THE MISSING LINK: ENHANCED DIAGNOSTICS FOR MICROSOFT LYNC

THE CHALLENGE

Unified Communications and Collaboration (UCC) managers need end-to-end visibility into call performance so issues affecting quality can be rapidly isolated to root cause and remediated. The leading UCC solution, Microsoft Lync, provides very detailed call statistics and reports but is unable to assess the impact on call quality of the network infrastructure over which Lync traffic is carried. Available network monitoring tools provide little visibility into Lync's dynamic ports, variably sized payloads, and encrypted signaling.

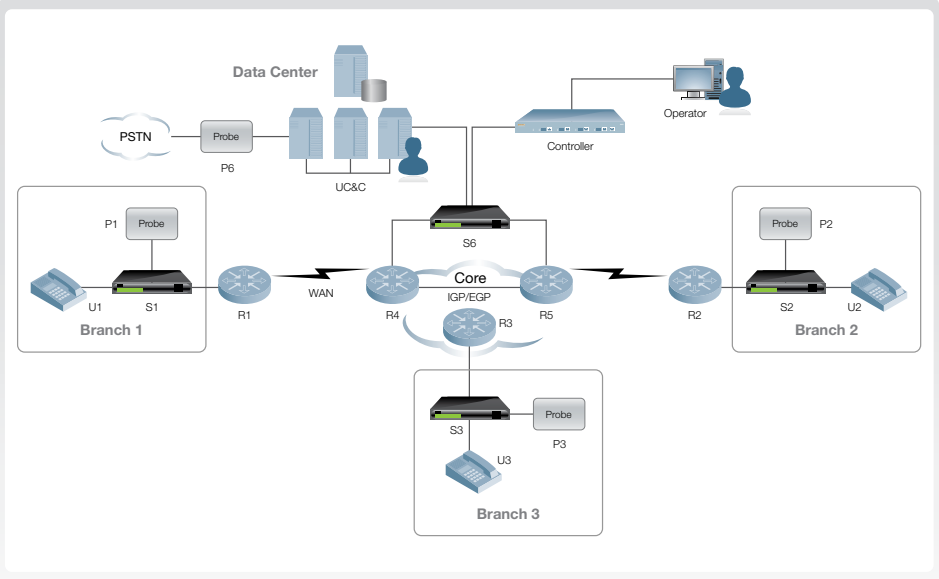
Assessing the performance of a wired network – and taking troubleshooting to root cause – invariably required instrumenting it with probes, an expensive but necessary solution. Probes are costly to deploy and root cause granularity varies depending on their number and location: to achieve a high degree of root cause accuracy one would have to deploy probes at every router and switch. Supporting switches in branches and workgroups require line-rate port mirroring, further driving up costs. And using probe-based heuristics to detect Lync media flows boosts the probe's required processing power, and cost, without a commensurate increase in accuracy.

The growing use of Wi-Fi, and the proliferation of mobile tablet and smartphone clients, adds to the challenge of root cause identification. Without a window into the underlying network it's hard to know when a call drops if it's because of a problem with the client device, a Wi-Fi roaming issue, latency in the wired LAN, or some combination of the above.

Fortunately, performance data for Aruba's advanced Wi-Fi networks and mobility switches are gathered by the infrastructure. While probes can help with debugging and traffic prioritization, they aren't required for general performance assessment by either Aruba Instant or controller-based access points.

KEY FEATURES

- Lync application visibility at the AP, user, and system levels
- Speeds Lync call root cause diagnostics
- Encompasses Wi-Fi, wired LAN, and remote access
- Provides Call Admission Control
- No sensors required
- Easily retrofit to existing Aruba 802.11n voice-ready deployments
- Centralized auditing and reporting



UCC Network Probe Model: Expensive and Inaccurate

ARUBA networks

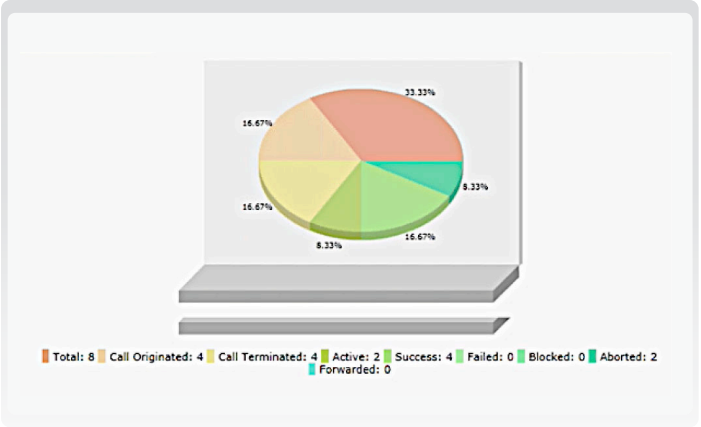
BETTER TOGETHER

To improve end-to-end visibility of the Lync call chain, Microsoft engineers worked with Aruba and a small group of technology partners to design the Lync Diagnostics API for Lync Server 2013. The API automates the management and provisioning of network services for Lync traffic, including network diagnostics and root cause analysis. It also provides access to real-time, session-level metrics so that external systems can correlate network events across the content, session, and IP topology layers.

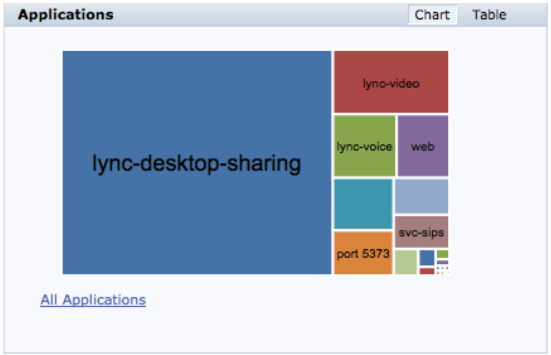
Aruba's Mobility Controller (AOS version 6.3 and higher) interfaces with the Lync API, mashes the Lync performance data and network infrastructure performance data, and helps pinpoint the source of communication issues. Network data are pulled directly from the devices handling the Lync traffic – Aruba Wi-Fi access points, switches, remote VPN access points, and controllers – no probes required. This feature simplifies deployment, yields more consistently accurate results, ensures that data are correctly collected following network adds/moves/changes, and allows retrofits to existing deployments with minimal disruption or expense.

Monitored data include R-value, jitter, delay, packet loss, Wi-Fi access point-to-controller packet loss, caller/callee identity mapping to MAC and IP address, call status, voice or video call type, and client sessions active at time of call. Controller reports include system-, Wi-Fi AP-, and client level details, client roaming data, and historical call records.

The solution opens a wide window into over-the-wire and over-the-air Lync performance. Dropped calls, low Mean Opinion Scores (MOS), and other faults can be correlated to user location, network status, client roaming and other network activity. For example, if a client was roaming during a dropped call, the UCC manager will know between which Wi-Fi access points the drop occurred, how many other calls were in process and clients on-line at that time, and even the types of mobile devices that drop most often. Insights like these better equip managers to identify, isolate, and remediate UC problems, regardless of source.



As an added benefit, Lync API data can be used by the controller to implement bandwidth-based and call-count based Call Admission Control (CAC). CAC is used to minimize voice traffic congestion by ensuring that there is sufficient bandwidth for each new call. Exchanging data between the network-aware Aruba Mobility Controller and the call-aware Lync Server brings four key benefits: higher available throughput; fewer dropped calls; less bandwidth oversubscription; and lower traffic congestion. The result is a better overall user experience.



www.arubanetworks.com

1344 Crossman Avenue. Sunnyvale, CA 94089

1-866-55-ARUBA | Tel. +1 408.227.4500 | Fax. +1 408.227.4550 | info@arubanetworks.com

© 2013 Aruba Networks, Inc. Aruba Networks' trademarks include AirWave®, Aruba Networks®, Aruba Wireless Networks®, the registered Aruba the Mobile Edge Company logo, Aruba Mobility Management System®, Mobile Edge Architecture®, People Move. Networks Must Follow®, RFProtect®, and Green Island®. All rights reserved. All other trademarks are the property of their respective owners. The scale may vary depending upon the deployment scenario and features enabled. SB_MissingLink_051713