

Unified Communications Watch

A Quarterly Newsletter Featuring Research from Gartner

Siemens is pleased to present this first issue of Unified Communication Watch, where we aim to give you analysis, insights, and comments from the experts on the latest developments in the communications industry. We hope you find this newsletter helpful in furthering your company's competitive position through the adoption of Unified Communication solutions and significantly improving the ways your teams interact and accelerating your business responsiveness.

In This Issue

In this issue, you'll find out how to lead your enterprise into a new era of agility – one where your organization will be empowered, via communications infrastructure you've enabled. Plus, we cut to the chase and tell you exactly what you should be looking for in a unified communications vendor.

Page 2 Enterprise Communications Fall Short Of Strategic Corporate Goals

Page 3 It's not 'All About the Network'

Page 4 So what should you be looking for in a Unified Communications vendor?

Page 5 Siemens' HiPath 8000 System

Page 9 Communication for the open minded

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Enterprise Communications Fall Short Of Strategic Corporate Goals

Can your firm cut costs while boosting knowledge worker productivity and competitiveness? Not today, according to a recent in-depth survey of 100 U.S. companies with more than 5,000 employees commissioned by Siemens Communications, Inc. and conducted by IDC, a leading provider of global IT research and advice. Nearly 80 percent conceded they lack the communications capabilities needed in working environments that they recognize are increasingly distributed, mobile and virtual.

In fact, 62 percent of respondents – CIOs and IT directors – believe the number of mobile employees in their companies will increase. Forty percent believe that the number of virtual teams in their companies will grow. What's more, significant percentages of enterprises also expect a rise in their number of teleworkers, global WAN sites, and ways to reach customers.

“With all the mobile capabilities and dynamic collaboration required by virtual teams, the threat of fragmented communications derailing corporate goals of more productivity and competitiveness while lowering costs has never been greater,” said Mark Winther, IDC Group Vice President, Worldwide Telecommunications. “What's needed is an open communications environment that combines unified communications with IT platforms and

business process integration along with other streamlining capabilities.”

Winther found the IDC survey findings in support of a concept he calls “Enterprise 2.0.” This combines Web 2.0 technologies and unified communications as well as their integration with existing horizontal and vertical business applications to enable new ways of working. “For example,” he explained, “bringing social networking into the workplace is not about finding interesting people to date but rather about finding people in your company with the knowledge and experience to provide guidance and best practices for completing a work task in a better and more efficient way.”

Winther's observations highlight a growing demand by companies to create highly effective Enterprise 2.0 working environments. The Siemens Open Communications strategy addresses this demand by enabling knowledge workers to collaborate much more quickly and effectively, find information and experts rapidly, and get much more done in shorter amounts of time, virtually any place, any time and across whatever device best suits their preference or situation. Its Open Communications portfolio is standards-based to enable integration and interoperability within any IT and communications infrastructure. Siemens Open Communications strategy strives to help companies achieve these results.

The portfolio includes such key offerings as the Siemens HiPath® 8000 communications platform – an extremely robust, feature-rich and carrier-grade VoIP application that operates as a Web 2.0 enterprise software solution – as well as the Siemens OpenScape application, a

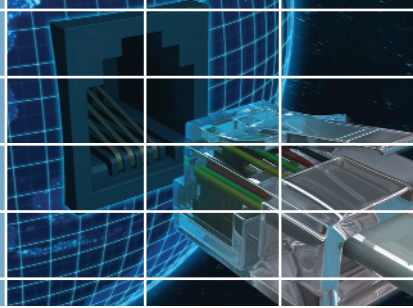
presence-enabled, multimodal unified communications suite that provides greater employee productivity and collaboration.

Anesthesia Business Consultants, LLC (ABC), one of the country's largest physician practice management firms, has used the Siemens HiPath platform and its complementary Open Communications portfolio to help increase revenues, streamline customer interactions and business processes, and improve its operational efficiency and employee productivity.

According to Tony Mira, President & CEO, his company's adoption of Siemens open communications solutions has effectively transformed its business. “By migrating to an all-IP communications environment, we've been able to solve more of our patient issues on first contact and increase overall patient satisfaction,” he said.

“With workforces today and tomorrow being increasingly distributed, mobile and 'virtualized,' companies seeking to sharpen their competitive edge and boost productivity while lowering costs must migrate to an open communications environment,” said Eve Aretakis, CEO, Siemens Communications, Inc. “Without such open communications capabilities as unified communications, fixed-mobile convenience, business process integration, among others, enterprises will find themselves falling behind their industry counterparts, with serious implications for their customers, employees and shareholders. An open communications environment can help drive new levels of productivity, responsiveness and efficiency.”

Source: Siemens



It's not 'All About the Network'

Getting the benefits of Open Communications

Why are communications so important?

No matter whether you work in the public or private sector, nor how large or small your organization is, communications are at or very near the heart of all you do. At the most basic level, if people don't communicate, things just don't get done. If they mis-communicate, misunderstandings occur. At a more prosaic level, communications enables the exchange of knowledge, the development of ideas and the propagation of information. This is why countless billions of pounds, euros and dollars have been poured into communications networks over the centuries.

But still many information and communications technology vendors appear not to understand that communications is all about people, about human interaction – and very little to do with technology.

Think of some of the catch phrases coined by IT manufacturers to help sell their products and services: "The network is the computer" from Sun Microsystems; "The Intelligent Information Network" from Cisco Systems. These are just two that come to mind. Catchy though these slogans are, they suggest the wrong approach to communications. Whilst networks are important, it is also important to remember the networks are no more than plumbing which links the pumps that drive the business: the people are the pumps.

This is why it is so important to have a cohesive communications strategy which not only satisfies the basic networking requirements for voice, video and data communications but also takes into

account the impact on the users today, tomorrow and way into the future.

Having said that, day to day business imperatives must also be addressed by the communications strategy: for profit makers these will include making money, saving money and getting the best use of assets, be they organic or otherwise; for public bodies the drivers are cost effective provision of appropriate services, compliance with political directives and, common to both, getting the best use of assets.

Easy to say, but not so easy to do. It is a truism that development of a communications strategy was somewhat less complicated in the past than it is now. It will be even more complex in the future.

Yesterday, communications was split in to voice and data, and perhaps video. Different departments were responsible for each. Today and tomorrow, the convergence of these widely differing media is on the agenda. Every CEO and managing director has now heard of VoIP and wants to know what it will do for them.

Moreover, the need to meld computing resources and communications infrastructure into one 'unified communications' entity is looming over the horizon.

Never before have those responsible for information and communications technology strategy and implementation been faced with so many choices, with so much riding on the right ones. As Filippo Passerini, CIO at Procter and Gamble said: "We are not clear what is the right thing to do. If we make a strategic mistake it will be difficult to undo what we did."

Not surprisingly, the CIO's and ICT directors of the world are asking for guidance. What are the key elements of Unified Communications that we need to be cognizant of?

A good place to start would be to take a holistic view of your strategy. Don't just think in terms of manufacturers and systems integrators, or products and services. Look for a solution to your problem that addresses each and every aspect, not just one or two.

At this point we have to be somewhat provocative. A small number of large vendors would suggest that their offerings and theirs alone can solve all your problems.

In today's unified communications world no one single vendor has all the answers. No one single vendor can provide all the hardware and software needed from the desktop to the data centre, from the softphone on a PC to the mobile phone in your pocket. It just isn't possible and those that try will end up being a 'jack of all trades and master of none'.

Source: Siemens



So what should you be looking for in a Unified Communications vendor?

Aside from the unique requirements that will differentiate the solution that is right for you, but not your direct competitor down the road, there are three key elements you should consider when selecting the right unified communications vendor:

Track record

Don't choose a vendor that only got into the game a few years back. Whilst they may be the ones making all the noise, they won't have the deep understanding of all aspects of a unified communications solution: the voice, the data, the applications and the service that makes it all come together.

There are vendors out there who have been round the block when it comes to all these important aspects. They know voice well. They have done the data side for years. They offer a range of unified communications applications that actually work together rather than just having the word 'unified' in the product name. Last but not least, they can offer a range of services from basic supply through to a full managed service – you can choose.

Open standards

Don't choose a vendor which hasn't demonstrated their commitment to open standards with deeds as well as words. White papers and positioning documents are all very well, but ask the vendors to prove that they have delivered on open standards not just once but time and time again. If you don't, you risk lock-in, and all the frustration and costs that come with it.

To check on your vendors' commitment to open standards, ask them to put in writing that they will meet all the standards you want them to meet and by what date they will do so. Ask them to demonstrate interoperability with other vendors systems, endpoints and applications. Ask them for reference sites where other users will confirm their commitment to open standards.

Risk sharing

There are vendors out there who tell a good story about their products and services – they have great slideware. They show you just how you can transform your communications by implementing their solutions 'just like Joe did'. But when it comes time to put it all together and make it work, you are on your own. If asked about after-sales service and the response is "That's a matter for our channel partner.

Speak to them" you should beware. It means that once the sales is made, they will effectively 'wash their hands' of you.

But not all vendors are like that. Some will not only supply the equipment and software, but the services too. This is scorned by those who no longer do it as being somewhat 'old-fashioned' – but when you are in need of help, it's great to know that the guys that built the solutions are there to help you make it work they way you want!

It may not surprise you that Siemens Enterprise Communications has a different view on how to satisfy your requirements. A view that puts you and your organizational requirements at the centre of the debate. Our Open Communications open up a new world of business efficiency.

By embracing new ways of working you can streamline your organization, increase profitability and be more competitive in your market. But to do this to best effect, it makes sense to work with the leading solution provider in the Open Communications market – Siemens Enterprise Communications.

Source: Siemens



Siemens' HiPath 8000 System

Gartner RAS Core Research Note G00145605, Rich Costello, 6 February 2007

The HiPath 8000 is a carrier-grade Session Initiation Protocol (SIP)-based Internet Protocol (IP) softswitch for large to very large enterprises. A single system comprised of two servers is designed to support up to 100,000 users.

Key Findings

- The largest HiPath 8000 customer has approximately 12,000 end users, according to Siemens.
- The HiPath 8000 is targeted at Fortune 1000 companies with distributed, remote sites; companies with campus-style structures; large military installations; universities; and state and local governments.

Recommendations

Consider This Product When:

- You are a very large organization looking for a global, SIP-based, carrier-class softswitch with capacity in the tens of thousands of users (per system) and beyond.
- You are an established Siemens customer looking to move upscale and still use established investments in other HiPath systems and Siemens' products as part of your enterprise infrastructure.
- You are a service provider looking for an SIP-based carrier-class softswitch that can be effectively partitioned for multitenant unit functionality among multiple applications or customers.

Consider Alternatives When:

- You have ongoing concerns about the future of Siemens Enterprise Networks that are not addressed shortly.
- Siemens Enterprise cannot effectively articulate its long-term product road map for the HiPath 8000 system and products, or the HiPath 3000 and 4000 systems.

ANALYSIS

1.0 HiPath 8000 System

The HiPath 8000 product family supports a wide range of Siemens' IP telephones,

requirements for analog devices, unified messaging and contact center applications, wireless and softphone options, and a PC-based management and administration system (see Table 1 for key specifications of the HiPath 8000 system).

2.0 Analysis

2.1 System Architecture and Hardware

- Three HiPath 8000 media servers are offered: the IP Unity Mereon 6000 for up to 100,000 users, the IP Unity Mereon 3000 and Convedia CMS-1000 for up to 30,000 users, and Siemens'

Table 1. Siemens HiPath 8000 System Specifications

Feature/Function	HiPath 8000
Type of Processor Architecture	Centralized
Operating System	Linux
Telephony Server CPU	Dual Intel Pentium III (Xeon) 3GHz
Media Server(s)	<ul style="list-style-type: none"> IP Unity Mereon 3000 and 6000 Convedia CMS-1000 Media Server Siemens Integrated Media Server
Redundancy Support	Standard (redundant servers in active-active mode; load balancing) in larger-scale deployment. Optional in 300 to 5,000 user deployments.
Remote Survivability	Basic survivability supported with the RG 8700; HiPath 3000 and 4000 can be upgraded to support the HiPath 8000.
Maximum Number of Digital Devices Supported (per system)	0
Maximum Number of IP Devices Supported (per system)	100,000
Maximum Number of Analog Devices Supported (per system)	100,000

Source: Siemens (January 2007)



integrated Media Server for 300 to 5,000 users. The media servers perform all the media processing functions required for advanced services, such as unified messaging, conferencing, automatic speech recognition, interactive voice response, text to speech, call detail recording, fax detection and other functions.

- HiPath 8000 reliability and availability are based on active/active-clustered servers. The system supports hot-swappable components, active/standby fast Ethernet links and crossover network connections via Ethernet switches. Fujitsu's Primecluster software controls the failover of active/standby Ethernet links and failover of the clustered nodes.
- Media Gateway support for the HiPath 8000 includes several options: Siemens HiPath 4000 v.3.0 via SIP; Siemens HiPath 3000 v.7.0 via SIP (pending release); Siemens RG 8700 and RG 2700; and third-party gateways (such as Cisco 3700 and Mediatrix), although supported functionality depends on third-party adherence to the SIP standard.
- Basic survivability for remote locations is supported on the RG 8700, as well as on the HiPath 4000 and 3000 when upgraded to support the HiPath 8000. Station-to-station calls, public switched telephone network access and E9-1-1 services are available at all times in remote locations.
- HiPath 8000 release 2.x uses SIP over Q.Signaling (SIP-Q) to interoperate with other Siemens HiPath systems (such as HiPath 2000, 3000 and 4000).
- A single-server configuration for the HiPath 8000 is available with Siemens' Integrated Media Server and HiPath Assistant for the 300 to 5,000 end-user scenario. Optional redundancy is also available.

2.2 Telephone/Device Support

- Siemens' new OpenStage 20, 40, 60 and 80 SIP phones; Siemens' optiPoint 410 S/420 S; Siemens' optiClient 130 S; and Siemens' WL2 S.
- Tested third-party IP endpoints – Cisco, Grandstream Networks, Polycom, Xten/CounterPath, Snom Technology, Zultys Technologies, ClearOne Communications and WiSIP.

2.3 System Management and Administration

System management for the HiPath 8000 can be implemented in three ways:

- The iSuite – Network Management Center (iNMC), Service Management Center (iSMC) and Subscriber Self-Care (iSSC) for systems with more than 5,000 users.
- The HiPath 8000 Assistant is an integrated administration tool for systems with fewer than 5,000 users.
- The Command Line Interface is a more traditional system-provisioning and administration option.

2.4 Network Signaling Support

- SIP, SIP-Q, Media Gateway Control Protocol, Q.SIG, T1/E1, Integrated Services Digital Network Primary Rate Interface

2.5 Voice/Unified Messaging

- Supports Siemens HiPath Xpressions or third-party systems for unified messaging.
- Supports the IP Unity Mereon Unified Messaging solution – a scalable, carrier-class unified messaging product.
- HiPath ComAssistant S is a Web-browser-based application that enables users to manage incoming voice and e-mail communications from their desktops.

2.6 Automatic Call Distribution

- Supports Siemens HiPath ProCenter Suite for contact centers with up to 750 active agents in a standard configuration.
- Integrates with the Genesys Contact Center Suite for larger contact center environments.

2.7 Conferencing/Collaboration

- Supports tight, SIP-based integration with Siemens OpenScape collaboration application. OpenScape brings together multiple functions on one platform – telephony, voice mail, e-mail, instant messaging, text messaging, calendaring, directories and conferencing services. Mobility and presence features can also be supported.

2.8 Wireless Support

- Optional via Siemens' optiPoint WL2 professional S solution
- Third-party wireless SIP offerings

3.0 Pricing

- HiPath 8000 ranges from \$300 to \$500 per user, depending on the number of users.
 - HiPath 8000 pricing example: A 500-user configuration installed with IP Unity software/hardware, voice mail and IP hard phones (gateways excluded) is approximately \$307,000.
- Discounts can vary from 20% to 50%, depending on system configuration.

3.1 Licensing

- Siemens supports concurrent user licenses, enabling a user to move to another location without incurring another license charge. Because many customer implementations span multiple countries, this licensing structure applies globally.



3.2 Government Services Administration Pricing

- The HiPath 8000 is not included on the U.S. Government Services Administration pricing schedule for discounts offered to U.S. government agencies.

4.0 Competitors

- Alcatel OmniPCX Enterprise
- Avaya Communication Manager Media Servers and Gateways
- Cisco Unified CallManager
- Nortel CS 1000 and CS 2100
- NEC SV7000

5.0 Strengths

- The HiPath 8000 is targeted at Fortune 1000 companies with distributed, remote sites; companies with campus-style structures; large military installations; universities; and state and local governments.
- The HiPath 8000 was developed for very large enterprises (up to 100,000 SIP end users per system) using the core capabilities of the carrier-class, Siemens hiQ 8000 softswitch.
- Multiple HiPath 8000 systems can be networked to scale beyond 100,000 users.
- The system uses the Fujitsu-Siemens Resilient Telco Platform (RTP), a fault-tolerant, distributed computing platform that constitutes the HiPath 8000's underlying middleware. In the event of a system failure, RTP is designed to enable the HiPath 8000 to perform a system switchover, while maintaining all active calls with no loss of billing records.

6.0 Challenges

- The HiPath 8000 v.2.2 does not support voice encryption. Support for Secure Real-Time Transport Protocol likely will be available in the v.3.0 release.
- HiPath 8000 product development has been slow rolling out, and the system has been slow penetrating the market. As such, there's a dearth of scalable HiPath 8000 customers available as references. However, Siemens indicates that the customer base for the HiPath 8000 solution has more than doubled since 1Q06, and it reportedly adds a HiPath 8000 customer nearly every week.
- The HiPath 8000 is not optimal for organizations with fewer than 300 users.
- No HiPath 8000 support for Siemens' CorNet IP signaling protocol. As such, a HiPath 8000 using SIP-Q network signaling to interoperate with HiPath 2000, 3000 and 4000 systems supports a subset of the full feature set.
- Although more than one HiPath 8000 can be connected and alarm-monitored with the iNMC/iSMC, the HiPath 8000 management tools cannot see multiple 8000s as one system from a configuration perspective.
- There remain many questions around Siemens' pending divestment (sale or otherwise) of its Enterprise Networks unit. An early October 2006 announcement date to address some of these questions passed with little new information from Siemens, leaving customers and partners to continue wondering about the long-term viability of Siemens Enterprise Networks and its current products. As such, customers

should consider the likelihood (or lack thereof) of long-term product support before investing in Siemens' technology. The company maintains that development will continue uninterrupted on the HiPath 8000 platform, with release 3.0 planned for 2Q07.

7.0 Company Information

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Acronym Key and Glossary Terms

EMEA	Europe, the Middle East and Africa
iNMC	Network Management Center
IP	Internet Protocol
iSMC	Service Management Center
iSSC	Subscriber Self-Care
RTP	Resilient Telco Platform
SIP	Session Initiation Protocol
SIP-Q	SIP-Q.Signaling
TDM	time division multiplexing



7.3 At-a-Glance

Table 2. Siemens Enterprise Communications At-a-Glance

Attributes	Comments
Product Portfolio	Siemens has a good product portfolio, but new product development, rollouts and releases are slow to market, especially in North America.
Customer Experience	Typically have enjoyed a loyal time division multiplexing (TDM) customer base, but the transition to IP telephony has not been as kind to Siemens for sales and service.
Differentiators	Siemens has a strong integration story around Microsoft applications with HiPath systems and Siemens OpenScape – its multimedia collaboration platform. Strong global presence, especially in Europe, the Middle East and Africa (EMEA), North America, Central America and Latin America.
Distribution	Siemens' channel distribution is about 80% direct, 20% indirect.
Financial	The Siemens Enterprise business is up for sale by its parent company, Siemens; Siemens Enterprise financials are uncertain at best.
Geographic Coverage	Strong global coverage, especially in EMEA, North America, Central America and Latin America.
Maintenance Capabilities	Siemens Business Services has strong global presence, demonstrating more TDM than IP telephony expertise.
Market Responsiveness	Among the first telephony vendors to support SIP and integrate with Microsoft applications. However, release of new products and updates are frequently sluggish, significantly lagging behind announcements by many months.
Market Share	8.1% worldwide, 3.4% North America; with latter market share declining in overall telephony shipments during recent years vs. the competition.
Pricing	Very competitive; Siemens typically competes well on price.
Service and Support	Siemens Business Services has strong global presence, with emphasis in EMEA and North America.
Vertical-Market Segments	Siemens is particularly strong in the healthcare, transportation and manufacturing markets.

Source: Gartner Dataquest (January 2007)



Communication for the open minded

Siemens Enterprise Communications GmbH & Co. KG, headquartered in Munich, was founded in October 2006 as a wholly owned subsidiary of Siemens AG. As one of the world's leading providers of unified communications, we supply products, solutions and services to customers in some 80 countries. More than 15,000 employees support enterprises worldwide by unifying communications and collaboration, thereby making our customers more productive.

With our Open Communications concept, we offer our customers cutting-edge solutions and services that are based on open standards and integrate seamlessly in their existing infrastructures and business processes. In doing so, we are continuing to pursue our goal of realizing universal communications – across network and media boundaries and with a uniform user experience. We deliver added value to our customers by protecting their investments and enabling a phased implementation of our solutions that are tailored to their needs.

Open Communications from Siemens Enterprise Communications – award-winning solutions for everyone.

The information provided in this newsletter contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.

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