ATSG

ASSURING COMPLEX **UNIFIED COMMUNICATIONS AND COLLABORATION** ENVIRONMENTS WITH THE **ATSG OPTX**

FOR MOST BUSINESSES, UNIFIED COMMUNICATIONS AND COLLABORATION (UC&C) SOLUTIONS PLAY A BIG ROLE IN HOW THEY OPERATE.

Collaboration via voice, video, conferencing, screen sharing, instant messaging and electronic white boards, plus presence information, enable employees to perform business tasks quickly and efciently. Such solutions also increase productivity and improve teamwork across geographic locations while reducing travel expenses and wasted time.

If implemented correctly and integrated with other business applications like contact center, UC&C solutions allow for better communication with customers by providing a consistent interface across platforms and seamless transition through the communication chain. UC&C can also help companies provide better customerda service as it enables real-time information sharing on multiple channels and allows customers to choose the most convenient method for them to communicate with you – all of which helps maintain customer satisfaction.

UC&C relies on many different components to deliver the services your business depends on.
Any problem with the network,

servers, business applications, communications media, end-points or consumer applications that are part of the system will cause performance degradations or outages. In this complicated environment, it can be very time consuming to troubleshoot problems using the typical assortment of point tools. Further, troubleshooting eforts often lead to finger pointing between groups, which further delays the solution and negatively impacts the business.

To make matters worse from a management perspective, UC&C systems are often made up of equipment and applications from multiple vendors. And if that isn't enough, many companies are making the shift from on-premise solutions to unified communication as a service (UCaaS) in the cloud, adding to the management challenges.

The OPTX Platform provides predictive and proactive business service assur-ance across hybrid infrastructures, with actionable intelligence for prioritizing and addressing problems before they impact critical business services. This protects revenue, improves customer experience, and reduces IT

ATSG SERVICE ASSURANCE OPTX PLATFORM

The **ATSG** provides predictive and proactive business service assurance across hybrid infrastructures, with actionable intelligence for prioritizing and addressing problems before they impact critical business services to protect revenue, improve customer experience and reduce IT costs. It manages UC&C environments end to end and top to bottom, including all the supporting infrastructure.

costs. The OPTX Platform manages UC&C environments end to end and top to bottom, including all the supporting infrastructure. Modeling UC&C as a business service, it can provide true root cause analysis, predict impending problems and prioritize problems based on the impact to the business. In addition, it provides specific UC&C management functionality to help find and solve problems that can be hard to track down and often go unnoticed with other tools.

MANAGEMENT AND TROUBLESHOOTING CHALLENGES

The value of proactive service assurance – in other words, ensuring the operations team knows about an issue before users report it – is more important than it may seem. The fact is, oftentimes issues are never reported by users – or, if they are, it is because they are persistent. Typically, when degradations or outages occur, users will stop what they are doing and then try again, or simply give up and use a diferent medium as they assume the operations team already knows about the problem. In addition, they'll typically complain to their co-workers about the technology or the IT department, which only wastes more time.

Common UC&C Issues	Possible Causes
Dropped calls	Commonly caused by network firewall or routing problems, WAN degradation, network configuration issues, call server configuration issues, and SBC configuration issues, failures or performance.
Poor voice or video quality	Commonly caused by network problems or misconfigurations, call server misconfigurations, SBC misconfigurations, and endpoint device problems, misconfigurations or location. Voice or video codec selection issues with a conference bridge also cause poor quality.
Single user problems	Issues such as one caller creating unwelcome noise on a conference call or a single user not being able to hear anything are often caused by problems with the network, end device, call server or SBC. All could be due to misconfigurations or faults.

THE ATSG Platform

The ATSG service assurance platform provides full-stack monitoring with end-to-end, top-tobottom management for the Cisco UC and Collaboration infrastructure. Advanced analytics and root cause analysis predictively and proactively detect new and impending problems and quickly analyze them from multiple angles to find the true cause and provide actionable intelligence. With business service monitoring and prioritization, these root cause problems are prioritized based on the criticality of the impacted business services to ensure the most important problems to the business are addressed quickly. Streamlined remediation and management workflows reduce mean time to repair

(MTTR) through automation. Secure, multi-tenant remote access further reduces MTTR by enabling experts to rapidly solve problems. To address UC&C specifically, the platform provides detailed UC&C analysis and visibility to monitor and manage these systems with functionality typically only found in point tools. Further, these UC&Cspecific management features are seamlessly integrated into the OPTX Platform, allowing for all the platform's core features – such as Root Cause Analysis (RCA), Business Impact Monitoring (BIM), Smart Analytics and the Service Management Infrastructure Layer (SIML) – to be applied to UC&C systems. And by combining all these features in a single platform, ATSG eliminates the noise common in

WHAT DOES THE OPTX PLATFORM DO?

By extending predictive and proactive business service assurance to UC&C implementations, the OPTX Platform provides actionable intelligence for prioritizing and addressing incidents and identifying problems.

management deployments relying on multiple point tools, thus providing a best-of-breed solution.

USING THE OPTX PLATFORM TO SOLVE UC&C ISSUES

Maintaining performance and availability of a UC&C environment requires top-to-bottom and endto-end management of the entire system. The OPTX Platform solves a variety of UC&C issues, including problems with call managers, gateways, endpoints and the underlying route/switch infrastructure.
A sample of those problems and the applicable OPTX Platform features that solve them are outlined here.

Call Quality

The OPTX Platform contains a Call Quality Dashboard which shows historical CDR/CMR data. It includes statistics on number of calls, jitter, latency, packet loss, MOS and resource constraints that are used to show configuration issues or

capacity problems. It also includes locationbased reporting, with a Collaboration Quality Dashboard that displays which locations are communicating with which other locations and tracks statistics.

In one real-world example, a large distributed enterprise was receiving complaints about poor telepresence experience from executives, but only when those executives were communicating directly with a specific conference room. The problem was easily tracked down by analyzing location-based data. It did not otherwise show up as a problem since such calls were infrequent and buried amongst hundreds of thousands of other calls, a small number of which may experience problems that are typically accepted as having been caused by human error or environmental conditions. Using centralized real-time collaboration statistics and interactive intra-call

statistics based on endpoint data, it is easy to troubleshoot call quality issues in real-time instead of attempting to do it after a call is over. Operators can look at network statistics as well as audio, video and presentation data to determine if the problem is related to technology or is possibly user error, such as someone leaving a laptop microphone live in a conference room where the room conference system is in use.

System Use and Misuse

The OPTX Platform dashboard statistics provide data needed to make business-level decisions, such as determining how to best utilize a certain technology. For example, these dashboards can indicate whether people are using expensive telepresence rooms to
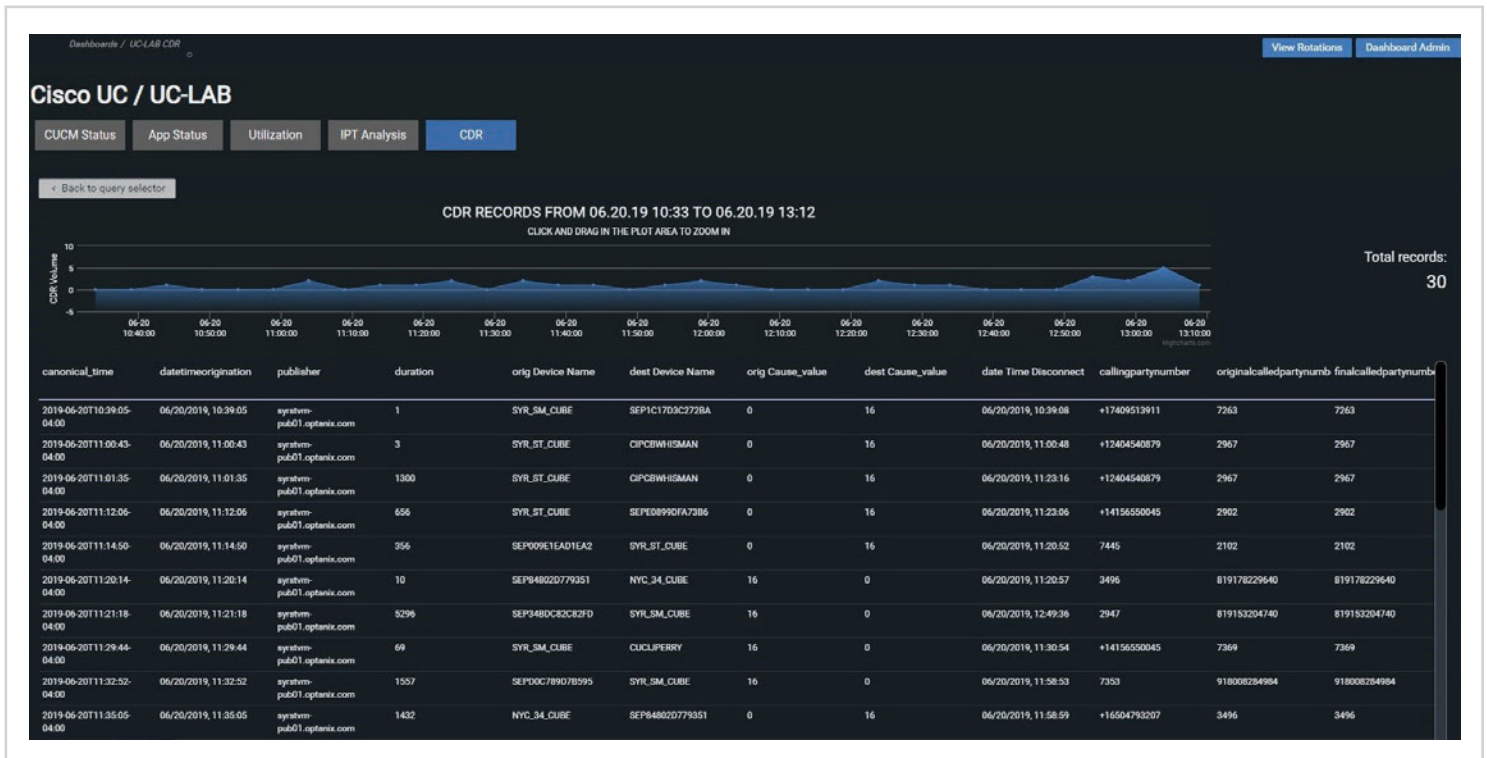
Call Detail Record Analysis

communicate with others at diferent locations, or if they are simply using the telepresence equipment in those rooms as local displays for people that are meeting face to face in the same room. This information enables the company to make a decision on how to maximize their investment in telepresence equipment – perhaps by redeploying the equipment to a more useful location or by providing employees training on its proper use.

Capacity Problems and Capacity Planning

Trunk Trafc Reports show capacity on physical and logical resources such as SIP trunks. These can be compared against errors, such as media resource exhausted alerts, that trigger even though the trunk may only be running at 30% capacity. In such cases, the platform allows further troubleshooting to be conducted to determine if the problem is being caused by a segmentation and policy configuration error or if there is a device issue. Trunk Trafc Reports also show the busiest times of the week and month, as well as peak loads – information that is important for capacity planning purposes as it can indicate if additional bandwidth is required or if a reduction is possible to help save cost and still maintain call quality.

Availability and Performance

Since calls are controlled by humans, it can be hard to determine if short calls, connection failures and other problems are caused by human activity – for

example, because someone placed a call then immediately hung up – or by technology. Such problems can also be brought on by outside forces, like a call quality issue caused by environmental background noise.

Synthetic transactions help provide a clear understanding of the source of availability and performance issues. They do this by testing the applicable technology on a regular basis in a manner that eliminates the unknown quantity of unpredictable human tendencies from the equation. The OPTX Platform Call Test Tool can be used to conduct such synthetic transactions by having logical phones call each other on a regular basis, thus allowing call paths and other relevant elements to be checked.

THE OPTX Platform IMPROVES UC&C

The OPTX Platform provides predictive and proactive business service assurance across hybrid infrastructures, with actionable intelligence for prioritizing and addressing problems before they impact critical business services to protect revenue, improve customer experience and reduce IT costs.
In many cases, implementing the OPTX

Platform has provided immediate results by uncovering problems organizations were unaware they even had. For instance, one large healthcare provider implemented the OPTX Platform and quickly discovered they were dropping 25,000 calls per day due to a configuration error.

In another example, a distributed organization had been unsuccessfully trying to solve a problem for 18 months with many people involved. Within two weeks of implementing the OPTX Platform, they were able to isolate the problem to a gateway bug then resolve the issue.

The OPTX Platform has also enabled service providers looking to ofer hosted unified communications to their customers to correctly monitor these services, ensuring success when they bring them to market.

Whether being leveraged to solve known problems, uncover unknown problems or roll out new services, the OPTX Platform is critical tosuccessful UC&C management.

About ATSG:

ATSG is a global managed services leader providing award-winning digital transformation services to today's dynamic enterprises. ATSG's Intelligent Solutions as a Service portfolio of Digital Workplace, Digital Infrastructure, Cybersecurity, and Customer Experience offerings are powered by the OPTX Platform. Headquartered in Manhattan, New York.

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