

## BUSINESS OBJECTIVE: 60 PERCENT TCO REDUCTION, IMPROVED RECORDS SECURITY, EASE OF USE

A large U.S. state university operates multiple teaching hospitals that cover numerous medical specialties as well as offering a number of research and remote telemedical treatment programs. A complex, expensive, and capacity-constrained three-tier legacy networking architecture was an increasing source of operational problems for the university's hard-pressed IT department. The confluence of the university's state-wide Internet-based network, HIPAA concerns and almost-daily intrusion attempts aimed at patient ID theft, led to the university's initial interest in deploying an open, Pica8-based disaggregated white box network.

Unique to Pica8, the dual control plane CrossFlow™ feature of the powerful Pica8 Linux-based PICOS network operating system (NOS) allows NetOPs and SecOps teams to apply real-time granular security policy updates to individual ports on a live L2/L3 enterprise network. This Pica8-only network-based security feature enabled the university to protect its patient ID, treatment, and insurance records. When paired with the Pica8 Automation Framework that simplifies the deployment and management of large numbers of distributed switches, Pica8 became the clear choice for the network upgrade even without the built-in TCO improvements that come with the Pica8's disaggregated open white box networking architecture.

### Select customer PICOS and Pica8 Automation Framework features and benefits include:

- Intrusion and theft protection for patient ID, treatment and insurance records; intellectual property; financial information and transaction processing systems via enhanced intent-based network control (CrossFlow)
- Collection of syslog, trap and counter entries for security threat event reporting
- Use of PICOS monitoring capabilities to either discard threat traffic or deliver it to SecOps, thereby eliminating the cost of monitoring TAPs in many areas
- A simplified, automated process for delivering switch software upgrades to hundreds of campus and edge switches
- Reduction in the number of managed network elements by a factor of 25x to 50x (Pica8's PicaPilot chassis switch and switch stack replacement technology)
- 802.1x (Wi-Fi), IGMP, IGMP snooping, DHCP forwarding and snooping
- Elimination of bandwidth-constraining STP from the university's access network, replaced by MLAG
- Use of POE/POE+ with LLDP to recognize and place VoIP phones and cameras in their VLANs
- Automatic rollbacks (if needed)
- Backwards-compatible with all existing legacy network infrastructure

### CUSTOMER PROFILE

This wide-ranging top-tier university with its comprehensive medical education curriculum supports thousands of students as well as hundreds of faculty and staff. Its on-site and telemedicine health services span more than 30 cities and towns over a three-state area.

### SAMPLE BEFORE/AFTER ON-CAMPUS NETWORK TOPOLOGY

