

# **Migrating to IP Telephony – The Human Factor**

By: Rick McCharles

While this article may be beneficial to small organizations, the target audience is for those deploying medium to large IP Telephony solutions.

Whitepapers and articles related to IP Telephony migration best practices are common. However, most are technology focused and ignore a critical success criterion: The Human Factor. Choosing the right vendor, architecture, network upgrades, QoS, facilities and security are all important but an implementation can fail miserably if you have not incorporated the human element into your project plan.

## ***Organizational Impact***

You should first conduct an analysis to determine the impact and potential changes that IP Telephony may have on your organizational structure.

For example, most organizations separate the IT and Telecom functions. This model is not well suited to IP Telephony. In these traditional structures, the two groups may have very little interaction if any. The network group's activities after all, don't have any impact on the telecom infrastructure. And in general, a PBX upgrade would be irrelevant to the network group. IP Telephony changes this model significantly. The telephony and network technologies are completely dependant upon each other, and so too must be the staff and respective expertise.

Review all aspects of IT operations and support. Hours of operations, help desk, service level agreements (internal and external), maintenance windows, spares inventory, after-hours support and escalation procedures must all be reviewed and modified to support the real-time and mission critical nature of voice communications.

## ***Culture***

IP Telephony may also necessitate some cultural changes to your IT organization. Operations and support staff may not fully appreciate the real-time and mission critical nature of voice. A quick swap of data patch cables in the middle of the afternoon is no longer acceptable in a converged infrastructure; not that it was previously, but staff could probably get away with it without incident. Network performance or outages demand a greater sense of urgency and quicker response and resolution times in a converged environment.

## ***Recommendations***

### **1. Merge the telecom and network group.**

Convergence of infrastructure and technology is a natural consequence of IP Telephony but in order to maximize the benefits the respective organizations should also be converged. In order to be effective the reorganization must be more than symbolic. Ideally, the network and telecom personnel should be merged into a common group under a single manager. You should consider relocating staff to a common work area to facilitate interaction, cooperation and to foster the building of relationships. You should strive to have this merged group functional long before your migration actually begins.

### **2. Leverage the existing expertise.**

Implementing and operating an IP Telephony solution will require the experience and skills of both the telecom and network groups. Telecom personnel understand dial plans, PSTN connectivity, Class of Service, telephony features and usually manage the contracts and relationships with service providers. Network personnel, of course, manage the infrastructure that is required to transport voice in the new environment. Network QoS, convergence time, IP addressing plans, DNS / DHCP, etc are skills not commonly associated with telecom staff.

### **3. Provide a high-level career path.**

Personnel from both groups are likely to be concerned how a migration to IP Telephony might affect their work environment and career. For telecom staff, you should offer them the opportunity to take network-training courses. Conversely, network staff should receive IP Telephony / PBX training. This cross training will help to facilitate cooperation between the two groups and will decrease the tendency of concerned staff from becoming uncooperative and attempting to defend their turf.

### **4. Communicate!**

Management and staff from across your organization should be informed of the planned changes. Seek involvement and input from management staff early in the process and incorporate their business needs and recommendations into your IP Telephony solution design and architecture. Invite staff to attend informal presentations that explain the planned changes and how the organization will benefit. Highlight new system features that will assist them with their daily tasks. These actions will help to eliminate resistance, foster greater cooperation and promote greater understanding and patience for some of the hiccups that will invariably be encountered during the migration.

## **5. Training**

It may seem an obvious key to a successful implementation, but training is often not adequately addressed. Even when the training requirement has been considered, it is often not implemented early enough. Ensure that your implementation staff has received the necessary training before the implementation begins. Operations and support personnel must also be trained before the new system goes into production.

End user training is vitally important. You have made a significant investment. Ensure that your employees leverage the new features so that your organization can quickly reap the benefits outlined in your business plan. If possible, make the training mandatory. If that is not practical, encourage employees to attend informal training sessions presented during lunch or other social events. When a group of employees is migrated, have trained personnel present who can provide personal assistance and gauge the effectiveness of your migration tactics and employee response.

## ***Conclusion***

The preceding tips may seem to be basic and obvious considerations for any project plan. They are, but in my experience, the human-factors of an IP Telephony migration are usually overlooked as everyone focuses on the technology aspects. The result is a difficult implementation, unnecessary politics, and resistance and most importantly, it hinders or delays the return on the investment.

Paying close attention to organizational and employee requirements will greatly contribute to the success of your IP Telephony migration.

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