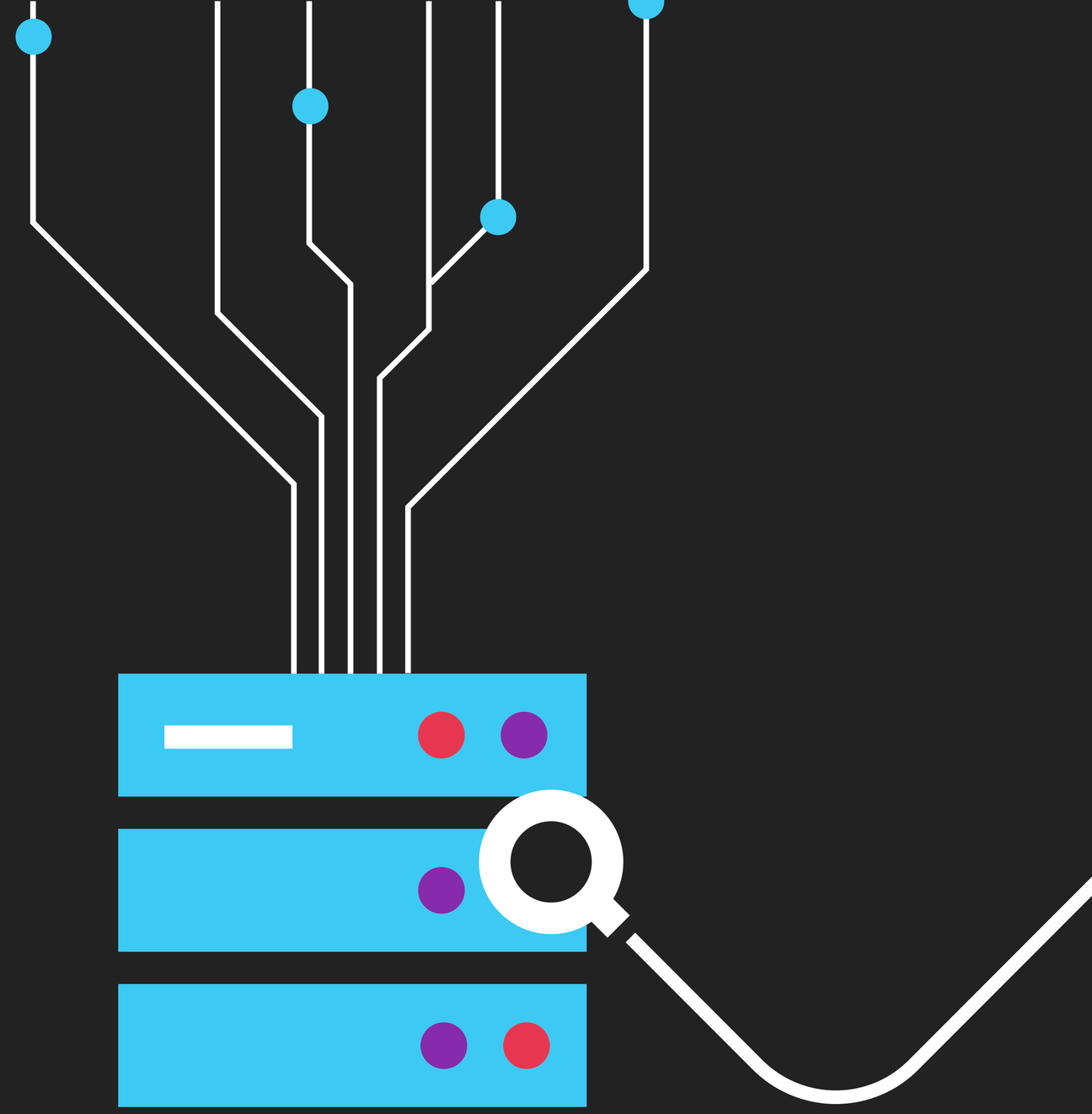
UC Optimization Guide for Pros

A comprehensive guide on how to manage and optimize your unified communications environment.

Get started



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Introduction

With unified communications, you're not just enhancing your company's business communication, collaboration and productivity. You're helping each and every employee succeed in their work. You're making your customers happier. And you're contributing to your company's bottom line.

However, to fully realize these benefits and achieve maximum ROI on your UC investment, it's critical to optimize your UC environment. That's where UC best practices can help and why we've developed this guide.

In the pages that follow, we'll take you from understanding your UC needs and setting your goals, to reducing your environment's risk and migrating to the cloud or hybrid path. We'll look specifically at the big vendors – things to watch out for and putting your plan B in place.

We choose the best ways to keep your finger on the pulse of all things UC and guide you on deciding which platforms are right for you. We'll even teach you how to troubleshoot your UC like a ninja.

We'll help you benchmark your performance today so you can easily see the gaps, fill them in, and measure the impact. We discuss empowering your network team and even ponder the notion of whether they can wear the digital transformation cape. Lastly, we take a look at market trends, share expert insights, and look to the future of UC.

Why read this guide?

Ever wanted to reach higher? Do more than business as usual in the network tower? Cut out the time-consuming, mind-numbing tasks that fail to propel the organization forward? Then keep reading.

This guide is for every frustrated Network Administrator, under-appreciated UC Ops Manager, and overworked CTO. It's geared toward large enterprises, but there are plenty of takeaways for smaller players too. If you want to get the most out of your unified communications and collaboration systems, this read (or skim read) is for you. It's is jam-packed with high-level and detailed UC best practices. We encourage you to share this guide with your team.

Living in a collaborative work environment

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Living in a collaborative work environment

Disrupt or be disrupted

Work is no longer a place that we go to, but something that we do. This means there's a growing need to enable workers to effectively collaborate with each other, with customers, and with partners, regardless of location. Collaboration solutions are rapidly evolving to reflect this shift.

In the past, we relied heavily on face-to-face meetings, which often required expensive travel. Today, using the latest collaboration tools, we are able to bring together remote teams in real time at short notice using rich media including video and web conferencing as well as digital whiteboards. This allows us to gain access to expertise, bring stakeholders together, make decisions, and move business processes forward faster and more efficiently. Better collaboration tools take cost and time out of the cycle, which effectively adds margin into the business in the form of principal or shareholder value.

When we're given the ability to watch and listen to a video or web conference, knowledge transfer rates jump to

70%

The rise of connected work

The collaboration trends we're seeing are leading to agile organizations that promote the open flow of information, meaning that people don't have to spend unnecessary effort looking for people, expertise or content. Users want to leverage these resources easily so that they can bring teams together, make decisions, and move projects forward. This often involves the new trend of self-forming teams that disperse after completing a task in a short amount of time. Ultimately, we're moving toward a landscape that's mobile, people-centric, contextual, collaborative, innovative and customer-driven.

Collaboration tools influence knowledge retention

If we want to bring teams together to reach their goals quickly, the work environment should enable the highest level of knowledge transfer and retention. Better collaboration tools directly lead to a higher level of execution. When we're given the ability to watch and listen to a video or web conference, knowledge transfer rates jump to 70% – from 20% for audio only (Human Productivity Lab).

Team performance is necessary for growth

In the past, we gave employees the capability to grow their individual performance. Unfortunately, tools and individual effort can only lead to so much value before reaching a plateau. A study from a survey of CIOs shows that if you invest in optimizing both individual and team performance, it will result in higher overall growth in terms of revenue per employee. By allowing people to access the resources they need in real time, your organization will have a significant competitive advantage.

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Living in a collaborative work environment

Changing customer communication preferences

It isn't just the way we work that's changing, but also the way people buy in the marketplace. If your revenue stream depends on a target market comprised of Generation Y/Millennials, picking up the phone to make a call is their fourth choice in communication behind electronic messaging, social media, and smartphone apps, according to recent research. As we look at enhancing our collaboration architectures, we need to make sure that we have a multichannel strategy because the way our customers want to reach us is changing.

New ways to work fundamentally impacts how a business operates, which adds velocity to decision making. When leaders join together in real time to make a decision that affects a customer, event, or market penetration plan, they are able to execute at a higher level. Executive and technical talent can be leveraged anytime, anywhere.

Business leaders' top 5 priorities are tied to collaboration

1	**Customer satisfaction**	If customers love your company, they will continue to buy from you.
2	**Cost control**	If you can take costs out of the structure, it results in increased margins and profitability.
3	**Productivity**	Productivity comes from getting the most out of the team by providing the best tools, whether it's the type of workspace or the type of communication technology.
4	**Engagement**	People on the team should feel empowered by communication tools, so they feel valued and are able to excel.
5	**Innovation and growth**	Without constant innovation and growth, companies will eventually become irrelevant.

Using the latest collaboration tools is critical to your employees, your company, and your customers. Integrating and managing them effectively – and optimizing your unified communications environment – is equally important.

How collaborative UC can give you an agile advantage

FIND OUT MORE >

Why does your business need optimized UC?

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In today's business world, communication matters more than ever. People want to communicate in new ways everyday: more channels, more devices, more flexibility. But these demands rely on a new generation of technology, operating in real time. What happens if the technology isn't reliable? What if digital services to customers are unreachable, phones stop working, or video conferences crash? A small outage can have a big impact. You need to react quickly and get to the root cause to find a solution. You need to ensure your UC is reliable and optimized.

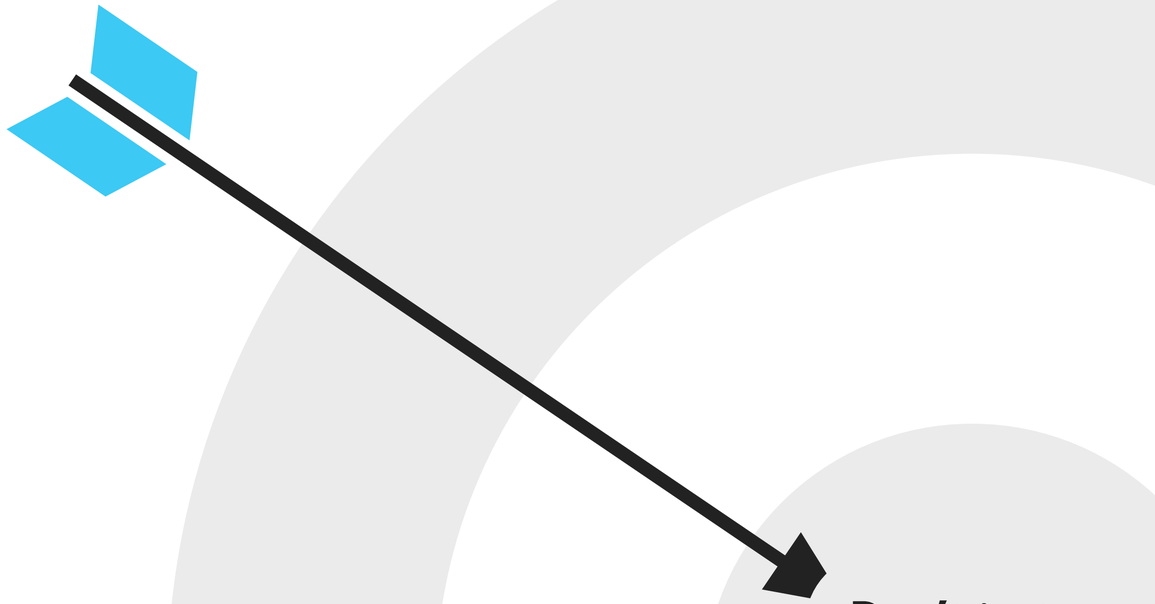
Unified communications are the arteries and veins of your organization and its connection to the outside world. Internally, you can't function properly when problems exist. Externally, you're paralyzed when there's an outage. Unified communications keep the heart of the organization pumping.

Optimized UC keeps the communications pulse steady and channels unblocked. Ineffective communications and collaboration capabilities slow product development and decision making, putting your employees at a competitive disadvantage. Reliable communications and collaboration infrastructure that helps employees work efficiently allows your organization to breathe.

How IR can optimize your UC

FIND OUT MORE >

Optimized UC is the best kept secret. Why? When UC is humming in the background, nobody pays attention – it' invisible. End users simply do their work, as it should be.



Don't just aim to fix – aim to optimize

Transform your organization’s operations

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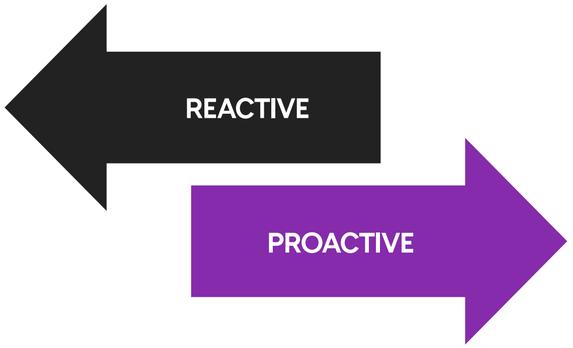
Transform your organization's operations



Achieving your operational efficiency goals

Spending all your energy and time on urgent organizational demands, as opposed to strategic objectives, hinders your ability to drive your organization, impact your department, or build your career.

Operational efficiency is the journey to operational maturity, where UC is a well-oiled machine and doesn't break down. The journey involves stages: survival, awareness, committed, proactive, service aligned, and business partnership. The aim is to always be reaching for the next stage.

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Which operational efficiency goals should you set?

Companies are on varying levels across the operational maturity spectrum. In some cases, their initial UC goals should be to get out of fighting fires in their UC environment. You need to get ahead of issues before they are noticed by users. Move from reacting to problems after they happen to proactively preventing them before they cause any damage. The goal is to gain real time monitoring and fast troubleshooting and not solely depend on historical reports.

Operational goals are sometimes based on minimizing downtime, achieving high user satisfaction scores, achieving high rates of adoption of provided UC apps, or trying to ensure operating expenses are in line with, or lower than, industry benchmarks.

Some companies focus on connecting the dots of disparate systems into a unified view, a single pane of glass. When this level of visibility is available, IT teams benefit from much faster turnaround on incidences. The overall resolution time is dramatically decreased. The other common category companies can fall into is when they are overseeing the deployment of or migration to a new system. As you can imagine, if you implement a new system and it performs worse than the existing one, the consequences can be severe. Having clear goals on what success looks like during and after migration makes it easier for everyone involved.

How should these goals change over time?

If a company starts in a chaotic environment dealing with constant outages, their initial goals will shift to be more proactive: focus on stopping the outages, preventing repeat outages, and getting early warning alerts. Then they might move into rolling out these goal changes to other regions.

When organizations are satisfied with day-to-day operations, their goals might change to be more strategic: they may start to futureproof their UC management or focus on intense customization of key health dashboards.

Another goal associated with mature UC management is using UC as a vehicle for driving digital transformation. Digital transformation takes many forms, as we discuss later in this guide, but it requires the foundational technologies such as UC, cloud, infrastructure, etc. to operate smoothly to be successful.

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Transform your organization's operations

How can achieving operational efficiency goals transform your organization's operation?

It's not uncommon for the UC team to be known as the ones employees go to when there's a problem with the phones or other communication channels. When things go wrong, the UC team fixes it; they're the "firefighters." But they should be known for more than that.

Although firefighting is often where the operational efficiency journey starts, it is not where it ends.

If the UC team is fronting strategic changes that reduce cost, speed up the implementation of new technologies, and help employees be more productive, they're no longer just the firefighters. They're the peacekeepers, the problem solvers, the insights team, the optimizers. They could even be the team responsible for transforming your business.

What has this got do with operational efficiency goals? As the UC team achieves their goals, they are transitioning from the "fixers" to the "optimizers."

This mindset shift is an important piece of transformation. If everyone only talks to the UC team when they're frustrated due to a system being down, the outlook will be negative. But if you can be more proactive and strategic about outages and the team is focusing on improvements, the dynamic changes.

Tapping into the power of optimized UC management

You can optimize your UC management by first aligning the right people, processes and technology.

People

- *Expert team (in-house):* In-house resources are familiar with the day-to-day fluctuations and will notice irregularities faster than outsourced help.
- *Trusted technology solution partners:* Channel partners are a valuable resource for providing expert advice on new technologies in the marketplace, helping in new rollouts, and recommending best practices.
- *Buy-in from the top:* Ensure your UC champion is communicating the challenges and strategic vision of an optimal UC effectively to C-level executives.

Technology

- *Network reliability:* Your network will always be efficient if network capacity is correctly provisioned to meet required demands. If network demand increases, so too must your bandwidth.
- *Trusted vendors:* It is twice as hard to optimize your UC if you rely on building tailored solutions from scratch. A vendor that integrates with a variety of platforms and vendors will make your life easier when you want to tap into higher performance.
- *Monitoring and troubleshooting tools:* Most UC environments are made up of technology from multiple vendors, across call management platforms, networks and session border controllers (SBCs) – you need to gain end-to-end visibility of the entire ecosystem to monitor it effectively. The same rings true for troubleshooting.

Process

- *UC optimization plans:* To optimize UC, get comfortable with changing the process of "this is how we do it." Start your plan by writing down a list of things you wish you could do; e.g., finding certain information in two clicks, reducing the time to produce weekly update reports, and so on. When you're happy with your wish list, prioritize the tasks in order of impact. Expand the wish list with ideas from other team members and peers in other companies. Asking an online community of UC users is a great way to generate optimization ideas. Design a plan around your final wish list and get started!
- *Threshold alerts and automatic fixes:* Set up threshold alerts (if you haven't already) when standard levels of fluctuation are exceeded. Better still, if you can, put in a failover procedure that automatically fixes the problems and prevents an outage from happening. Keep track of your alert settings; update them periodically and as changes occur. Don't set up alerts and leave them to rot. When rotten alerts are triggered, you're unnecessarily disrupted from other work or worse, outside of business hours. You do not want to be investigating a non-issue in your free time.

Optimizing your UC management and reducing risk

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Optimizing your UC management and reducing risk

Every implementation of new technology comes with some level of risk. In addition, each existing technology in play can pose a threat if left unattended. UC is crucial for day-to-day operations and digital transformation initiatives naturally make their deployments high risk. The price of failure is high. A poorly executed UC strategy can hinder an organization's very basic ability to function by impeding both internal and external communications and collaboration.

A successful deployment or optimization, on the other hand, brings better ways to connect with coworkers, customers and partners – and enables an organization to conduct business faster and more effectively.

With so much on the line, you need to get your UC implementation right. Here are some of the biggest UC risks you face and how you can overcome them.

1 Choosing the wrong vendor for your organization

Every UC vendor is different, so you should understand the various platforms and how they align with your business objectives. Some solutions, for instance, are all about the cloud, but still lack a robust feature set in comparison to on-premises UC tools. Some on-premises solutions may not provide the consumption flexibility that cloud and managed service providers offer. Other solutions may have lots of great features, but are one-size-fits-all products that don't allow for easy customization. Make sure the solution you choose is well suited to where you are today – and where you plan to be tomorrow.

2 Failing to get executive buy-in

If the C-suite doesn't support the UC initiative from the top, you risk losing the support of the broader organization. Because if and when the deployment takes a wrong turn, it will require a team effort to get it back on track and this can only happen when leadership is fully invested in the project. What's more, UC deployments are typically long-term initiatives that take place in increments, so you need the continuing confidence of your executive team.

3 Neglecting to pilot

Before fully deploying your new UC solution, you need to conduct a thorough, well-executed pilot. This pilot should involve the entire organization, because different parts of the business will be using different parts of the UC system for different purposes. The pilot should also test your network environment to ensure readiness and quality. Test for what your usage will look like now and in the future when you've added headcount.

4 Not having an available system

You've completed the pilot and now you're ready for production. At this point, many organizations encounter a critical problem: their existing infrastructure isn't prepared for the new demands, which results in an unreliable system that's not highly available and stable for users. Call quality will be suboptimal, phone calls won't be routed correctly, and customers won't be able to reach your sales and support staff.

If these issues do arise (and they probably will), you need visibility and insight to immediately figure out what's wrong and how to fix the problem. This, in turn, requires that you have the capacity to continuously monitor the health of your new technology infrastructure.

Where do you get that? You deploy an experience-management solution on top of your UC system. This will give you the ongoing management, comprehensive reports, and helpful analytics you need to maintain a 24/7 holistic view of your network. You can gain immediate insight into issues that need to be addressed so you can fix them. An experience-management solution provides an end-to-end view of your networks, systems and users. This helps you maximize the benefits of your UC deployment and deliver a positive user experience long after initial implementation.

When UC systems work well, they're great. When they don't, they can result in lost productivity and squandered opportunities, and can cause customers to question your business.

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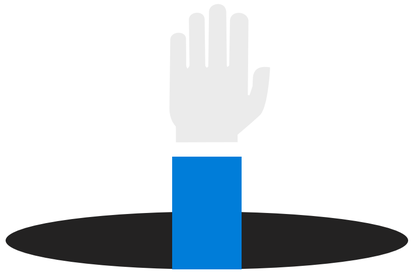
Optimizing your UC management and reducing risk



The cost of UC downtime

How much is UC downtime costing your business? UC downtime is when your unified communications channels – websites, phones, emails, video conferencing, instant chat, collaboration tools, etc. – are not up and running. When these channels are down, productivity gets hammered and worse yet, your customers might not be able to contact you.

It's not unusual then for operations teams to pride themselves on uptime levels of 99.9%, but what about the 0.1% of downtime? By focusing on uptime, the cost of downtime gets downplayed.

What's the value of the 0.1%? What if the 0.1% affected happen to be in the 20% most valuable customers – or the top 5%? In a recent report, Nemertes Research outlined an example scenario: An organization has 10,000 employees and 4,500 of those are affected by downtime each year. At 99.9% uptime, that equates to 525.6 minutes. If the average knowledge worker salary is $70,000, then the annual cost of downtime per employee is $301.

Could be worse, right? If you multiply the annual cost of downtime by 4,500 (the number of employees affected), the sum jumps to $1,352,894... per year. Not such a small number anymore. Remember this figure doesn't take into consideration if they are one of the top 20% or 5% most valued customers – but you can see how it could quickly snowball out of control.

What adds insult to injury is some CFOs discount these as "soft-dollar" costs, because they don't show up on the balance sheet. Dismissing $1.35 million, or $1.73 million if contact center folks were affected, is concerning. The problem is that there shouldn't be a 99%. It should be 100% all the time. Systems shouldn't fall over; your customers should always be able to talk to you. To meet this need, you must focus on preventing UC problems from occurring through UC optimization.

WALTER MONASTERIO DISCUSSES DE-RISKING AND OPTIMIZING UNIFIED COMMUNICATIONS

Operations teams pride themselves on UCC uptime levels of 99.9% - but what about the downtime?

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Optimizing your UC management and reducing risk

Benefits for everyone

When your UC environment is optimized and the risk reduced, everyone wins.

Employee benefits	A Network Engineer will benefit by spending a decreased amount of time on repetitive, low-level tasks. Instead, they can focus on more advanced projects. An Operations Manager will benefit by not having to worry about the system falling over, safe in the knowledge that required threshold alerts and automatic fixes are in place. Their time will be freed up to work on more strategic initiatives. The CTO benefits by not having to get involved with UC; it simply works. They can proceed with digital transformation initiatives, confident that UC is providing a solid foundation with a well-managed deployment that provides tangible business value.
Customer benefits	Your customers benefit from reduced downtime and a positive user experience.
Company benefits	Your business will achieve quicker ROI on new UC deployments, with fewer employee complaints and enhanced user experiences.

Top 5 optimization opportunities

1. Leverage network capacity
2. Automate repetitive tasks
3. Connect intelligent alerts to automatic fixes
4. Focus UC experts on strategic projects
5. Give Level 1 & 2 engineers UC visibility

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Optimizing your UC management and reducing risk

Ask the Expert

Damien Margaritis

Damien Margaritis is the Practice Manager and Principal Consultant for Modern Workplace with Insync Technology, an award-winning Microsoft Gold Partner. He is also a MSFT Certified Master in UC.

Q How are your clients' performance objectives for UC different to other environments? How does that impact your client management strategy?

A At the heart of any UC deployment are real time communication protocols. The key phrase here is "real time". Whilst it may be acceptable for non real time traffic to take an extra second or two to traverse a network, with real time traffic milliseconds can make the difference between a good experience and a bad one. Tools used to manage a UC environment need to be able to identify real time traffic flow issues, overlaying data from multiple environments to give a true "single pane of glass" overview of what's really going on.

Q How are IT/UC/Network/Ops teams getting it wrong in managing UC?

A This is primarily an organizational question. Speed of adoption correlates with establishing specialist UC roles and teams. Assigning traditional specialist roles in telephony, VC etc. to a single manager is only a step towards this. Meanwhile, the world of IT continues to change. Many more services are being consumed from cloud providers than ever before. Services are no longer being provided from within the corporate firewall. With this shift, organizations need to take a fresh look at how their network is architected: How do you users get access to the internet (and ultimately SaaS offerings)? What devices do you have within your network that may impede this traffic (accelerators, proxies, etc.)? Are the network team actively involved in your move to SaaS offerings?

Q What is the risk of a client not having thorough UC Management in place?

A Many things need to come together and work in harmony for a UC deployment to be successful. Real time UC traffic behaves differently from conventional network traffic, so can fall outside the scope of conventional data network management tools. It's important that you have full end to end visibility of what's happening in your environment. If you don't have the right tools in place, you're not getting the full picture.

Managing your UC migration strategy

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Managing your UC migration strategy

Growth of cloud and its challenges

If you're migrating to the cloud, a successful cloud migration is vital to achieving an optimized UC environment. Yet many IT teams are still anxious about the consequences of migrating to the cloud and are uneasy about maintaining the quality of the user experience. This isn't surprising. Cloud migration is not without its hazards. You must consider your internal network performance and the network connecting you to your cloud provider (i.e., the ISP's network and the public internet, or a dedicated connection), which sit between you and your cloud vendor's UCaaS service.

Managing migration is a big undertaking for IT departments. They're switching entire strategies for providing communications and collaboration solutions to their employees and mission-critical communications simply can't go down. If the user experience isn't acceptable or interferes with their productivity, they will find an alternative solution or simply stay on the old system – delaying the ROI, driving up costs, and negatively impacting IT operations.

Moving to the cloud doesn't eliminate the need for proactive performance management. Customers can't rely on the UCaaS provider for troubleshooting, as the UCaaS provider likely won't have visibility into the customer network. If there is an issue, the UCaaS provider might say "it's in your network," but the customer will have to do further analysis themselves.

It can be difficult to decipher differences between vendors and solutions. One way to get an objective perspective on what's available is to seek analyst opinion and recommendations. For example, Gartner has evaluated Cisco and Microsoft from a cloud PBX perspective. Gaining an understanding of analysts' expert views on the capability set of these solutions is important, especially if you will become an early adopter. Because each cloud UC solution will have a specific set of trade-offs, you must decide which features you are (or aren't) willing to live without in the short term as the market matures.

In the enterprise market, ensure your chosen cloud UC solution supports requirements such as survivability in the event of outage or service interruption. If you have an IVR, receptionist or executive assistant, determine all their requirements will be adequately met as you move into the cloud. Newer solutions like Google Hangouts, Slack and Microsoft Teams are designed as cloud-only solutions. They don't support a hybrid journey, and they don't allow for an easy migration path. If you have a large existing CAPEX investment in a telephony system, these solutions may not be an ideal choice.

If you're migrating to the cloud, a successful cloud migration is vital to achieving an optimized UC environment.

Hybrid UC is the new normal

Many UC environments are a mix of vendors and solutions, and moving everything to the cloud becomes a daunting prospect. But is this even the right approach to take?

Transitioning to the cloud doesn't have to be a hard-line plan. Many enterprises embrace a hybrid approach, moving some systems or users while continuing to run others on premise. It might be ideal for some users to move to the cloud right away. Others (like contact centers, for instance) may need to stay on premise. Some companies have long-term contracts with telecom providers for PSTN connectivity. Hybrid solutions take advantage of on-premises infrastructure and successfully marry it with cloud services. A hybrid approach lets you move gradually to the cloud at a pace that best suits your organization, while maximizing your investment in existing on-premises infrastructure.

Hybrid gives you the flexibility of testing various aspects of your environment without having to migrate everything completely to the cloud. This gradual approach also mitigates the risk of moving entire systems to the cloud all at once. By moving one application at a time, you can effectively troubleshoot any issues that occur without losing your entire environment and impacting users.

A hybrid approach also gives organizations more features to use, as they can leverage the benefits of both on-premises and cloud applications. Many cloud systems are still building out their services, while on-premises systems still offer more feature-rich services, especially for advanced users.

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Managing your UC migration strategy

The framework: plan, deploy, operate

The framework for both migration paths, hybrid and pure cloud, is the same – plan, deploy and operate.

Plan

The planning phase defines necessary features and requirements. Undertake an honest assessment of your current environment and determine whether it can support the migration and what improvements will be needed. This assessment doesn't just include technology – you must also assess people and processes. Once this assessment is complete, set goals and SLAs to measure the success of the migration.

Deploy

The deployment phase is where you track adoption, monitor performance, and guide users as you roll out. Communication is key during this phase – timelines, features gained and lost, expectations, success criteria and training. You should measure adoption against the success criteria outlined in the planning phase, e.g., features utilized, the extent of each feature adoption, and so on. To secure end-user adoption ensure troubleshooting is prompt and proactive during deployment. It's easy for end users to blame the technology if issues occur, so utilizing monitoring tools to pre-emptively address any performance issues is key. A multi-vendor monitoring tool is ideal, as it will provide visibility across the different technologies within your UC ecosystem.

Operate

The operations phase is where you provide ongoing support, refine tools and processes, and gauge the progress of your UC migration. A support model is a must, and coupled with the monitoring setup during the deployment phase, will allow you to effectively identify and correct failures and enable additional features for users. Tracking and reporting on SLAs continues during this phase, and ongoing testing of your environment ensures it remains healthy. Reporting should also include analytics on the return on investment of your migration, and if deploying a hybrid environment, whether your organization is ready for a full cloud migration.

IR can help with your UC cloud migration: before, during and after. Just talk to our team today.

FIND OUT MORE >

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Managing your UC migration strategy

UC cloud migration – what not to do

Migrating UC to the cloud is usually part of a larger digital transformation initiative, so it's critical to get this process right to see return on investment. Here are five key mistakes to avoid during your migration project.

DON'T: Move everything to the cloud purely on principal

This can be a huge mistake. By taking a "move everything to the cloud regardless" approach, you're failing to recognize the intricacies of individual applications. It might make more sense to keep some apps on-premises. Adapting a hybrid approach is a smart move.

DON'T: Fail to assess or test your UC environment

Testing identifies the quality, availability and readiness of your UC environment, which is critical for a successful migration. It will help answer important questions like: "Do you have enough bandwidth at peak load?" and "Can we scale as the business demands?" Test for usage today and for the future.

DON'T: Move too fast

By taking a slow and steady approach, moving team by team, branch by branch, you can use the learnings from smaller moves to improve the process, identifying potential issues before they erupt. A gradual approach lets users get familiar with new systems without experiencing network disruptions, which will impact user adoption and ultimately ROI. Remember, slow and steady wins the race.

DON'T: Fail to monitor ongoing performance and quality

It's not uncommon for organizations to run into issues even after extensive testing and a successful deployment. Ongoing proactive monitoring and troubleshooting should become part of day-to-day UC management to ensure cloud benefits are realized continuously.

DON'T: Assume all applications are cloud enabled

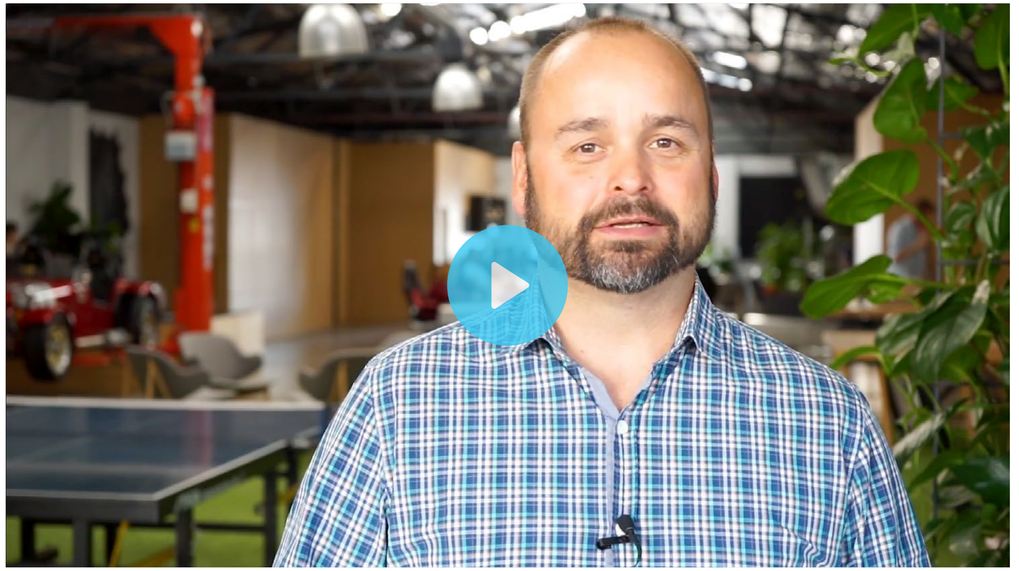
All UC environments have connected apps. But can they all work in the cloud? Not all apps are cloud enabled and for those that are, generally, their app settings need to be updated when migrating to the cloud.

IR's UC Assessor can help you test your network capabilities ahead of UC rollouts

FIND OUT MORE >

UC CLOUD MIGRATION: MISTAKES TO AVOID

The biggest mistakes businesses make when migrating their unified comms to the cloud



UC is a multi-vendor world

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UC is a multi-vendor world

Though today's UC environments vary in their use of the cloud, they also differ in which UC solutions they leverage. Microsoft, Cisco and Avaya hold the lion's share of UC deployments globally.

While Cisco and Avaya are long-time players, Microsoft has drastically disrupted the market in the past few years with the introduction of Skype for Business. One of the challenges with UC systems management is interoperability between these multiple vendors.

For instance, a company might have Cisco in its contact center and use Microsoft Skype for Business in other parts of the organization for real-time communications, raising interoperability concerns and adding expense, time and complexity. Here are the non-negotiables you need in a multi-vendor environment.

Multi-vendor UC visibility

Using one tool that has visibility into all vendors, applications, servers, endpoints and network devices will give you a comprehensive view of your entire environment.

Deep UC troubleshooting capability

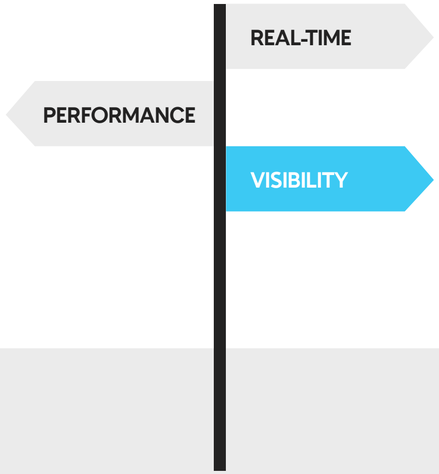
The ability to identify and resolve issues in a timely manner is crucial. Like with visibility, you need the ability to troubleshoot across the entire ecosystem, not just for one vendor. Having a tool that spans multiple systems and can troubleshoot across vendors can save a great deal of time and trouble by helping IT quickly find the root cause of a problem.

Are you in the UC cloud?

As discussed, the UC industry is moving inexorably to the cloud. A hybrid approach adds complexity and introduces questions about who owns what. Does a call fail due to an on-premises application or is it a problem in the cloud? Proactive performance management is more important than ever in a hybrid environment, because you need to know about potential problems immediately to maintain a productive workforce and a positive user experience.

Leveraging expert partner advice

Expert partners can help your organization minimize multi-vendor headaches and increase delivery speed by conducting thorough analysis and planning. Customers may for example spend millions on a Skype for Business rollout, then cut corners with low-end, uncertified headsets that result in poor call quality and an awful user experience. A good partner will ensure the best decisions are made and the user experience is top of mind.



Deploying Skype for Business with confidence

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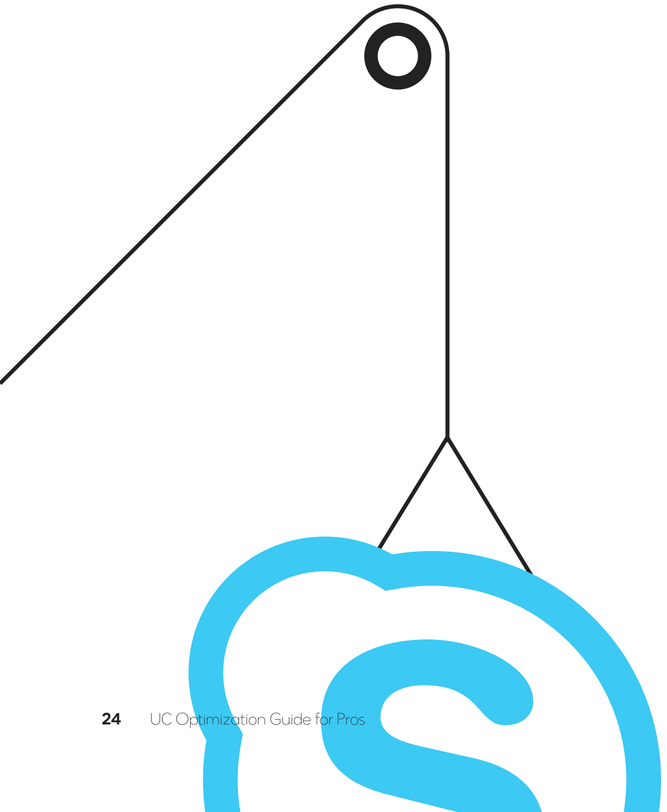
Deploying Skype for Business with confidence



When Microsoft announced in 2015 that Skype for Business would replace Lync, many wondered how the consumer brand Skype would take off in the enterprise space. It is now seen as a leader in enterprise UC with phenomenal growth, disrupting the UC market like we have not previously seen.

Adoption and consumption

For a communications tool to be widely adopted, it needs to be part of the communications culture within an organization. A successful project is one embraced company-wide, where the technology melds in the foreground and delivers greater reach, fosters deeper relationships with partners and supply chain, and achieves ROI.

With a software-based solution like Skype for Business, adoption challenges can arise. Are people willing to walk away from a phone on their desk? Is the software user interface easy to use? Consumption is the key driver behind successful adoption of new technology.

Monitoring drives adoption

By design, Skype for Business relies on the performance of other software and hardware. The performance of SBCs, the network and endpoints (PC, headset and phones) is critical for Skype for Business success.

To ensure quality of service, you need to monitor the environment and have real visibility into not just network performance, but more importantly, the user experience. What is the voice quality like? Is there a delay or an echo? Are calls dropping out?

End-to-end monitoring enables the IT department to see what the user is experiencing and provide insight into whether the experience is good or bad. It can pinpoint problems quickly for faster resolution. IT can spend its energy on solving the problem rather than identifying where it is. After all, it's too late when a disgruntled user rings IT to say they've had a bad experience. In many cases, the employee will abandon the platform and be resistant to further change.

Network assessment

Ignore the network at your peril. Companies that roll out Skype for Business conferencing capabilities may quickly find network capacity is a problem. If many employees start using high-definition (HD) video conferencing, then you need to consider what it will do to your network and thus your call quality.

A network assessment is mandatory in Microsoft's FastTrack program (previously Skype Operations Framework) for all deployments moving forward. IR's UC Assessor, which is certified by Microsoft, is an automated network readiness assessment and testing solution for Skype for Business. It provides the ability to evaluate, troubleshoot and prepare the network for Skype for Business performance. Its capabilities enable IT to identify and resolve network capacity and capability problems in the test environment prior to deployment at scale.

As of early 2017, 21.8% of Microsoft Skype for Business customers now use it for telephony. In addition, of the 43% of companies consolidating all UC features onto a single vendor platform or ecosystem, 54% are doing so on Microsoft.

Nemertes Research

Rolling out Skype for Business

Select your pilots with caution

Identify and select a contingent pilot group carefully. This group will determine whether you can achieve the adoption you require. Your pilot group should include:

- Tech-savvy users
- Luddites
- Employees most likely to benefit from being early adopters
- Mobile staff working on the road
- Remote staff working from home

If you choose a pilot group and three months later they've made zero Skype for Business calls, then you've got an adoption issue.

07

Deploying Skype for Business with confidence

Bring influencers onboard

In the early stages of the rollout, focus on identifying champions to promote Skype for Business and become evangelists for adoption in your company. Leverage the power users to coach other employees on how to use the platform to their benefit. If employees can see value in the platform and how it can help them be more efficient, then they are more likely to adopt the technology.

The power of education

Employees have come to expect high availability and exceptional performance from their communications systems. They don't care about the technology; they simply want to be able to connect anytime and enjoy a positive experience. Any delays, dropouts or degradation in call quality, and users are quick to complain to IT.

Plan, plan, plan

When rolling out Skype for Business, plan for explosive growth, even at the pilot stage. Assume the feature you're deploying, whether it's peer-to-peer calling or external conferencing, is going to be successful and take off. Then plan accordingly. A small pilot can grow organically and if you haven't planned for this growth, the infrastructure may not be able to manage it. The negative effects can be costly.

Microsoft teams

Microsoft continues to expand on its UC vision by announcing that it's adding Skype for Business capabilities to Microsoft Teams. Microsoft's product roadmap also includes the next Skype for Business Server release occurring in late 2018.

Teams is designed as a collaboration tool. Like Slack, it brings together people in workspaces where they can have conversations, share content, and collaborate in real time. It is also integrated with familiar Office applications, so instead of forcing you to move your SharePoint document libraries, OneNote notes, OneDrive files, or other Office 365 content, Teams allows you to just point to it from within the team channel – and likewise for content accessed through third-party applications like Asana for project and task management.

This means employees will be able to start voice and video meetings, as well as work with Microsoft Office documents, directly within the Microsoft Teams workspace. You can easily move from one collaboration tool to another, preserving the context of the conversations and ability to share with others.

While working in collaborative spaces on projects can help drive productivity, it won't take away the underlying requirement for people to 'jump on a quick call'. Teams can offer a different experience to Skype for Business, but the enterprise communications focus of Skype for Business Server will continue to drive its uptake and adoption for some time.

The expert view

Damien Margaritis

What factors are most important to you when considering UC Management tools for your clients?

First and foremost, tools selected need to be Microsoft certified. This lets us know that the tool has been reviewed and fully ratified by Microsoft to add value to a UC deployment. Ease of procurement and deployment are also important factors, as is how much time it takes us to transfer key skills to clients to make them self-sufficient once we've finalized deployment.

How do you compare Prognosis monitoring and troubleshooting capability with other providers?

Whilst we work with a range of UC vendors, Insync Technology is primarily a Microsoft shop, so it's important that the tools we use align closely with the Microsoft stack. In this environment, Prognosis provides more information, and in a more accessible format, than any alternative we are aware of. Right now, Microsoft UC is in a transitional state: Microsoft Teams will eventually be replacing Skype for Business Online. Using Prognosis ensures that the tools we use today for monitoring and troubleshooting Skype for Business will continue to be the tool we use in a Microsoft Teams centric world.

Moving the dial with Cisco

08

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Moving the dial with Cisco

Most large enterprises have Cisco products in one form or another. The UC giant is considered stable and reliable, and has an extensive product reach. Like Avaya, Cisco is on the road to transitioning from a traditional hardware outfit to a software, cloud and services provider. Cisco has continued to innovate and combined with the company's acquisition of dominant UC disrupters, most recently BroadSoft, they have a robust offering.

Optimizing your Cisco environment

Cisco deployments scale from SMB environments right up to enterprise, multisite global ecosystems. Regardless of the size of the organization or the number of users, optimizing the ecosystem to provide a great user experience is an important goal for IT/UC teams, yet still presents challenges.

Through our experience in working with the largest Cisco deployments across the globe, optimizing your Cisco deployment requires critical considerations.

Managing network bandwidth and performance

As organizations scale and introduce new collaboration tools such as whiteboarding and video calling, network requirements change. A good user experience is key to driving adoption, which in turn increases the ROI of any investments. However, these tools can dramatically impact network performance. Setting network bandwidth alerts can advise teams when systems are reaching their limits, triggering increased resources to avoid any issues. In addition, tracking bandwidth growth over time, by location, can help plan for network expansions where needed most.

Maximizing license usage

Unused software licenses are more common than you think. We have seen organizations with up to 30% of their licenses unused because an office moved or closed and they failed to reassign licenses. Managing end points that will never be used and paying for the licensing that could be deployed elsewhere wastes valuable resources.

Migrating from on-premises to hybrid to cloud

As organizations seek to move their UC workload to the cloud, it is critical to have visibility across both the on-premises and cloud-based solutions. Knowing what on-premises equipment is located where – and being used by whom – is important when managing a cloud migration. Switching off a certain desk phone that looks unused may look great on paper, but if this is the handset servicing the CEO's remote office, the UC team will hear about it. Visibility also allows organizations to extract maximum return from existing on-premises assets as the migration takes place.

Reducing routing costs

Looking at an organization's global gateways and their usage allows teams to deliver the best route patterns to take advantage of call cost savings. This may not sound like a big deal, but these insights can save tens to hundreds of thousands of dollars, depending on the size of the organization.

08

Moving the dial with Cisco

Troubleshooting Cisco

While Cisco provides a stable and robust environment, issues can arise. Problems often result when changes are made to the UC environment, for example, software updates or the introduction of new hardware such as video endpoints. Change can break things, so the ability to see who made the change, and where and when, is critical to resolution.

Teams managing a Cisco deployment must be able to quickly identify where issues are occurring, with the capability to drill down to the root cause. Contextual data on any issues, provided by a performance management tool, empowers teams to quickly troubleshoot any issues. Knowing an issue exists is the first step, but the contextual data explaining why a certain router is down, or why a particular SBC dropped a call, is the power that allows L0 and L1 engineers to troubleshoot more complex issues. This frees up L2, L3 and L4 engineers to focus on more complex issues and business transformation initiatives.

Spark the future

Cisco Spark, the company's UCaaS solution, is an app-centric service that connects endpoints to the cloud. Delivered entirely from the Cisco Collaboration Cloud, it helps teams collaborate more effectively, in real time. Connecting meetings, messaging and calling, Spark offers a full cloud-based collaboration tool.

Cisco understands not all organizations will move completely to the cloud, and those that plan to will need time to contend with their existing on-premises investments. Therefore, hybrid deployments will be commonplace for some time yet.

To support organizations running a hybrid environment, Cisco has developed a Spark Hybrid model allowing CUCM, Business Edition 6000 and 7000 and HCS to connect with Cisco Spark for a single integrated user experience.

Change can break things, so the ability to see who made the change, and where and when, is critical to resolution.

How the IR Prognosis Cisco solution can help you

FIND OUT MORE

Getting the most from your Avaya solution

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Getting the most from your Avaya solution

The new Avaya

When Avaya entered Chapter 11 back in January 2017, many wondered what this would mean for the organization and its thousands of customers across the globe. Over the course of almost a year, the company restructured, selling off non-core parts of the business to allow a more laser focus on the UC and Contact Center offerings. With a new Board and leadership team, the company has openly stated they will transform to become a software, services and cloud solutions provider.

Optimizing Avaya ecosystems

Most organizations running Avaya as their core UC solution will have a mixture of technologies across their ecosystem. While Avaya has developed an extensive suite of in-house collaboration solutions such as video conferencing, many companies still choose to go with channel-specific vendors such as WebEx and Polycom for collaboration.

Getting visibility across this complex multi-vendor environment can prove a challenge. When optimizing your Avaya deployments, consider the following:

Adequate bandwidth

As the adoption of services like video increases, how can the organization ensure bandwidth issues are avoided? The last thing the CEO wants is to have issues on a video call with a key customer or investor. Adequate planning on usage and supporting equipment is critical to ensure this type of issue doesn't happen. Setting alerts for when bandwidth thresholds are met is key.

Licensing

For organizations running multiple Avaya installations across the globe, including contact centers, it is critical to ensure all licenses paid for are fully utilized. We have seen time and time again, when running audits, customers paying for thousands of licenses that are simply not used. You can also set licensing thresholds, so if the number of available licenses are about to reach a critical level, teams can receive alerts to ensure more are made available.

Cloud adoption

Will your organization move with Avaya to the cloud, or another provider? And, how will you manage this migration? In this move, it is important to have a clear understanding of the entire ecosystem – what hardware is located where and what can be decommissioned in line with the technology refresh timelines. This extracts maximum value from existing investments, while delivering a smoother experience to the end user.

Troubleshooting Avaya

As mentioned, most Avaya deployments will have a mixture of technology vendors. Therefore, it is critical to provide the teams responsible for managing these deployments with the necessary tools to quickly identify and rectify issues.

Isolating an issue outside the Avaya ecosystem is one thing, but if it is caused by a Polycom video end point, teams may struggle to prove and resolve these issues.

If a certain end point is experiencing poor voice quality, how does this get isolated to the root cause? Is it the SBC, the router, the headset, the Wi-Fi network – the list of potential culprits can be long and tiresome to troubleshoot. This is where a third-party performance and monitoring tool can assist. By providing a holistic view across the entire ecosystem, L0 and L1 engineers can quickly troubleshoot issues, enabling faster resolution. This also frees up L2+ engineers to focus on more complex projects.

How the IR Prognosis Avaya solution can help you

FIND OUT MORE >

Vendor versus third-party monitoring tools

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10 Vendor versus third-party monitoring tools

IT leaders rely on UC performance management tools for multiple functions: reporting, performance monitoring, analytics, problem resolution, uptime, event monitoring, auditing, root cause analysis and fault management.

By preventing or shortening outages or slowdowns, companies experience less downtime and fewer related problems such as lost sales and diminished productivity. They can also reduce IT staffing requirements and other operational costs to operate a UCC infrastructure.

According to Nemertes Research (2017) UC performance management tools themselves save more than they cost. Since many IT leaders cite not having budget as a reason to not invest in UC management tools it's clear there is a gap in awareness. The report found that when organizations use specialty management and monitoring tools, their operational costs are substantially lower than for those who do not use such tools. In addition to lower operational costs, the use of performance management tools has shown to increase user adoption., the use of performance management tools has shown to increase user adoption.

The difference between third-party and vendor monitoring tools

Vendor monitoring tools are made specifically for certain equipment; they monitor only the solutions of the supporting vendor. When it comes to third-party monitoring tools, you get much more. Third-party UC monitoring and troubleshooting tools generally have a multi-vendor capability. Third-party performance management tools have a wider view of the equipment and environment they monitor and manage.

Eliminate silos and connect the dots

If numerous people from various teams are trying to troubleshoot the same issue but from their respective areas, it's best to have all systems joined together to eliminate silos and see the bigger picture. It's easier to connect the dots when you can see all the dots on the same page.

Swap finger pointing for evidence-based insights

Have you ever been in a situation where you need information from other teams (network, desktop, network or security) to troubleshoot a current issue? Third-party monitoring tools provide you with deep factual insights. You can use this evidence to drive actions with your vendors or across internal teams, where the issued occurred. You can start resolving the issue faster, rather than wasting time finger pointing.

The downside of out of the box

First-party vendor tools lack customization features, so what you see is what you get. The static nature of out-of-the-box solutions common in first-party vendor monitoring solutions means there is limited depth to available metrics.

Certification matters

It's key to have vendor-certified solutions in house. This will give you the confidence that the tool is going to work with the equipment you are going to monitor.

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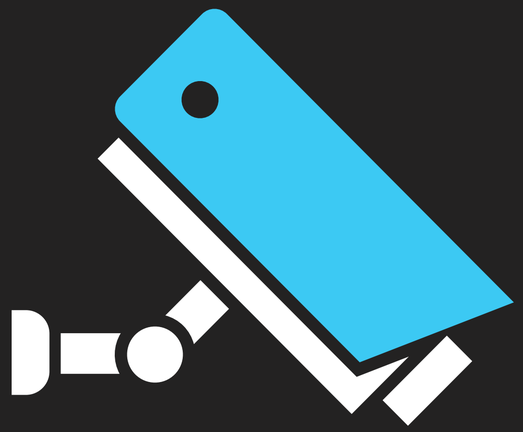
Vendor versus third-party monitoring tools



THOMAS PILZ

Differences between third party and vendor UC monitoring & troubleshooting tools

Keeping your finger on the pulse

11

11 Keeping your finger on the pulse

Share with your network

Online communities are a terrific way to get the best tips and advice from peers; whether it's for a hobby, an industry or a tool you use every day in work.

You can share ideas, get advice and receive support all in one place. It's great for quickly finding answers to everyday queries. There are plenty of UC related online communities from vendor owned e.g. Skype for Business Community to more general like TMC. And good news – IR are relaunching our online Prognosis Community soon!

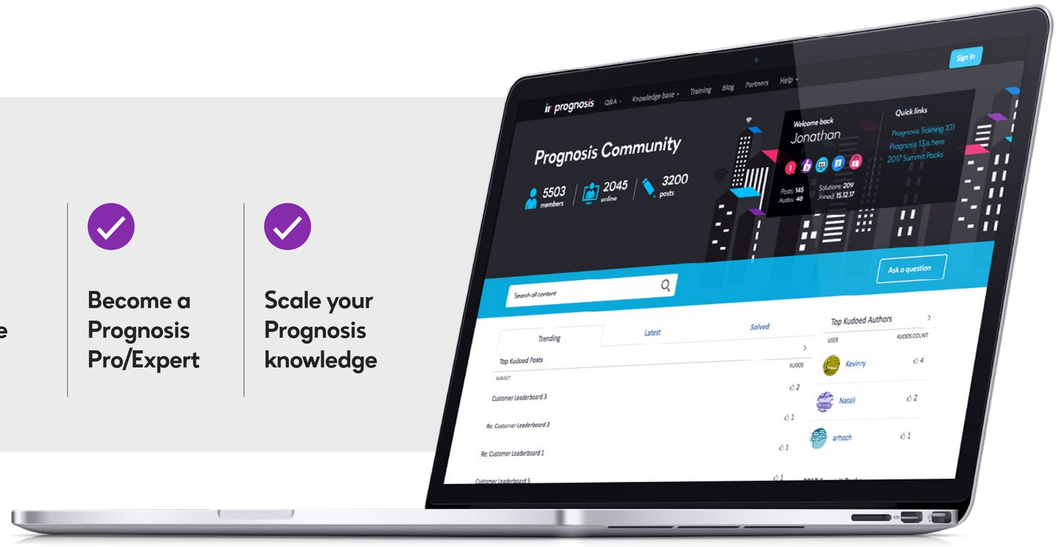
Access more relevant information

Access helpful tips, videos and resources on the IR Community based on your Prognosis preferences. You can get anything from lines of code from fellow engineers to sneak peeks into customized dashboards and instructions on how to build these out.

Find answers, accepted solutions, product documentation, learning and development, support and inspiration from other Prognosis members.

Join the IR community

- **Chat to other Prognosis customers**
- **Share your best tips and lines of code!**
- **Contribute to boards**
- **Earn expertise badges**
- **Become a Prognosis Pro/Expert**
- **Scale your Prognosis knowledge**



Troubleshooting like a ninja

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12 Troubleshooting like a ninja

If troubleshooting was easy, everyone would be successful at it. There's an art to troubleshooting, and with the right tools and training, you can effectively combat your UC issues.

Where to start

- Check your server health
- Check the conference call history
- Check inflight conference calls
- Check network capacity
- Check endpoints

The UC model for problem solving

Step 1

Inspect the network problem and draft a succinct problem statement. Note symptoms and likely root causes.

Step 2

Collect the data points required to help isolate potential causes.

Step 3

Analyze possible root causes based on the data points and facts you collected.

Step 4

Design an action plan based on the causes. Start with the most probable cause and create a plan where you can test one variable.

Step 5

Deploy the action plan; implement each step carefully while testing to see whether the symptom goes away.

Step 6

Scrutinize the results to determine whether the problem has been resolved. If resolved, accept that the process is finished.

Not resolved?

Devise an action plan based on the next most likely cause on your list. Return to step 4 and repeat the process until solved.

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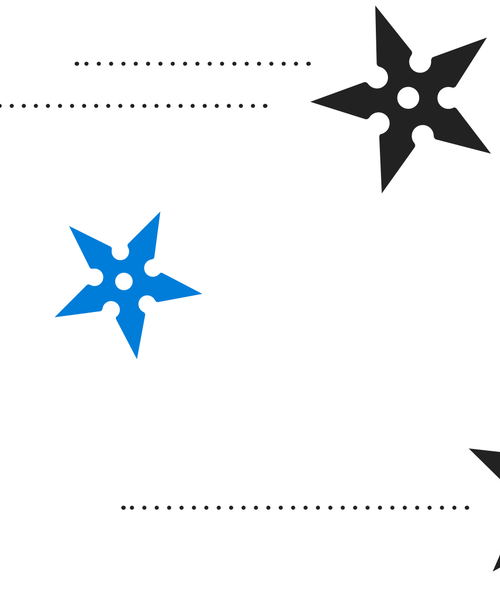
Troubleshooting like a ninja



Getting more advanced

Servers running hot

Check the infrastructure metrics such as CPU, memory, services (if applicable) for your monitored devices. Overutilization of UC devices can cause performance issues in your application. Setting up proactive alerting to let you know via email or SNMP trap when infrastructure metrics are about to hit critical is key for you to proactively monitor your environment.

Voice quality

All major vendors allow you to report on voice quality metrics from Avaya, Cisco and Microsoft to SBC vendors like Oracle, AudioCodes and Sonus. Being able to historically search and review troublesome calls is critical for finding out the root cause of voice quality issues. Searching by user or extension in a performance management tool like Prognosis allows you to view calls a user or extension made and diagnose by looking at degradation factions like packet loss, jitter, latency. If you have an SBC in the environment, you can also view the call path from end to end with VQ360.

Use a network troubleshooting feature set like IR Path Insight:

a. If you're using Avaya or Skype for Business, you can view the network hops that a call has taken. The Network Hop visual diagram shows the latency between each hop. You can click on these router/switches in the diagrams to get plain english root cause analysis of that network interface. For Cisco, even though network hop data is not reported by the vendor, you can still go into the network troubleshooting link in Prognosis Web UI, and review problematic interfaces.

b. If you're having voice quality issues, it is always a good idea to check if QoS (DSCP) is enabled on your network. This indicates whether the voice is being prioritized correctly over other traffic. Path Insight comes built in with a synthethic call simulator that allows you to run a test to indicate exactly which router or switch is stripping or not configured for QoS.

How IR customers are leveraging Path Insight

FIND OUT MORE >

Top tips

Cross off the basics

Tech support always starts by asking "Have you unplugged it and plugged it back in?" UC troubleshooting is no different, so start with the basics like verifying that all end points are connected correctly, whether the network is down, and the state of your server health.

Trust your instincts

If you have a hunch on where a problem started, investigate accordingly until you can rule it out or find the root cause.

Stay curious!

Have you ever been reviewing analytics or pulling reports and something completely off topic catches your attention from the corner of your eye? Our advice: stay curious. See what is causing you to pause and squint at the screen; you might just solve a problem or prevent one from occurring.

Traits of a black belted troubleshooter

- Tenacious
- Curious
- Persistent
- Patient
- Outside the box thinker
- Competitive
- Attention to detail
- Stars Wars fan

Measure the impact and optimize

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13 Measure the impact and optimize

Determining the right UC metrics to measure

When managing a complex UC environment, a fundamental requirement is an overview of the current state of the complete ecosystem and an effective alerting system that identifies when issues are occurring, or ideally before they occur. This requires a dashboard that provides an end-to-end visual representation and drill-downs to aid fast troubleshooting.

Not everything that can be measured counts...

Measuring QoS: MOS or the R-Factor?

The Quality of Service (QoS) of voice and video is usually the most reliable indicator of the health of the entire UC environment and generally appears as a metric on CIO dashboards. It can be measured by Mean Opinion Score (MOS) – a subjective measure using a 1 to 5 scale, where 5 is excellent, or measured by the R-Factor, which uses a scale of 1 to 100, with 100 being excellent. MOS takes into account the CODEC being used as well as network measures such as packet loss, latency and jitter.

From MTTR to MTTI

Mean Time to Repair (MTTR), the speed at which problems can be resolved, is another common metric. However, a commonly held view is that 80% of MTTR is Mean Time to Identify (MTTI). Once the issue has been identified, a resolution is often quick to follow.

Averages Ignore Outliers

Subjective measures like these are a generalization and only encapsulate certain elements of a call. So, despite a high MOS, users may still be experiencing issues such as insufficient sound levels. Scores are also calculated on the mean data, so can ignore outlying issues: they can miss an important issue such as a high percentage of low scores coming from a concentrated group of affected users.

Real-time Monitoring and Alerts

UC performance management tools should monitor QoS in real time and alert IT Operations to issues as they are occurring.

Testing Inside and Out

Proactive testing of UC environments using agents that generate synthetic calls internally, combined with an external testing service automatically placing real calls into the organization, will identify whether there are issues with incoming and outbound calls.

Tying UC metrics back to the business objectives

The demands of the business on IT Operations has significantly increased in recent years. It's easy to forget that at a minimum, all end users expect voice calls to just work. This was much easier to achieve using dedicated phone lines, but when calls are routed over the same network as all other data, issues are bound to occur. Add to this the network bandwidth demands of video traffic and application sharing and you have significant complexities. Those who take the time to plan and have the foresight to include ongoing monitoring and troubleshooting as a prerequisite to a UC deployment are most likely to have satisfied users within the business.

IT Operations leaders need to work closely with the business to negotiate a service-level agreement that balances the criticality of the business with the cost to deliver the service. For example, it might be acceptable to experience the occasional downtime in some areas of the business but not in others, such as the customer contact center.

When determining what matters most to the business, IT Operations leaders should look to the strategic objectives set by the CEO and how these relate to the individual business units that IT must serve.

Aligning IT metrics to business metrics should not be a 'set and forget' process, as requirements invariably change over time.

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Measure the impact and optimize

Q & A WITH KEVIN DONOVAN

What sets an insight and golden nugget apart?

Turn UC insights into golden nuggets

Too often, insights get overlooked. We look to reports and analytics for answers, forgetting insights are garnered when we dig deeper into the analytics. But what sets an insight and golden nugget apart? Let's say you get 10 actionable insights from a month of troubleshooting your unified communications. It's likely only one of them holds the key – or trigger – to a big opportunity or threat. This is a golden nugget.

Uncover every implication the golden nugget could have. Be prepared to offer an action plan on how best to deal with it – or better still – how you dealt with it for the good of the company. Clearly illustrate the impact of your actions. For example, showcase the productivity gained in a monetary value, or the financial savings made, or the potential future earnings – these will all pique the interest of the C-suite.

What's the difference between analytics and insights?

Analytics are a collection of data whereas insights are the pieces that we extract from the data that are actionable. You can do something about insights and utilize them to help your business.

What makes the C-suite pay attention to unified communications?

When communication channels are down, it can be devastating, whether direct or indirect. The C-suite wants to understand what may take the business or UC down, which is often revealed in the nuggets.

What does a golden nugget look like in real life?

Days before Black Friday, a large U.S. financial company's system crashed. Prognosis quickly identified the golden nugget that delivered the root cause of the issue and why it crashed. With Prognosis they implemented an early warning system of threshold alerts, enabling them to prevent crashes in the future. They could then sail through the peak sale season without any problems.

Become a champion for digital transformation

14

14 Become a champion for digital transformation

While UC metrics and insights can help you transform your UC environment, the move to digital is transforming how companies operate and compete. Digital transformation involves the innovative application of a technology such as cloud, mobility, collaboration, analytics, artificial intelligence (AI) or virtual reality (VR) to improve or create a new process, product or experience. Once this process or product is created or improved, it will ultimately drive value.

The connection between digital transformation and UC

Often, when considering digital transformation, people jump to thinking about technologies like mobility, AI, VR or Internet of Things (IOT). While these technologies play a part in digital transformation initiatives, Nemertes Research found that most companies with successful digital transformation initiatives have focused on foundational technologies first such as unified communications and collaboration, network and cloud infrastructure. Why? Because companies can't effectively build and execute on digital transformation initiatives if they can't collaborate! This is why there is such a close connection between high-performing unified communications and successful digital transformation.

Digital transformation gaining momentum

While some companies are trying to digitally transform to leapfrog or stay ahead of the competition, others are transforming to survive. Technology is driving disruption and change in every industry and most companies need to keep evolving to stay in the game. Other common reasons to digitally transform include:

- Increase efficiencies
- Generate more profit
- Meet customer and staff expectations
- Stay competitive

Wearing the digital transformation cape

Digital transformation doesn't just happen. It requires a concerted effort and people need time and space to work through it. While it might start as a side project, serious transformation can quickly snowball.

Digital transformation is often driven by a member of the C-suite, typically a CTO, COO or CEO. Alternatively, a champion can emerge from anywhere within an organization; someone who sees an opportunity and is relentless in transforming what's within their power.

While initiatives led from the top may have a greater scope, the success of transformation isn't measured by the status of leader; anyone can assume the position. Transforming one area of the business successfully can open doors to do the same elsewhere.

A study by Nemertes Research discovered that UCC correlates with digital transformation success. In fact, companies with successful digital transformation initiatives invest in UCC 72% more than unsuccessful companies.

Unified communications teams are perfectly positioned to become digital transformation champions. Through optimization of UC, not only are they ensuring that UC is reliable; they're improving efficiencies, helping employees be more productive, speeding up the implementation of new technologies, and fronting strategic changes that reduce operating costs. They also have deep knowledge of emerging collaboration technologies and how their application can deliver measurable business improvement.

Ignoring digital transformation is no longer an option

Organizations not looking to new technologies to improve their efficiencies and profitability are seemingly stuck in a time warp and will undoubtedly get left behind. They also have deep knowledge of emerging collaboration technologies and how their application can deliver measurable business improvement.

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Become a champion for digital transformation

Ask the expert

Irwin Lazar

Irwin Lazar is VP and Service Director of Nemertes Research.

Q Is digital transformation here to stay or is it simply a passing trend?

A So long as technology continues to advance, then digital transformation is here to stay. Digital transformation projects have no defined end-date, they continue to evolve as technology moves forward.

Q How well do you think companies are undertaking digital transformation initiatives?

A Our 2017-18 Enterprise Digital Transformation Study showed that 75% of organizations are planning or have already implemented a digital transformation strategy. However, just 23% of those who have an active effort underway have achieved success. Unsuccessful organizations struggle with a lack of participation and executive buy-in, as well as limited budgets, and an inability to determine demonstrable return on investment for digital transformation projects. They also often lack a collaboration environment conducive to speedy decision making and the ability to develop ideas and turn them into actions.

Q From your perspective, what role does UC play in digital transformation?

A UC plays two key roles in digital transformation. First, it provides the fundamental capabilities to effectively collaborate for both internal workers as well as with partners, customers and suppliers. If organizations can't collaborate, they can't develop and implement successful digital transformation strategies. Secondly, UC is itself a digital transformation technology. UC, especially when integrated into business process workflows and applications, can improve internal operations enabling organizations to reduce costs and create new business process efficiencies.

Q What's the risk of ignoring digital transformation?

A The biggest risk of ignoring digital transformation is being disrupted by competitors that use emerging technologies to improve speed and agility, and to deliver new capabilities and services to the market. An extreme case of ignoring digital transformation is the video rental companies who no longer exist because the failed to see that the Internet would enable streaming of video content.

Q What advice would you give to organizations trying to digitally transform?

A We recommend developing a brainstorming and ideation process that looks at emerging technologies to develop options for leveraging them to improve existing business processes or to deliver new customer-facing services. This requires executive, IT, and line of business buy-in, and the development of a business case that shows a tangible return on investment at least six months after project launch. But before embarking on a digital transformation strategy, IT leaders should ensure that they have adequate tools in place for collaboration (internally and externally).

Q Can anyone wear the digital transformation cape?

A While anyone can be a digital transformation leader and evangelist, our research shows that the most successful organizations get the majority of their ideas out of IT, and that IT-business coordination, vision, and relationship building are all key success factors.

Energizing your UC team and elevating productivity

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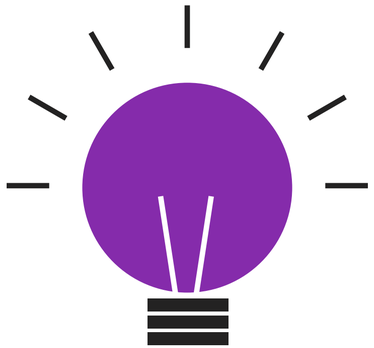
Energizing your UC team and elevating productivity



Whether your team is focused on a UC cloud migration or digital transformation initiatives, they need to work like a well-oiled machine.

Let your big brains do big brain stuff

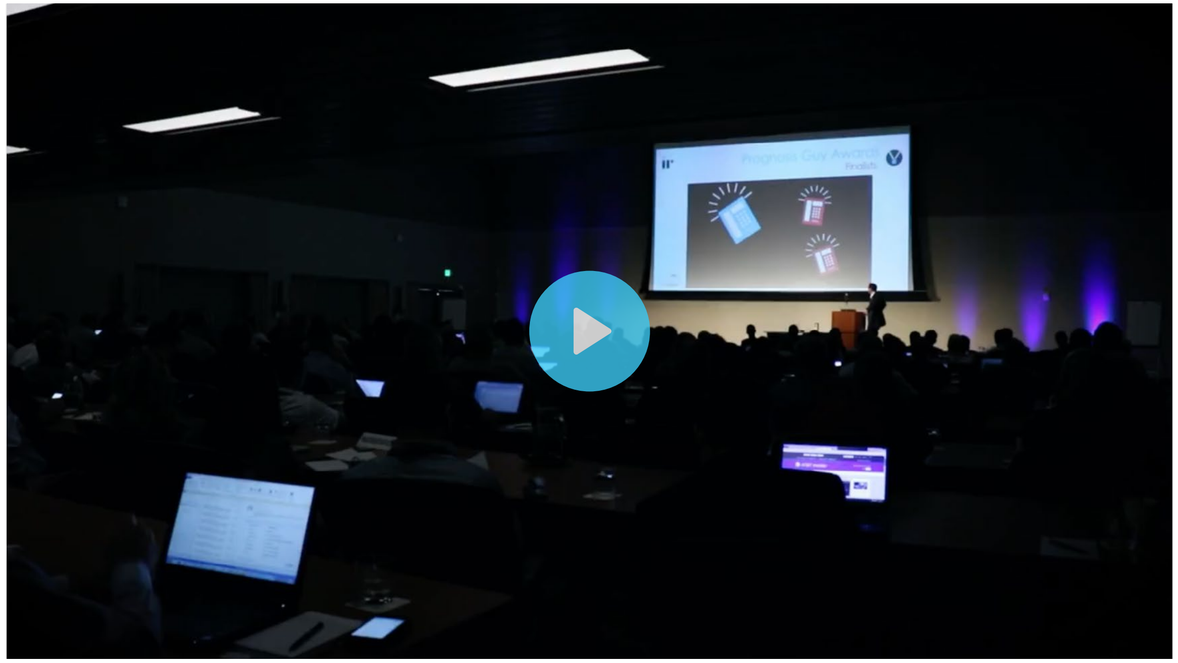
You hire advanced IT and network specialists for a reason – and it's unlikely for Apple earbud troubleshooting. So why do they end up fielding those kinds of issues?

Your most expensive IT headcount is hired to work on strategic projects; they're the brains behind innovation. You need to free up your big brains for big brain work. Let them be strategic. Studies show that constant switching and interruption-driven work is not good for productivity. If your staff is manually handling problems that could be solved through technology, you're wasting brain power.

Free up engineers' time to work on the stuff you hired them for – not fixing menial issues.

Creating happier teams

UC teams often must deal with painful, annoying, day-to-day frustrations such as network issues, endpoint faults, overloaded servers and more. What's a good way to reduce the pain? Provide your teams with the right tools to effectively address systemic issues.



REACHING FOR THE SUMMIT

The IR Prognosis Summit delivers best practices, hands-on training, new innovations, and more.

Encourage your UC team to attend conferences like IR Prognosis Summit where they can hone in on their skills and delve through best practice.

FIND OUT MORE

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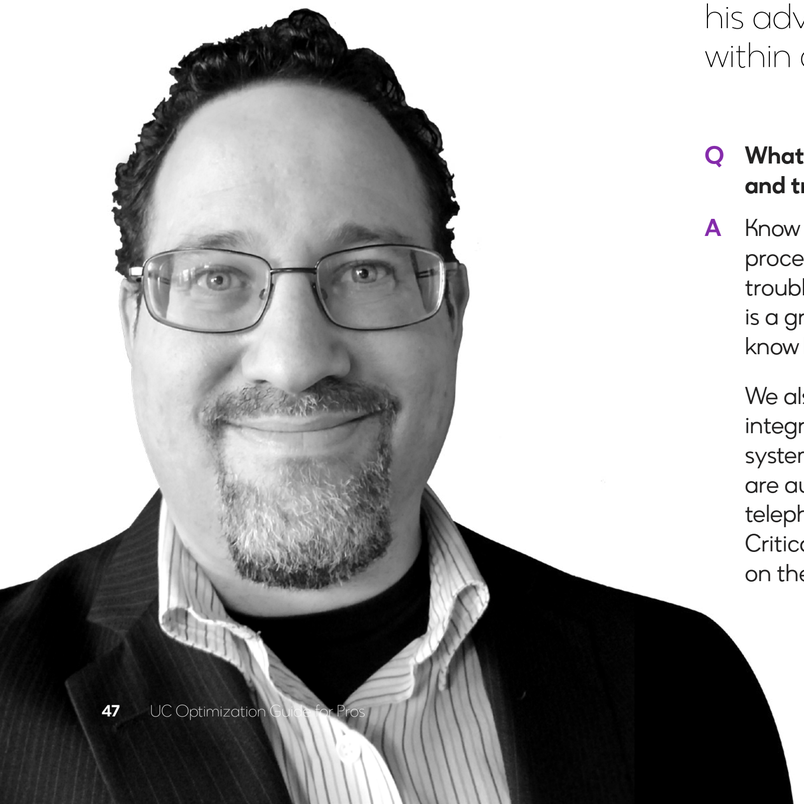
Energizing your UC team and elevating productivity



Ask the expert

Adam Geffner

Adam Geffner is the Principal Architect at Asurion and the Winner of the IR Summit Visionary Award in 2017. We asked Adam for his advice on boosting productivity within a UC team.

Q What's the best way to cut down on monitoring and troubleshooting hours in UC?

A Know your tools and have efficient and practical processes around how to use them to triage and troubleshoot issues in the environment. Prognosis is a great tool, but only if the people looking at it know how to use it and drill down efficiently.

We also just recently deployed Prognosis integration with our Service Desk ticketing system, so tickets on major or critical alerts are automatically opened and assigned. Our telephony teams will get notified of Major and Critical alerts as they happen, but not necessarily on the small stuff (noise) like minors and warnings. We have a resource who reviews those alerts while checking system health from Prognosis daily, and can bubble up any minor alerts worth noting. This reduces the noise/frequency of tickets that the Ops teams process, so they can focus on higher priorities while ensuring nothing gets missed.

Q How do you make sure your UC dashboards are fit for purpose?

A We've modified the dashboard display to ensure only systems deployed are visible in the navigation pane. We've customized the visible default fields that display in many dashboards to show only relevant data. We also have members create and use both custom key displays as well as purpose-built mashups.

Q How could Operations Managers be wasting employee time?

A Treating or testing for symptoms rather than identifying and treating root cause. I once had a director who would test trunks for possible issues by having much of his staff make lots and lots of test calls, and report any bad calls and see if they matched customer complaints. Highly inefficient. If you don't have an established process to deal with a particular type of issue, managers need to be open to their team's ideas on efficient and logical ways to troubleshoot.

Some Ops Managers who have been in telephony for years may be treating an issue with an outdated approach, or one that's no longer applicable. What worked or got them here today may not be what works or gets them where they need to be going forward. Be open to and rely on the technical expertise of your staff for suggestions; don't just hammer down to your staff what you think is right, as it may be dated, inefficient or ineffective.

Q What are the best ways to energize your UC team?

A Reward and recognition. Tout their accomplishments in staff calls or department meetings. Send shout-out emails to the department that praise them for work on a project or tough issue. Show them that the praise is real, and recognized, and how it's made a difference by saving money (by preventing lost revenue). They do make a difference and they need to know it.

Task them to come up with ways to improve efficiency and effectiveness on issues. Have a common issue that takes a little effort to resolve each time? Ask a person or small subset team to analyze the common contributing root causes. How can they help prevent these issues going forward? How can they use Prognosis to alert more quickly so they can be more proactive in resolving? Can they write an efficient set of triage steps for others to follow to most effectively RCA&R the issues, and add that to a training or runbook? Give them responsibility to improve the job for themselves and others.

Give them the latitude and approval for additional training, and conferences. A company willing to spend money on external trainings speaks volumes and the employee gets to expand their skillset and share with others, so it's a win-win for employee and company.

How service providers can own UC optimization

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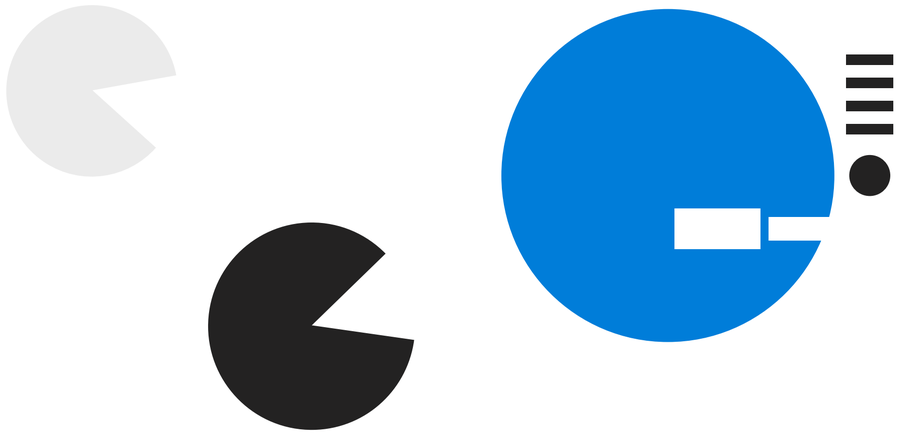
How service providers can own UC optimization

It's important for your team to have a positive and rewarding experience. As a service provider (SP), it's your job to make sure your customers have a great experience, every time. Your customers come to you because they don't want to deal with service issues – they want you to handle it.



How IR can help service providers

Accelerate time to revenue

SPs can reduce their time to deploy and activate new managed customers faster with Prognosis. Prognosis gives SPs new innovative revenue streams that provide value-added services for customers. Flexible deployment and operation models support many SP business models including private cloud hosting, premise remote managed, single and multi-tenant, etc. Prognosis enables streamlined deployment with a minimal technology footprint through virtualized software and API-based data gathering. No need for hardware probes.

Reduce service delivery costs and improve efficiency

Being forced to employ separate tools for various vendor systems to gain visibility and insight is costly and inefficient. Prognosis for Service Providers reduces costs and improves service delivery efficiency across multi-vendor UC and CC services. It minimizes downtime and improves mean-time-to-repair (MTTR) for service impacting incidents with costly SLA penalties and customer dissatisfaction. Prognosis offers a centralized view across customers in one operator experience; from single solution to multi-tenant deployment architecture.

- Automatic integration with incident management and other critical IT.
- Operations systems streamlines deployment and simplifies management.
- Comprehensive alerting and customized thresholds.

Meet SLAs and deliver customer satisfaction

The monetary penalties dealt from not meeting SLAs hurts revenue and margin. Deliver peace of mind to customers with proactive monitoring, alerting and troubleshooting. Prognosis provides deep domain experience with service provider expertise built in, plus customer access to view performance reports and validate service delivery.

IR's Service Provider offering

FIND OUT MORE >

Unlock the power of the IR Partner Program

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Unlock the power of the IR Partner Program

partner program

The best practices offered in this guide can help UC teams manage their UC environments effectively. The IR Partner Program offers benefits as well, providing many ways to differentiate our partners' businesses from their competition.

The program offers multi-vendor UC, CC and network assessment solutions, training, tools, rewards and support to enable our Partners to drive toward profitable growth and customer satisfaction.

Take advantage of what the Program offers and increase new business opportunities to deliver more value to your customers. As an IR Partner, you can:

1. Build competitive differentiation through IR's innovative and award-winning solutions.
2. Meet customer needs while boosting your profits.
3. Capitalize on existing and emerging opportunities quickly for up-sell or cross-sell.
4. Extend your sales and marketing reach by leveraging IR Partner Program resources.
5. Get rewarded with competitive and incremental financial incentives and discounts.
6. Benefit from high-value software sales, cloud services, and profitable services opportunities available when you sell, integrate and implement Prognosis solutions.
7. Leverage the industry's largest install base, IR's global coverage, and powerful market alliances.
8. Get support every step of the way through IR's dedicated Partner Program team.

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Unlock the power of the IR Partner Program

Partnering made simple

Authorized
Get access to Partner-only programs and a wide range of online resources through the IR Partner Portal.

Gold Partners
Gold Partners are eligible to access an extended level of benefits and a Channel Manager.

Platinum Partners
Get all the benefits of Gold level, plus additional high-value benefits and a dedicated Partner Account Manager who will provide support at every step of the partnership.

Recognizing Partner commitment

IR formally recognizes Partners who have invested time and resources in developing significant expertise in Prognosis products and solutions.

Partner enablement

Our members can build their competencies and skills through a variety of educational, community, training and knowledge-based opportunities that include:

- Access to a free online training tool with role-based, guided learning paths to facilitate individuals becoming Prognosis specialists across a variety of functions including sales, presales, support and implementation.
- Local, partner-exclusive support.

Partner quickfire with Kathleen Ryan, ConvergeOne

1. **Why did you join the IR Partner Program?**
   The benefits seemed to be greater than ConvergeOne's program from a rebate perspective and because our partnership is important to us.
2. **What are the biggest benefits of the program?**
   The financial benefits, rebates and market development funds, as well as the designated Channel Manager.
3. **Would you recommend other businesses join the program?**
   Yes, the focus IR has on Partners in the program really strengthens the relationship.

Get started with the IR Partner Program

Want to get up and running soon? Ask our team about Quick Start.

FIND OUT MORE >

Looking ahead:
2018 UC trend watch

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Looking ahead: 2018 UC trend watch

We've gathered IR team insights, industry research, and expert opinion to help prepare you for what lies ahead in unified communications. Here's what we've uncovered.

Digital transformation will reach the moment of truth

After years of investing in digital transformation initiatives, companies will finally have to demonstrate a concrete ROI in 2018. Organizations that have rushed ahead with projects that are not delivering ROI, or worse, are resulting in a poor customer experience, will gain public notoriety and suffer damage to their brand.

Adoption of UC as a Service (UCaaS) will accelerate, but most enterprises will opt for a hybrid model

Organizations have discovered that moving to the cloud does not have to be an all-or-nothing proposition. Over the next several years, the hybrid approach will remain popular, transitioning some systems to the cloud while continuing to run others on their on-premises infrastructure. Hybrid UC solutions take advantage of the on-premises infrastructure companies have already invested in and allow them to successfully marry that infrastructure with cloud services.

Early adopters will discover UCaaS can add cost and complexity

Despite the promise of improved service, moving to the cloud can mean adding even more vendors – and layering on another level of complexity and cost. Companies will gain flexibility from UCaaS, but it's not a silver bullet; there will be challenges. For example, employees working from home will want to use their preferred devices and expect a similar experience to what they have in the office. So, what happens if they have a bad user experience?

UC teams will be expected to troubleshoot and resolve, fast. In this multi-vendor environment, it becomes increasingly hard. The truth is that you need the proper expertise to support a cloud deployment, just like an on-premises environment. Smart organizations will budget for increased costs and manage complexity by ensuring that they have vendor-independent UC management tools, which provide visibility across the entire hybrid UC ecosystem to quickly find the root cause of issues.

Voice and video communications will increasingly be one-to-many, rather than one-to-one

Research shows that conference calls now represent up to 40% of all voice traffic in the enterprise. This means employees are increasingly communicating through group collaboration solutions. The trend will gain even more momentum in 2018, especially as the enterprise continues its rapid adoption of team messaging and collaboration solutions such as Microsoft Teams, Cisco Spark and Slack.

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Looking ahead: 2018 UC trend watch

Companies will embrace browser-based and in-app communications

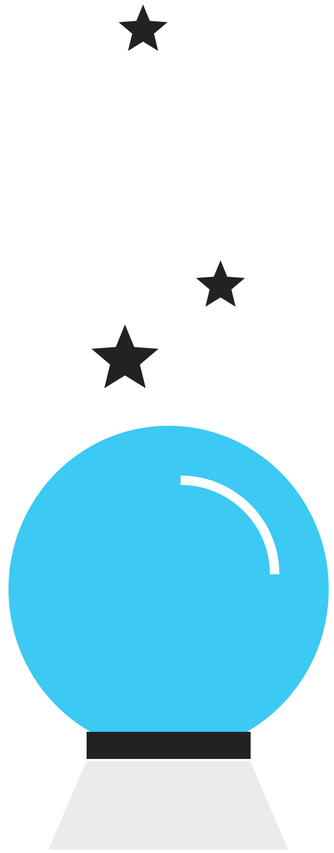
Businesses can enhance customer interactions and increase productivity in 2018 by embedding real-time multimedia communications capabilities directly into a web browser or mobile application. Take, for example, a commercial bank. Many banks are mainly communicating with their customers solely through their app. Think about it: when was the last time you needed to go into your local bank branch? Most customer interactions take place online, via a web browser or mobile app.

Artificial intelligence will greatly improve the customer experience

Consumers are increasingly connecting with AI assistants like Siri, Cortana and Alexa in their daily lives. It's only a matter of time before these kinds of bots will be accepted in a business environment. AI is already dramatically changing call centers, making them more efficient with bots that can quickly answer the questions most commonly asked by customers. AI is even helping to predict customer behavior, providing advice to customer service reps on how best to solve an issue. In 2018, we will see even greater acceptance of bots as a legitimate alternative to human interaction for customer service.

Managed service providers will be more important than ever

MSPs are uniquely positioned to give support and advice to companies that are driving toward digital transformation. Most organizations today are not on a single UC platform. They're on disparate platforms from a number of different vendors. To succeed, they need to seamlessly monitor, manage and optimize this multi-vendor environment. MSPs know how to integrate all the moving parts – the hardware, software, network components, gateways, phones, headsets – to get the most out of these systems. Should organizations want a customized cloud service, MSPs can offer more flexibility than a vendor.



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Looking ahead: 2018 UC trend watch

2018 predictions

Blair Pleasant

Blair Pleasant is President and Principal Analyst of COMMfusion LLC and a co-founder of ucstrategies.com, an industry resource on the growing UC arena. We asked for her view on what is to come in 2018.

Q We saw Cisco announce their intention to acquire BroadSoft in October – what impact will this have in 2018?

A I think this is a very positive move for Cisco, which was struggling in the mid-to-low end of the cloud market. BroadSoft gives Cisco a strong solution for service providers to sell cloud solutions, and I expect them to do well with it. It will cause some competition for companies that compete with BroadSoft, such as GENBAND and Metaswitch, and will also create more competition for companies like RingCentral and Five9.

Some of BroadSoft's partners are concerned about how they'll fit in a Cisco world, especially the Tier 2 and 3 players. I believe the Tier 1 players like Verizon and AT&T really welcome this news, but the smaller players are more concerned. They're afraid that they won't get the love and attention from Cisco that they got from BroadSoft.

Q Do you think the Skype for Business Online/ Microsoft Teams announcement at Ignite rocked the boat for Skype for Business? How do you see this playing out in 2018?

A I think this actually sets Microsoft back a bit – customers will put decisions on hold until they hear more from Microsoft about dates and service offerings. Right now, it looks like they muddied the water a bit. Teams doesn't have telephony features, and Microsoft has stated they will be available in the second half of 2018 via integration to the Skype for Business Enterprise Server. The lack of clarity right now will cause some customers to look for alternatives for telephony.

Q Do you think Avaya is likely to make any big waves on the UC market in 2018 after their emergence from Chapter 11?

A Under new leadership, I expect to see Avaya moving quickly to show that they haven't been keeping still while going through Chapter 11. Avaya's big push in 2018 will be in the cloud. I don't know if they'll be making any big waves, but they'll need to show that they're still innovative and not just supporting an aging product base. A big part of what Avaya will be doing in 2018 will be focusing on verticals. The company has also been busy innovating and will be introducing products related to AI, bot frameworks, blockchain, and other emerging areas.

Q What UC trends do you think will dominate 2018?

A AI will be a big trend as companies add AI capabilities to their offerings. This will range from basic bots (which may or may not be considered AI), to intelligent assistants that help schedule and manage meetings and calendars.

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Looking ahead: 2018 UC trend watch

2018 predictions

Rich Costello

Rich Costello is a Senior Research Analyst for IDC specializing in unified communications and enterprise communications infrastructure.

Q What impact do you believe the Skype for Business Online/Microsoft Teams announcement at Ignite had on the market? How do you see this playing out in 2018?

A In the short-term, I think the Microsoft Teams announcement caused some consternation in the UC market, including confusion among customers and non-customers about how to proceed (Skype for Business versus Teams). IDC has heard from some customers that Microsoft has been aggressively trying to move them to Office 365, but investment protection, and/or the overall metrics and drivers for such a move may not be there yet for them, causing some friction.

Within enterprises, even though several departments are mostly consolidated under IT now, telecom personnel have traditionally shown themselves to be somewhat conservative and very deliberate in moving to new communications technology – a buying behavior we think Microsoft must more effectively address as it continues to execute on its Office 365 and Teams vision and go-to-market strategy moving forward. Longer term, I believe there is growing support for team collaborative/chat-based applications and Microsoft will continue to offer good enhancements and options to the Teams capabilities to appease its customers.

Q From your perspective, what role does UC play in digital transformation?

A I believe UC will play a critical role in digital transformation and feel that this fact is still not completely understood by many enterprises. In general, I think many organizations tend to underestimate the role that communications will play in many digital transformation initiatives.

Q What UC&C trends do you predict will emerge in 2018?

A We expect to see more interest in team collaborative applications, "intelligent" communications with more integrated cognitive capabilities, AI and ML integrated capabilities, and voice-activated digital assistants for easier, more intuitive to access to calendars and applications. We also think more organizations will begin to consider infrastructure technology such as SD-WAN in support of their UC deployments.

Q What advice would you give to organizations that are currently evaluating their options for migrating UC&C to the cloud?

A Recent end-user adoption data from IDC's U.S. Enterprise Communications Survey, 2017: Unified communications & Collaboration (May 2017) highlights that a healthy percentage (54%) of respondent organizations prefer a hybrid approach to deploying new UC&C solutions (i.e., a mix of cloud and premises). So, if you are a bit apprehensive about moving to the cloud, consider moving one or two communications components or applications (e.g., messaging or conferencing) as a first step toward cloud, then build from there.

Conclusion

Delivering a great user experience across your UC environment is no small task. But with careful planning, an energized and productive team, and the right technology partners, you can optimize your UC management in a way that enhances the communications experience for your colleagues and customers alike.

About IR

5/6
'Leaders' in the Gartner Communications Outsourcing Magic Quadrant

Global, publicly listed, profitable and growing

120+
Fortune 500 customers

1,000+
Enterprise customers worldwide

The Solution: Prognosis

- **Market-leading communication experience and performance management**
- **17+ million endpoints managed by Prognosis**
- **Cisco certified management solution, listed on Cisco SolutionsPlus**
- **Skype for Business certified and recommended in FastTrack**
- **Avaya sponsored and recommended solution**
- **Multiple 300K+ user deployments**

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