TOP 6 CONSIDERATIONS FOR CLOUD & NETWORK PERFORMANCE
TAKE YOUR ENTERPRISE TO NEW HEIGHTS
INTRODUCTION
Feeling the Pressure As You Migrate to the Cloud? Don't Stress!

Traffic volumes from public cloud and SaaS (Software-as-a-Service) applications are increasing, impacting performance across not only private, but public networks as well. This causes multiple obstacles for your IT teams, who may lack the proper resources to successfully monitor these applications across your networks. By ignoring these challenges, your organization can suffer from lower productivity, poor customer experience and lost revenue.

In this eBrief, you’ll learn the top 6 considerations you should discuss with your teams when thinking about shifting to the cloud, the obstacles you may face, the benefits of implementing QoS, and what you can do to tackle SaaS and public cloud application challenges at supersonic speeds.

1. Challenges to consider as you make your way to the cloud
2. Ensure smooth network operations by identifying the type of cloud service
3. Seven best-practices for cloud traffic
4. MAYDAY! When your QOS isn't working, turbulence may occur
5. When QOS is working properly, your enterprise can soar!
6. Secure a safe landing!

HOW MUCH YOUR PEERS ARE INVESTING IN THE CLOUD

In 2015, 8% of the $1.6 trillion forecast for worldwide IT spending went to the cloud

That's 128 billion dollars

The cloud makes up 60% of total IT spending growth

Prediction for 2018:

100% of IT dollar growth will be from the cloud

SOURCE: Bernstein Research, 2016
1. CHALLENGES TO CONSIDER AS YOU MAKE YOUR WAY TO THE CLOUD

The new wave of SaaS and public cloud applications is causing a drastic impact on IT teams, so it’s important that you map out a strategic course and prepare for the challenges ahead, particularly if you’re considering your own hosted cloud application.

A STRATEGIC PATH TO CLOUD MIGRATION

1. As application traffic becomes more diverse, your organization and IT departments need to adapt to the constant changing landscape

2. Consumers are rapidly adopting SaaS and cloud-based applications

3. IT is having trouble with the integration of SaaS and other cloud-based deployments, and can’t manage applications in the private and public network

4. Unsatisfying user experience

5. Lost profit
2. ENSURE SMOOTH NETWORK OPERATIONS BY IDENTIFYING THE TYPE OF CLOUD SERVICE

Once you know the type of cloud service that you're currently utilizing, or will be utilizing in the future, you can better determine how it may be impacting your network.

**SaaS** (Software as a Service)

A software application hosted on an internet accessible infrastructure that eliminates the need to install, run and store data on the user’s own computer. The service is typically paid for on a monthly basis.

**PaaS** (Platform as a Service)

A computing infrastructure and runtime environment accessible via the Internet whereby users can upload and run application code designed for that environment. The infrastructure is typically paid for on a usage basis (amount of computing resources consumed).

**IaaS** (Infrastructure as a Service)

A computing infrastructure accessible via the Internet whereby users can upload and run a virtual machine running their application code. The infrastructure is typically paid for on a usage basis amount of computing resources consumed.

**Consume**

Completely eliminates the need for end-users to purchase and manage computing infrastructure and software.

**Build**

Completely eliminates the need for end-users to purchase and manage computing infrastructure and software.

**Host**

Completely eliminates the need for end-users to purchase and manage computing infrastructure and software.
3. SEVEN BEST-PRACTICES FOR CLOUD TRAFFIC

Quality of Service (QoS) is a suite of technologies that manages bandwidth usage as data crosses computer networks. Most commonly, QoS is used to protect real-time Voice & Video communications and high-priority data applications. QoS technologies, or tools, each have specific roles that are used in conjunction with one another to build end-to-end network QoS policies. As your making your way to the cloud, here are 7 major steps you need to follow when planning for network QoS for cloud services:

1. Communicate with the other IT teams
   Ensure you communicate with multiple teams involved in rolling out cloud services to avoid errors post-rollout.

2. Understand the traffic
   Develop a deep understanding of your current network traffic conditions by baselining your traffic.

3. Develop initial design
   Put together a rough design of how you want to implement QoS for cloud services into your current architecture.

4. Review your plan
   Present your plan to other IT teams and leaders in your company, so they know what technology is changing and what the impact may be.

5. Design the details
   Know the IP addresses of the services you will be connecting to, so you can distinguish them from casual internet traffic.

6. Implement and test
   Try your policies in the lab or as a pilot deployment and ensure all is running smoothly.

7. Production roll-out
   Ensure you communicate with multiple teams involved in rolling out cloud services to avoid errors post-rollout.
4. MAYDAY! WHEN YOUR QOS ISN'T WORKING, TURBULENCE MAY OCCUR

As your IT teams try to manage and monitor SaaS and cloud-based applications on your private and public networks, here are just a few mishaps that may occur for both users and IT—affecting overall cloud service traffic, network performance, and operational efficiencies.

HOW THE NETWORK AFFECTS USERS AND IT DAY-TO-DAY

USERS MAY SUFFER FROM:

- Decrease in productivity and proactive engagement
  - Due to network downtime and delays as they try to transfer digital content
- Inability to be mobile
  - As they try to work remotely or collaborate offsite, low-quality network performance makes it impossible to work efficiently—anytime, anywhere
- Interrupted collaboration
  - As they attempt to connect through voice and video or other communication tools

IT TEAMS STRUGGLE TO:

- Gain visibility into the public network to identify problems
  - Especially if users are using SaaS and cloud-based applications
- Maintain control over user experience
  - Ensuring end-user irritation will not impact overall productivity and profit
- Monitor and manage applications and data throughout the entire network
  - Preventing future issues from reoccurring
5. WHEN QOS IS WORKING PROPERLY, YOUR ENTERPRISE WILL SOAR!

Save time and costs
Since you’re minimizing time and costs spent on troubleshooting issues or on cloud service traffic bandwidth allocations, you are able to save more and delegate precious time for strategic business initiatives.

Satisfy customers, users and IT teams
With the right resources, your IT teams can finally monitor and manage applications on the public network—empowering themselves as well as enabling a great user experience.

Accelerate end-to-end business operations across the entire enterprise
When you properly deploy QoS for a cloud service and are able to troubleshoot issues for your cloud service quickly, your organization’s productivity, offsite data storage and analysis, application development and hosting will run at top speed.

Encourage strong decision-making and leadership
As you shift to the cloud, it’s critical that your network performance and QoS are up to par. Consequently, you can support strong decision-making, creative innovation and collaboration—generating revenue and accruing more leads.
6. SECURE A SAFE LANDING!

As long as your organization is ready for these changes and challenges addressed earlier in this eBrief, in particular QoS implementation, you will be able to accelerate outcomes, empower IT, and optimize user experience to the fullest.

Consideration should be given to the right solution, like LiveAction’s LiveNX, an application-aware network performance management software with QoS control, designed to simplify network management. With innovative and unique QoS capabilities, it combines several functions for implementing QoS for cloud services into a cohesive interface. You will be able to empower your IT teams and users—ultimately enhancing business success.
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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*Product Disclaimer: LiveAction has renamed their software solution, formerly known as “LiveAction” to “LiveNX.” From 2016 and on, LiveNX will remain the official name for the software solution.

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