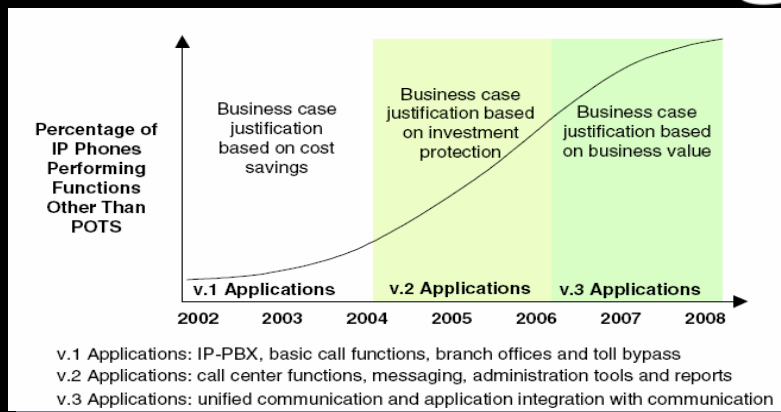


Sources: Forrester, Gartner, Nemertes

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Unified Communications Business Case



Total Cost of Ownership



Business Value

Source: Gartner

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Data Points

> Presence and IM

- Knowledge workers save 15 minutes/day or 55,000 hours/year
- Microsoft employees save 68 minutes / week
- First time communication saves 30 minutes per day
- Save 1 hour/week through ability to escalate IM chat to voice/video call



> Conferencing

- 75% of workers surveyed indicate they would save 1-5 hours per week with real-time collaboration
- 60% of 2,000 knowledge workers save 1 hour each per week or 30,000 hours total per year



> Mobility

- 77% of knowledge workers complete 15 out of 20 projects per quarter on time
- Professional Services firm reports its mobile workers bill \$20,000 per person more annually from improved productivity



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UC Value Proposition for Your Business



- > Is there value in accelerating speed to communication for your staff and students?
- > Do you have high telephony and/or hosted conferencing costs?
- > Is it your goal to provide a solid remote education and eLearning service?
- > Are you trying to differentiate yourself and promote the image of being an advanced learning institution?
- > Are you looking for a more collaborative and connected environment among staff, students, and professionals?

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Nortel-Microsoft Alliance

Strategies for Accelerating Unified Communications



- > Integrated solutions (2006-08) to transformed solutions (2008-2010)
- > Branded Alliance with joint events, account planning and channel development
- > Nortel preferred for Integration services with joint collaboration centers



The Future



- > Microsoft is delivering on the vision of Web 2.0 by developing technologies like mashups, wikis, blogs, RSS sites, My Sites, and unified communications into its SharePoint structure
- > Nortel is delivering the communication heartbeat with new multimedia applications via a seamless desktop experience
- > SharePoint is evolving through a series of upgrades to appeal to both business users and individual consumers
- > These technologies have "...to be compelling to IT people -- they want to save money -- and it must deliver instant productivity to individuals"
- > These technologies enable users to develop closer relationships with staff, students, professionals and the community

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Backup

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References

¹Nortel Case Study: "Driving Innovation and Competitive Advantage with Unified Communications," February 2007

²Microsoft Case Study: "Unified Communications Solution Helps Chinese Bank Handle Rapid Growth," September 2006

³Nemertes: "Remote Offices and the Rise of the Virtual Worker," April 2006

⁴Forrester: "Untethering Information Workers – Rethinking Workplace Location and Layout," July 2006

⁵Forrester: "How to Justify IP Communications Costs," February 2006

⁶Microsoft Case Study: "Volvo Steers a More Competitive Course with Unified Communications," December 2005

⁷Sage Research: "Unified Communications Application: Uses and Benefits," January 2006

⁸Nortel Case Study: "Business Case: Migrate to IP Telephony with Minimal Cost and Effort," January 2006

⁹Gartner: "IP Telephony for Corporate Networks," November 2006

¹⁰Wainhouse: "Telephony-Based Unified Communications 2007," November 2006

¹¹Gartner: "Federation is Your Only Option for IM Interoperability," October 2006

¹²Forrester: "Unified Communication Industry Study," February 2006

¹³Nemertes: "VoIP Industry Analysis: An Overview of VoIP Costs and Savings in Four Industry Sectors," 2005

¹⁴Excerpt from Microsoft's Jeff Raikes' keynote at VoiceCon 2007

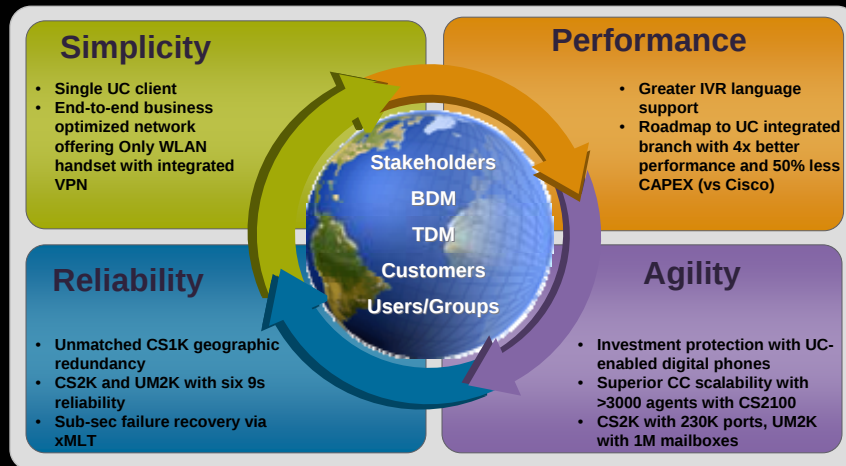
¹⁵Forrester: "The Total Economic Impact of Microsoft Unified Communications Suite," August 2006

¹⁶Forrester presentation: "Business Benefits for Unified Communications," January 2007 event

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Nortel's Differentiated Value Proposition



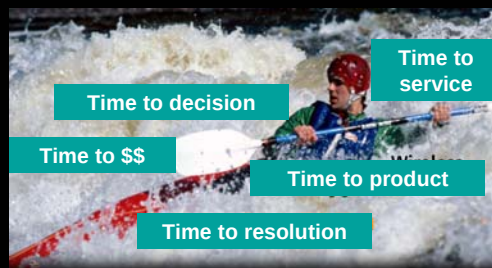
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Unified Communications

Solving The Hyperconnected Business Challenge

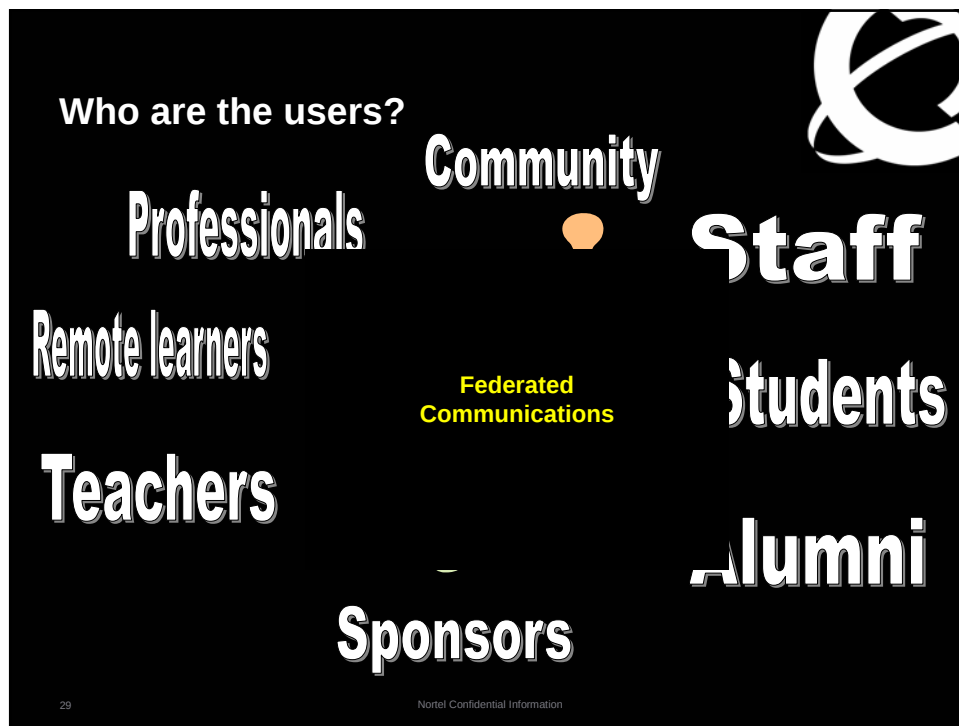
- > Eliminating the delay in human and electronic business processes
- > Enabling stronger collaboration for business results through group productivity tools
- > Enhancing business effectiveness and customer service through mobility



Accelerating Business

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UC Value Proposition

	Knowledge Workers	Information Workers	Service Workers
Personal Productivity		Mobile or fixed 'desktop' integration	
Group Productivity (User and customer-facing)	Improved collaboration, and doc/project mgt integration	Work flow, customer service and business process integration	
Enterprise Productivity			
IT	Lower TCO via UC unified infrastructure and clients Increased service velocity Improved client services		

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Customers Applying UC to Improve Productivity

Presence & IM: Reduced Message Tagging

> **Application:** Presence indicates the status of another user and IM provides another means of real-time communication

> **Advantage:** Employees save time sending and retrieving messages by connecting to others the first time on the right device

> Data points:

- Knowledge workers save 15 minutes/day or 55,000 hours/year
- Microsoft employees save 68 minutes / week
- First time communication saves 30 minutes per day
- Save 1 hour/week through ability to escalate IM chat to voice/video call



Source: Forrester

First-time communication increases productivity

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Customers Applying UC to Improve Productivity

Conferencing: Improved Team Collaboration

> **Application:** Audio, video and web conferencing integrated with on-line calendar enables ad-hoc conferencing

> **Advantage:** Enables coworkers to set up conference calls quickly and meet and share documents virtually

> Data points:

- 75% of workers surveyed indicate they would save 1-5 hours per week with real-time collaboration
- 60% of 2,000 knowledge workers save 1 hour each per week or 30,000 hours total per year



Sources: Forrester, Sage

Improved business agility

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Customers Applying UC to Improve Productivity

Mobility: Faster Access to Decision Makers

> **Application:** Extend UC to mobile devices: IM & presence on cell phones; single identity on fixed and mobile devices

> **Advantage:** Allows faster access to decision makers to reduce project slowdowns and makes mobile workers more productive

> Data points:

- 77% of knowledge workers complete 15 out of 20 projects per quarter on time
- Professional Services firm reports its mobile workers bill \$20,000 per person more annually from improved productivity



Sources: *Forrester, Network World*

Driving higher revenues

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Customers Applying UC to Solve Business Needs

Professional Services – Sales Close Rate

> **Application:** Sales teams close more projects because of improved access to support resources through presence

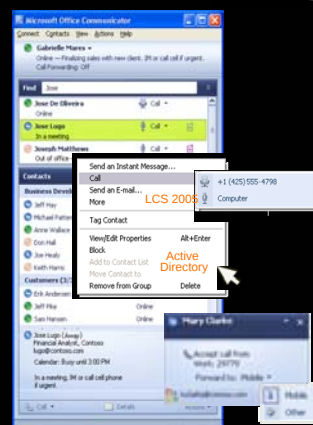
> **Example:** Professional Services firm

- Project size: \$250,000
- Project margin: 60%
- Project close rate: 75%
- Number of projects bid on per year: 75
- Total margin: \$8,437,500

> **Benefit:** Increased sales close rate

- By 1%: \$112,500 margin increase
- By 5%: \$562,500 margin increase

> **Result:** Higher revenues and earnings



Source: *Network World*

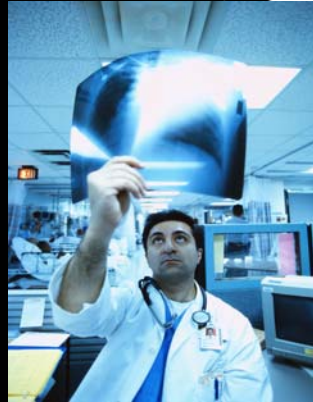
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Customers Applying UC to Solve Business Needs

Healthcare – Time to Care

- > **Application:** Enable healthcare professionals to find immediate specialized consultants
- > **Example:** Hospital care
 - Radiologist to orthopedist
 - Nurse to pharmacist
 - ER to many specializations
- > **Benefit:** Improves time to care through faster access to specialists
- > **Data point:** Nurses with UC tools respond 7 minutes faster to patients
- > **Result:** Cost savings and/or higher revenues from more efficient care



Source: *Wainhouse*

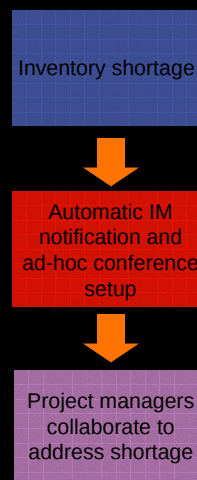
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Customers Applying UC to Solve Business Needs

Supply Chain – Inventory Shortage Reduction

- > **Application:** Shortage in warehouse triggers automatic IM to project managers and ad-hoc conference setup
- > **Example:** Manufacturing warehouse
 - Cost per lost sale: \$25
 - Number of lost sales: 5,000
 - Total losses: \$125,000
- > **Benefit:** Reduce inventory shortages
 - By 5%: \$6,250 revenue increase
 - By 20%: \$25,000 revenue increase
- > **Result:** Higher sales revenues



Source: *Network World*

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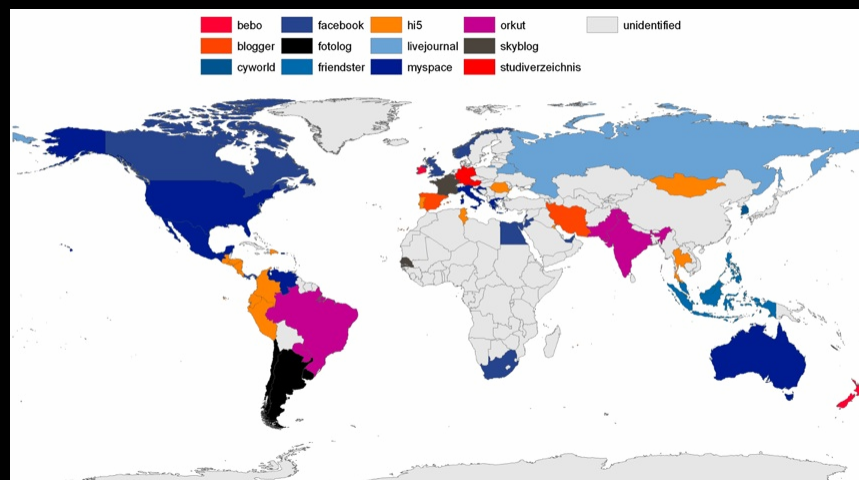
IM Usage

- > AIM: 53 million active users (September 2006), "over 100 million" total (January 2006).
- > Jabber: between 40 and 50 million (January 2007).
- > Ebuddy: 35 million users (including 4 million mobile) (October 2006)
- > MSN: 27.2 million active (September 2006), 155 million total (April 2005).
- > Yahoo! Messenger: 22 million users (September 2006).
- > QQ: 20 million peak online users, 221 million "active"[9] (July 2006).
- > Sametime: 15 million (enterprise) users (undated)
- > Skype: 9 million peak online (January 2007), 137 million total (January 2007).
- > Xfire: 6.1 million users (January 2007)
- > Gadu-Gadu: 5.6 million users (June 2006).
- > ICQ: 4 million active (September 2006).
- > Paltalk: 3.3 million unique visitors per month (August 2006).
- > MXit: 3 million users (majority in South Africa, more than 200,000 international) (31 January 2007). Note that these users are part of the Jabber user base as MXit federates with the Jabber network.
- > PSYC: 1 million users, daily (majority in Brazil) (February 2007). Total amount of users cannot be estimated due to the decentralized nature of the protocol.
- > Meebo: 1 million users (October 2006)
- > IMVU: 1 million users (June 2007)

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Social Networking Dominance



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bebo	blogger	cyworld	facebook	fotolog	friendster	hi5	livejournal	myspace	orkut	skyblog	studiverzei chnis
Ireland	Iran	South Korea	Canada	Argentina	Brunei	Colombia	Belarus	Australia	Brazil	Belgium	Austria
New Zealand	Spain		Egypt	Chile	Indonesia	Costa Rica	Russia	Croatia	India	France	Germany
			Jordan	Uruguay	Malaysia	Dominican Republic		Greece	Pakistan	Polynesia	
			Lebanon		Philippines	Ecuador		Italy	Paraguay	Guadeloupe	
			Norway		Singapore	El Salvador		Mexico		Martinique	
			Panama			Guatemala		Puerto Rico		New Caledonia	
			South Africa			Honduras		Serbia		Senegal	
			UAE			Kuwait		United States			
			United Kingdom			Mauritius		Venezuela			
						Mongolia					
						Nicaragua					
						Peru					
						Portugal					
						Romania					
						Thailand					
						Tunisia					

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PEW / INTERNET HOW INTERNET & AMERICAN LIFE PROJECT									
Generational Differences in Online Activities									
	Online Teens ^a (12-17)	Gen Y (18-28)	Gen X (29-40)	Trailing Boomers (41-50)	Leading Boomers (51-59)	Matures (60-69)	After Work (70+)	All Online Adults ^a	
Go online	87%	84%	87%	79%	75%	54%	21%	72%	
<i>Teens and Gen Y are more likely to engage in the following activities compared with older users:</i>									
Online games	81	54	37	29	25	25	32	36	
School research	*	73	60	61	48	33	14	57	
Instant message	75	66	52	38	42	33	25	47	
Text message	*	60	44	29	15	11	8	35	
Get info about a school	57	59	42	50	40	30	14	45	
Download music	51	45	28	16	14	8	5	25	
Read blogs	38	41	30	20	21	19	16	27	
Download video	31	27	22	14	8	8	1	18	
Create a blog	19	20	9	3	9	3	4	9	
<i>Activities where Gen X users or older generations dominate:</i>									
Get health info on at least one topic	*	73	84	80	84	68	72	79	
Travel reservations	*	50	72	64	64	59	60	63	
Job research	*	44	59	59	54	31	13	51	
Use gov't sites	*	41	56	64	60	55	45	54	
Bank online	*	38	50	44	37	35	22	41	
Religious info	26	30	38	24	28	28	28	30	
<i>And for some activities, the youngest and oldest cohorts may differ, but there is less variation overall:</i>									
Use email	89	88	92	90	94	90	89	91	
Get news	76	72	76	75	70	74	68	73	
Product research	*	79	80	83	79	74	60	78	
Online purchase	43	68	69	68	67	65	41	67	
Job hunting	30	62	51	40	36	17	2	44	
Use a photo service	*	39	38	31	32	31	30	34	
Rate a person or product	*	36	34	27	31	24	8	30	
Search for a person	*	31	31	23	23	24	29	27	
Participate in an online auction	*	26	29	25	20	18	6	24	

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www.pewinternet.org

Social Networking Dominance



Some patterns from the data:

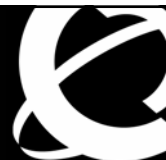
- > **Orkut** leads in the Indian subcontinent, as well as Brazil;
- > **Facebook** is stronger, internationally, than **Myspace**, with surprising strongholds in the Middle East;
- > **hi5.com** is the most international of all the social networks, leading in Peru, Colombia, Central America, and other, scattered countries such as Mongolia, Romania, and Tunisia;
- > both **Bebo** and **Skyblog** follow colonial patterns, the first strong in smaller English-speaking countries such as Ireland and New Zealand, and the latter in Francophone countries;
- > and **Friendster**, the original social network, leads all across Southeast Asia.
- > Fotolog, a photo service defeated in the US by Friendster, has re-emerged as the dominant social network in Argentina and Chile.

<http://valleywag.com/tech/data-junkie/the-world-map-of-social-networks-273201.php>

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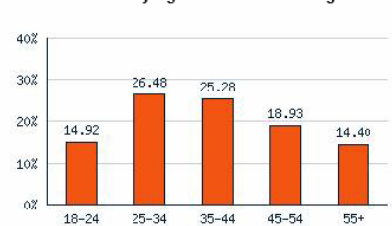
Information Resource Usage



Wikipedia Traffic by Age: Four weeks ending 8/26/06



Encarta Traffic by Age: Four weeks ending 8/26/06



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Key Challenge for Hyperconnected Users: Consistent Quality of Experience



Nortel delivers the key elements to deliver highest UC QoE

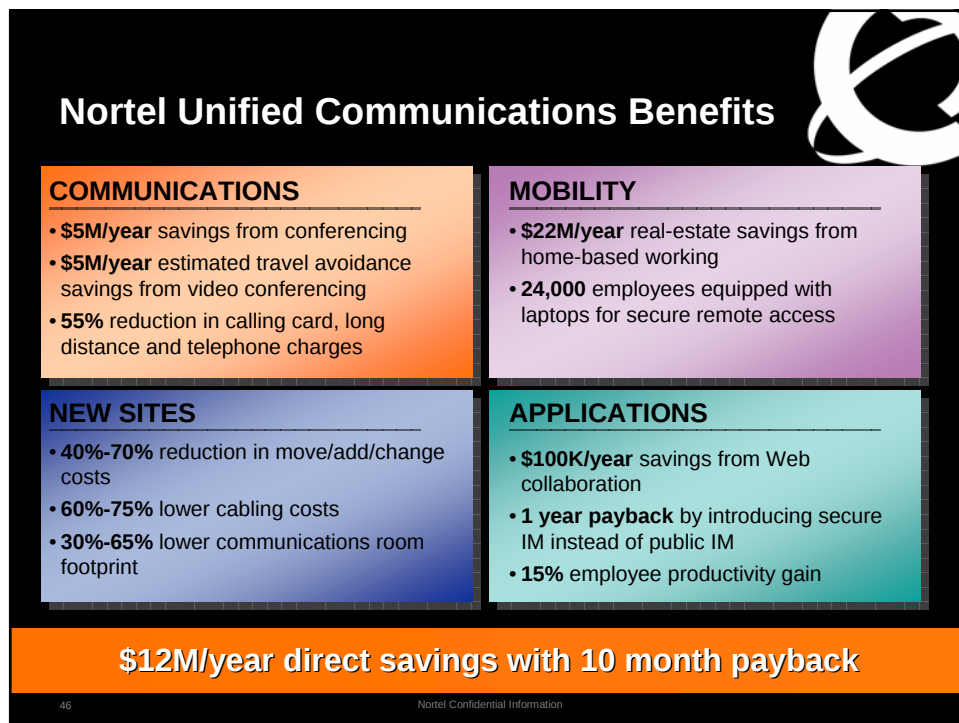
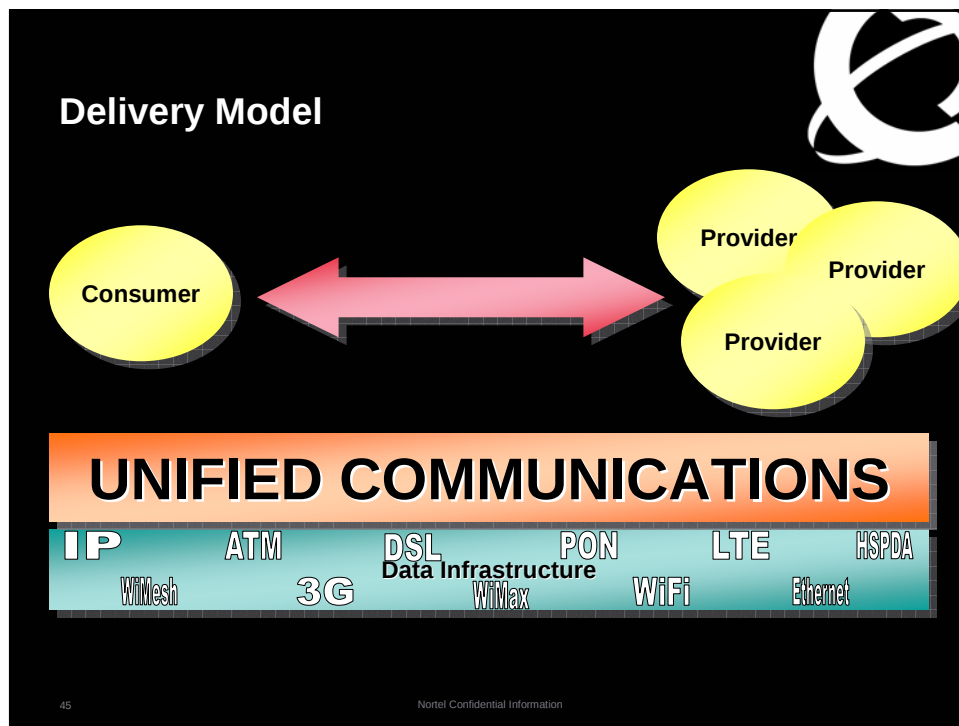
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Unified Communications Client

- > **Enhances the user experience**
 - Single point of launch
- > **Intuitively transitions between communication modes**
- > **Unifies the desk phone, mobile phone and client**
- > **Eliminates telephone tag**
 - Telephony presence
- > **Leverages Nortel IP telephony**
 - Full spectrum of IP phones with screen-based apps
 - 450 feature set
 - Vertical applications
 - Resiliency, Geo-Redundancy, Branch
- > **Adaptive to the user's environment**
 - MSFT Office Communicator
 - MCS Client
 - IBM Lotus Notes (on MCS)

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Nortel's Global Network

Fact Sheet:

- > 258 sites across 59 countries
- > 31,400 employees
- > 19,950 supplier and partner users
- > 2,250 servers & 40,000 desktops
- > 1,100 business applications

TRAFFIC PER MONTH

>48M emails	>190 webcasts
>25M voice minutes	>2 petabytes routed data traffic
>23M audio- conferencing minutes	>400 terabytes stored data



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Nortel's approach to UC Implementation

- > Target sweet spot users to justify the business case
 - Quick ROI for salespeople, teleworkers, and executives
- > Understand the challenges
 - Data network requirements: QoS, bandwidth, redundancy, security
 - New engineering and operating processes to support a real-time IP network
- > Use an evolutionary approach whenever possible
 - Protect investments and minimize implementation risk
 - Keep user offerings simple
 - Service bundles, user communities, SIP domain and email + dial plan alignment, standardized equipment
- > Use UC as an enabler for future benefits
 - Continued integration of applications and IP communications
 - Opportunities for business process improvement

Sustaining competitive advantage

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