

# Ascent of the Contact Centre Business Benefits

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## The ascent of call centres

Many organisations have talked about the benefits of VoIP, but the migration process is still unclear. Gary Ford discusses the basic principles behind evolving towards a Cisco powered IP contact centre

It is largely accepted by the communications industry that IP will become the most widely used transport mechanism of the future for both voice and data. The industry as a whole has seen a rapid acceptance and adoption of IP as many vendors rush to create applications and platforms centered around this protocol.

This trend further endorses the transition to converged telephony and data networks, proving that convergence is the natural evolution for multiservice networking.

Many organisations see the migration towards VoIP as an essential activity, not only to give them a competitive advantage, but to prevent further investment in legacy ACD/PBX equipment.

In fact, a relatively quick return on investment – usually within 12 months – can be seen, especially if you are currently using multiple ACDs in different geographic locations.

So, it makes good economic sense, but how do you go about getting it in place in practice?

An important starting point for IP migration is to document your current call centre configuration. Figure 1 (not shown here) is a sample representation of a traditional call centre using Cisco ICM (Intelligent Contact Management), with CTI enabled agents.

Each caller would be routed by the ICM platform – perhaps prompted to enter data at the IVR – and then sent to the ACD. The ACD would handle call delivery to the agent, the CTI server would co-ordinate delivery of rich CTI data to the correct agent.

The initial stages of migration towards VoIP technology should ideally be conducted and evaluated in a laboratory environment, or with the co-operation of a limited number of users. The actual configuration of the IP handsets is relatively straight forward. During initial power-up, the IP phone performs a DHCP broadcast for an IP address, DNS server location and the TFTP server address.

The TFTP server houses all of the configuration files for the individual phones. Another area to focus on is the dial plan. A dial plan is a template from which your company can implement the VoIP routing structure. Each routed area of the business will be assigned a set of phone numbers, along with an area code and other shortcuts such as quick dialling features.

Once completed, a phased approach should be employed whereby the new technology is introduced into the network.

One way to perform this would involve the creation of a small agent base of IP phones and workstations using a call manager product and the knowledge gained from the lab environment.

Once this separate network is functioning correctly, then the task of integrating this LAN with the existing telephony equipment is possible.

This can be achieved through the introduction of an IP router that supports quality of service (QoS). IP routers that support QoS for VoIP traffic are essential, otherwise it will not be possible to prioritise voice traffic over data.

This router is likely to have three connections, one to the ACD via a signalling link; one to the LAN with the IP phones; and an IP WAN connection, which could deal with intersite corporate data, or perhaps connect to the Internet to allow customer contact.

Figure 2 (not shown here) demonstrates sample configurations of a combined traditional telephony and IP contact centre, using the Cisco ICM platform and a Cisco CallManager – the software based call processing component of the Cisco IP telephony solution, part of Cisco AVVID (Architecture for Voice, Video and Integrated Data).

This software extends enterprise telephony features and functions to packet telephony devices such as IP phones and VoIP gateways and runs on a Windows 2000 platform. In essence it provides a Windows Telephony Applications Programming Interface (TAPI) for third party applications development.

The internal architecture of the ICM allows call routing regardless of call origin – be it PSTN or the Internet. The ICM can do this because it employs a normalisation layer – known as the peripheral gateway – between the ICM system and all of the connections to it.

The software's architecture allows it to connect any number of heterogeneous peripherals together to provide a single, virtual look across the entire contact centre. This allows the seamless handling of internet based phone calls as if they had come across the PSTN.

Once the integration of IP phones, agent workstations and a Cisco CallManager platform has taken place, the next logical step would be to phase out any legacy equipment, such as the ACD and telephony based IVR equipment.

This could be achieved through the reduction in trunks to the ACD, the introduction of an IP ACD and the migration of the IVR to an IP IVR.

As we have seen, the process of seamless migration from a traditional call centre to an IP call centre can be performed through an evolutionary – rather than revolutionary – approach. This migration path from a legacy call centre to an IP-powered contact centre enables an organisation to add IP telephony, IP-based services and new media channels at its own pace, while leveraging the existing IP data infrastructure and preserving heterogeneous legacy investment.

