White Paper

Performance management is key to service delivery

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Part 2: The value of performance management.

This 2-part white paper explains how Prognosis real-time performance management helps service providers deliver quality unified communications to their customers.

Part one of this white paper explored using real time and historical metrics to validate service delivery. In part two, we examine efficiencies gained in the management of highly-available Unified Communications (UC) networks locally and globally, regardless of service delivery model. These include:

- Remote Infrastructure Management (RIM)
- IT Outsourcing (ITO)
- Unified Communications as a Service (UCaaS)
- Business Process Outsourcing (BPO)

Managing the performance of multi-vendor UC environments effectively is challenging and critical for operational success given the complex nature of today's UC architectures. These architectures incorporate multiple kinds of PBXs, voice gateways, UC servers, session border controllers (SBCs) and Telepresence video. Also in the mix are H.323 and SIP handsets, softphones, call recorders and contact center applications from vendors such as Cisco, Avaya, Microsoft, Acme Packet and many others.

One of performance management's key attributes is the ability to proactively measure system performance so that service levels are met. A performance management solution with customizable dashboards speeds incident detection and resolution and lowers support costs while helping enhance operating margins and profitability.

Providing that vital 'heads up' when degraded conditions are detected ensures incidents are addressed before they affect system performance or lead to an outage.

Understanding your customers' UC performance provides a flexible, secure and extensible way to manage day-to-day operational requirements as well as providing insight into your voice network, enabling you to establish operational trends and achieve effective capacity planning.

Creating happy stakeholders

As different parts of a business have varying service requirements and expectations, you may need to conform to differing standards such as the IT Infrastructure Library (ITIL) for service management across multiple lines of business. At the same time you need to deliver centralized management for complex UC environments because despite the complexities and challenges associated with the deployment and quality UC delivery, it is the satisfaction of all stakeholders internally and externally that truly defines the success or failure of a customer-focused business model.

One of the factors that affect user satisfaction most is voice quality. Customers expect instantaneous dial tone followed by good voice quality 100% of the time.

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To achieve and maintain high voice quality, performance management identifies any degradation in quality by measuring the Mean Opinion Score (MOS) of each and every Voice over IP (VoIP) call. If you don't do this proactively and your customers experience poor voice quality, disconnected and dropped calls, echo and audio delays, the image of your service and your company brand can be affected.

Including proactive performance management to support your service delivery means you can avoid situations that lead to frustrated customers and clients, over worked support teams and unnecessary call-handling time; all of which impact operational performance.

So when end users become the de-facto alerting mechanism for negative conditions in the UC environment it's time to take a more proactive approach to the service delivery equation. This comes from implementing a solution designed to manage, detect, isolate and report on the real-time performance of customers' complex UC systems. Your business can then focus on the needs of your customers and spend less time reacting to fires and potential SLA penalties.

Underwriting service delivery

The lines are blurring as service delivery models roll out to address customers' ever-changing requirements. Many customers prefer the flexibility of having ownership of their infrastructure and outsource the management to a service provider. This flexibility can be achieved via Remote Infrastructure Management (RIM) or IT Outsourcing (ITO).

Increasingly, many enterprises are considering a complete operating expense (OPEX) model where the service provider owns all assets and is responsible for all aspects of service delivery. The service provider is able to offer the customer a per-seat cost with a flexible, dynamic service delivery platform without the typical upfront costs. These are some of the components of UC as a Service (UCaaS).

As service providers are challenged to manage the technological and human dynamics of an evolving UC implementation, a performance management solution that provides the flexibility and scalability to support multiple service delivery models is imperative for operational success.

Is your operational objective to deliver services in a surprise-free environment and break away from chaotic and reactive operations? Implementing performance management means you can proactively identify underlying voice network problems prior to an incident that can result in a faulty operating status. In this way the impact on customers, service teams and SLAs can be proactively addressed and even avoided.

Once systems are up and running, performance management continuously monitors operations so that performance is aligned with service scope. This addresses one of the cold, harsh realities of business that good service isn't good enough to keep customers. As a service provider you know delivering service excellence is what is going to increase customer engagement and remove the need for customers to look for alternative service providers.

10 ways to service excellence:

1. Implement a comprehensive performance management solution with advanced embedded extensibility capabilities to support the advanced operational requirements associated with today's enterprise communications architectures.

2. Analyze, diagnose and quickly resolve performance issues across the entire communications infrastructure.

3. Receive, filter and integrate alerts to enterprise management frameworks.

4. Offer an extensive choice of managed and cloud services targeting Voice / IP Telephony / SIP, Contact Center, SBCs and Telepresence video.

5. Exceed service level agreement metrics including incident response and incident resolution times, service availability and service quality.

6. Leverage the insights you've gained from UC performance monitoring across your existing customer base and respond quickly to evolving and new customer needs.

7. Gain vital insight into your customers' communications performance to avoid expensive outages and downtime, problems with user acceptance and satisfaction, delayed deployments and inefficient IT operations and resources.

8. Offer comprehensive and automated reports for capacity, problem summaries, service quality and utilization.

9. Offer voice quality, systems capacity and other real-time data through secure dashboards.

10. Accelerate operational efficiency by leveraging a unified multi-vendor, multi-tenant performance monitoring solution across all your customers and communications systems.

Supporting multi-vendor environments

Although your customers' long term plans may be to consolidate and rationalize their environments, many types of communications will originate in one vendor's UC infrastructure and transit to another.

It is extremely challenging to integrate these systems and provide effective visibility and continuity of management, so managing the entire multi-vendor environment from a single operational and service delivery perspective gives you a distinct advantage. Changing customer environments are an opportunity to showcase the flexibility of your service delivery architecture and operational support capabilities, thus providing a platform to keep and potentially grow your customer relationships.

Understanding component relationships between VoIP and UC networks, technologies, vendor platforms and applications reduces the mean time taken to resolve an incident. Problem management including its identification, ownership and resolution requires people, process and proof among level 1, 2, and sometimes level 3 support teams.

Having specific data reflecting call paths, network hops, and affected entities such as switches, routers and gateways empowers your support teams to rapidly address potentially service-impacting situations and provide consistently high levels of customer service.

Reporting for trend analysis and issue management

Custom performance and service level reports identify long-term trends that enable more streamlined on-boarding of new customers and facilitate improved overall planning. You can zero-in, capture, analyze and report on the metrics you need to demonstrate breakthrough insights and value.

Reporting is invaluable as it provides vital insight to trends and ad hoc performance incidents. Whether it's viewed on the screen or printed, report information can easily be adjusted to suit individual benchmarking requirements and show spikes and troughs outside normal operating thresholds.

For some stakeholders an executive summary gives them the high-level insight they need to show availability and performance. And for others, deep operational metrics help them resolve problems and justify budget requirements.

Highly customizable and branded reports showing various levels of detail support data-driven decision making enabling systems managers to better understand historical trends and quickly address short term performance aberrations.
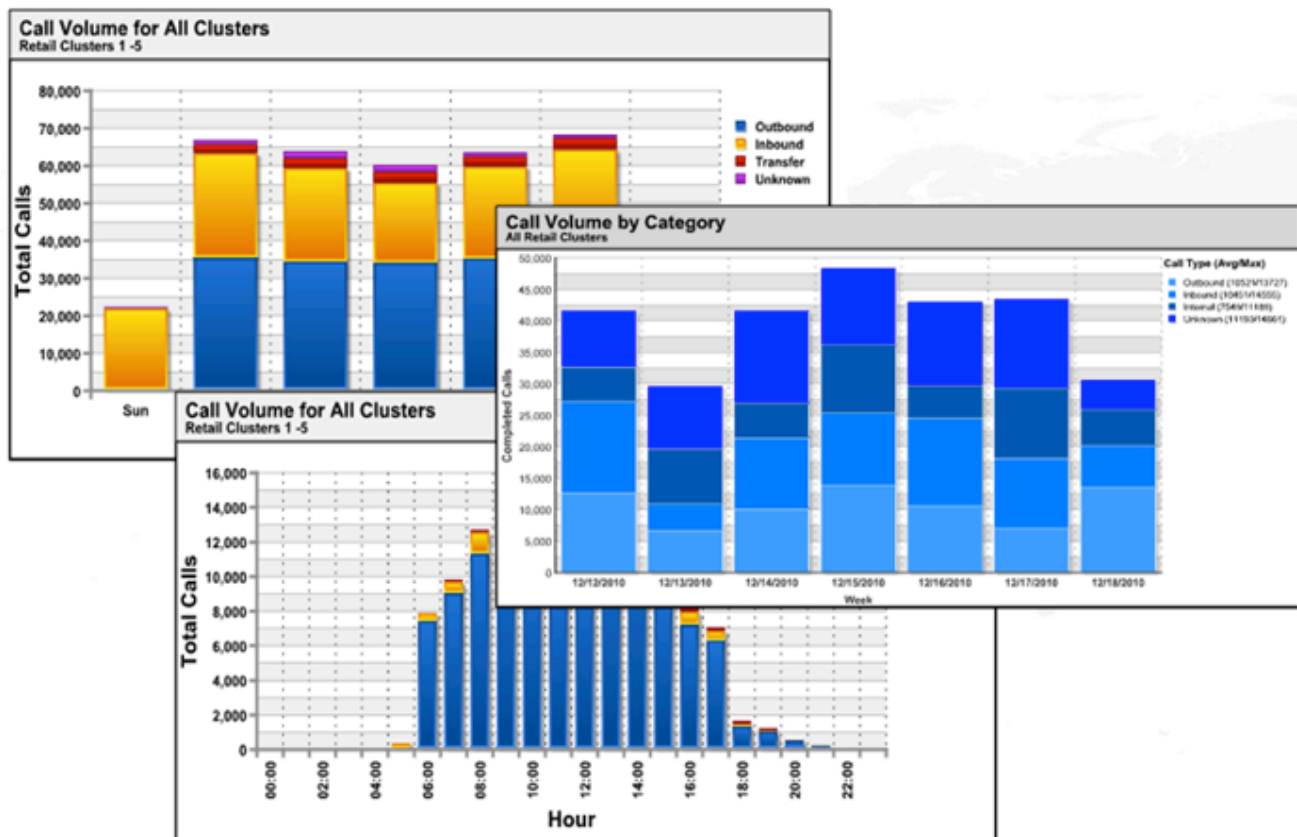
Automating for faster issue detection and resolution

In the same way reporting delivers post-event information for decision-making, automated notifications alert system managers in real time if a service interruption is likely to occur or has occurred without warning. Automation is one of the goals of IT operations management. Real time and post event information can be comprehensively linked if an incident occurs by triggering data collection for reports.

Managing IT infrastructure more by processes and less by people reduces operational costs by decreasing manual intervention and automating mundane tasks. Powerful automation enables operations to identify and address out-of-scope situations. When issues are identified, rules can trigger automation of business logic inside performance monitoring and in this way engineers can focus on higher-level tasks, strategy and innovation.

The ability to monitor, measure and manage multiple systems and applications and identify what is normal behavior, means the end-user experience is measured constantly and where possible, automated response and recovery actions can be activated when system events are detected.

Alerts can be sent upstream to IT Service Management systems (ITSM) such that operations and engineering teams know exactly what is happening as it happens and with a high level of confidence they aren't chasing a false positive within the voice network. Flexible management choices incorporating both centralized and autonomous points of control and data consolidation provide operational insight to quickly identify and address the sources of detected issues.

Some of the ways this can be achieved include:

- Actively testing conditions, filtering results and issuing alerts
- Detecting events and suppressing results that aren't classed 'alert-worthy'
- Issuing an alert, running a command or starting a database
- Performing logic tests on information from multiple sources

You can always look for ways to automate processes to deliver more value and at lower cost, enabling you to shift technicians from routine tasks that can be automated, and focus on higher-value activities customers are willing to pay for and deliver additional services.

Taking action when it's needed

When system data is displayed, either in real time, with automated reporting or using a self-help customer portal, interpreting the meaning and understanding of the overall impact of the data should be easy and logical. Speedy and accurate troubleshooting is critical, and providing this ability from an easy to use application with intuitive user interfaces and logical component relationships is vital to success.

Degraded conditions can be instantaneously identified before an outage occurs and the faster your operations team can respond, the quicker the resolution time. While many UC platform vendors offer some degree of monitoring and management of their own systems, most don't provide a 360 degree view of the entire UC ecosystem including third party SBCs and voice gateways.

This is vital as conditions frequently occur outside UC networks that affect performance within them.

Gaining the advantage

At a time when service providers need to increase customer satisfaction, and maintain technical expertise in a fast-changing technology landscape, performance management provides you with real-time actionable data. This enables you to do more with less operational resources and meet your customer SLAs while providing high levels of customer service.

Understanding how well your service offerings are meeting your customers' requirements is invaluable. Real-time operations management and reporting allows you to manage their environments proactively, validate issues prior to outages, achieve service levels, optimize resources and plan for capacity, failover and risk management.

Performance management also underpins the service provider's business model in many ways ensuring service availability, performance and Quality of Experience (QoE) goals are met. This allows you to surpass your own business objectives and profit targets which in turn will lead to your own personal success.

Having the peace of mind knowing your architecture, operations, network and managed service teams are all communicating and working together will provide you with the insight and control you need to gain new customers.

Multiplatform availability and performance management software provides service providers with flexible, automated and real-time management solutions that drive world-class operational efficiency with profitable, recurring revenue while ensuring a quality experience for customers, partners and your operations teams.

"It's amazing to believe my company won a $1 billion plus outsourcing contract including managing Unified Communications. Advanced monitoring capabilities, customized reporting, operational excellence with global service delivery objectives were critical success factors. Prognosis from Integrated Research provided significant value by being able to manage our existing global Avaya voice network and provide the operational insight into our migration to Microsoft Lync. Being also able to incorporate Acme SBCs for our SIP implementation and correlate voice quality with Lync was a welcome addition for the operations and service delivery teams."

Why Service Providers choose **Prognosis**

Prognosis has been monitoring VoIP performance for over 12 years and providing mission-critical infrastructure management for more than two decades. This out-of-the-box domain experience has evolved to manage the complexities of the complete UC experience. Viewing a myriad of components, devices and platforms through a single pane of glass means systems managers can rapidly identify, address and resolve UC quality of experience issues.

If you'd like to read more white papers and case studies about optimizing UC operations and resources visit http://www.prognosis.com/resources/uc-resources/white-papers

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