

Capacity Planning with LiveNX



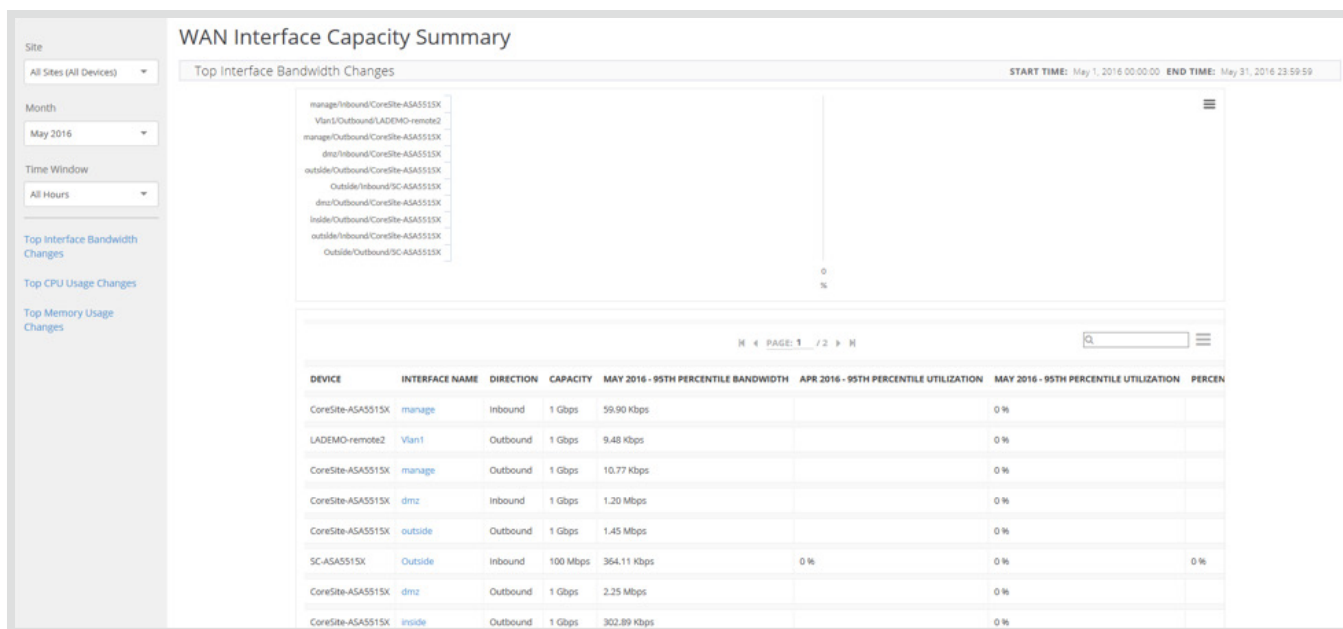
Capacity planning is critical for optimal application performance. Underprovisioning of network resources leads to congestion—resulting in bad user experience, loss of productivity and a negative business impact. To avoid underprovisioning, most organizations resort to overprovisioning. However, overprovisioning of network resources results in excess capital spend and a negative impact to the bottom line. Most provisioning and capacity planning issues are due to the lack of adequate solutions that provide comprehensive network and application visibility to the admins.

With LiveNX, LiveAction provides network admins the capability to run multiple out-of-the-box capacity planning reports. These reports enable admins to get detailed information on device and interface usage along with application visibility for informed capacity planning. All data presented in reports can be exported from LiveNX for additional analysis. Let’s look at the various aspects to consider when planning for network capacity.

INTERFACE CAPACITY

WAN interfaces are critical for global businesses. They carry latency jitter and sensitive application traffic, along with other types of traffic. How does an admin decide if the necessary QoS policies are applied correctly and if the bandwidth allocated for applications is adequate?

LiveNX tracks bandwidth percentage changes on interfaces managed by LiveNX. Using bandwidth change information over a timeline provides admins a baseline of interfaces that might be under-subscribed or over-subscribed. If the percentage change is significantly high and has continued to grow over the last couple of months, it might be time to add additional resources before it impacts the business negatively. If the percentage change is negative over a period of time, it implies that the interface is overprovisioned and it might be time to downgrade and save on budget.

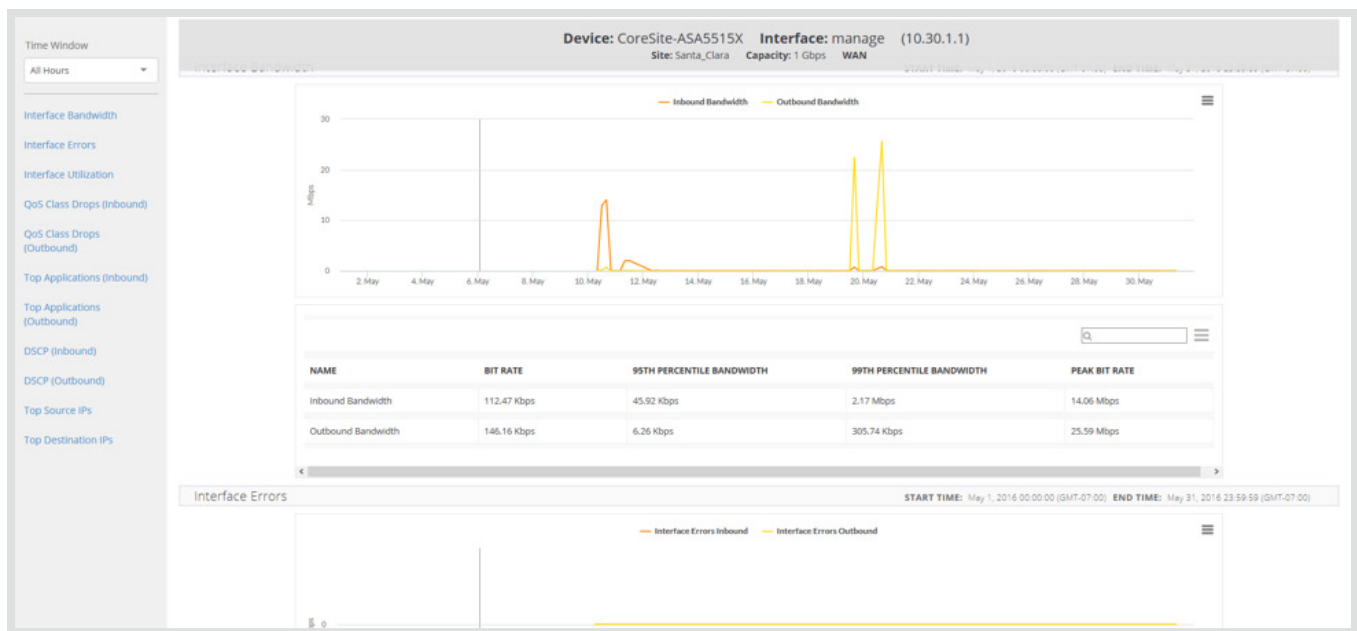


Often, when considering capacity planning, the numbers that are used are an average over a period of time. Yet, such metrics can be misleading. For example, an interface could be highly utilized during business hours, while having no utilization in off-peak hours. This will result in an acceptable average utilization metric. It will also cause sub-optimal performance during peak business hours.

LiveAction’s LiveNX, provides users the ability to filter metrics for business and non-business hours or includes all hours. Segmenting this data helps admins determine real usage of bandwidth and avoids the usage of misleading averages.

Another important aspect to consider for utilization is the percentile. Typically, when planning data, one should avoid considering traffic spikes since they are usually short lived and can skew the requirements. Often, easily extracting such data can be quite difficult. LiveNX provides the 95th and 99th percentile utilization values out-of-the-box. In the case of the 95th percentile, the top 5% values are excluded, while in the case of the 99th percentile, the top 1% values are excluded. Admins can determine the percentile value that makes sense for their planning scenario and confidently prepare for the needed interface and device capacity.

In addition to the bandwidth percentage change, LiveNX also provides information on the utilization of every managed interface, direction of traffic flow, as well as the capacity of the interface. Network admins can sort and filter the table to drill down on specific data. Clicking on the interface provides details, which includes interface bandwidth, errors, utilization, QoS-class drops (inbound and outbound), Top Applications (inbound and outbound), DSCP (inbound and outbound), as well as Top Source and Destination IPs.

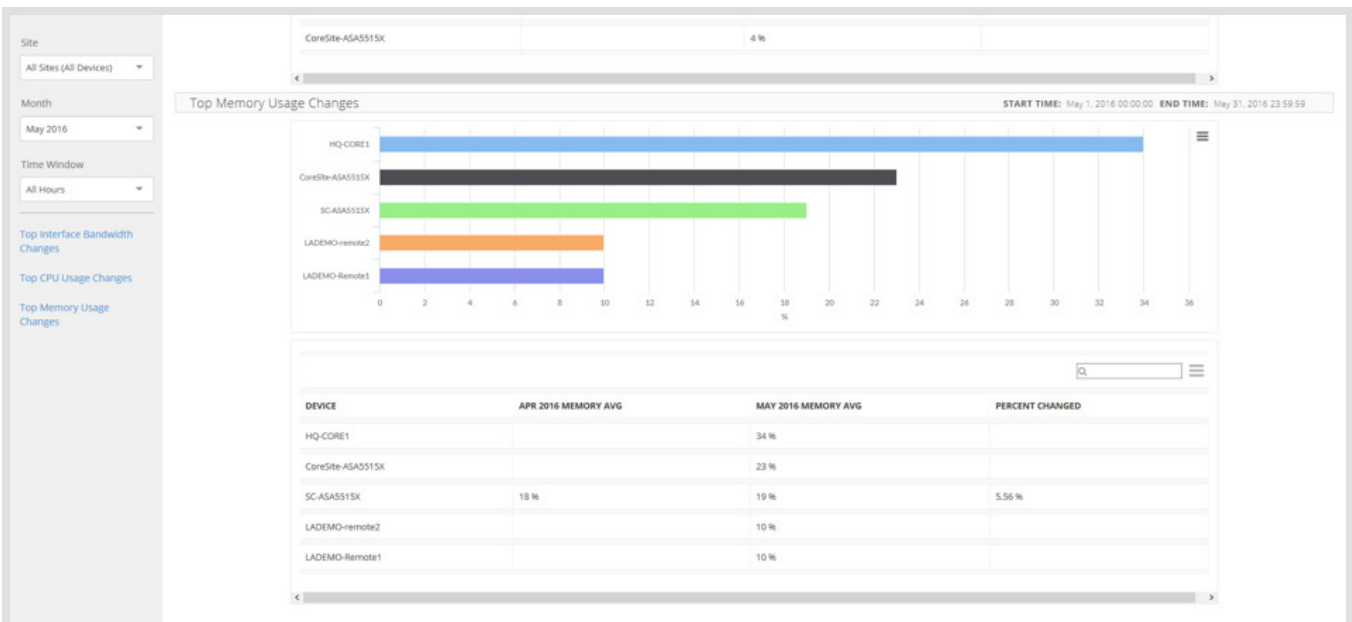
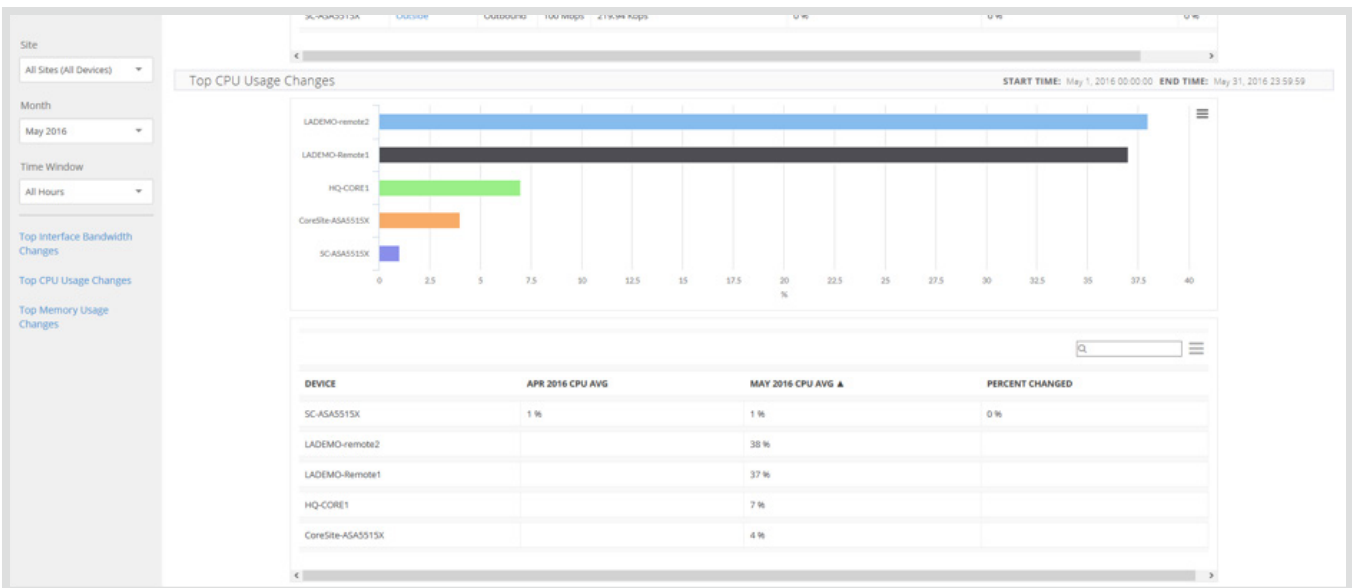


By drilling down data for an interface, admins can determine the top applications that are consuming bandwidth on that particular interface. Based on the applications, decisions can be made to increase capacity or apply QoS policies in a simple and intuitive way with LiveNX.

CPU AND MEMORY USAGE

CPU and Memory of a device are impacted by the configuration of the device. This includes its hardware and software configuration, features, and the traffic flowing through the interfaces. High CPU and Memory conditions on a network device result in unintended consequences, which also leads to packet loss. Ultimately, this can cause application performance issues and a sub-optimal user experience.

With LiveNX, network admins will be able to track the CPU and Memory usage of their network devices. Usage can be tracked for all hours as well as business or non-business hours, thereby eliminating the problem of misleading averages. Data can be sorted and filtered to view additional details.



CONCLUSION

Capacity planning is an essential, but often overlooked aspect of network operations. Often, rightsizing an environment is difficult due to the lack of granular relevant data and the inability to easily visualize the data. LiveNX's easy-to-use, out-of-the-box reports provide the relevant data admins need to successfully plan the capacity of their network and ensure optimal application performance.

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ABOUT LIVEACTION

LiveAction provides comprehensive and robust solutions for Network Performance Management. Key capabilities include Cisco Intelligent WAN visualization and service assurance, best-practice QoS policy management, and application-aware network performance management. LiveAction software's rich GUI and visualization provide IT teams with a deep understanding of the network while simplifying and accelerating management and troubleshooting tasks.

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LiveAction, Inc. · 3500 West Bayshore Road · Palo Alto, CA 94303 · USA · +1 (888) 881-1116