

Chapter 1. INTRODUCTION

This guide is intended equally for technical IT staff, voice system managers and CIOs. It describes the issues decision makers need to understand as they set out to build a winning IP business communication strategy. Key discussion areas include:

- Breakdown of the critical components of an enterprise voice system
- VoIP technologies and standards
- Underlying network elements that can affect the voice system
- Business applications such as unified messaging, converged conferencing, call centers and customer resource management (CRM)
- Emerging technologies, including fixed mobile convergence (FMC), presence, IM, video – the components of UC
- Advantages and disadvantages of various architectures
- Review of total cost of ownership (TCO)
- Glossary of terms

IP data communications is already the global standard, and the transition to a pure IP environment has important implications for IT organizations. There are many reasons to implement an IP-based voice communication system: reduced long-distance telephony charges; lower capital costs; decreased management and administrative costs; reduced complexity; improved integration of distributed business entities; and a greater ease with which voice applications may be combined with other business systems.

But for many decision makers, a key driver is the opportunity to gain competitive advantage by deploying these applications. For example, by improving the quality and value of integrated voice and data communication, the promise is that businesses can more effectively leverage internal business processes, leading to more effectively managed external customer relationships. To define a coherent strategy, business decision makers, IT managers, and communication professionals need a firm grasp of voice and data communication technologies. They need to understand how such technologies and standards support emerging applications to deliver a converged enterprise communication platform.

1.1 EXPECTATIONS AND DESIRED OUTCOME

Many companies have successfully made the jump from legacy systems to IPT – so, what do these companies like most about their IPT implementations? This section summarizes many of IPT's advantages and can serve as a checklist for evaluating vendor offerings.

Distributed Intelligence – By distributing call processing intelligence (the ability to set up and manage calls) across the network, the voice system eliminates single points of failure, including a failure of the IP wide area network (WAN) itself. This is critical to delivering reliable voice calls.

Single Management Interface – The ability to incorporate every element of a multi-site voice system (media gateways, gateway controllers, telephones, productivity applications) into a single homogeneous management system dramatically reduces administrative costs.

Application Rich – A system that delivers a range of customer interaction solutions that can be activated at the click of a button and enables powerful multi-site collaboration creates a better customer experience. Such a system allows your organization to appear more coordinated and more professional, because calls and conferences are seamlessly transferred and shared between team members, sites and mobile employees.

Ease of Use – Today’s systems deliver more features while eliminating the guesswork about how to use the phone system. Your employees should have access to the full range of advanced telephony features and internal/ external phone directories, without having to become phone experts. These productivity features should be 100-percent transparent across your enterprise network. When it is time to evaluate different vendor solutions, we recommend testing the applications available on the desktop interface, to ensure they are intuitive and consistent across the full range of analog and IP phones. The more easily your staff can use the phone system, the more productive they’ll be.

Outstanding Clarity – Digital phone systems were introduced in the late 1970’s and technology has evolved considerably since that time. Rather than copying the technologies of yesterday, today’s best systems leverage additional network capacity and offer improved design ergonomics that provide improved sound quality. Your voice is more easily heard because the system delivers the full range of audible tones to the human ear. Because calls sound better, less time is spent trying to communicate and conversations are more productive.

Simple Expansion Capability – Legacy PBX systems can be expensive and complex to grow. Some IP-PBX vendors make matters worse by deploying multiple management interfaces for related data-networking components. That is why it is important to carefully consider how many steps are required to expand a system. Does the vendor solution require a long lead time and expensive, highly trained personnel, or is it so easy to upgrade that an unskilled staff member in your headquarters office can physically connect a voice switch at a remote site and bring it online in a matter of minutes? Speed and flexibility are critical in today’s business environment; if your voice system can be adapted to your business imperatives, your new team can get up and running faster. So your company is more competitive.

Smooth Migration Path – The new system should be able to co-exist with legacy systems and applications, as well as provide backward compatibility with legacy trunks, extensions and voicemail. Examine whether the system has a set of interfaces to enable a stepwise migration from your legacy PBX systems to IP voice. A smooth migration path allows you to go live with new locations and teams at will. You drive the project, rather than allowing the technology to drive you.

The transition to IP voice technology offers a rare opportunity to improve business functions within your company. By including the criteria outlined above in your evaluation process, you are more likely to ensure that this opportunity delivers a better voice system that benefits your employees. It is critical that the key telephony stakeholders be involved in the decision making process early on:

- IT and communication team

- CEO/director's office
- Marketing and sales force
- Key administrative personnel
- Customer service

By including each group in the process of selecting a vendor, you can ensure that their requirements are taken into account and the project's goals are tightly aligned with the company's business objectives. The next Chapter will provide an introduction to voice telephony.