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UC Performance Management Solutions

Accelerating UC Deployment & Adoption

A Wainhouse Research eBook



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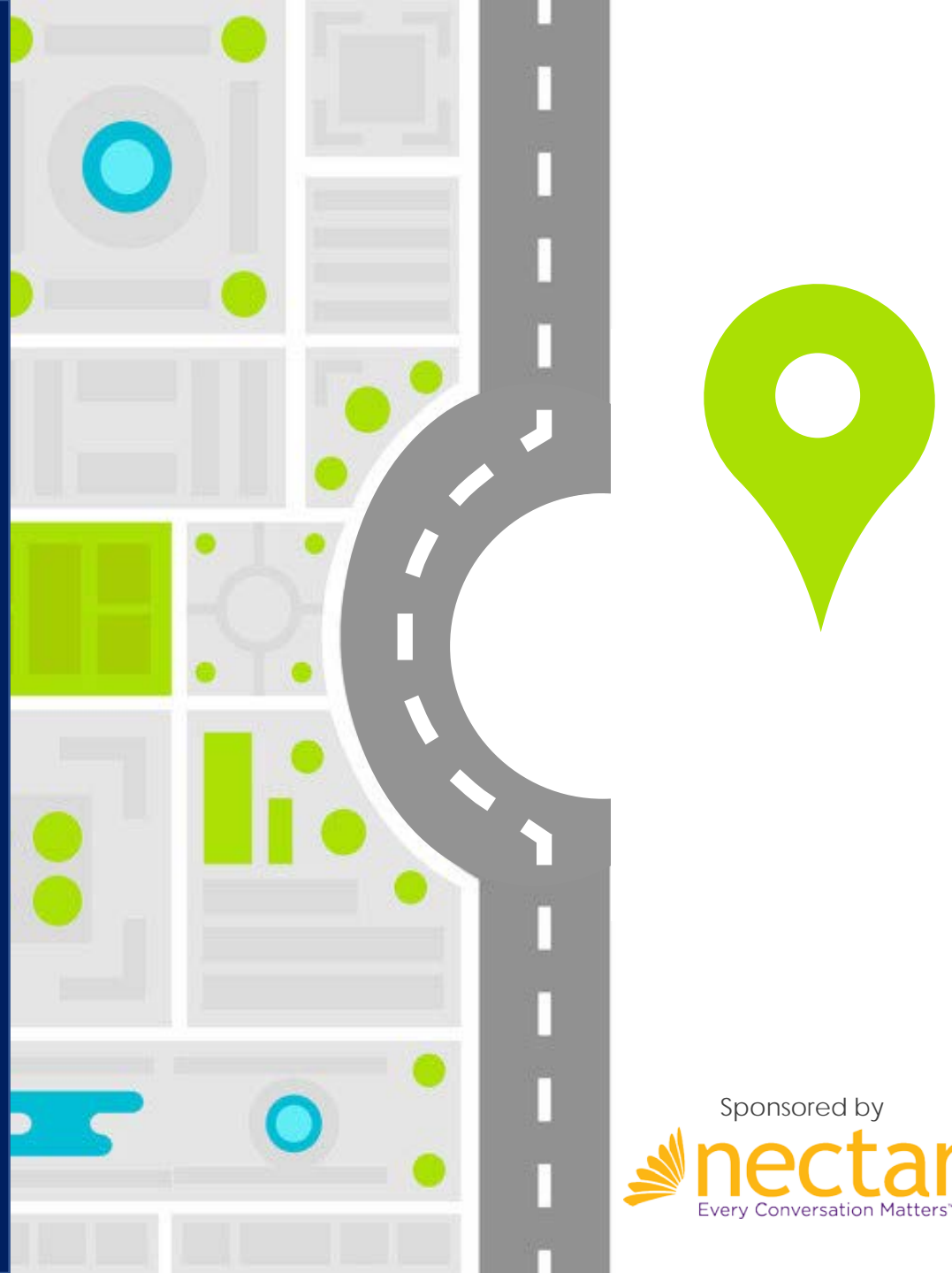


Table of Contents

1. Topic Overview and Methodology
2. The Enterprise Environment
3. UC Problem Statement
4. Impact: Time to Deploy
5. Impact: User Productivity
6. Research Summary

Topic Overview and Methodology

Performance Management Solutions are a rapidly evolving set of tools that enable an IT team to confidently deploy, manage, and expand Unified Communications (UC) within the enterprise. These tools have been around for some time, but have grown from network or service-specific monitoring solutions, to powerful platforms that deliver a unified platform to manage complex, multi-vendor environments, across complex networks, and extending from the app to the device connected to the end user.

As an independent research firm tracking the Unified Communications (UC) industry for the last 20 years, Wainhouse Research is well aware of today's UC problem statement: Adoption, or rather, a lack thereof. Most enterprises struggle to successfully deploy and deliver advanced UC tools like Microsoft Skype for Business, Cisco Unified Communications Manager, or Avaya's Aura platform.

While today's Performance Management Solutions are positioned to knock down barriers and enhance the user experience, we believe most IT teams are not aware of their full potential. So, in partnership with Nectar, this eBook's sponsor, we conducted a series of independent In-Depth-Interviews with a group of industry experts. These experts all have experience using Performance Management Solutions to enhance their UC experience – either as ITDMs responsible for large UC deployments, or as service providers delivering service to some of the world's largest UC installations.

This eBook summarizes our findings on the topic of Performance Management Solutions, and includes objective data gathered from previous UC surveys, enterprise and service provider briefings, and the IDIs conducted for this specific project. We include references to all data sets, and attribute direct quotes to interviewees when and where they have been approved. Feel free to contact the [authors](#) of this specific publication directly if you have related questions or would like additional insight.

The Enterprise Environment

The average mid-to-large enterprise is complex – WR survey data shows that **75% of enterprises use 2 or more different PBX vendors, and 33% have active users on 2 or more UC solutions** (presence and IM at a minimum).

End users may use multiple devices to communicate – almost **70% of users leverage a mix of PC, Mobile, and Desk Phone to communicate at work!** Of course, the majority (80%+) still receive a desk phone from their employer (and use it at least occasionally).

Complexity includes collaboration tools – we're not just talking about phone calls. **The average mid-to-large enterprise has 5 or more services capable of supporting audio, video, and web collaboration.** This includes standalone audio conferencing services (InterCall, PGI, etc.), web conferencing solutions (WebEx, GoToMeeting, etc.), UC solutions (Skype for Business, Google Hangouts, etc.), video conferencing (Zoom, Lifesize, etc.), and Team Messaging solutions (Slack, HipChat, etc.).

Communication vendor consolidation is real – especially in the larger enterprise (5,000 + seats) who are often focused on Cisco and Microsoft communications technologies. And, don't forget Avaya in the mid-market (1,000 + seats).

UC Problem Statement

While UC is often the target, it still suffers from a massive adoption problem. Voice and conferencing consolidation is in progress, but most enterprises have a long road to travel before they can consider themselves 'unified'.

WR believe
an estimated
40%
of all UC
licenses are
undeployed

...and of those
deployed, most
are still used for
simple workloads
like instant
messaging.



Perhaps the most common barrier to a unified environment: *many enterprises moving to UC don't initially understand the scope of the change they are embarking on.*

Many view a UC project on feature-by-feature basis: "I'm moving call control (or) conferencing from solution A to solution B".

While this simplified perspective is common, it can result in unforeseen challenges and headaches, as the project's scope quickly expands to include features – and related investments – that were likely missed in the original planning.

On paper, the challenge appears simple. But in reality, the challenge is multidimensional:



Devices

The move from traditional voice to unified communications includes a range of new device options – opening the door to mobile and PC-based communications. While this is often a welcome change for the users, it opens the door to an array of new points of failure – headsets, PCs, tablets, smartphones - each needs to work and work well or the experience suffers.

Users

Users are more digitally savvy than ever, and capable of adopting a wide array of new services. However, they all require communication and training to go from A to B. Moreover, with this new level of digital expertise comes big expectations: new services need to be rock solid before they roll out, or you can end up creating more resistance than if you took the time to harden the solution first.



Support

As a result, these digitally savvy users expect a lot from their UC experience, including their support teams – they are looking for immediate and high quality solutions to their issues. IT needs to be able to solve issues not just in real-time, but ideally proactively, before they happen. However, most support teams are faced with an exploding universe of tools to figure out what's going on in the average UC world. This web of support tools generally results in higher costs and slower resolution timeframes, while IT 'hunts and pecks' to find the cause to customer-impacting issues.

Network elements

Traditional voice networks were either voice-only and switched (PSTN), or IP-based but segmented (VoIP VLANs). Most IT teams had full control of the user experience. The UC business case requires network savings, and the migration puts voice, video, and collaboration into your data network. Here, your traffic is traversing a broad range of network elements and types – LAN, WAN, SIP Trunking, PSTN, WiFi, Macro Cell mobile networks, work-from-home broadband networks, personal routers, and more. What used to be a controlled, homogenous network environment has now blown up to a complicated heterogenous one, chock full of different technologies, different policies, and different vendors.



While the current environment has many more vendors in place (Siemens/Unify, Mitel, etc.), most IT roadmaps in the larger enterprise are actively targeting consolidation from aging infrastructure to the big UC vendors.

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Complexity may keep the IT team busy, but when the user survey comes back, it's obvious things need to change. Remember – the effectiveness of any IT decision maker is determined by two key variables: cost management and user satisfaction.

David Spears, Global Director
Microsoft Cloud Solutions
Tata Communications

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Larger enterprises are gravitating towards two vendors – Cisco and Microsoft.

Stephen Tong, Senior Director
Global Modern IT Market Unit
Unified Communications
Avanade Inc.

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We have all 28,000 users on Skype for Business, including enterprise voice – we use it every day. We're moving away from 3rd party conferencing services, and business users need to provide justification to keep using them. But, we still use WebEx for big conferences.

Principal IS Architect
Fortune 500 Enterprise
20k Employees

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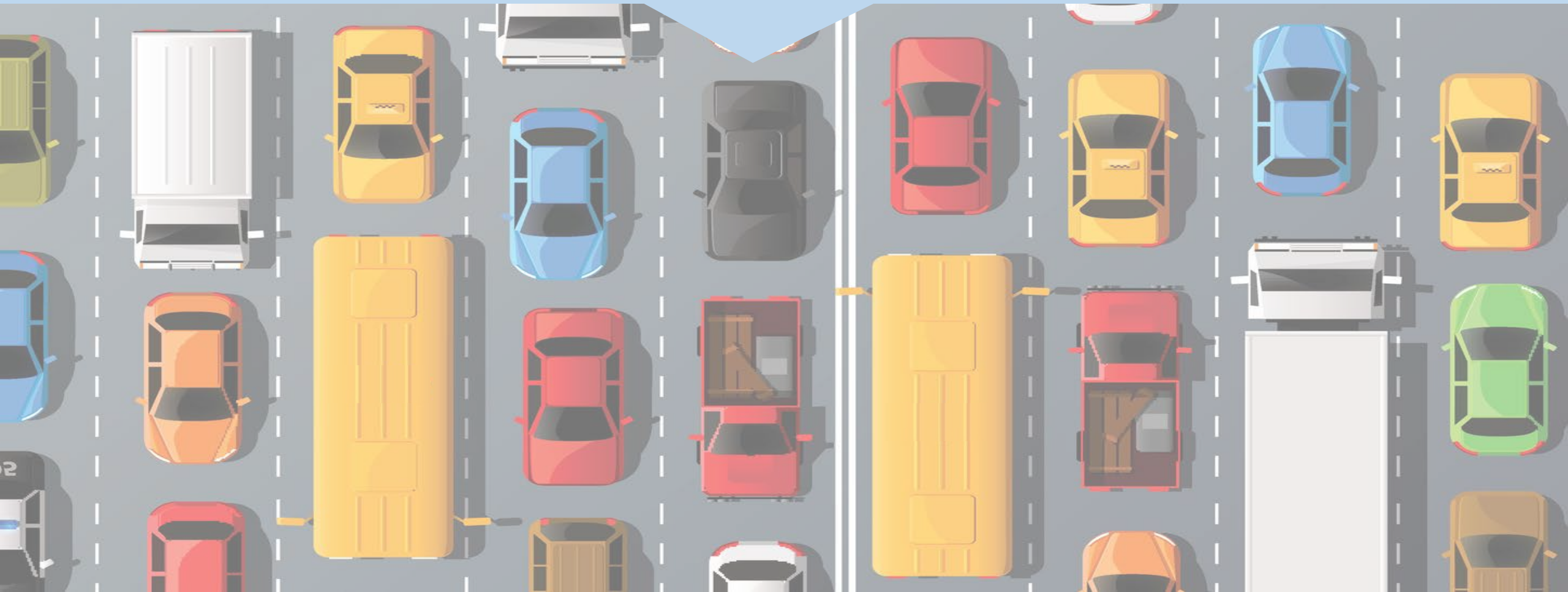
Impact: Time-to-Deploy

Common Impact: Loooong deployments – it is not unique for an actual UC deployment timeframe to exceed the planned timeframe, as enterprises uncover additional required changes they had not anticipated. In fact, there is an emerging class of customers who experience the perpetual UC deployment, where the project timeframe exceeds the lifecycle of the decision making executive, or worse: the technology being deployed. Others are forced to stop in their tracks and bring in experts to reset their approach – revisiting each layer of the UC experience from Network to Application, Device to Support. In all cases, missing target milestones and timeframes adds costs and wreaks havoc on the UC business case.



Impact: User Productivity

For those who have deployed UC within their enterprise, the support challenge can result in a material productivity impact across the enterprise. Often, an issue will persist while tickets bounce between teams, CDRs are gathered and parsed, and vendors are engaged. In a worst-case scenario, the issue compounds, impacting more and more of the population while IT figures out “who’s on first”. As productivity losses compound across the organization, the result is often organizational pushback.



Enter the family of **UC Performance Management tools**. These are 3rd party solutions that bring multiple IT monitoring and management tools into a single platform. Many IT teams are quite familiar with this family of tools, but many have an outdated perspective on what these tools can do today. That's primarily because these solutions have roots in traditional network-focused monitoring and alerting solutions.

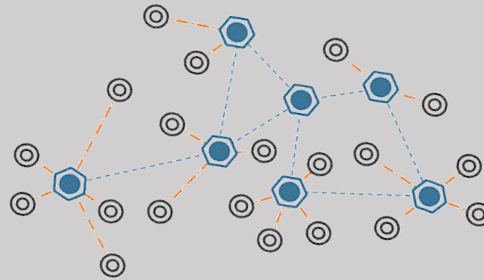
Today's Performance Management Solutions provide a much wider functionality footprint. While the network is arguably the most important pillar supporting the UC user experience, you also need insight into the Application and Endpoint health as well. And that's exactly what today's solutions provide – a consolidated view of Application, Network, and Endpoint health – no more IT pivots across platforms, exports, CDRs, and more:



Platform Health

No application = no UC.

Think availability and server load. Is your server out of memory? Is your NIC oversubscribed? Is the UC service actually running? You need to know, before you start chasing ghosts in the network or problems with the end-user's environment...



Network Health

The network is the number one weak point in most UC deployments.

Think 'number of hops', average latency, lost packets, jitter, MOS scores, and more. The network is often suspect-number-one when issues arise – you need tools to tell you when it's the cause, but also, where the weak point is.



Endpoint health

The devices between the user and the service are key.

Think PC metrics like memory and CPU utilization, and driver/firmware versions for headsets. For most enterprises, the user environment is the messiest of all haystacks – when the needle's in there, you need a tool that can give you specifics.

We are “way past” the need for technology-specific tools. As UC unifies the user experience, IT needs tools that unify their view across the full environment – service to network to end user:

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Many teams are stitching an implementation together, often ad-hoc, and generally piecemealed. They’re trying to migrate, bolt on, and implement solutions all at the same time – this makes it very difficult to see the total picture, the total user experience. An end-to-end platform is the key.

David Spears, Global Director
Microsoft Cloud Solutions
Tata Communications

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We’re being crushed under the weight of management tools – everyone thinks they are the prom queen, but reality is they are often disparate and do not play well together.

Stephen Tong, Senior Director
Global Modern IT Market Unit
Unified Communications
Avanade Inc.

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Picture having a single user with a poor communication experience for days, while IT figures out what’s going on. Now, multiply this by 5% of your users. Now 10%. As the issue grows, so does organizational pushback – and IT starts spending defensive credits.

Principal IS Architect
Fortune 500 Enterprise
20k Employees

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The current Performance Management Solution delivers an IT dashboard that consolidates metrics across three core areas of functionality – providing IT with technical insight before, during, and after a potential issue arises:

Monitoring

Dashboard / alerting on a global scale, showing key health indicators, independent of user traffic. Some tools are capable of generating traffic out of hours, allowing IT to find problems before the user does (proactive alerting).

Diagnostics


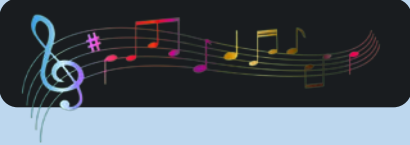
Real-time insight for troubleshooting issues as they arise. Think per-user/per-session health, based on in-progress activity, with insight across both signaling and payload (real-time). Changes the help desk response from “we’ll look into it” to “Please upgrade your headset driver (like we told you via email last week).”



Reporting

Historical analysis of organizational patterns, tracking UC adoption and usage. This opens the door to tracking adoption against business case targets, benchmarking user behavior, and tracking system performance over time (historical / analytics).

2:55 PM



The best Performance Management Solutions do more than just deliver the IT team with needed efficiencies – they ultimately drive an improved user experience:

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We're moving from reactive, historic, and protracted support to real-time: real-time analysis, and real-time solutions. This eliminates cost across both support teams AND the business.

David Spears, Global Director
Microsoft Cloud Solutions
Tata Communications

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Performance Management is highly relevant to the poor users. The old ways of managing the experience would have the issue escalate only after the user has melted down. In the UC world, we often inflict the experience on our users, then try to retroactively explain the problem.

Stephen Tong, Senior Director
Global Modern IT Market Unit
Unified Communications
Avanade Inc.

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Sure, you can average MOS scores to see the average user experience – but you need to know what the *current* user's experience is. These end users, they remember the failures – and it tarnishes your credibility.

Principal IS Architect
Fortune 500 Enterprise
20k Employees

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The leading Performance Management Solutions are also multi-vendor, consolidating insight from solutions across the leading vendors in the UC space – think Cisco, Microsoft, Avaya, and more.

The net result includes a number of key benefits these solutions deliver to the support team and the enterprise they support:

Consolidated insight

First and foremost, the right PM solution will consolidate a number of disparate sources of troubleshooting information. While each vendor may have their own Quality of Experience reporting engine, none of them provide a true end-to-end view into the unified user experience. This consolidation greatly reduces the IT Tax associated with bouncing between tools, hunting, and pecking.

Objective Insight

Because they are 3rd party tools, the PM vendor doesn't care if the issue exists in the network, app, or device. Objective insight = less finger pointing and faster resolution.

Assessment

PM tools can be used to assess an enterprise environment before the solution is deployed by generating mock traffic and analyzing the results. Measure twice, cut once results in confident, shorter, and more cost-effective deployment timeframes.

Realtime support

For most IT teams, issues are escalated in the form of a ticket, which takes days or weeks to troubleshoot and resolve. PM tools intent to cut this timeframe down to 0 by providing real-time insight into the end-to-end UC environment. Solving the user's problem at first-contact is the goal.

Proactive support

Even better, let's find and solve the problem before the user does! The same functionality used in the assessment phase can be run overnight, providing IT with a health report each morning – ideally including resolution taken by the graveyard shift.

Analytics

These tools are ideally positioned to deliver a rich set of data and analytics regarding your actual user experience and UC utilization. Adoption rates, volumes, time-of-day patterns, etc.

While these tools all provide enterprise benefits including reduced deployment timeframes, costs, and support requirements, the partners with the most experience universally point to the end-user experience as the largest benefit. Solid Performance Management solutions are increasingly deployed in both IT teams and hosted service provider's environments. While they provide benefit in both cases, many service providers point to PM tools as core to their service based on their large scale operations – returns and savings are multiplied across many customers. They also provide a competitive advantage, as the provider uses the to differentiate their service against the competition.

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I would never deliver a UC service without performance management tools. **Ever, Ever, Ever, Ever.** You can't support it without them.

David Spears, Global Director
Microsoft Cloud Solutions
Tata Communications

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We are past being 'wowed' that you can make a phone call from your PC – it's now about context. Did you meet your user's need? If you prove the server and your LAN is working, but the user's call fails, you failed. You need a tool to validate the user experience across the app, infrastructure, and network.

Stephen Tong, Senior Director
Global Modern IT Market Unit
Unified Communications
Avanade Inc.

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Some UC solutions have good tools – but you can't see from the handset through the network through the application – in real time, if need be.

Principal IS Architect
Fortune 500 Enterprise
20k Employees

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Research Summary

Since the early 2000's, many enterprises have been working to Unify their Communications into a manageable, cost effective, and user-friendly experience. Solutions like Microsoft's Skype for Business, Cisco's Unified Communications Manager, and Avaya's Aura platform promise to deliver a unified experience. Of course, the promised UC land has proven elusive for most IT teams. The reality of today's environment and traditional approach to delivering UC results in a tangle of complexity and results in low adoption metrics.

Enter Performance Management Solutions – a fast developing genre of IT tools positioned to enable IT to cost effectively deliver, support, and expand their UC experience. These tools have evolved from a foundation of network and communication monitoring solutions, and now deliver a consolidated dashboard with an end-to-end view of the UC User Experience, from app to network to device. Moreover, they enable IT to succeed before a UC solution is even deployed by helping assess the network and end-user environment. Once deployed, these tools provide real-time insight, shortening troubleshooting cycles from days/weeks into seconds/minutes. And of course, they gather rich data to help provide an analytics-based view of adoption and the user experience – providing IT with an objective perspective, rather than the typical feedback-fueled subjective perspective.

And it's not just the nerdy research team who feels this way – talk to a pro service provider or IT decision maker with experience, and you'll likely find passionate support for these tools. They are fast becoming “table stakes” for any successful UC deployment of any size.

About Nectar

Nectar, the sponsor of this eBook, is no stranger to the performance management space. Their flagship solution, the UC Management Platform (UCMP), is comprised of four integrated components that together deliver insight across platform, network, and endpoint health – enabling support teams to holistically manage their UC environment. Nectar’s UCMP solution provides multi-vendor UC monitoring, diagnostics, and reporting for Skype for Business, Cisco, and Avaya platforms – across online, on-premises, and hybrid deployments. This solution has earned a number of industry accolades, and you can learn more at www.nectarcorp.com.



Delivering the promise of UC

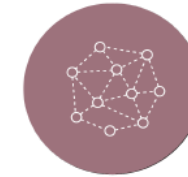
Real-Time, End-to-End Visibility Into Your UC Multi-Vendor Platform, Network and Endpoint Health

Nectar offers the most comprehensive multi-vendor UC network monitoring, diagnostics and reporting solution for Skype for Business, Cisco, and Avaya, supporting online, on-premise and hybrid deployments. Nectar’s award-winning flagship solution, the UC Management Platform (UCMP) is comprised of four integrated components that together deliver exceptional platform, network and endpoint health and performance management. Unique in its vendor-agnostic approach, Nectar believes that conversation is the foundation of any business. Learn more at www.nectarcorp.com.



PLATFORM

Servers, Services & Operating Systems



NETWORK

WAN, Wireless, Internet & Carrier Services



ENDPOINT

Devices, Operating Systems, Client Software & User Behavior



About Wainhouse Research

Wainhouse Research, www.wainhouse.com, is an independent analyst firm that focuses on critical issues in Unified Communications and Collaboration (UC&C). The company conducts multi-client and custom research studies, consults with end users on key implementation issues, publishes white papers and market statistics, and delivers public and private seminars as well as speaker presentations at industry group meetings.

About Nectar Services Corp.

Nectar, www.nectarcop.com, is a global market leader in providing the most comprehensive monitoring and diagnostics software solution for Unified Communication services, enabling IT and operation organizations to proactively ensure an optimal end-user experience. Our flagship offering, the Unified Communications Management Platform (UCMP), improves visibility and service delivery across integrated voice, video and data application solutions by providing unique and critical performance information. Nectar provides monitoring and diagnostics for millions of enterprise endpoints, to over 2,100 enterprises in over 86 countries – including some of the largest global banking, search engine, service provider, healthcare, and manufacturing organizations in the world.

About the Author



Bill Haskins is a Senior Analyst at Wainhouse Research with a strategic focus on unified communications products and services. Bill has over 15 years of experience supporting, delivering, and designing converged Collaboration services in a global communications environment. He has authored multiple white papers and articles detailing the keys to a successful UCC implementation and delivered various UCC presentations, highlighting his experience integrating Collaboration solutions into business process and enterprise applications. He can be reached at bhaskins@wainhouse.com.



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