

The New Converged Applications Support Model

Service and Support: Integral to IP Communications Success

July 2003

InfoTech
Building Client Value...

90 East Halsey Road, Parsippany, New Jersey 07054
973-884-0100 Fax: 973-884-8804
www.pbimedia-infotech.com

Situation Summary

**Growing IP
Communications
Market Demands a New
Type of Support Model**

- 20% of U.S. enterprises will implement IP Telephony at more than five sites (Stage 2 implementations) by the end of 2003 -- a major increase from 8% of enterprises at end-of-year 2002. (*InfoTech Study, Enterprise Convergence -- The Race for IP Telephony Supremacy, April 2003*)
- Vendor and Support issues are the number one priority of enterprises in this Stage 2 phase. (*InfoTech Study, Enterprise Convergence -- The Race for IP Telephony Supremacy, April 2003*)
- Traditional voice service and support models cannot meet the challenges of this new environment and are evolving to a new model. (*InfoTech Executive Briefing Paper, Maintenance as a Fundamental Business Process, June 2002*)

Introduction

**Service and Support is
a Critical Success
Factor in IPC
Deployments**

Chief executives recognize that technology -- effectively planned, implemented, and supported -- can measurably contribute toward the realization of business objectives. IP-based communications -- converging voice, data, and video communications onto a single IP network -- is one technology that has received steadily increasing attention during the past few years. Most enterprises actively evaluating this technology realize that transitioning from circuit-switched to packet-switched voice communications is a major change, and significant time and analysis is devoted to evaluating various IP communication systems and gear before committing to a major purchase. Unfortunately, comparatively little attention is paid to what has been described as the "Achilles' heel" of IP communications deployment -- ongoing service and support¹.

New technology typically requires a new support model. This maxim is clearly demonstrated in the area of IP communications (IPC), where problems in planning, designing, implementing, maintenance or management can rapidly erase IPC's promised cost savings and productivity gains². Selected vendors quickly recognized the unique nature of converged communications applications and have assembled specialized support services and partner programs to address IP

communication's sophisticated requirements. Surprisingly, however, many traditional vendors offer IPC support programs that are essentially repackaged versions of their past TDM-based service portfolios.

Selected vendors quickly recognized IPC's unique support requirements

The purpose of this paper is to examine the new service and support model emerging for converged communications applications, define best practices, and discuss a current example of IP communications support excellence.

The IP Communications Marketplace -- Growing Confidence in Convergence

Deployment of converged -- or IP-based -- communications is clearly accelerating, laying the groundwork for significant service and support needs. A recent study by InfoTech reveals that projected U.S. demand for IP Telephony (IPT) -- currently the most popular IP communications application -- has increased dramatically during the past year. Whereas IP represented just 17% of the total customer premises equipment (CPE) lines shipped during 2002 (excluding very small key systems), IP shipments are projected to exceed those of TDM starting in 2004. By 2005, analysts expect worldwide enterprise IP Telephony equipment revenues to reach \$6 billion.

IP Telephony shipments projected to exceed TDM in 2004

Enterprises that have started implementing IP Communications are doing so for one or more of the following reasons:

- Enablement of mobile and remote staff
- Quick access to future applications
- Reduced network costs
- Improved employee productivity
- Reduced maintenance and support expense

Although the perceived benefits of IP-based communications are becoming more clearly recognized and quantified, a level of concern regarding wide-scale implementation and support remains. InfoTech's research has found that *cost* issues are rarely considered a major barrier to implementation. Rather, customers struggle with *product* and *vendor* concerns. Interestingly, these issues shift as customers progress through the stages of IP implementation -- from planning, testing,

Customer Worries Re: IPC Shift Throughout Stages of Implementation

and limited pilot to enterprise-wide rollout. Early on, the concerns are product or technology-related -- that is, system reliability, scalability, and voice quality. However, by the time an enterprise has rolled out IP communications to more than five sites, **quality and consistency of ongoing service and support** becomes the major IPC issue.

**Quality of IPC Support
 Quickly Becomes A Key
 Issue**

Results from an InfoTech primary research study of Enterprise and Business organizations plans to implement IP technology.	Comparison of Importance Rankings Based on Implementation Status in 2003		
	Stage 0 Trials	Stage 1 Implement in a Few Locations	Stage 2 Deployment
Issues Impacting Progression to Next Stage of Implementation			
Product Issues <ul style="list-style-type: none"> • Integration with existing Environment • System Reliability • Voice Quality • Proven Features/Applications 	1 st 1 st 2 nd 2 nd	3 rd 1 st 1 st 3 rd	2 nd 2 nd 2 nd 3 rd
Vendor/Support Issues <ul style="list-style-type: none"> • Good Vendor Relationship • Strong Services and Support 	2 nd 3 rd	2 nd 2 nd	1 st 1 st
Cost Issues <ul style="list-style-type: none"> • Cost of Solution 	3 rd	2 nd	3 rd

Source: InfoTech, *Enterprise Convergence -- The Race for IP Telephony Supremacy*, April 2003

Enterprises treat IP-based communications as a mission-critical function -- and expect their preferred supplier to respond accordingly by providing broad, deep, expert support.

The New Realities of IP Communications Support

The traditional telephony support model makes extensive use of voice technicians, focuses on maintaining proprietary equipment and processes, devotes a significant amount of time to lower-level functions such as MAC (moves, adds, and changes), and often ends up expending more time and money on onsite support than either the vendor or client would like.

**The New Converged
 Communications
 Support Model
 Demands Systems
 Engineering,
 Consultative Approach**

Converged communications support, on the other hand, demands more of a systems engineering and consulting approach. With IP-based communications, end-users can manage simpler tasks such as MAC themselves. Truly effective IPC support (utilizing either internal or external resources) requires qualified professionals who can design, install and maintain a multiservice network solution -- expertly addressing the unique issues that can arise in a converged network

environment. Upfront network audits and assessments, IP-specific security and risk mitigation needs, redundancy requirements, monitoring of call quality, building new applications on top of the IP platform are some examples of the issues that must be addressed both before and during the implementation of a converged communications solution.

Understanding IP Communications Complexities and Dependencies is Crucial

Simply put, the new support and service model for IP Communications stresses a consultative, systems implementation approach to designing and maintaining a well-run converged network. Network and application expertise, remote monitoring capabilities, expert partners, and a real-world understanding of IP Communications complexities and dependencies are crucial to IP Communications success.

Best Practices -- Implementing and Optimizing IP-Based Communications

The high importance enterprise customers give to the ongoing support of their IP-based communications ability is not surprising. It's no exaggeration that for every minute a business' voice communications system is down, millions of dollars of revenue and customer goodwill are lost. A relatively new technology such as converged communications only heightens the customer's sense of vulnerability.

An enterprise's in-house IT staff -- already consumed with existing network and infrastructure challenges -- may not have the resources to adequately plan, design, implement, and manage a converged communications environment. If internal personnel are already overworked or lack necessary expertise, it's especially important to evaluate an IPC vendor's service and support capabilities, as well as its products. As we've become more familiar with the support needs of IP-based communications networks, five best practices have emerged to form a new support model for converged communications applications:

Evaluate an IPC Provider on Five Service and Support Dimensions

1) *End-to-end PDIOO capability*: The services provider must be able to address IP Communication's full range of lifecycle needs, which are typically divided into five phases: Planning, Design, Implementation, Operation, and Optimization (PDIOO). A well-thought-out deployment begins with a thorough network and telecom traffic analysis. This infrastructure assessment is one of the most crucial activities required for optimal IP-based communications. All other activities and decisions flow based on the information gathered during this audit, including any necessary capital expenditure budgeting.

**Broad, Deep PDIOO
Expertise Results in
Successful
Deployments**

Other critical life cycle support services include technology evaluation and migration, network application performance and optimization, remote deployment support, ongoing software release assessments, complex network troubleshooting, and security management. Broad, deep experience with real-world deployments across all PDIOO phases is key.

2) *Expert support partners:* Rarely can one provider address the IP communications support needs of every customer type. Savvy IPC service and support providers recognize that the technology's more sophisticated, consultative support requirements necessitate a new suite of services partners -- allowing the provider to present clients with a wide-ranging set of expert choices in application expertise, vertical specialization, geographic coverage, testing and analysis tools, etc.

3) *Cutting-edge management tools:* A number of monitoring and management tools have been developed specifically to support IP-based communications networks. The best of these are proactive in nature and recognize that voice is an unforgiving IP application. Remote monitoring and trouble resolution services, in particular, can be a key differentiator between rival IPC service and support providers.

**IPC Requires
Specialized Partners
and Tools**

4) *Knowledge management and transfer:* With the best providers, knowledge transfer to the client happens as a natural part of any converged communications implementation.

5) *Global coverage:* The expansion of business on both global and virtual levels adds a level of complexity that can only be handled by providers of consistent, transparent global service capabilities.

The Cisco Model

**Quality of IP Telephony
Support Varies Among
Vendors**

As part of its ongoing IP Communications research, InfoTech has evaluated a number of preferred IP Telephony vendors and their level of capability in the vital area of service and support. A noteworthy model for converged communications support comes from Cisco Systems® -- the leader in internet backbone systems. Cisco® has been building on its considerable expertise and ubiquity to provide overall IP-based systems solutions, including taking a fresh look at IPC support and services. The company's ability to offer same-vendor support for both the client's application *and* network layers can provide a significant benefit to customers and has resulted in a converged applications

service blueprint that focuses on the specific needs of IP communications customers.

Life cycle support portfolio: Cisco knows that an effective enterprise solution doesn't end with the equipment sale. To foster successful IP Communications deployments, Cisco has provided partners with a formal, detailed blueprint of support services to offer as part of the complete converged communications initiative.

**Cisco Support Portfolio
Optimizes IPC
Deployments**

In addition to the IP Communications Blueprint, Cisco offers IP Telephony readiness and optimization audit and assessment services that leverage the company's strength in data networking, engineering, and support. Customers' high-level requirements are assured via "for free" pre-sales readiness assessments, and detailed requirements are met via "for fee" readiness audits and assessments -- all based on partner and Cisco tools and methodologies. For example, Cisco's pre-sale "voice assurance process" is designed to evaluate potential sales and verify that the proposed Cisco product and support configuration is "assured."

**Detailed Services
Blueprint is Integral
Part of Cisco IPC
Initiative**

Other Cisco programs specific to IP Communications include Technology Application Support (TAS) and Partner Consultative Support (PCS). These programs are designed to supplement and complement partner and in-house IT staff services with a set of system engineering and consultative support components. The emphasis is on flexibility -- a wise strategy in an early-adopter market.

At this time, Cisco's IP Communications support programs are being actively implemented in a variety of enterprise environments. Hans Wilhelm-Barz, Head of Global Network Services at Hoffman LaRoche has put Cisco's IP communications services to the test, and endorses the new converged communications support model. "One of the major concerns when rolling out new technologies is the direct support ability of the chosen supplier. Cisco Services has helped us to accelerate adoption and know-how -- and to define the integration and implementation of IP telephony in a large and complex network."

Comprehensive partnering: Consistent with Cisco's strong partnering tradition, its IP Communications Partners are the company's primary route to market for services.

***IP Service Partners
Meet Stringent
Requirements for
Certification***

Cisco has a variety of specialized partners that are trained, certified, and authorized to deliver Cisco IP Communications support -- including its Technology Specialized Partners and Services Specialized Partners. In addition, Cisco has designated a select number of Remote Network Operations - Advanced Technology Provider (RNO-ATP) Partners. RNO partners provide proactive remote network monitoring and ongoing system management, including problem resolution ownership.

These partners must meet and maintain stringent quality, staffing, and customer satisfaction requirements. To assist in this endeavor, Cisco provides detailed "steps to success" best practices, tools, templates, and learning objects that show the partner how to deliver.

***Tools Focus on
Proactive System
Management***

Proactive management tools: Cisco has responded to strong customer demand for proactive management and support with its IP Telephony Environment Monitor (ITEM) suite of management tools. The Cisco ITEM Device Fault Manager continuously monitors the operational health and stability of the underlying Cisco IP network on which the data and voice traffic flows, while the Voice Health Monitor hones in specifically on the operational health and behavior of Cisco's IP Telephony components and applications.

Other Cisco IPT support and management tools provide gateway performance and behavior statistics, track IP phone activity, and detect security failure.

***Quarterly Customer
Survey Tracks
Satisfaction***

Focus on customer satisfaction: Cisco conducts a rigorous customer satisfaction survey every quarter, hiring an independent research firm to survey over 25,000 customers worldwide on categories that include product quality, service and support, satisfaction with the account team, etc. The company ties its employee compensation and bonuses to meeting target goals. On a five-point rating scale, Cisco achieved rates of 4.49 in 2001 and 4.63 in 2002.

Further information about Cisco's converged applications support capabilities can be found at its web site - www.cisco.com/go/ipcservices.

***Pay Attention to Service and Support When Choosing Your
IP Communications Vendor***

IP communications has the potential to be of strategic benefit to virtually every business that takes the time to properly plan, thoroughly evaluate,

and effectively implement this groundbreaking technology. Service and support is a critical component of any converged communications solution and must be considered a key decision factor when evaluating IP communications vendors.

***Demand the Best in IPC
Service and Support***

The telephony support model that utilizes traditional onsite technicians focused on onsite maintenance functions is becoming increasingly unworkable in the new IP communications environment. The transition from circuit-switched to packet-switched voice communications requires a consultative, systems engineering approach to designing and maintaining a converged network.

These new converged applications support requirements should be seriously considered when choosing your IP Communications vendor.

¹Johna Till Johnson, *NetworkWorldFusion*, "Implementing IP telephony: What to watch for," 03/03/03, All contents copyright 1995-2002 Network World, Inc.

²Elizabeth Farrand, *An IDC Executive Brief*, "High Value and High Touch: Preparing Your Network for IP Telephony," March 2002, Copyright 2002 IDC.

Copyright © 2003 Cisco Systems, Inc. All rights reserved. Cisco, Cisco Systems, and the Cisco Systems logo are registered trademarks or trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0304R)

Based in Parsippany, New Jersey, InfoTech is a professional services firm specializing in global communications. With client practices focused on the Enterprise, Service Provider, and Technology Manufacturing sectors, InfoTech is uniquely positioned to deliver integrated, strategic value to its clients. InfoTech's broad professional services portfolio includes custom consulting, multi-user research studies, market sizing, technology tracking data bases and configurators, price modeling, and industry conferences.