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## **Worried about a transition to IP Telephony? Just follow these six steps to VoIP success.**

Now that IP Telephony, or Voice over Internet Protocol (VoIP), has evolved from an interesting possibility to an enabling technology, companies are exploring the benefits of convergence. IP Telephony, the routing of voice conversations over the Internet or other IP-based network, has many benefits, but there are also important steps to take to avoid the disappointment of unmet expectations or the chaos of a project gone wild. IP Telephony projects are no more complex or difficult than traditional IT projects. They, too, require a well-developed plan and effective execution. And, like any traditional IT project, there are a few things that can cause problems, including:

- An overly ambitious project scope
- Lack of project methodology and project management
- Poor user input and gathering of requirements
- Lack of senior management support
- Poor interpersonal skills (manager) or poor team cohesion

IP Telephony projects are also vulnerable to some unique challenges, including:

- Rush to meet end-of-lease/support deadlines
- Failure to involve integrator in network design discussions with hardware suppliers
- Network infrastructure not properly prepared to handle voice
- End-user requirements not fully understood
- Insufficient planning/skills for Day-Two support
- Lack of clear definition of roles/responsibilities

So how do you ensure your IP Telephony installation is a success? Here are six steps to help ensure a smooth transition.

### **STEP 1: Develop a business case**

Before you build any strategies to prevent the potential pitfalls of IP Telephony, the first step is to understand why you are converting. Is there a well articulated business case with clear triggers, such as an acquisition, an office move, the end of life of your PBX, or PBX “exhaust?” If you have developed a business case but there is no specific reason to act now, then you probably should not move forward. If there is a trigger, but no business case, you need to develop the case before proceeding to ensure you are clear on the goals and expected outcome.

### **STEP 2: Determine your design parameters**

Once you have a business case and at least one clear trigger, you can take the next step forward and determine the fundamental parameters of your design requirements. To do this, evaluate what you have in place today. Ask yourself: where do you want to go and how fast you want to get there? If your conclusion is you have the right infrastructure to move quickly and you want all the benefits of convergence right away, then a rip-and-replace approach makes sense. If, on the other hand, your c o m p l e t e infrastructure is not yet in place, including such aspects as high service levels and security, and if your business case doesn't

require that you reap all the business benefits immediately (maybe all you need are a few extra phones) — you're likely a candidate for more gradual replacement.

### **STEP 3: Bring the right people to the table**

An IP Telephony installation involves two types of complexity. There are the technical difficulties, which include potential pitfalls such as gaps in security, network availability, dial tone availability and availability of the environment. And there is organizational complexity, which includes the management of the disparate voice and data cultures. Don't minimize this culture clash. People from either side of the divide will be

**With good planning and thoughtful execution, a conversion to IP Telephony can let organizations reap substantial operational benefits as well as**

concerned about being able to adapt to change. The message here should be that this is a great way for people to enhance their careers. Both voice and data people have much to bring to the table. Data people bring a strong sense of how infrastructure works, and voice people will more readily understand the application side. It is essential they work together from the beginning, early in the development of the business case, and certainly in the selection of the solution, the vendor and the integrator. Regardless of how well the voice and data individuals work together in your organization,

you also need input from people in the various lines of business. They are the ones who will define the requirements for applications. Some will want to use your IP phones to do CRM for customer retention. Others will want to improve productivity. Some want collaboration applications. Others will have very specific requirements to tie the IP phones into back-end data, if they know this is possible. They will only know if they sit down with voice and data experts and review the opportunities.

## **Tips for organizing and planning your conversion**

There are some basic project organization and planning steps that will take some of the risk out of an IP Telephony conversion project. They include:

- Committed involvement of your project manager
- An integrator project manager who understands both data and voice
- Breaking down boundaries between "too many cooks in the kitchen" during the planning phase, including LAN, security, voice, Microsoft, contact centre
- Setting expectations of effort to implement convergence infrastructure
- Defining end state for each phase to facilitate project close out
- Budgeting sufficient time for cutover change window
- Agreeing on escalation path to resolve issues
- Reserving telco support for cutover
- Setting expectations for effort to accommodate "small" tasks after cutover (i.e. adding features not identified in design phase, adding more phones)
- Setting expectations for effort to migrate remote sites after HQ cutover
- Using change requests effectively
- Pre-agreeing on acceptance test and sign-off

### **STEP 4: Design the system**

Architecture in IP Telephony is different from the world of PBX and Key systems. In the IP world, you can choose a system of any size, then tailor it and enhance the architecture to any extent you want, to handle things like availability and fallback. For instance, if a circuit goes down from the telco, what's the recovery scenario; where does your dial tone go? These eventualities can be dealt with properly with planning and proper design. It becomes a question of how much you want to pre-design into your system. The more you design into it, the higher the costs. If you are a five-location business, with a headquarters, two contact centres and two warehouses, you can argue the warehouses are not as critical as the other locations. The contact centre agents are taking orders, so every minute they are down is lost revenue. They require complete resilience. Headquarters probably also require complete resilience, so you need to build something bullet-proof for the two contact centres and headquarters. But the warehouse, on the other hand, need not be

expensive. These design issues require forethought. It's not a question of looking on the Internet for a standard configuration for IP Telephony and inserting it.

#### **STEP 5: Deal with installation issues**

Invariably, as the installation rolls out, you will find hidden requirements. There are often informal networks or sources of expertise within an organization. For example, there might be a need for a small contact centre in a facility that you didn't know needed a contact centre; or there might be a need for faxing capabilities that was not initially identified. Getting the requirements right from the very beginning is important. Another key to a successful installation is a simple dial plan. Problems such as loops that put you into endless cycles, or allow unauthorized access, are not well received. And you want to be sure you have in-line power — put your routers on a UPS so you don't lose dial tone in the event of power failure.

#### **STEP 6: Examine security concerns**

There are of course vulnerabilities with IP Telephony, including some you wouldn't normally worry about with a traditional PBX. Those include traditional threats in the data world, such as denial of service attacks, viruses, worms, Trojan horses and spyware. Other threats, including physical security, are similar to those faced by traditional Telephony systems including: unauthorized access, support issues, toll fraud, impersonation and identity theft and call hijacking. As with any project, the complexity will vary with the size and the requirements for the system but, with good planning and thoughtful execution, a conversion to IP Telephony can enhance the skills and careers of both IT and Telephony professionals while enabling their organizations to reap substantial operational benefits as well as cost savings.

### **Obstacles in moving towards IP Telephony**

Product cost _____	53%
Lack of budget _____	47%
Security _____	45%
Reliability and availability concerns _____	42%
Lack of ROI evidence _____	42%
Not a priority project _____	39%
Implementation complexities _____	38%
Voice quality _____	35%
Operational support concerns (e.g. maintenance) _____	32%
Lack of internal implementation expertise _____	29%
Separate voice and IT organizations _____	23%
Lack of features and applications _____	20%
User training expense _____	19%
Lack of network management tools _____	17%
Challenges in rolling out VLANS in network _____	15%
Product availability _____	15%
Power redundancy requirement _____	12%
Other _____	5%