

# I D C   E X E C U T I V E   B R I E F

## Managing the Risk of VoIP Deployments

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Adapted from *The Business Case for VoIP Management* by Stephen Elliot, IDC #32397

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### Introduction

Enterprises and service providers are piloting and implementing Voice over Internet Protocol (VoIP), often without a clear plan for performance and availability management. Managing a voice-driven data network is a difficult task that affects the IT organization and existing processes and demands new technologies that maintain service levels and provide important infrastructure visibility. Bridging the gap in voice and data technologies is a task that requires resource allocation, technology reviews, and new product planning. Network executives and datacenter managers versed in the data world require specialized tools to manage VoIP implementations. IDC has often seen that organizations moving from a pilot phase to full deployment find that they lack visibility and control to cost-effectively manage IP services. VoIP management is a critical issue that warrants serious analysis and resource allocation.

IDC believes enterprises that don't spend significant time and resources on VoIP management during pre- and postdeployment will experience an infrastructure outage causing business interruption. VoIP management is a critical requirement to maintaining customer service levels and service availability. In fact, the move toward VoIP infrastructure is similar to the transition of IT organizations from mainframe to distributed environments. Managers were forced to make infrastructure management a priority. Those that didn't often suffered highly publicized outages.

What is VoIP management? IDC defines it as *tools that measure and manage VoIP by collecting, testing, and measuring voice performance and availability statistics using active and/or passive measurement and related management technologies to assure the quality, performance, and security of a VoIP service.*

This Executive Brief analyzes the benefits of VoIP management tools, best practices, business criteria for tool selection, and critical pre- and postdeployment requirements that offer users a road map to reducing the risk of VoIP project failure and service interruption.

## Benefits

For IT organizations, managing a consolidated voice and data network creates new challenges that impact organizational structure, technology, workflow processes, and staff education needs. Successful VoIP deployments consist of an equal investment balance into IT staff, processes, and technologies necessary for long-term success. In the short term, one of the best ways to manage deployment risk and establish a foundation for service assurance is through VoIP management tools. The relatively inexpensive management tools provide executives and managers with insurance policies that protect the tactical and strategic decisions that led to the VoIP decision.

VoIP management tools offer business and IT managers several critical benefits, including:

- **Pre- and postdeployment visibility.** Executives can gauge infrastructure stability, scalability, and performance throughout the VoIP life cycle in an end-to-end perspective.
- **Reduction of project failure rates.** Poorly managing VoIP leads to reduced productivity, financial penalties, and outage recovery problems.
- **ROI enforcement.** Technical metrics in SLAs and business cases established during VoIP cost savings analyses are credibly supported by VoIP management tools.
- **Real-time detection and analysis.** Identification of pending VoIP infrastructure problems that alert managers of trouble spots *before* an outage occurs helps improve the perception and credibility of IT.

Although there are many more benefits, it is important that users recognize the vast functional capabilities of existing tools. Some of the functionality includes active and passive call quality monitoring; jitter, latency, and packet loss analysis; Mean Opinion Score (MOS) generation; and customized reporting. Vendors are expanding VoIP management capabilities and offering buyers enduring investment protection.

## Tool Selection Criteria

Because VoIP migration teams have very different functional requirements, IDC suggests they focus on the business requirements during the RFP process. Tool functionality is easy to assess; thinking about the business impact of a selection across an IT organization, integration road maps, and existing staff expertise is equally important and takes more time for VoIP. IDC recommends that users ask the following questions to assist in VoIP management product selection prior to the purchase:

- What is the timeline for consolidating networks, and which IT and business staff will own key processes and technology for the performance and availability of the new and legacy infrastructure?
- With legacy software and hardware, are there deployed management tools that can deliver the necessary management functionality for VoIP, and can they scale to support new operational SLAs?
- What is the cost of downtime, and what products have been deployed or discussed for preventing downtime?
- Is VoIP management budgeted, and will it be enough to scale? If not, why not, and will the business be exposed?
- Do staff members have titles such as network convergence manager or performance manager? (If not, consider creating new titles for the network transition.)

As part of the overall tool selection process, it is also important that administrators do not automatically assume their incumbent network management vendors are up to the task to manage a service as complex and performance-sensitive as VoIP — even if they say they are. Instead, IT organizations should do a complete and objective survey of the market for the right solution that addresses their specific needs.

Enterprises must balance the technical and business requirements for management tools and recognize that VoIP management is a must-have technology that offers substantial insulation from downtime and security threats.

## **Considerations**

Most organizations are moving from asking "why" they should implement VoIP to "when" they should act. To move forward, enterprises should analyze the concrete benefits that assist business units in operations, customer satisfaction, real cost savings, and revenue generation. Once organizations establish these benefits, the answer to when they should move forward becomes clear. What truly matters are the business impact of the migration and putting in place people, processes, and technology to obtain and extend business goals. The tools that set the foundation for achieving business-centric visibility into VoIP infrastructure are management tools. VoIP management solutions provide the necessary information to make business decisions based on IP service delivery demands, key performance thresholds, and sophisticated analytics.

IDC recommends that organizations use the following VoIP management best practices during pre- and postdeployment cycles to drive business results:

### ***Predeployment***

- Gather business and technology executive leadership and establish a clear VoIP benefit analysis across multiple areas: cost savings, business process impact, staff allocation, and legacy investment impact. Use an accounting model, such as activity-based costing, to examine expected hard and soft costs and assess customer and employee impact. Insist on VoIP management functionality as a core requirement and allocate resources for predeployment testing and analysis. Finally, quantify the expected outcome and revisit expected business impact.
- Create a staff convergence strategy for data and voice experts that includes training budgets, communications workshops, and clear lines of ownership and job responsibilities. Be up front and honest with staff members and assure them about job security. Advise them on the future organizational structure with a time line, and map out key employees with service assurance responsibilities. Increase the training budget to organically develop staff to understand the voice and data worlds and stress the importance of VoIP management.

### ***Postdeployment***

- Educate end users on the new IP services capabilities and functions. Share the road map for advanced functionality and provide a glimpse into how the infrastructure was developed, managed, and supported. Project success and ongoing project execution should be touted. End users will have to learn new processes and adapt to new application capabilities providing IT with an opportunity to show quantified productivity increases through VoIP technology and service availability.
- Develop a flexible VoIP architecture strategy that extends the initial management capabilities during the pilot phase. Drive further communications between the development and operations teams and press vendors to provide standards-based management interfaces. Using management tool information, develop business cases for equipment costs and utilization, bandwidth requirements, and staff development.

The consistent message to executives is that VoIP management is a necessary capability during pre- and postdeployment. The information is invaluable and can be used to support business objectives specific to VoIP project life-cycle requirements.

## Conclusion

VoIP can be a transformational technology that leads to significant changes in process, staff, and technology. Across the broad spectrum of requirements, VoIP management should be prioritized during project planning because it provides the foundation for the performance and availability of IP services. Without question, some enterprises and service providers will not adequately manage their VoIP infrastructures; most will pay a stiff price for doing so. For the investment, VoIP management tools are one of the easiest ways to deliver business and technology objectives during pre- and postdeployment cycles. These tools provide a foundation for educating staff and developing critical processes that drive communications between data and voice experts, leading to a high-performing, business-centric infrastructure.

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