

# Frequently Asked Questions

## 1. What is VoIP+Plus System?

VoIP+Plus System (Architecture for Voice, Video and Integrated Data) encompasses converged client devices, infrastructure hardware/software, directory services, call processing, telephony/data applications, network and policy management, and service and support.



## 2. What is VoIP+Plus Internet Telephone System?

VoIP+Plus Internet Telephone System is the software call processing component of the enterprise IP telephony solution. It is a product enabled by the VoIP+Plus System architecture. It provides call processing, call control and feature control for IP phones, gateways, media devices and applications. It also hosts call control APIs -TAPI and JTAPI- so that other applications can take advantage of the VoIP+Plus Internet Telephone System services.

## 3. What hardware platforms do I need to run VoIP+Plus Internet Telephone System?

The choice and number of server platforms required depend on the number of IP Phones that need to be supported and the degree of redundancy required. The System can meet the needs of businesses and enterprise branch offices (typically 2 to 250 users, while still allowing for expansion as businesses grow).

## 4. Will it fit in my equipment room?

VoIP+Plus Internet Telephone System servers occupy very little space. Chassis sizes range from 1U of rack space to just 4U of space.

## 5. Will I need additional network ports to support my IP Phone s?

Built into the IP phones is a quality of service enabled 10/100Mbps Ethernet switch that allows a desktop PC to be linked to the network through the phone.



Only a single LAN switch port is required per desktop to support both voice and data requirements.

## 6. If I am connecting my PC to the network through my phone, will the data traffic from my PC cause voice quality problems?

Miton IP Phones with inbuilt switches are Quality of Service (QoS) enabled. They have the ability to ensure that voice packets are always transmitted to the network with a

higher priority than data packets ensuring that voice quality is maintained.

## 7. Will I notice a reduction in performance to my PC now that it shares a port with my IP Phone?

Whilst both voice and data traffic now share the same port to the desktop it should not be forgotten that using standard G711 voice encoding the IP phone voice stream requires only about 80,000bps of bandwidth in each direction compared with the 100,000,000bps of bandwidth available on a switched 10/100 port. This equates to only 0.08% and thus the effect is negligible.

## 8. How do I connect to the public telephone network?

Just like a PABX, Miton IP Telephony solutions can be connected to the public telephone network using analogue, basic rate and primary rate ISDN connections. Alternately, Public Telephone Networks can be accessed via IP using a service provider that offers this type of facility. If the Internet to PSTN was in the USA, then calls on the USA Public Service Telephone Network could be made via the internet from anywhere in the world.

## 9. Can I connect my IP Telephony system to an existing PABX?

Yes. Connections to existing PABXs can be made in a similar way as connections to the Public Network by using Gateways. Connections can be either analogue or are more typically likely to be made digitally using a 30 Channel Q931 trunk.

## 10. Does Call Manager support Automatic Route Selection (ARS)?

ARS or least cost routing, routes calls over the public network based on the preferred (normally the least expensive) route available at the time the call is placed and is supported by Call Manager.

## 11. Can I connect Analogue Phones and Fax Machines to a Miton IP Telephony system?

Yes. Analogue devices; phones, audio conference phones and fax machines are connected via FXS Gateways. These take the form of either stand-alone units or interface cards for integration with Miton Router or Switch Platforms.

## 12. I need to provide telephony to a new branch office. Can I use IP Telephony and where should I locate my Call Manager servers?

Miton IP Telephony is an ideal solution for branch office locations. Although Call Managers could be located at a branch office, the optimum location for them is to be centrally located at headquarters or a major regional site. By making use of a wide area network (WAN) connection and a Miton Router feature called SRS Telephony, there is no longer any need to provide a PBX at each branch site.

### 13. What router platforms support SRS Telephony?

The SRS Telephony feature is available on the Miton 175x, Miton 2600, Miton 3600 Router platforms and on the Catalyst 4224 Access Gateway Switch.

### 14. Can I connect all my branch offices in to my Miton IP telephony System?

The maximum number of branch offices that can be supported using centrally a single centrally located Call Manager cluster is 500.

### 15. Can I centrally locate a voicemail solution for all my branch offices?

Where a centrally located Call Manager cluster is being used to deliver IP telephony to branch offices, then the services of a centrally located voicemail system can be provided likewise. Using this model, branch office users can now be economically provided with the advanced functionality of a headquarters voicemail service.

### 16. What sort of Wide Area Network (WAN) connection do I need between my sites to support my telephone traffic?

Contented Broadband in the minimum requirement for wide area connections or transporting IP voice calls. Although Miton Internet Telephone Systems at the ends of these connections can apply advanced queuing and other quality of service control mechanism to safeguard voice quality, care needs to be taken over the nature of the service provider contract with respect to Frame Relay and ATM service information rates and traffic classes. It is recommended that your requirements be discussed with the WAN service provider to ensure compatibility.

### 17. How much bandwidth do I need to support voice calls between sites on my WAN?

Clearly this depends on the number of concurrent calls that need to be supported. Remember though that all local intra-site traffic at the branch office is switched locally across the LAN infrastructure at the site. There is no need for this traffic to traverse the WAN connection, only those calls that need to go between sites across the WAN need to be considered.

For guidance purposes, an IP Telephone call using 64kbps G711 encoding requires approximately 80kbps of bandwidth in each direction. A call using 8kbps G729a encoding requires approximately 12.5kbps of bandwidth in

each direction. Typically G729a encoding will be used across a wide area link whilst G711 encoding will be used for calls internal to the site or to the PSTN. Fortunately, since Miton IP Phones support both high and low bit rate encoding, network bandwidth usage will be optimised with the choice of encoding scheme being made automatically by the phone and transparently to the user. It is also worth remembering that voice IP packets are only sent from the IP phone when something is being said, silence is not transmitted helping to maximise bandwidth efficiency still further. In addition to router based quality of service mechanisms, Call Manager based admission control policy will ensure that the maximum stated number of calls across a WAN link will not be exceeded thus assuring quality degradation through overload will not occur.

### 18. How can I provide Directory Services?

Maintaining current directory information is both time consuming and costly, particularly when this has to be done across multiple PBX systems. Miton's IP Telephony solution overcomes many of the problems by providing an LDAP interface. LDAP stands for Lightweight Directory Access Protocol and is a standards-based way of accessing corporate directory systems.

By using the directory services button, a Miton IP Phone user, regardless of location, can simple search by name and click to dial any user entered into a compliant corporate directory such as Microsoft's Active Directory. Call Manager ships with an in-built LDAP directory for use where a corporate LDAP compliant directory is not available.

### 19. How do I log and bill calls made over the PSTN?

VoIP+Plus Internet Telephone System stores details about each call in an internal database. A lot of information is recorded including time of call, length of call, originating number and destination number. Call Manager contains a reporting tool that can be used to look for specific calls or calls made by a phone or group of phones at a specific time or over a period of time. In many cases this may meet administrative requirements. Whilst the reporting tool does allow a basic cost to be applied to a call, it is not a billing tool whereby a carrier tariff can be applied. In these instances third party billing software solutions must be used.

### 20. How can I provide phone s for those of my staff who do not have a permanent desk?

By using Soft PC IP Phones that are used on portable Laptop devices. Once the user PIN number has been authenticated against the directory database, the IP Phone will be configured with the user line and other configuration.

The user can either manually log out, be logged out after a



certain time or when he or she logs in at another phone. Virtual or hot desk solutions can easily be accommodated with Extension Mobility. An API allows Extension Mobility to be integrated with other applications if desired. When coupled with the centralised processing branch office deployment model for Call Manager, Extension Mobility can be extended across an entire enterprise.

#### 21. Is a soft phone available from Miton?

Miton IP SoftPhone, an application for use with Call Manager is available for a Windows based PC or Laptop. Miton IP Softphone can either be used as a means to control a Miton Desktop IP Phone or when the PC or Laptop is combined with a headset or handset, SoftPhone can be used as a phone in its own right. The Miton IP SoftPhone takes full advantage of Lightweight Directory Access Protocol (LDAP) services. Calling a user is now as simple as looking up a name in the company directory and dragging and dropping it onto the Miton IP SoftPhone. And with your personal directory, you can always find your contact list and connection information, even if you are not connected to a main directory server. Miton IP SoftPhone is an ideal alternative to Extension Mobility for mobile staff.

#### 22. Can I provide extensions to staff that are Tele-workers and who have a home office?

The Miton IP SoftPhone supports Virtual Private Network (VPN) connections and is therefore suitable for use from any location where a broadband connection to the Internet exists. A home based teleworker with an xDSL or cable modem connection can use SoftPhone and although remotely located is an integral part of the corporate communications system.

Note: Network Service Providers as yet do not offer quality of service guarantees for Internet based connectivity. When using IP Telephony in conjunction with VPN services, end-to-end quality cannot be guaranteed. A higher bandwidth connection should yield better results than a lower one but it is recommended that trials be conducted before any full-scale roll out is considered.

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