## infozech news

### Breakthrough technology expected to roll out of Infozech soon

*Targeted at Voice-over-Broadband services providers, the new application promises revenue assurance*

Infozech is ready with a breakthrough new technology, which is targeted at Voice-over-Broadband services providers. The yet-to-be named application and state-of-the-art billing and customer care framework will allow service providers to build applications on IP platform and charge for them in real time.

"The new application promises telcos revenue assurance and the capability to rapidly create new services on an IP platform and deploy them quickly. As far as existing mobile/MVNO service providers are concerned, they can now launch applications seamlessly and quickly," Commented Mr. Ankur Lal, CEO, Infozech Software.

Some of the key features that will be supported by the application include the following:

- IP-to-IP pre-paid.
- IP-to-IP/PSTN post-paid.
- SIP and H323 compatibility.
- Prepaid with leading SBCs (Session Border Controllers).
- IVR-over-IP.
- Wholesale and Retail accounting.
- Enhanced product catalog for voice/video content.
- Multi-lingual site support.
- Support for leading industry standards, interfaces for SIP, H323, RADIUS and leading SBCs.
- Support for real-time call disconnects.

The application framework includes Infozech's proprietary product management offerings such as i-Rater and i-Mediator, along with industry-standard SIPware and IVRs from vendors such as Cisco and other open source solutions vendors.

The framework can be rapidly configured and customized to the personalized environments of service providers.

Infozech is currently undertaking some test deployments with leading customers in North America. The company is also working on offering OEM integrated solutions with SBCs and SIP proxy vendors. An announcement in this regard is expected soon.

## global news bytes

### New Guidelines to Reduce Service Provider Revenue Leakage

The TeleManagement Forum (TM Forum) has announced that it has taken the first steps towards developing comprehensive Revenue Assurance guidelines for service providers faced with revenues lost through leakage, that analysts claim costs the industry billions of dollars a year.

The first draft of the Revenue Assurance (RA) Technical Report—based on six months' research among the TM Forum's membership—provides a comprehensive compilation of best practice revenue assurance from across the communications industry. The report outlines a structured method for classifying and stemming losses from revenue leakage which can range between 3-15 percent of a service provider's annual revenues.

Leakage can occur throughout the enterprise—from network to billing and interconnect reconciliation—and can be caused by failures in both the technical systems themselves and in the interfaces and business processes which link them together into an operational whole. In addition to substantially reducing short term income, if left unchecked and without efficient monitoring and control processes put in place, these and similar errors will re-occur and can destroy the

### Infozech extend its canvas across Latin America, Europe and Middle East Asia

Infozech is seeking business alliances and tie-ups with Systems Integrators in Latin America, Europe and the MEA. The company has entered into a collaboration with US-based Da Vinci Integration, a leading name in the of VoIP solutions. DaVinci will be reselling Infozech products to carriers in the VoIP space.

Infozech, which is actively foraying the VoIP market, will benefit from Da Vinci Integration's enormous experience within this segment. Da Vinci, with expertise in areas such as telecom consulting, cost-effective VoIP outsourcing, network design and support will enable Infozech to strengthen the reliability, quality, scalability and capacity of its solutions and help in the implementation and deployment of its VoIP offerings.

Da Vinci Integration, meanwhile, will benefit from the addition of Infozech's globally reputed billing, rating and mediation solutions into its overall umbrella of offerings. By partnering with Infozech, Da Vinci can make available to international customers a whole range of state-of-the-art solutions especially targeted at telcos and next-gen VoIP services providers.

**Infozech**
Convergent Billing & Settlement Solutions

# SIP The taste that's getting the networking world started!

*Positioned as a single signaling protocol across all IP networks, SIP may revolutionize the way we communicate in the future!*

The world of networking has a new buzzword, and its Session Initiation Protocol (SIP). While analysts are still not convinced about its immediate adoption, owing to challenges related to interoperability and network security, the hope is that SIP will indeed emerge as the single, global signaling standard.

SIP, introduced by the Internet Engineering Task Force (IETF) has been around since 1999 and aims to be a simple method for creating and ending connections for real-time interactive communications over IP networks. Clearly, SIP is not just for voice, but the protocol can also be extended to videoconferencing, chat, gaming or even application sharing.

The SIP wave has over the past six years triggered a virtual deluge of devices—predominantly phones and proxy servers by vendors across the world. A major endorsement for SIP has come from none other than software giant Microsoft, which supports the protocol in its latest Windows XP operating system.

The IETF's SIMPLE Working Group, meanwhile has been created to develop a standard framework for putting Instant Messaging and Presence (IMP) applications on top of SIP infrastructure.

As of now, IMP applications, which have been proliferating rapidly (and now boast millions of users), are not supported by a common standard. Users are therefore compelled to use several proprietary platforms and face problems related to compatibility across myriad solutions.

Meanwhile, here's how SIP works in an IP phone in a typical business scenario.

**The communication:** Between two callers located in different offices, both of which have SIP proxy servers.

**The access devices used:** Access devices could range from PC software phones (softphones), SIP hardware phones, normal (analog) phones with adapters, or SIP-enabled mobile phones.

**Making the connection:** A step-by-step look at how the link up is established, shows the following:

⇨ When turned on, the client device of the caller sends a register

## "Infozech has already developed and benchmarked on the open source platform SIP."

*Krishna N. Basudevan, Vice President-Technology, Infozech Software, talks about SIP and why Infozech is so keen on the new protocol.*

**What's all the fuss about SIP, the new buzzword in telecom circles?**
SIP, the hot, new protocol one is hearing so much about, spells true voice and data convergence. The best thing about SIP is that it works on the Internet Protocol!

Going forward, it is expected to become the *de facto* standard for the whole world—for communication between different Internet devices and Internet-enabled content. Also, it will seamlessly interface with the traditional voice network, the PSTN SS7. I believe, a lot of work has gone into SIP and it is emerging as the key standard for VoIP.

The future of SIP lies in instant messaging and the presence application. Take the case of the latter. Whenever you want to contact a person, you want to know whether he/she is available on the mobile, on the phone line or on chat. You don't need to call on the mobile, if the person you are seeking is not there. SIP

provides you with the best technology of calling your peers. This is the future of SIP and most applications will be based on this strength.

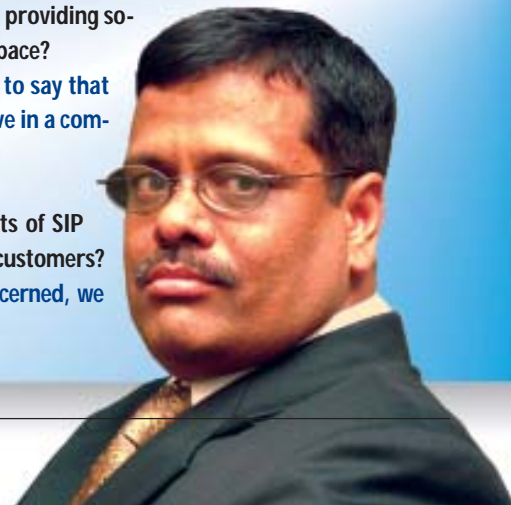**What does the emergence of SIP mean to Infozech?**
For one, I believe it will enable us to enable telcos bring new content-based and value-added services to the market. By SIP-enabling our products at a time when the technology is still emerging, we will be creating a new edge, a new differentiator in the market.
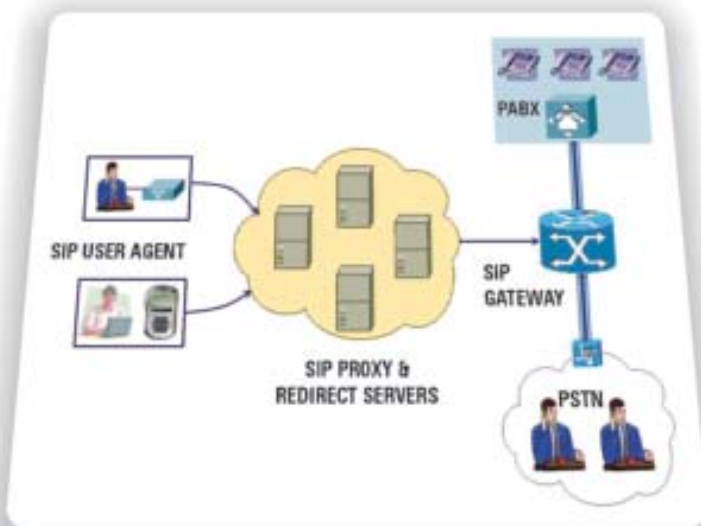
**Is adopting this technology becoming a necessity for organizations providing solutions in the telecom space?**
Yes, I would go so far as to say that it will enable us to survive in a competitive marketplace.

**What will be the benefits of SIP to both Infozech and its customers?**
As far as Infozech is concerned, we

SIP USER AGENT — SIP PROXY & REDIRECT SERVERS — SIP GATEWAY — PABX — PSTN

⇨ A phone rings at the receiver's end or a screen pops up, asking the person if he/she wants to take the call
⇨ A "yes" from the person (called a 200 OK) generates a response for the company's proxy server, which in turn forwards it to the SIP proxy server
⇨ The SIP proxy server than sends the 200 OK to the caller's client.
⇨ An acknowledgment message, or ACK, is sent directly to the recipient's client, and the communication begins

*(Abstracted from Computerworld, USA's Quick Study on SIP)*

message to his/her company's SIP proxy server, telling it to route calls to a specific IP address
⇨ The caller initiates a communication through a PC softphone by typing a text request that's sent to his/her company's SIP proxy server
⇨ The proxy server uses the Domain Name System to look up the "receiver's" domain.
⇨ The invite request is forwarded to the SIP proxy server of the organization where the person to be contacted is present
⇨ The proxy server forwards the invite request to the "receiver's" IP address

## What's going for SIP

To begin with, the key benefit of SIP lies in the fact that it will be the common signal across a variety of devices. Meant to be a major component for integrated data and voice IP networks it will allow organizations to cost-effectively run a single wire to a desktop using IP (replacing the second line to a traditional phone) and have the PC operate as a softphone. The user will be able to click on a name in the PC directory, which will be associated with a SIP URL and send a message into the network cloud. When the connection is established, the softphone user will be able to communicate via a headset connected to the PC.

Analysts say, SIP is great for basic person-to-person calls—for basic connection, call waiting and call holding features. Some of the other pluses of SIP include the following

• SIP is emerging as the protocol of choice for new 3G wireless networks and phones
• Leading manufacturers of IP PBXs are SIP-enabling their hardware
• Media gateway makers are adding SIP to network cores
• Microsoft, Yahoo and America Online have made SIP a part of instant messaging sessions

# solutions for voice and data convergence

will be able to apply component-based technology to create niche products which can easily fit into any environment. By adopting SIP, we will be able to offer a single box solution for complete voice and data convergence. With SIP, we will be able to create products based on an open source platform. This will make them adaptable to the future needs of any enterprise. Also, SIP is proven technology. That will greatly add to the strength of our products and services.

We will also be able to build applications for enhanced services like call forwarding, conferencing and collaboration and build a presence server in order to communicate effectively and efficiently, based on 3GPP specs.

**What about your customers—incumbent and emerging telcos?**
While Telcos will keep their voice traffic on their existing infrastructure, they can adopt SIP for all their value-added, Next-Gen services. The fact is, SIP will allow them to enter the market with their new offerings at a low cost. They will have real-time call control with the in call recharge option. This will significantly reduce the credit risk.

In other words, telcos will also be able to bring new content-based and value-added services as a new service differentiator to the market. Using SIP, incumbents will be able to launch enhanced services quickly and hence monetize on early adoption of services. Also, by building a stack of IP services, operators can harvest revenue from their new IP network and not have to rely on the existing PSTN stack.

**What will be the kind of adoption that you expect for SIP in India?**
Basically, Internet penetration in a nascent stage in India and therefore, convergence is still some time away. SIP has gained visibility in the enterprise environment, though it is yet to make an impact on the retail side.

**What is the kind of work Infozech is doing on the SIP side?**
Infozech has already developed and benchmarked solutions for voice and data convergence on the open source platform SIP. We have deployed beta sites in the US and Canada and worked on value-added features like conferencing, call forwarding, voice mail to e-mail. These features have already been developed and deployed at client sites based on open source systems.

# iCAS: A comprehensive, wholesale billing and settlement solution

A look at how Infozech can implement a prepaid application for a wholesale carrier using IP-To-IP connectivity and its iCAS!



## The challenge

A large number of wholesale carriers today require prepaid solutions that can be deployed across IP-To-IP environments, while ensuring credit management of the partnering organization.
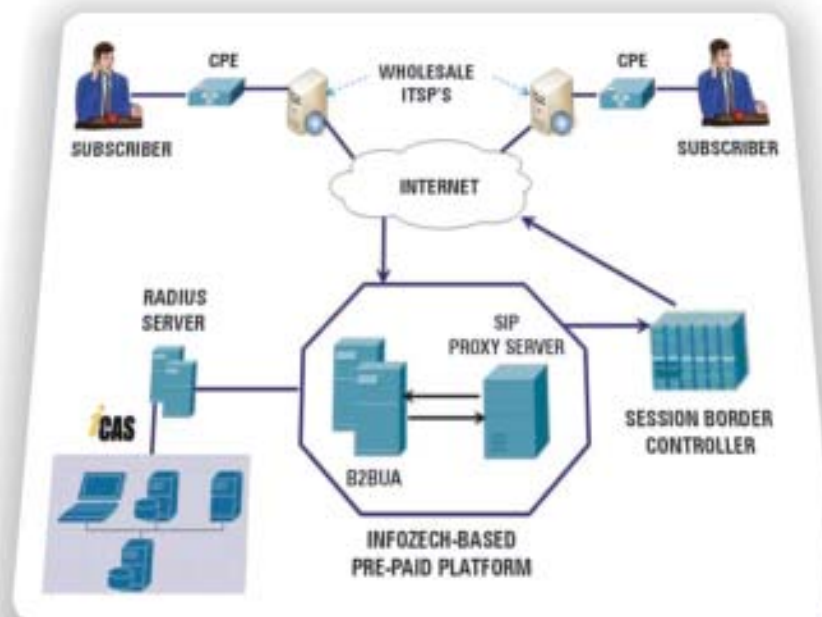
## The Infozech solution

The inter-Carrier Access Settlement (iCAS) solution, a wholesale billing and settlement offering that helps service providers/carriers manage their customers and interconnecting partners. iCAS enables the service provider to bill the interconnecting partners/carriers, audit the bills raised by carriers and provide insightful reporting for LCR and rates management. iCAS' Session Border Controller allows IP-to-IP connectivity. The Leading Session Border Controller includes Jasomi, Nextone, Kagoor, Acme Packet, Sansay etc.

iCAS' Session Border Controller allows IP-to-IP connectivity. The Leading Session Border Controller includes Jasumi, Nextone, Kagoor, Ace Packets etc.

## How it works

Here's how the solutions actually works on-the-ground:

- ☑ a call is initiated from the user through the CPE device the call lands on the ITSP server
- ☑ from the SP server, the call lands on the Infozech prepaid platform
- ☑ the Infozech prepaid platform authenticates, authorizes and accounts for the connection. The validation is done through iCAS
- ☑ the call is then routed through the Session Border Controller, which provides the IP-to-IP connection
- ☑ the call terminates on the CPE device through the terminating ITSP

## Key features

The following features of the Infozech solution give it an edge over other offerings:

### Prepaid implementation

Infozech's prepaid platform can terminate the call on the expiry of the credit balance, automatically.

### Simultaneous credit management

The credit of ITSP can be distributed evenly over the configured ports

## Targeted at

iCAS is targeted at international carriers, service and content providers, especially emerging and Next-Gen telcos.

## Customers

iCAS' customer base includes well-known global companies in North America and Asia.

*(Continued from page 1)*
long term profitability of the business.

The Revenue Assurance guidelines form part of the TM Forum's Next Generation OSS (NGOSS) program—the industry standard business solution framework and architecture for creating the next generation of Operational Support Systems (OSS) and Business Support Systems (BSS). The goal of NGOSS is to facilitate the rapid development of flexible, low-cost of ownership, OSS/BSS solutions to meet the business needs of managing new services, network architectures and sustainable revenue streams.

The TM Forum's Revenue Assurance team is now actively integrating its output with other business domains within NGOSS, both benefiting from and contributing to its already extensive body of business knowledge, in areas such as key performance indicators (KPIs) and alarms.

Primarily, the group is focusing on defining the processes involved in Revenue Assurance Management—those that form an integral part of the RA practitioner's daily activities—and Revenue Assurance Policy, the enterprise-wide application of revenue assurance methodologies and best practices which will be critical in ensuring that service providers remain lean, agile and competitive in their strategic and operational development.