

Momentum Innovation Leadership

Cisco Systems®, long recognized as the leader in service provider routing and packet voice services, proudly recognizes major milestones in service provider packet voice:

Delivery of more than five million service provider packet voice ports.

Cisco networks pass well over 80 billion minutes of packet voice a year. Cisco's top-five customer networks pass more than five billion minutes a month.

Top-four largest voice-over-IP (VoIP) providers in the world:

Telecom Italia — One of Europe's largest VoIP implementations

China Unicom — Asia's largest VoIP implementation

ITXC and iBasis — Top-two largest International Long Distance VoIP carriers in the world



Key Service Provider Packet Voice Deployment Milestones

July 2003

Cisco ships five-millionth service provider packet voice port

May 2003

Arbinet-theXchange hits trading volume record on Mother's Day—

Total of 30,758,960 minutes passed

March 2003

Cisco and Time Warner Cable announces first production deployment of cable VoIP solution

February 2003

iBasis carries five-billionth minute of VoIP traffic over its international network powered by Cisco equipment

October 2002

Telecom Italia rolls out Europe's largest VoIP network based on Cisco MGX® 8000 Series voice gateways

September 2002

ITXC carries five-billionth minute of VoIP traffic over its international network powered by Cisco equipment

August 2002

Bredbandsbolaget deploys Cisco technology to deliver first Session Initiation Protocol (SIP)-based residential IP telephony service

April 2001

China grants Signaling System 7 (SS7) certification to Cisco gateways

December 2000

Cbeyond delivered its first VoIP call in fall 2000, with first live customer in December 2000

August 1999

China Unicom passes first VoIP call in domestic China





As Italy's leading information and communication technology enterprise, Telecom Italia's status as one of Europe's most solid and profitable blue-chip companies is based on its competitive abilities, which in turn are the result of innovation, service quality, and a focus on the customer.

The Telecom Italia Group, comprised of Telecom Italia, TIM, Finsiel, Olivetti Tecnost, Telecom Italia Lab, and new enterprises such as Telecom Italia Media, is the expression of a telecommunications heritage spanning more than 100 years combined with a significant presence in media, the Internet, and leading-edge information technology. The Group is committed to research and development of the technologies of the future.

It is through these companies that the Group undertakes its mission: To develop and provision leading-edge technologies and services to drive growth for the company and for Italy as a whole. As part of its commitment to the promotion of society-wide economic and civil advancement, the Group offers its asset base of skills and technologies in fields as diverse as cultural events, social initiatives, sports, education, and scientific research.

Beyond Italy, the Group's operations are spearheaded by TIM. TIM has carved out a leading role in Latin America, where it is currently building the continent's first Global System for Mobile Communications (GSM) network. In Europe, Telecom Italia built a high-bandwidth fiber optic backbone linking nine nations; broadband coverage is soon to be extended to a selection of European cities offering high growth potential.

According to Stefano Pileri, head of Telecom Italia's domestic network, "We chose VoIP because we could save two thirds of our transit operating expenses and give our customers and shareholders a better service. By the end of 2003, we estimate that 80 percent of Telecom Italia's transit voice traffic will travel over the Cisco Systems® and Italtel multiservice solution. We chose Cisco Systems and Italtel because they had the most reliable solution. Cisco Systems has more experience in IP technology and VoIP than any other infrastructure company...Cisco Systems and Italtel also used our existing infrastructure, which meant we didn't have to reinvent the wheel and could save money on implementation."

Telecom Italia passes on average over two billion minutes per month across its packet-based European backbone and broadband network.





China United Telecommunications Corporation (China Unicom) is an integrated telecommunications service provider offering a wide range of services that include cellular, domestic and international long distance, data, Internet, and paging services. The company launched its data and Internet services throughout China in 2000, the same year it was listed on both the Hong Kong and New York stock markets.

By insisting on a market-oriented and efficiency-focused approach, standardizing the planning of its network construction, rationalizing the use of its network resources and focusing on the utilization of social dynamics, China Unicom continues to maintain a sound and rapid development and provides unique, comprehensive, and accessible telecommunications services to its expanding customer base.

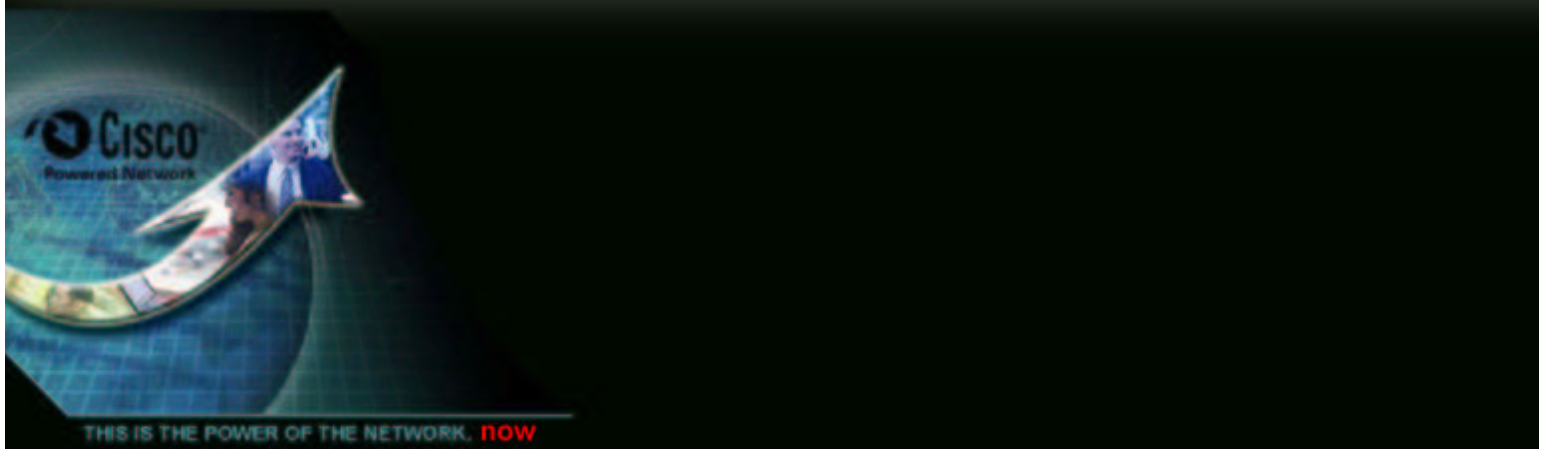
China's second-largest telecommunications carrier, China Unicom offers international and domestic long-distance services in China based on both the traditional circuit-switched telephony standard and the IP telephony standard. The long-distance services are based on the advanced, uniform nationwide network architecture from Cisco. As the leader in building voice-enabled packet networks, Cisco® was the natural choice for China Unicom. "Thanks, in large part, to the deregulation of telecom networks, a carrier's need to deploy services quickly and cost effectively, packet-based telephony networks in China and across the Asia Pacific region are on the rise," said Hanh Tu, Cisco's director of sales operations for China. "Cisco Systems® has a reputation for installing VoIP networks with best-of-breed equipment, enabling carriers to generate new sources of revenue."

The opportunity for Vo IP in China is enormous. In spite of significant changes and advances over the past few years, the Chinese telecommunications market is still largely underdeveloped. With little traditional circuit-switched wireline infrastructure in place, the country is perfectly poised to take advantage of VoIP technologies that allow service providers greater flexibility and require less investment, while offering end customers new services and more choices at a lower price.

Cisco open, end-to-end solutions and multi-service platform provide the China Unicom VoIP network with an ideal opportunity to take advantage of rapid growth in voice services for calling cards, one-stage and two-stage dialing, and enterprise VPN. In addition, third parties can easily use the "plug and play" nature of the network to develop and deploy their own feature servers, delivering a variety of value-added services over a single packet network. Their continuing expansion program has extended the China Unicom network to more than 321 cities across 30 provinces in the People's Republic of China, further increasing the size of what already can be argued to be the largest VoIP network in the world measured by size, capacity, traffic, and number of cities it reaches. Centered around five major population areas, including Beijing, Shanghai, Chengdu, Guangzhou, and Wuhan, the completion of their current phase of deployment will more than double the size of the production VoIP network and will greatly increase the carrier's revenues.

The tremendous success of China Unicom's VoIP business strategy and the quality, reliability, and scalability of Cisco VoIP solutions provide a proven model for other countries and service providers faced with the challenge of building a voice infrastructure from scratch. "Not only will Voice over IP technology greatly impact the way individuals and corporate customers do business," said Tu. "It will change the Chinese culture as a whole."

China Unicom currently passes on average over one billion VoIP minutes per month across their advanced IP network.





ITXC is among the most successful voice over IP (VoIP) carriers in the world. It was recently named the largest international long distance VoIP services provider by TeleGeography, with approximately 20 percent of world market share, and was named the fastest growing technology company in North America on the 2002 Deloitte & Touche Technology Fast 500. As a carrier's carrier, ITXC serves all major carriers in the U.S., many incumbent carriers, and prepaid calling card service providers worldwide. Their list includes telecommunication industry leaders such as AT&T, Sprint, Verizon, MCI, Telecom Italia, China Telecom, PLDT, Telkom South Africa, Telecom Colombia, Telenor, Telia, and VSNL, and emerging and competitive carriers including COTAS-Teledata in Bolivia, Vietel in Vietnam, and Data Access in India. ITXC also serves a growing number of mobile carriers including China Mobile, one of the world's largest mobile carriers. ITXC can proudly boast of major customers in over 175 countries worldwide.

ITXC affiliates understand that by outsourcing some or all of their international calls to ITXC, instead of building and operating their own global networks, they can leverage ITXC's reach to increase revenues, reduce or eliminate network capital costs, reduce their operational costs, and dramatically accelerate time to market.

Underpinning ITXC's success with VoIP is its ability to deliver quality and reliability equal to—or better than—carriers relying solely on the PSTN. A key foundation to this technological feat is the Cisco® Voice Infrastructure and Applications (VIA) solution, a time-tested, field-proven infrastructure for VoIP. "More and more often carriers use ITXC for all or part of their traffic," said ITXC Chairman and CEO Tom Evslin. "Carriers have found that simplifying their networks by relying on ITXC has resulted in lower cost of ownership and higher reliability than managing a multitude of vendors in a complex routing table. Similarly, ITXC has found that relying on Cisco for most of its equipment needs results in lower costs and higher reliability as well as multi-vendor interoperability, which is important to ITXC and its customers. Our purchasing and support relationship with Cisco helps us deliver the very high reliability our carrier customers require when our network is the only route for their traffic."

"Cisco has demonstrated exceptional leadership and dedication to VoIP and its evolution," says John Landau, executive vice president of product management for ITXC. "Their highly interoperable, high performance, and reliable VoIP products and strong global support have helped ITXC quickly expand its network and successfully serve its customer base. With the Cisco VIA solution, we reduce costs, increase efficiency, and maximize both our own and our customers' profitability," concludes Landau. "At the same time, the Cisco VIA solution is key to helping us make our customers more capable, competitive, and ready for the future."

Deploying the Cisco VIA solution since 1999, ITXC is currently passing over 333 million minutes per month and has well surpassed 5 billion international minutes across their network.





Founded in 1996, iBasis built the world's first global IP network that delivers toll quality voice and fax services and other advanced hosted-communications solutions, including unified communications, to global tier-one carriers and other service providers. They were also the first in the industry to offer service-level agreements (SLAs) for voice over Internet Protocol (VoIP). They deliver toll quality international call completion services and provide the global infrastructure that enables enhanced services, such as conferencing and calling cards, to expand to international markets quickly and efficiently. iBasis utilizes state-of-the-art technology from Cisco Systems® and patent-pending monitoring and route quality management technology to determine and select the best available route for every call. The company's customers include many of the world's largest carriers, who outsource their international voice traffic to iBasis to reduce their cost of transport and service support while providing service quality indistinguishable from that of traditional phone networks.

With a 13-percent market share of all international VoIP traffic, iBasis is one of the ten largest carriers of international voice traffic in the world. Their network spans more than 90 countries with interconnections to more than 170 carrier customers, including the world's largest tier-one carriers. Other carriers named iBasis the number one international wholesale carrier in the 2002 International Wholesale Carrier Report Card survey conducted by Atlantic-ACM, an industry analyst firm. In this independent survey of telecom carriers, iBasis was ranked highest among all international wholesale carriers, including AT&T, WorldCom, Sprint, and BT, among others, for its pricing, products, provisioning, and customer service, and highest among Internet telephony service providers for its network quality. Based on its revenue growth from 1997 through 2001, iBasis was ranked the number eight fastest-growing technology company in North America, and the number one fastest-growing technology company in New England in the Technology Fast 500 national program sponsored by Deloitte & Touche.

iBasis' international services are provisioned on the iBasis Network, a global VoIP network that leverages the economic advantages inherent in packet-switched, as opposed to circuit-switched, communications. The iBasis Network is the most technologically advanced global VoIP network and is one of the world's largest international networks for Internet telephony based on Cisco equipment. This network has over 700 points of presence (POPs) and carries over 2.5 billion minutes of traffic annually (based on first half, calendar year 2002 run rate). The use of the public Internet allows iBasis to be the low-cost provider for international wholesale services. By purchasing services from iBasis, carriers can also avoid the cost and complication of having to negotiate multiple termination agreements for international calls. iBasis has negotiated strategic agreements to terminate traffic in some of the fastest-growing telecommunications market, including China, India, Mexico, and Russia. The company estimates that it carries approximately 25 percent of all U.S.-to-China traffic (based on TeleGeography data and iBasis' 1H 2002 traffic data). iBasis' carrier customers include major global carriers such as AT&T, Cable & Wireless, WorldCom, Qwest, Telefónica, China Netcom, and China Unicom.

