

## Littleton Regional Healthcare

### Highlights

#### Challenge

Lower CAPEX and OPEX while achieving high speed, reliable, end-to-end networking for regional healthcare provider, Littleton Regional Healthcare.

#### Solutions

- Arista 7000 series switches
- Arista EOS Operating System
- Aruba edge switching
- Aruba wireless 802.1AC networking
- Aruba ClearPass Access Control

#### Results

Highly stable network with lower initial and operating costs with no unscheduled network outages over a 3-year span.

Enterprise IT Organizations are under increasing pressure to lower both operating expenses (OPEX) and capital expenditure (CAPEX), while maintaining a high level of service to its end users. In this case study, we will discuss how Littleton Regional Healthcare (LRH) was able to achieve this goal over a 3-year period with the winning combination HPE/Aruba and Arista in a new infrastructure. Founded in 1907 LRH is the leading provider of healthcare services the Northern New Hampshire area offering a variety of healthcare services to the community. LHR's services include community outreach, outpatient care, 24-hour emergency services, and a 25-bed in-patient hospital facility.



### Project Background

Prior to implementing their new infrastructure, LRH was suffering from network instability and rising OPEX costs on their IT Infrastructure. LRH reached out to its incumbent vendor, looking for a solution to these issues. The incumbent vendor was unable to produce a cost effective network design, not even able to correctly architect a solution that was compatible within the incumbent vendor's own end-to-end portfolio.

LRH selected a combined Arista/Aruba infrastructure to meet their requirements. The solution was not only at a lower CAPEX point, they have continued to receive overall reduction in operating costs and have had no unplanned network downtime in the last 3 years. Scott Vachon, Director of HIT, believes he made the right choice and would encourage other healthcare providers to follow suit. "I really took a risk moving off the incumbent vendor, but it has more than paid off". Eric Perkins, LRH's Senior Network Engineer finds the new infrastructure easy to operate and much more stable than the incumbent vendor was, "The network is so stable I haven't had to touch the network much in 3 years."

LRH's infrastructure consists of two data centers connected by dark fiber across the LRH campus. Arista chassis-based switches were utilized for a high-speed interconnect between data centers creating a core network of a partially collapsed spline/spine network. High speed server connectivity is derived directly from the Arista spline nodes in the core. Devices with lower speed and performance requirements are collapsed into Arista top of rack (TOR) switches attached as leaf nodes to the Spline core. LRH then utilizes an edge and distribution tier of Aruba switches and Aruba wireless for the POE and services edge throughout the LRH campus servicing all edge devices. The Aruba equipment is then collapsed into the Arista Spline. The Arista equipment provides high-speed connectivity, dark fiber termination, and layer 3 routing to all points in the network. Security is pervasively applied through the network with Aruba's ClearPass. The network provides a variety of services, including access to mission-critical healthcare applications, VOIP, guest network access, and standard print/file/e-mail services.

### Conclusion

In conclusion, not only did LRH make a lower capital investment, they have been able to achieve long term operational efficiency with the partnership of Arista and Aruba. A lean running IT shop has to reduce CAPEX, OPEX, and have a safe/secure/easy to manage infrastructure. LRH has achieved that and we look forward to continuing our long term partnership.

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