



Message From The Chairman

Dear IPCC Members,

Happy New Year! And, we're off to a running start! We used the last few months of 2002 to plan and begin work on several key initiatives and activities. Well, now we're finally seeing the activities come to fruition and deliverables have already been released or will be released shortly. I want to thank all the members who participated and helped throughout the months. Without you, the members, none of this would be possible. I want to share with you some of the highlights:

IPCC extends a warm welcome to its' new members:

*Iskratel, Ltd.
based in Slovenia.*

*Caerus, Inc. based
in Florida.*

1. ROI Tool – the long awaited interactive ROI tool is now available via the IPCC Website – www.softswitch.org. You must have a user name and password to access this document. If you need a user name/password, please send an email to info@softswitch.org. There will also be a Q&A session with the developers of this tool, Research First, in February. Please check the web site and your emails for time and date.
2. Research – Yankee Group Study on International and Wireless Service Providers – now available via the web site. In late 2002, The International Packet Communications Consortium (IPCC) contracted the Yankee Group to survey 88 service providers (wireline and wireless) globally to probe for untapped opportunities for service providers and overall attitudes and perceptions of softswitch architectures. This research sought to explore any regional or carrier-type specific requirements in order to aid the IPCC member companies to successfully deploy softswitch architectures worldwide.
3. The SIP and PRI Off-load document are both available on the IPCC website. Your comments and suggestions on the document content, document topics, or anything else are greatly appreciated. The documents will be available on the members-only side of the web site. If you do not have a log-in, please contact info@softswitch.org.
4. Member Meeting – The next member meeting will take place on Monday, March 31, 2003. We've co-located the meeting with Pulver.com and VON at the San Jose Convention Center and hope that you can join us. Christin Flynn and Phil Marshall from the Yankee Group will be at the meeting to present the findings of the recent International and Wireless Study. They will be able to provide answers to any questions you might have about the results. In addition, we will be inviting representatives from the Cable and Wireless industries to tell us the importance of Softswitching technology for their community. Please join us for this great event. Additional information and registration can be found on www.softswitch.org.
5. Service Provider Forums – both at CeBIT and at VON, the IPCC leadership will be holding a special forum with key service providers from around the world to discuss how we can all work together to speed up NGN deployment and maturity. The IPCC will use this as the guideline for all future consortium activities.

There are also numerous events and conferences that the IPCC will be involved in over the next 6 months. They're listed at the back of the newsletter. If you're interested in participating in any of these activities, please contact Lily Sun (Lsun@inventures.com / +1-925-275-6674).

Again, thank you to all those who helped on the projects. Your continued support and feedback is needed. Please tell us what activities you'd like to see more of and we'll do our best to accommodate! As always, please feel free to contact me with any questions or suggestion.

Regards,

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ICG Plans IP Centrex Service in 2003

In early 2003, ICG Communications is planning to launch what will be one of the first nationwide deployment of IP Centrex in the United States. The company will offer its business customers a choice between IP Centrex, as well as managed IP PBX service.

ICG, which now provides dial-up access for many large ISPs, is in the process of evaluating a number of vendors of softswitches and/or application servers, that will deliver the IP Centrex services, including VocalData, BroadSoft Inc. and Sylanro



Software Systems.

ICG's target market for now is small to medium-sized businesses. The company plans to offer its services to larger multiple-site companies that are moving toward the IP world for both voice and data, IP Centrex or managed IP PBX.

In the meantime, ICG has deployed the softswitch by the former Nex-

Verse, now called Chorale Networks since its acquisition by ECI Telecom. Initially the product is being used to control remote access servers (RASs) for ICG's managed-modem service. In 2003, the company plans to use the softswitch to support what ICG calls its IP converged services — “complete converged voice and data on an IP loop.” The company plans to use the NexVerse trunkside softswitch and an application softswitch for IP PBX and IP Centrex to achieve its technology and product requirements.

Global Crossing & Sonus Networks Achieve Milestone

Global Crossing and Sonus Networks announced that Global Crossing has reached a significant milestone in the



operation of its next-generation voice over Internet Protocol (VoIP) network, which is supported by Sonus Networks' voice infrastructure solutions. In the month of November alone, the Global Crossing VoIP network carried more than one billion minutes of voice traffic for carrier and enterprise

customers. As a reference point, the Global Crossing VoIP network carried 2.3 billion minutes of traffic during the entire third quarter.

Global Crossing went into production on its carrier-class VoIP network in September 2000, with seven VoIP gateway centers in North America. Today, the Global Crossing VoIP network comprises 26 VoIP gateway centers in 12 countries throughout Europe, Asia, and Latin America, providing connectivity to enterprise and carrier cus-

tomers worldwide.

The Global Crossing suite of voice products provide carrier and enterprise customers access to switched and dedicated origination and termination, both nationally and internationally, as well as long-distance and toll-free services with enhanced routing capabilities over Global Crossing's worldwide fiber optic network using either VoIP packet-based or conventional TDM technology.

Comcast Selects Alopa



Comcast announced that Alopa Networks has joined the list of vendors for deployment of VoIP primary line phone service.

The Alopa MetaServ platform enables provisioning of cable modems Embedded Media Terminal Adaptors (EMTAs) required for VoIP. The Alopa solution has been developed towards compliance with the PacketCable specification. PacketCable is a CableLabs-led standard used to develop interoperable interface specifications for delivering multimedia services over two-way cable plants.

Comcast plans to introduce IP phone service in limited areas of the Philadelphia in mid-year 2003.

Customer Wins For VocalTec

Voice-over-IP pioneer VocalTec saw two international carrier customers expand on existing contracts this week, deals which put more distance between the progressive VoIP adoption of foreign carriers and the lackluster acceptance of U.S. carriers.

T-Systems International Carrier Sales and Services (ICSS), the carriers' carrier arm of Deutsche Telekom, announced a \$7.7 million agreement with VocalTec, which builds on previous deployments of the vendor's technology in T-Systems' rapidly expanding Jules VOIP network. Also, Indian upstart Data Access, which surfaced quickly following last year's deregulation in India to gain 30% of the India-based international long-distance calling market, said it will continue to expand its VOIP network and buy about \$8 million worth of VocalTec equipment over the next 15 months.

UTStarcom Signs Yahoo & China Netcom

UTStarcom, Inc., a leading provider of wireless, wireline, and broadband access equipment, announced that it has been awarded new contracts valued at more than \$100 million for the AN-2000 IB, a carrier-class IP-based digital subscriber line access multiplexer (IP-DSLAM) in support of the Yahoo! BB ADSL service. To date, Yahoo! BB, the leading provider of broadband service in Japan, has already deployed more than



\$130 million worth of UTStarcom IP-DSLAM equipment to support its hugely popular 12 Mbps ADSL service.

As the fastest-growing ADSL services vendor in the world, Yahoo! BB reached more than one million subscribers in

September 2002, less than 13 months after the service was introduced.

Additionally, the company announced that it has signed contracts valued at approximately \$114 million with China Netcom Corporation for new and expansion deployments of its IP-based PAS (Personal Access System) equipment in three provinces in China, Hebei, Shandong and Liaoning.

Liberty Cablevision Launches VoCable Trial

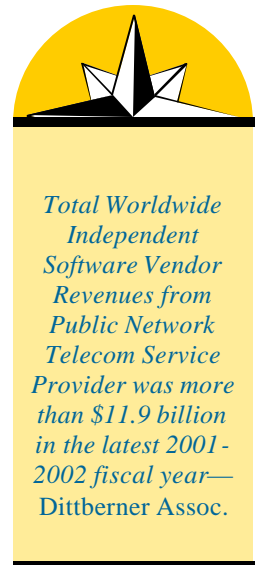
Liberty Cablevision has launched phase 2 of its VoCable trial in Puerto Rico, scheduled to run through the summer of 2003. The progression extends service to 4,000 of the provider's video subscribers. The cable operator is outsourcing the VoIP service to Net2Phone. The service includes call waiting, Caller ID, directory assistance, and support for CALEA.

In the network, calls are routed directly from a sub-

scriber's telephone plugged into a cable modem with an eMTA over the cable network to a cable modem termination system. The call is then routed to Net2Phone's IP network, which rates, manages, provisions, and bills the call and routes it to the closest gateway to the recipient before the call is transferred to the PSTN.

Net2Phone provides 24x7 network operations, tech support and local and long distance bilateral interconnection

agreements. Liberty maintains ownership of the customer, service brand, and Tier 1 customer and tech support, while Net2Phone supports the backoffice platform, switching and transport, ongoing operations and Tier 2 tech support. Net2Phone tracks and monitors voice quality and network performance metrics and provides the operator with a full view into the phone calls routed over its network.



News From Around the Industry

- AT&T has extended its outsourcing deal with DSL specialist Covad Communications, enabling the phone giant to offer residential broadband without network overhead.
- UK-based BTG, a global technology commercialization company, announced it has acquired rights to a portfolio of patents and patent applications relating to Video and VoIP technologies developed by Intelligence at Large, Inc. (IAL). These technologies are incorporated into the various international standards for multipoint, packet-based multimedia solutions enabling real-time communications over the Internet.
- Norlight Telecommunications, an employee-owned, Wisconsin-based provider of integrated data solutions for businesses, announced the addition of Voice over IP Long Distance (VoIP LD).
- Alcatel and Jordan Telecom will connect 65 geographically dispersed educational sites throughout the country provide Internet connectivity to over 3000 public schools in the country.

Telverse Delivers On 'Business Tone' Promise

Telverse Communications has expanded its 'Business Tone' service offering with unified communications (One Connection) and web-enabled conferencing service (Meeting Spot). One Connection allows subscribers to retrieve messages via the PC/web, WAP-enabled mobile



and web-enabled conferencing service (Meeting Spot). One Connection allows subscribers to retrieve messages via the PC/web, WAP-enabled mobile

devices, and PSTN Phones. and has been integrated with Telverse's Business Tone solutions, enabling users to seamlessly utilize their hosted PBX/IPPBX solution with advanced Unified Communications features. Meeting Spot is also accessible from multiple user devices and clients and comes with numerous standard and advanced features including on-demand

conferences and pre-scheduled conferences with up to 400+ participants. Telverse' Business Tone Service includes Hosted IP PBX Services, IP Voice and Data Conferencing, and Unified Communications and are delivered over any Managed IP Network solution available today utilizing SIP, MGCP or H.323 protocols.

Cisco Customers Deploy IP-Based Services

Service providers in Asia Pacific, Europe, and North America are delivering innovative IP-based voice, data, & video services to their business and residential customers using Cisco voice solutions.



as network-based file storage.

FastWeb and Bredbandsbolaget Deploy Cisco BLISS Solution

FastWeb and Bredbandsbolaget (B2) are among service providers using Cisco BLISS, an integrated solution that addresses IP-based multi-services over metro Ethernet, cable and T1/E1. BLISS Metro Ethernet enables service providers to deliver high-speed Internet, local and long-distance voice and video services, & hosted services such

ITXC and SingTel Deploy Cisco VIA Solution

Service providers, such as ITXC and SingTel, have deployed voice services based on Cisco VIA, a field-proven voice solution that helps carriers cost-effectively deploy scalable IP-based voice transit services over a core IP transport infrastructure.

Equant & Sprint Deploy Managed Voice Services

Using Cisco's Multiservice

VPN and Cisco's Managed IP Telephony solutions, leading service providers Equant and Sprint have delivered a set of bundled managed voice services for their business customers that are seeking to outsource the ongoing management of their IP voice, data and video communications. By employing the Cisco Multiservice VPN offering, service providers can offer cost-effective inter-site voice, data and video IP communications over a quality of service (QoS)-enabled network. Additionally, they can provide closed user group dialing services as well as "off-net" long distance calling through SS7 and ISDN.

The market for IADs is expected to grow at an overall annual rate of 28.2% between 2001 and 2006. Growth is expected to rise to over 790 million units in 2006 from about 226 million units in 2001 — In-Stat/MDR

Packet-based Comms—Market Research

According to **Economy.com**, telecom equipment revenues fell by 25% in 2002, to \$166.4 billion, but should flatten this year to \$165.8 billion. Telecom services revenue, which rose only 0.07% in 2002, to \$393 billion, should rise 4.5% in 2003, to \$411 billion.

According to **New Paradigm Resources Group, Inc.**, the CLEC Report 2003TM, CLEC sector revenues grew from \$48.02 billion in 2001 to \$51.86 billion in 2002, a 7.9% gain. Access lines rose 16% to 27,360,018. Operational voice switches grew more slowly,

from 1,202 in 2001 to 1,221 in 2002, a 2% increase.

CLECs and cable companies that exited Chapter 11 over last few months included ICG Communications, Mpower Communications, ITC-DeltaCom, NTL, and McLeodUSA.

Upcoming Events

ATIS Security Summit

February 4-5, 2003, Washington, DC

www.atis.org/atis/atisinfo/securitysummit.htm

The ATIS Security Summit entitled, "Security of Service Provider Infrastructure in the Era of Convergence," is a two-day summit to explore the key technical and operational security issues facing existing and future network infrastructures. The IPCC will present our Legal Intercept work, and we would like to urge you to attend.

Internet Telephony Conference & Expo

February 5-7, 2003, Miami, FL

www.tmcnet.com/itexpo/

Look for IPCC members BroadSoft, Convergent Networks, Hughes Software, Jasomi Networks, IP Unity, Siemens, Sylanro Systems, Alcatel, SS8, and VocalData.

IN-IP World Forum

March 10-13, 2003, Orlando, FL

<http://www.iec.org/events/2003/inip-wf/>

Look for the IPCC booth. IPCC members may place collateral at the booth at no cost. Look for IPCC members Alcatel, Cisco Systems, Convidia, NTT Communications, sentitO Networks, Siemens, SnowShore Networks, Sonus Networks, SS8 Networks, Sylanro Systems, Tekelec, Telcordia Technologies, Telica, VocalData, Westwave Communications

VON Spring 2003

April 1-3, 2003, San Jose, CA

www.von.com

The IPCC will be presenting a panel on softswitching and the next generation network. This session will give a general update of the architecture but will also address how softswitching fits into the wireless network.

China VoIP Conference & Expo

May 27-29, 2003, Beijing, China

www.china-voip.com

The IPCC will be giving a keynote speech on the advancement of softswitching and next generation networks around the world. IPCC members will also have an opportunity to participate on a softswitching panel.

SUPERCOMM 2003

June 2-5, 2003, Atlanta, GA

www.supercomm2003.com

The IPCC will again participate in the SUPERDemos. Last year's demo met with great success! Come be a part of the IPCC Interoperability Demonstration.

CommunicAsia 2003

June 16-19, Singapore

www.communicasia.com

The IPCC will co-organize a full-day conference on Next Generation Networks. Please join us at the largest communications conference and expo in the region.

For additional information on the above listed events, please contact Lily Sun: Lsun@inventures.com / +1-925-275-6674.



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About The IPCC

“The International Packet Communications Consortium (IPCC) is the premiere forum for the worldwide advancement of the next generation networks through products, services, applications, and solutions utilizing packet-based voice, data and video communications technologies available today via any transport medium including but not limited to copper, broadband and fiber optics.

The IPCC establishes a common terminology for the softswitch-based architecture, and it promotes interoperability, conducts research, and liaises with governmental and industry organizations to address industry issues that service providers and vendors face. By providing a variety of educational seminars and by fostering the Open Network and Standard Interfaces, the Consortium accelerates the advancement and usage of softswitch-based networks.

The IPCC membership includes wireline and wireless service providers and carriers, governmental agencies, standards bodies, and equipment and software vendors representing all network elements involved in the softswitch-based and next generation network.”

Upcoming Technology Documents

Over the course of next few weeks, IPCC will release a number of Technology White Papers to its consortium members. A brief overview of these documents is as follows:

- **Softswitch Reference Architecture:**

Various Research, Development and Strategic Technology teams are partnering to develop a softswitch reference architecture model. The document will define the many functional elements that constitute a “softswitch” and will serve an important role in promoting interoperability and clarifying the confusion that now exists among the providers and consumers of Voice over IP (VoIP) products and services.

- **Defining SIP in the Next-Generation Network—from Theory to Deployment:**

SIP is an important element of the International Packet Communications Consortium’s (IPCC’s) Reference Architecture, which defines the many functional elements that constitute a softswitch and promotes interoperability of IP services. This white paper explains how building IP services based on SIP is easier and less capital intensive, allowing developers to leverage existing standards, re-use application code and accelerate the deployment of enhanced services over the next-generation IP network.