

Healing a Hospital's Network

Longstanding issue at hospital identified and resolved by AppCritical within minutes of installation

- Cause of issue found without any change to existing network infrastructure
- Response times and reliability dramatically improved

THE CUSTOMER

The AppCritical solution is being used by a major, Texas-based pediatric hospital. This non-profit organization offers pediatric care in more than 30 services and specialties. The hospital and its affiliated clinics and physicians' offices record more than a million patient encounters each year.

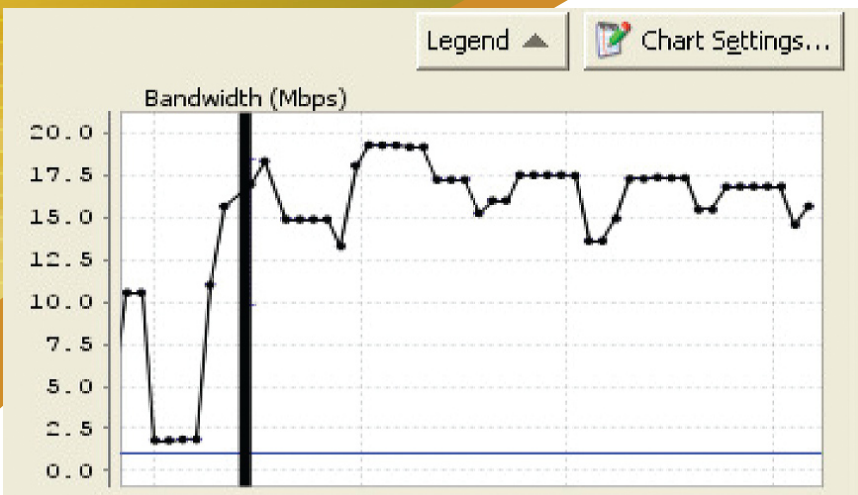
THE PROBLEM

The hospital's staff uses wireless PCs for facility-wide access to patient records, doctor's orders and other information. After roll out, doctors and nurses began reporting slow response times and occasional disconnects. Using traditional network management tools, the hospital's IT team and their consultants were unable to locate or diagnose the problem. Spotty application performance continued for more than a year, frustrating the medical staff and impacting their productivity.



Figure 1: Within minutes of starting to monitor the network path used by the hospital's wireless clients, AppCritical identified the cause of the fluctuations in available bandwidth, and provided suggestions on how to fix the problem.





By focusing on the network path, not just on the status of devices, AppCritical restored the availability and reliability of important patient care applications.

THE RESOLUTION

The hospital's IT team turned on AppCritical's real-time monitoring to analyze the problem. Within minutes, AppCritical's sophisticated analytics showed that the problem was stemming from a driver or configuration problem with the wireless PCs, and provided suggestions for how to fix it. Armed with that intelligence, IT team members changed a configuration setting, reset the clients and immediately restored available bandwidth to the proper levels. The medical staff saw immediate performance increases with the applications and experienced no more random disconnections.

APPCRITICAL'S ACTIVE PATH ANALYSIS

Unlike traditional, device-centric management systems, which only provide data on network availability, AppCritical creates a new, 'application path' perspective. This approach focuses on the complete network paths used by application traffic. It looks at how network performance impacts application delivery on an end-to-end basis. By taking this perspective, AppCritical is able to link network performance to the quality of the user experience for all voice, video and data applications.

DETAILS OF THE RESOLUTION

The hospital's IT team used AppCritical's real-time monitoring capabilities to analyze their complete network paths from the application server out to the wireless PCs. Previously they had tried to diagnose the problem with traditional network management tools. Those tools could neither find nor diagnose the issue because it was related to the hospital's network paths, not its network devices.

With its network path analysis, AppCritical showed suspiciously high utilization rates with the PCs' wireless clients. It also identified significant fluctuations in available bandwidth to those devices (shown in Figure 1). Other test results showed that the problem was related to application traffic flow between the hospital's LAN and WAN. AppCritical's analysis of network path data pointed to a device driver configuration setting as the source of the problem. The customer's IT team focused on the wireless clients and quickly saw that a 'Power Save Mode' setting was mistakenly left on when the devices were originally configured. A simple change to that setting and a quick reset and the problem the IT team had struggled with for more than a year was resolved in about two hours.

THE OUTCOME

With performance restored to expected and acceptable levels, the medical staff's efficiency and productivity increased dramatically. Without AppCritical, the program for accessing patient care applications with wireless PC ultimately might have been scrapped. After all, the IT team had been trying to fix the problem for over a year. With AppCritical, however, they were able to see, understand and fix the problem quickly. At Apparent Networks, we like to think that our AppCritical solution played at least a small role in helping some of the children in that hospital get better faster.



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