

View Point



Voice over Internet Protocol (VoIP) in the Hospitality and Gaming Sectors

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Voice over Internet Protocol (VoIP) has emerged as a significant enabling technology and the adoption of industry standards has accelerated its deployment. VoIP technology is generating wide interest across several markets, including the hospitality and gaming industry. VoIP technology is capable of carrying innovative applications/ services on its telecommunications infrastructure.

In the hospitality and gaming industry, VoIP offers benefits ranging from cost savings to enhancing productivity and responsiveness. The hospitality and gaming industry is still in the early stages of VoIP adoption and only a few companies have started pilot implementations.

Hotels and casino companies need to carefully choose the right combination of VoIP applications to create real differentiation.

VoIP Road Map

VoIP technology has matured sufficiently, allowing the hospitality and gaming sectors to take advantage of network integration cost efficiencies, as well as customer-facing and productivity enhancing applications. However, there is limited understanding on the implementation approach of this technology - specifically, how to make a business case for owned and franchised properties. Infosys believes that there are 3 key steps in wider scale VoIP implementations and these are discussed below.

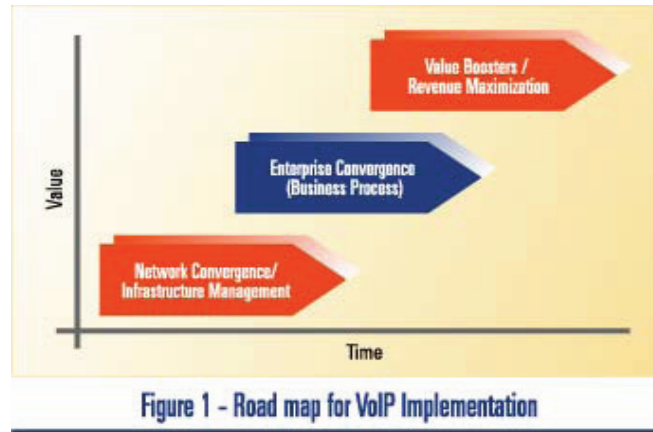


Figure 1 Road map for VoIP Implementation

Network Convergence / Infrastructure Management

Most hotels and gaming companies do not have their existing IP networks configured for voice traffic. These networks can collapse under the subsequent voice and data traffic. To reap the benefits of VoIP technology, hotels, must invest in up-front activities and evaluate network weaknesses. They must also identify areas where their networks need upgrades before proceeding with VoIP implementations.

Completely removing existing PBX, phones and wiring and replacing them with IP phones may work in some cases. However, it is desirable to adopt a phased approach to VoIP implementations. Hotels, which deploy multiple cables carrying voice, data and video to guest rooms, should utilize existing infrastructure, if it meets their requirements, for a converged network.

Three models are emerging for converged VoIP infrastructure in the hospitality industry:

Hotel property based model

Here, the requisite components of VoIP - the Call Manager, switch, messaging and other applications - are all deployed at the hotel property and usually maintained by the IT group. This model is suitable for smaller independent hotels but involves higher maintenance costs.

Chain based model

This involves multiple single property deployments interconnected by an enterprise network - either a LAN or WAN. This approach works for chain hotels across multiple locations already connected via an enterprise network.

Utility model

In this model, communication components are hosted in a central location - typically a service provider with a wide geographic network. The network provider builds a large capacity at a central location, allowing the hotel part usage. The network provider can also provide network management and proactive troubleshooting functions based on advanced network monitoring mechanisms.

Most large hotel and casino chains do not currently have uniform network connectivity across all their franchisees. This makes it extremely difficult to deploy and maintain such networks on their own and they should explore service providers to deploy, host and maintain such infrastructure.

The capital investment of centrally hosted networks is much lower compared to owned infrastructure and ensures faster deployment and higher ROI. Remote network management allows hotel staff to focus on guest facing activities and also enables hotel & casino operators to avoid maintaining trained staff to manage networks.

The utility model offers several compelling benefits including:

- Increased speed of VoIP adoption
- Significantly lower risk of new technology adoption
- Improve service features and applications
- Reduce or limit non-core operational IT and telecom functions

Infosys believes that the Utility model is fast emerging as a credible alternative to the hotel or chain models.

Enterprise convergence / Business process convergence

This stage helps hotels achieve a true 360 degree view of their operations and their guests. The hotel should utilize the network infrastructure to allow easier inter-play between the hotel applications (data), voice and digital entertainment for guests. Hotels and casinos can achieve significant cost benefits by avoiding point to point interfaces and take advantage of available open standards.

Traditionally, a hotel or casino operation has counted on a flexible and robust communication platform required to run 24 X 7 operations. These operations involve coordinated co-functioning of multiple systems and processes from both front and back offices.

Network convergence presents opportunities for hotels and casinos through available real time interface between multiple systems and devices. The advantages of network convergence can be classified into:

1. Cost Savings

A unified network brings down the total cost of ownership through savings in equipment costs, network administration & management costs. Hotels can introduce the voice element via VoIP and achieve further savings by eliminating or reducing toll charges for in-network calls. To date, these savings have been the main driver for adopting VoIP telephony.

2. Revenue Enhancement

To get true value from VoIP, hotels have to move up the value chain and deploy converged guest centric applications to drive additional revenues, promote better guest service and satisfaction. The integration of voice, data and video networks is being quickly adopted in the hospitality industry and major companies have embarked on a journey to define a roadmap to converge networks and drive operational efficiencies. Leading hospitality forums like Hospitality Technology Next Generation (HTNG) are helping hoteliers realize the importance of the converged network and are guiding them in achieving that vision.

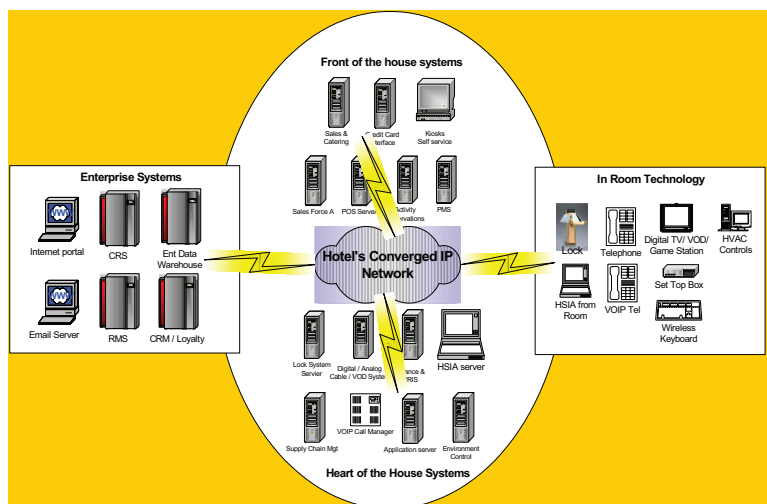


Figure 2: Convergence of Hospitality I.T. Landscape over IP

Implement Value Boosters / Revenue Maximizers

VoIP or converged IP networks will open new channels for hotels to market new products and services to guests to maximize hotel revenue. VoIP can be used as a guest's personal access point to multiple hotel application and services.

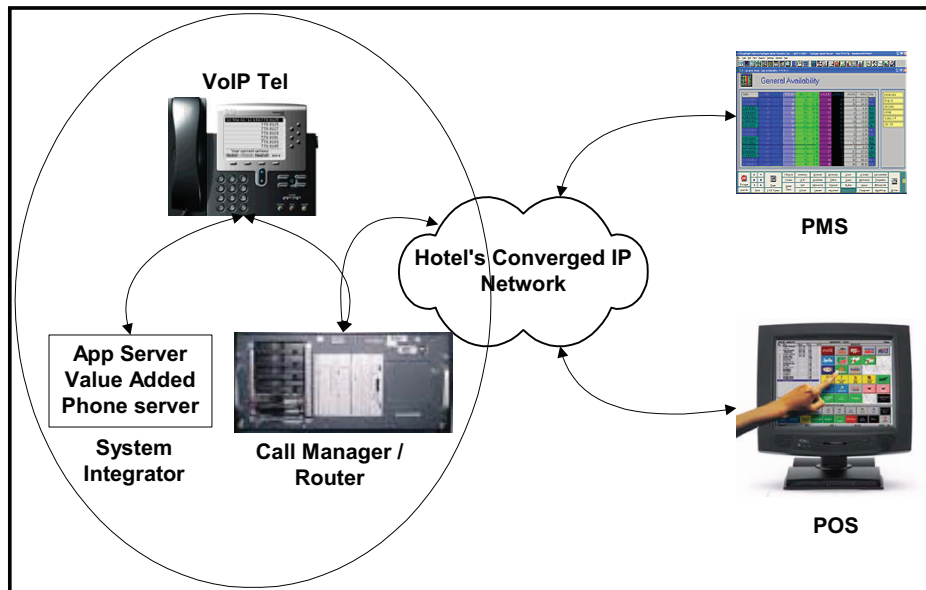
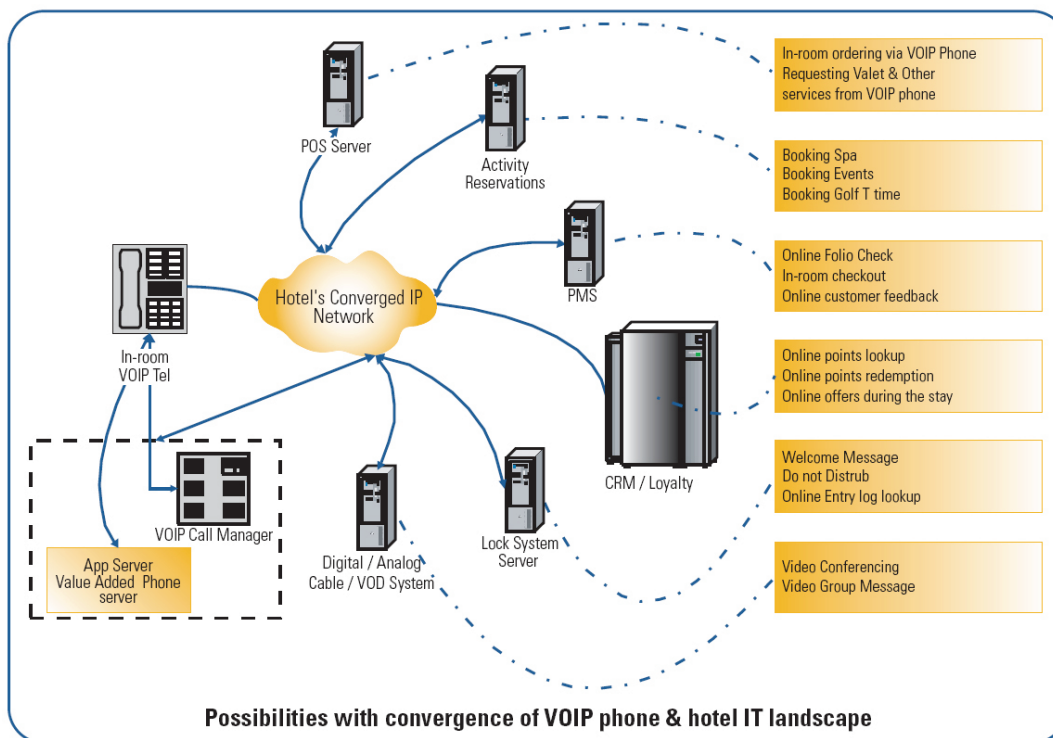


Figure 3 - Illustrative Integration of VoIP Tele, POS & PMS

Some services that hotels and casinos can offer their guests through the VoIP phones are described in the following diagram.



The applications mentioned above can be delivered through a VoIP phone over a hotel's converged IP network. These applications have potential to drive guest satisfaction and increase revenues and hotel staff efficiencies. Selectively building these and other guest-facing, revenue generating applications will help hotels and casinos maximize the value of VoIP installations in guest rooms. A single converged network can ensure higher and faster ROI for hotels and casinos.

Infosys Approach

Infosys VoIP solution includes a network deployment methodology for hospitality industry that includes developing integrated reference architecture for hotels & customized IP telephony migration roadmap. The approach also includes the capability to develop customized guest facing and back office applications. These are mounted on VoIP phones in alliance with middleware providers and some leading independent software vendors in hospitality industry. This is illustrated in the diagram below.

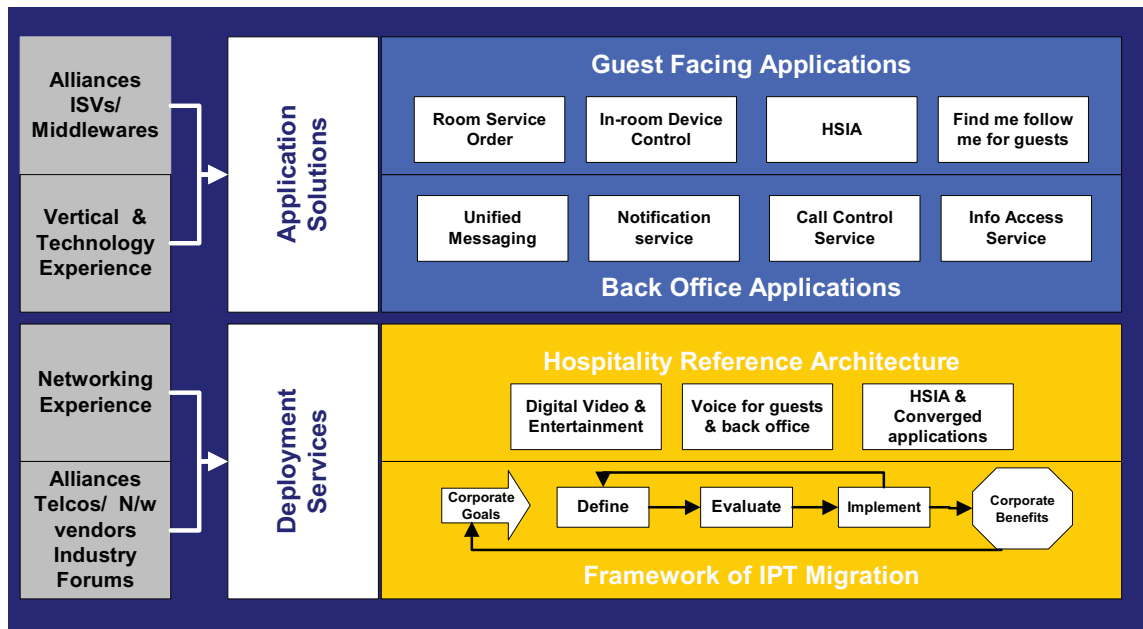


Figure 4 - Infosys VoIP Solution Framework

Conclusion

VoIP is the future of telephony in the hospitality and gaming sectors. Hotel and casino companies are exploring the value of this technology by deploying VoIP phones in both back offices and guest rooms. As different deployment models emerge and the technology to maintain networks and integrate legacy applications matures, the hospitality and gaming industry will likely embrace VoIP more widely and at a faster pace.

Equipment costs, one of the biggest hurdles today, have begun to decline. A well thought-out strategy that includes deploying a single converged network, along with revenue generating or costs saving VoIP applications, will deliver positive ROI's in acceptable time frames.

About the Author:

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