



IP Telephony

As with most technologies, terminology and acronyms can be confusing and the same applies in the Voice over Internet Protocol environment. A number of terms including IP Telephony, VoIP and Toll Bypass are often used interchangeably and incorrectly. Voice over Internet Protocol or VoIP represents the umbrella term to describe technology or methods for the transmission of voice communications using the Internet Protocol (IP). However, VoIP can be achieved in a number of different ways and in different environments, depending on what the objective is.

When VoIP is applied within an office or organisation, normally by replacing a traditional Time Division Multiplexing (TDM) PBX with an IP PBX, the correct term to describe this is IP Telephony (IPT). When VoIP is used to save costs by re-routing calls that would normally be carried over a Public Switched Telephone Network (PSTN) to a different, normally private network, the term Toll Bypass or Least Cost Routing (LCR) normally applies. To further complicate the picture LCR is not always achieved using IP/VoIP but in the cellular/mobile call environment it is more often done without using IP/VoIP. Often IP Telephony, when it exists at 2 remote locations interconnected with a Wide Area Network (WAN) link, automatically provides the benefits of Toll Bypass as well since the 2 IP Telephony systems can be transparently interconnected to router inter-location voice communications over the WAN link, at no or little additional cost.

IP Telephony principally satisfies a simple need: Enabling the use of open standards LAN and distributed data networks for the transport of voice, replacing the use of traditional (and proprietary) telephone networks and equipment for that purpose. With IP Telephony, voice conversations are converted into packets of data and then transmitted over data networks much in the same manner as e-mails or instant messages. Using standard Internet Protocol (IP) data networks and methods to transport all forms of information media – voice, data and video is more efficient and opens the door for the creation of new value-added cross-media features and applications.

Advantages of IP telephony include lower cost long distance and reduced access charges, more efficient backbones and compelling new services. The benefits of shifting traditional voice onto packet networks can be reaped by businesses, Internet Service Providers (ISP), traditional carriers etc. Business benefits from IP telephony because it takes advantages of existing data networks, reducing operating costs by managing only one network and enables them to enjoy almost toll-quality voice.

CISCO

Cisco is the world leading provider of IP based voice solutions that range from small branch office IP PBX solutions through to large distributed Enterprise voice solutions using centralised and/or distributed call control. In addition to the base IP voice platform Cisco also offer a complete range of complementary voice applications such as IP Contact Centres (IPCC), Interactive Voice Response (IVR), Presence, Mobility Unified Messaging, Voice Messaging, Fax Integration, Call recording and many more.

Cisco Unified Communications combine all forms of business communications into a single, unified solution that enables your organization to move with greater speed and agility. It empowers people to communicate more effectively, improves business processes, and helps businesses achieve better profitability. Cisco IP phones are available in wired and wireless versions and provide comprehensive handset functionality. In addition, soft phone clients are available to extend the power of IP Telephony to Windows, Apple Mac and Linux based desktop clients. Through support for standards such as XML the phone handset also becomes a platform to deliver feature rich mini applications or Applets to IP phone users, thus extending the reach and range of these “applications” significantly.

ANDTEK

ANDtek is a leading developer of productivity applications to complement the Cisco Unified Communications platform. ANDTek is also a Cisco Technology Development Partner (CTDP). The heart of all ANDTek solutions is the AND Phone Application Server. Using an appliance based architecture with Windows or Linux as a foundation, applications such as Call Recording, Call Broadcasting, Phone Directory, IP Video Surveillance integration, Automatic Call Distribution (ACD) and many others are hosted in a secure and stable environment.

UNISON

Unison Communications (Pty) Ltd., a Proudly South African company and another Cisco Technology Development Partner (CTDP) focus on call reporting and cost control solutions. The Galatrix centralised billing solution automatically collects and integrates data from all sites facilitates an understanding of:

- The real cost of the company's telephony infrastructure
- Current utilization and trends and where to streamline under-used areas
- How costs should be assigned
- How costs compare with regional, office or industry measurements
- Overall, regional, office and individual user behaviour and telephony abuse indicators
- Overall, regional, office and individual user behaviour in line with norm sets and job requirements
- Accurate planning and budgeting for infrastructure and voice costs