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## **The Maturation of the VoIP Management Market**

**By TMCnet Special Guest**

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An interesting shift has occurred in the perception of the need for management in today's VoIP networks. VoIP management products have moved from an afterthought to a necessity.

In my position as a Consulting Systems Engineer with Qovia, I spend just about all of my time talking to end users in the VoIP arena. I am struck by how rapid and profound this shift has been. End users have moved from not recognizing the need for management at all, to accepting management as a necessary part of any successful VoIP implementation in a very short timeframe.

As VoIP deployments move from early adopters to a more mainstream audience, users are accepting the need for management products to go along with the new technology. While there are undoubtedly several factors at work here, this article will explore some of the more dramatic influences that have caused this shift to occur over the past twelve to eighteen months.

### **“This is not your father’s voice network”**

During the initial deployments of VoIP, vendors were touting voice over IP as a whole new era in telephony applications. All problems and issues associated with voice communications could be solved through the magic of VoIP. These systems, it was said, were easier, cheaper, better, faster, new and improved. A plug-and-play, set-it-and forget it message was very strongly presented to the early adopters of the technology. Toll bypass and convergence of infrastructure /workforce were the driving motivators that vendors pushed to beguile end users into abandoning their traditional systems.

Remembering the adage that “if it ain’t broke don’t fix it” made it easy to brand this technology as “less broke” than the current TDM systems customers were used to and thereby provide motivation to adopt. After some difficult early installations, that message has shifted. Over the last eighteen months, vendors have worked through several large implementations and have felt the pain, along with their customers, in some of the earliest initial deployments. They began to soften the plug-and-play aspect of their message.

There is a marketing concept called the “Gartner’s Hype Cycle” which describes the launch of most new technologies. Gartner felt the over selling of any new technology is inevitable and customer expectation is almost always higher than what can be delivered. So it is only natural that at some point during the initial launch of any technology, a “trough of disappointment” occurs once end users realize that their initial expectations have not been met.

For the VoIP user I think a “trough of disappointment” may be too strong, but there was certainly some suspicion, or mistrust of the technology that occurred just after some of the early, large installations proved problematic. Users were getting over the euphoria of the promise and becoming wary of the realities of VoIP. Vendors were quick to accept the need for management through all phases of the project life cycle to help return confidence in the technology. This may be the single biggest factor that affected the view of vendors towards management in the VoIP marketplace. By properly using management products, vendors could maintain customer confidence throughout the project.

Another shift was the type of customer deploying VoIP. Over the last year, vendors have begun to wisely use a more sound network and voice management approach, subsequently their equipment, architecture and deployment practices have gotten dramatically better. The market has begun to move from early adopters to the early majority.

By their very nature, early adopters enjoy being on the bleeding edge of technology and are used to a certain amount of deployment pain to stay there. Mainstream users on the other hand, demand a more reliable methodology and expect a more seamless cutover from TDM to VoIP.

As a result of these changes in the marketplace, most large vendors have endorsed the need for network management in the VoIP application and are themselves looking for products to assist in the more difficult phases of pre-assessment and deployment. Vendors now understand that these systems do require some network management especially during the assessment and day two phases. Most vendors now offer their own baked in management tools or are partnering with third party vendors, like Qovia, to provide a suite of management options. These range from providing all the necessary tools for end users to adequately manage their own networks to offering full outsourced management solutions that the vendors themselves own.

In many instances, VoIP vendors have also looked to third-party management products to help keep pilots moving according to schedule. It is not uncommon for VoIP management to aid stalled pilot programs by identifying and correcting critical issues that may have end users rethinking the decision to move to VoIP in the first place. There are often those squeaky wheels involved in a VoIP project who are quick with the “I told you so,” and proper management can eliminate a lot of their ammunition keeping end user customers happy through the critical first phases of a pilot program.

#### **“We didn’t know what we didn’t know”**

Another factor which contributed to the early under-appreciation of the need for management products in VoIP was the fact that this technology was so new to everyone. Without more real world experience, there was a significant lack of expertise in the field. Most network engineers had to rely on the vendors to set best practices for deployments and in some cases this proved problematic as many vendors were just figuring it out themselves. Network professionals on both the data side and traditional TDM side really did not know what to expect. Maybe the new technology really was so good that standard rules of management might not apply.

This brings up another interesting aspect. Since this is the first joint converged project, the data teams did not know much about the historical need for voice management, and voice teams did not know about the legacy data management needs; so the two sides didn’t know what they didn’t know. Each was inexperienced with the standards and practices of the other.

Today, that lack of experience is gone. End users have become experts in the day-to-day challenges of managing VoIP networks. Data network professionals have learned that just like traditional data network applications, VoIP needs to be managed. TDM technicians have learned that just like legacy phone systems, VoIP needs to be managed. Standards committees like the ITU-T, ETSI, IETF, and TIA have come a long way in establishing and recommending best practices for success, all of which involve standard approaches to VoIP management.

## **The Right Tools for the Job**

As any mechanic knows, it is impossible to accomplish a job without the proper tools. This phrase also applies to the VoIP arena of the not-too-distant past.

In many cases, networks were not being adequately managed because the products to do so simply did not exist. Many of those available from vendors for VoIP management were immature or inadequate to handle the unique challenges of managing the first truly real time application on a traditional data infrastructure. Many of these tools were just reworked or retooled versions of data management systems that quite simply were not providing the visibility necessary to properly maintain a VoIP network. Everyone seemed to have their own take on what it meant to “manage” a VoIP infrastructure.

As a result, it was like the “Wild West” in terms of what metrics were being collected, what architectures were being employed, and what calculation methods were being used to provide insight into network performance. Again, a great deal of work by the standards community and management vendors has dramatically changed the landscape of VoIP management available today.

Improvements have been made in the ability to effectively measure Jitter, Packet Loss, and Latency in RTP (Real-Time Transport Protocol) streams for MOS (Mean Opinion Score) calculations. More intelligent and sophisticated network polling tools have been developed to provide insight into VoIP network health. Products are also now available to monitor specific sub-applications associated with VoIP, such as signaling functions and gateway performance. Also, VoIP users now know what metrics are most critical for performance indications of their own networks, and vendors are responding with solutions able to provide those measurements.

Management products are now available to provide standardized metrics that have proven effective in facilitating fast, reactive repair of outages, as well as proactively notifying IT staffs of potential problems before they ever become service affecting issues.

Another bottom line reason for the fast adoption of management products is that they help network professionals do their jobs better.

### **“Even the big guys get it”**

It is hard to say who accepted VoIP management first. Did the end-user community recognize and endorse the need first, causing the major management vendor community to take notice? Or did the top management vendors see it first, making it easier for the end users to adopt? What is easy to say is that VoIP management has definitely entered prime time with several large companies acquiring VoIP vendors so that they will not be left behind in the rush for VoIP management solutions. IBM ([News - Alert](#)) has acquired MicroMuse, CA has acquired Concord Communications, and Cisco acquired NetSolve. It is clear that everyone is trying to get on the VoIP management bandwagon, indicating that there is a significant and growing demand for these products.

While several factors have contributed to the evolution of end-user adoption of VoIP management products (and make no mistake they are being adopted), some of the most significant appear to be the following. VoIP equipment vendors now recognize the advantage of proper management in maintaining customer confidence. End users have become more experienced and are driving the need for adequate management to ensure successful deployments. Tools have gotten significantly better at providing useful metrics. Even big business has endorsed the concept of VoIP management tools as mainstream. And perhaps the biggest reason end users are adopting management products as a necessary part of their network deployment.....They work.

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