Solve the multiple dilemmas of UC management

Focus: Managing multiple stakeholders

UC stakeholders are the vital touch points within your organization and are those who will benefit most from unifying people, communications and processes. They are often the ones whose job it is to ensure competitiveness and cost savings, business continuity, compliance and ROI.

In part 2 of this 3-part white paper we look at managing the performance needs of these stakeholders to minimize expensive outages, optimize IT resources and create consistent quality of experience.

By Sue Bradshaw, Technology Writer, Integrated Research

Preface

Welcome to part 2 of a 3-part white paper "Solve the multiple dilemmas of UC management".

Part 1 of this white paper focused on managing the first two dilemmas – multiple technologies and multiple vendors, and looked at juggling performance management of hybrid environments distributed across multiple locations and supporting multiple applications.

Download it here if you would like to read it now.

Dilemma 3 - Managing multiple stakeholders

Linking disparate IP islands into a unified communications chain enables increased numbers of employees to collaborate, gain efficiencies and reduce process lag. A great opportunity exists to ensure that a wide variety of perspectives are incorporated as you adopt new technologies and processes; involving UC stakeholders from across the business with economic, technical, user-feature and personal contexts.

But how do you manage their needs?

As user adoption is key to UC's success, delivering performance excellence and meeting user expectations are vital. To ensure these expectations are met, selecting the right people as your testers will supply you with accurate and timely feedback. Those who will benefit most from the technology will help ensure its success, as well as those who can cope during any setbacks and mishaps that the general business population doesn't have tolerance for.

Stakeholders need to embrace UC concepts like multiple modes of communication, mobility and Presence. For example if you're planning a UC project that depends on Presence but it's viewed as a 'big brother' initiative or a privacy intrusion, or doesn't work properly, the project is likely to fail. Changes brought about by unifying communications can inspire more productive work, but if communications are traditionally e-mail based, or only held in person in meeting rooms and new technology is not adopted, you'll forgo the benefits that come from many of UC's capabilities.

Every business will evaluate and potentially select different UC applications, have different considerations, goals and team structures, so the paper begins by looking at where a unified communications team might come from and what they might need.

About Integrated Research and Prognosis

Integrated Research is the creator of Prognosis® multi-vendor UC ecosystem management for Avaya Aura®, CS1000, Cisco and Microsoft UC platforms. Prognosis helps you manage the infrastructure needed to implement and maintain successful UC and SIP solutions. For more information visit www.prognosis.com/uc

Dilemma 3 – Managing Multiple Stakeholders

The UC team

Unified communications touches everything from the PBX to physical and virtual servers and applications on the user desktop; so the teams deploying and managing UC need to be well integrated with goal setting and share responsibility for the project's success.

As many organizations are considering Lync as a first step towards UC because it's often licensed through Microsoft Office, the deployment often starts with the application team. Often, for this team the closest real-time application delivery experience they've had may have been implementing virtual desktops for application delivery, email and instant messaging. In these environments user satisfaction and tolerance are measured in seconds, not milliseconds where any delay over 150 ms will affect the quality of voice.

So when applications incorporate real time and delay-sensitive voice; server and applications teams often need to join forces with each other and the network team to create a virtual UC team. Time must be spent familiarizing members of the newly-unified team with the terms, technologies and vendors of each other. The IT team may know nothing about PBX trunks and telephony endpoints and the PSTN team may know surprisingly little about IP. Team members will need to learn the language of each other, share skills and be prepared to cross-train.

Meeting the needs of these diverse individuals to achieve and maintain UC performance and high availability can be achieved by supplying performance information that spans a broad range of multi-vendor UC technology.

The ability to correlate network performance with voice quality, Presence and Unified Messaging server utilization, virtual and physical server performance, trunk utilization and capacity via a single user interface helps avoid finger pointing, reduces delays in identifying issues and accelerates mean time to repair.

The voice team

VoIP is a fundamental piece of UC's services and technologies portfolio. It's a given that it must provide high quality and reliability in the 'four and five nines' availability range (99.99% and 99.999%). And in fact within a service level agreement, achieving a lesser value than this, such as 99.95% can mean that a service level is not met. This is particularly important from a service provider's perspective, because it can mean non payment for services and/or penalties.

So what does the voice team need? To start with, visibility into availability and performance of telephony services, deep insight into voice quality, call control, utilization and capacity provides positive feedback when everything is on track and proactive alerting if conditions deteriorate.

Together with insight to network performance correlated with its impact on voice quality; identifying the MOS cost per network hop including calls traversing session border controllers across multiple vendors, versions and technologies equips the voice team to deliver the highest quality voice service to the business.

The TelePresence team

When considering the effects of travel on an organization's bottom line it's not just the financial cost that needs to be taken into account. The impact on employees is personal. For the travellers themselves, time away from work and family, interests and sports commitments is very tangible. And for those left in the office there will be extra work to do, additional queries to field, meetings to reschedule, and delays introduced into business processes.

To address these impacts, organizations are investigating and deploying video conferencing in its many forms. One of the ways to introduce an initiative like this is where it offers the end user a choice and makes good sense to them. As it can be quicker to schedule a meeting using TelePresence than approve and book tickets and accommodation, meetings can be held if everyone is available – with their status ascertained automatically via Presence services.

One global organization that was keen to reduce its travel expenses and the impact on its employees integrated the TelePresence meeting room manager into its flight booking system. Provided with the opportunity, the majority of employees chose TelePresence over travel and its success rate contributed towards 90 per cent room utilization and return on investment between 12 and 24 months.

The CIO was pleased at the uptake of TelePresence and is looking forward to evolving its use as the business explores new ways to collaborate. As mentioned earlier, virtual UC teams are being created from existing teams and need to share skills and terminology. With staff potentially located across the globe, virtual teams can benefit greatly from TelePresence. Whether it's to brainstorm new ideas, collaborate on complex design projects or illustrate a concept, TelePresence facilities mean that all participants can get answers and come to a shared understanding quickly.

However, to make a TelePresence initiative succeed, the culture must be right to make it work and performance metrics in place to encourage adoption. For the CIO, the travel team, IT staff and the travellers themselves, achieving ROI depends on TelePresence delivering consistent high quality, reliability and highly performing video. In this way teams can create the location independence they need, unite disparate teams and benefit from reduced costs and less time away from home and colleagues.

So how does this team ensure TelePresence performance? Managing TelePresence peripherals correctly will identify which devices are in use, which peripherals are active and their status, including room locations, IP phones, main cameras and displays, audio expansion units, microphones and HDMI status.

> The right cultural environment and performance metrics are vital.

It will also allow the team to measure the load calls are placing on the network and if packets are being correctly transmitted and received. This includes details of how much data is being pushed across the connection, and the number of packets comprised in the total kilobyte count. At the packet level administrators can see if packets are delayed, lost, duplicated or experiencing jitter and how they are broken up as a percentage of the call and as an overall percentage for the period.

This means the video team can ensure the facilities they manage deliver true-to-life video and sound, incorporating life-size images with real-time body language, where participants appear to share the meeting space as if at a table and accurately present the ultimate nonverbal cue – eye contact.

Operations managers

Operations managers ensure the smooth operation of the various processes that contribute to the production of goods and services. The role is far reaching and touches many areas across the business. As such, they need real time and historical information to streamline daily business processes and guarantee the quality of service being provided. They will benefit from the same kind of information as the UC team but presented with a different focus and less granularity. Reports need to provide summary views that present the most critical information.

The operations manager may also be responsible for determining ways to optimize the organization's resources. Available information should show historical trending and outliers to support fail over, disaster recovery, and capacity planning.

Access to usage patterns with numbers, call quality and routing of outbound calls means managers can ensure call processing and call load balance capacity is sufficient to support performance requirements. Reports enable insight to successful call attempts and completions together with confirmation that phones are registered to the correct PBX to service business-critical applications.

To ensure the day-to-day operations of the business, operations managers will also benefit from the same type of information for TelePresence, Presence, unified messaging, session border controllers, virtualized and physical server infrastructure.

Service delivery managers

Service delivery managers are responsible for ensuring service levels are met or exceeded, and in the case of a service provider also profitable. As it's vital they have the information they need while attending client service review meetings part of their role is to produce management and account performance reports to an agreed schedule or upon request. These are likely to be based around general voice services, call center services, voice logger availability, branch voice services and voice quality. Measurements include availability of service and call recording backups, incident management between a customer and service provider, attained performance and any required service improvements.

If necessary the service delivery manager may need to provide additional information at a more granular level. This might include dial tone availability, ability to make and receive internal and external calls as well as the ability to participate in conferences, component availability like media gateways, media processors and circuit packs, and access to voice mail and modular messaging. For this reason a data collection taken at five or ten second intervals that is used for troubleshooting by the voice team is also useful for service level reporting. This is because it can be easily summarized and presented with branding and customized to include only relevant metrics for customer-facing purposes.

The service level manager needs to be kept in the loop during any problems a customer experiences once an issue is identified that can affect service level attainment. This may be the detection of any failure in one or more of the general voice service availability criteria or through a customer incident notification. Once there is either full recovery of all voice services, according to availability criteria, or an acceptable work-around has restored them, the data collected during the incident provides invaluable insight to the causes. Analysis can ensure that if the problem was avoidable, it doesn't happen again and if it is not preventable, say in the case of a hardware failure, any degrading conditions can be acted on before the impact becomes widespread.

Contact center agents

Rarely is a contact center built from the ground up with all the same components. And it's a highly complex environment, often located in multiple locations, with multiple gateways, PBXs, devices and remote workers.

As good customer service is cheaper than bad, it comes as no surprise that the UK's popular call center e-magazine, Call Centre Helper (callcenterhelper.com) stated in its January 2012 newsletter "Broken processes are the bane of most contact centres and are costly in both time and resource. They are probably the area where you can make both the biggest productivity improvements and a significant difference to customer satisfaction."

So if processes and the people who depend on them are the true keys to great service, reputation and success it's important that they are the beneficiaries of all the UC technology you deploy and manage. It's vital to be able to address any issues they experience in call quality, and reliability and availability of UC processes.

Contact center staff, on the front line every day, spend the majority of their time speaking to customers and entering data. As such, contact centers are looking to smooth the data-entry process and increase the call handling efficiency of agents. Excellent voice quality is essential for customer service agents in the data capture process and provides them with a greater understanding of what is being said. Clear audio means less repetition is needed to confirm answers which can slow up the data-entry process, and if it happens too often can frustrate both the caller and the customer service agent.

The best possible way to reduce the time agents spend on data entry is to automate much of the fact-taking burden. For this reason the agent's desktop, which may comprise a 'mash up' screen can be used to pull data from different sources into the same screen and auto-populate as much information as possible from previous interactions and databases within the organisation. As such, performance management for critical UC and contact center infrastructure is vital as it affects the availability and quality of the services the agents can deliver to their customers.

Level 2 support team

The goal of resolving front line colleagues' issues is sometimes easy and sometimes hard, so the ability to replay historical data to investigate the causes of service difficulty is invaluable.

For example, if callers hang up because of poor voice quality there are no abnormal disconnect cause codes, so no immediate apparent causes. If a customer service agent contacts Level 2 support to advise them of poor quality causing the caller to terminate the call, the support engineer has to correlate events leading up to and around the time of the incident to determine what contributed to the problem.

With 360º insight and automatically created component relationships, the engineer can see the PBX's overall voice quality, disconnect codes and trunk utilization for the past hour in a single click, and he or she is well placed to identify anomalies. Being able to zoom into the problem's time frame and adjust the data intervals to suit, the agent can see that consumption on one of the trunks dropped to zero and the alternate trunks went to 100 per cent utilization.

Once confirming the loss of a T1 interface, the engineer can see that although redundant links in the IP network exist to service calls in case of an outage, the QoS on the other IP links could not honor the policy for all calls. With the interface card replaced, full functionality and the accompanying voice quality improvement can be restored to the contact center.

However, support staff would benefit more from knowing in advance that the trunk is degrading rather than reactively addressing a problem where a customer is already unhappy. Through this insight they'd have the ability to anticipate problems and possibly avoid them completely, or start working on a resolution before customers are affected. And by alerting front line staff to the trunk status, agents could offer a call back when full system functionality is returned.

Level 3 support team

In the contact center example above it is vital that Level 3 support receives feedback that in a failover situation overall voice quality is not meeting design objectives, and will need additional bandwidth and/or configuration changes. Reviewing trunk performance during the period of the T1 failure will identify usage patterns and shed light on the quality-of-service issues so that the necessary changes can be implemented.

Implementing design changes becomes easier with advanced collaboration tools, as UC applications can allow engineers to swap ideas with one another, and possibly extend collaboration to customers, partners, and suppliers in the design process.

Ultimately, the success of UC deployments will depend on your ability to retain support staff who have the depth of skill to focus on all the disciplines required like networking, voice, presence and messaging. And that they can operate and conduct administration and troubleshooting of an integrated environment, and maintain the stability of the environment on a daily basis to reduce the risk of downtime that may result in revenue loss and impact on brand and reputation.

To achieve this what do they need? Data replay is one of the greatest assets you can give them. The ability to go to any point in time and identify spikes, hardware failures, identify trends and outliers and create alert conditions based on these can help manage day-to-day operational requirements.

In the event of a fail over, as in the previous example, via data replay, solution architects could see the failure of the T1 card, and the impact of routing all calls to the alternate trunk. Data replay would show a massive increase in call volume on this trunk with the corresponding drop in voice quality. If call admission controls were in place, then many calls would have been blocked completely to protect the voice quality of existing active calls.

Sales and marketing representatives

Sales representatives depend on reliable communications with customers and colleagues from any location. They also rely on processes taking place to completion irrespective of who is physically in the office. For example once initiated, a sales enquiry or order should be self-fulfilling, not requiring the sales representative who might be out of the office for days or weeks at a time to track it.

And when representatives do need to make contact with clients or prospects, having access to real-time data and rich conferencing media also serves as a critical tool to win and keep customers. As such sales representatives need reliability, performance and availability of all the critical systems in the sales process. These systems are also a powerful asset for the marketing team, offering the ability to target promotional messaging and offers to specific consumers.

These two stakeholders are not interested in performance information and reports per se. It will be the service delivery and operations managers who need to know that the service levels required by sales and marketing stakeholders are being met.

But in terms of who is most affected by the success or failure of unified communications, this is where the 'rubber meets the road'. Internal communication problems lead to missed deadlines, customer dissatisfaction and project delays. Being cut off from key team members can jeopardize core sales and marketing operations, and increase process lag to a point where it has real business and revenue impact.
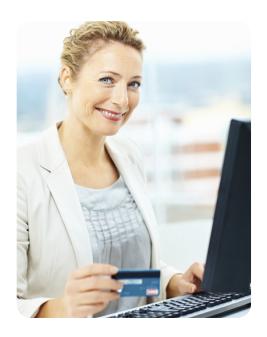
Customers

Let's not forget the ultimate stakeholder, your customers! Many UC applications are implemented to provide them with the best service possible, while minimizing operational costs, reducing latency and improving staff retention.

And it's interesting what customers want. While researching this paper I discovered the "Aspect Online Shopping Service Experiences 2012 survey", which set out to explore the attitude, opinion and behaviour of consumers towards the service they experienced the last time they shopped online, both pre and post purchase.

Mark King, Senior VP, Europe and Africa at Aspect said "Our survey revealed that currently e-tailers make 92 per cent of purchase confirmations by email. And when asked how they prefer to communicate with e-tailers, just 52 percent of shoppers opted for email, while 31 percent selected the phone, and 16 percent web chat."

King continued: "Despite this, the cost of supplying an agent-based channel for customers is costly and unsustainable, and e-tailers must embrace multi-channel customer contact in the same way as they have embraced multi-channel retailing."

Although the use of email is increasing, it takes two to three times as long to handle as a phone call. Blending tasks, perhaps by following an email with an outbound phone call, could be cheaper and more efficient. And with more customers willing to be served via IM or SMS, the performance, reliability, capacity and quality of UC, and the infrastructure that supports it is increasingly vital to e-tail profit.

Summary

Prognosis for UC provides a unified multi-vendor interface that automatically collects, filters and transforms data into rich information. This allows users to optimize IT operations and resources, improve and maintain the quality of their UC environment and minimise expensive outages. In turn this improves the success of incorporating existing and new technologies in multi-vendor UC portfolios."

Like to read part one? Download "Solve the multiple dilemmas of UC management: Focus: Managing multiple technologies and multiple vendors"

Download it here.

www.prognosis.com/uc

Contact us

Americas **t:** +1 (303) 390 8700   **f:** +1 (303) 390 8777   **e:** info.usa@ir.com
Asia Pacific/Middle East/Africa   **t:** +61 (2) 9966 1066   **f:** +61 (2) 9966 1042   **e:** info.ap@ir.com
United Kingdom **t:** +44 (0) 1344 894 200   **f:** +44 (0) 1344 890 851   **e:** info.europe@ir.com
Germany **t:** +49 (69) 710 455 255   **f:** +49 (69) 710 455 450   **e:** info.germany@ir.com

For more information visit our website at **www.ir.com**

twitter.com/IRPrognosis

facebook.com/IntegratedResearch

linkedin.com/companies/integrated-research

About Integrated Research (IR) - IR is a leading global provider of high-definition performance monitoring, diagnostics and reporting software. The creator of award-winning Prognosis® and PowerMinder® – IR builds scalable, customizable solutions designed to manage continuity-critical IT infrastructure, payments and communications ecosystems. IR provides real time solutions that give customers the insight they need to run their business, reduce their operating costs, minimize risk, and gain competitive advantage.