

# TOP 5 STRATEGIES FOR ASSURING SAAS APPLICATION ACCESS AND PERFORMANCE

Blue Coat has identified the key concerns that IT must address to assure access and performance for Internet-based software-as-a-service (SaaS) applications. As line-of-business owners (LOBs) seek to initiate the SaaS model, it becomes critical to consider these concerns to assure productivity.

**1 Reserve Internet Bandwidth for Critical SaaS Applications** – Cloud and SaaS applications are typically accessed via Internet links. Those links can suffer contention due to spikes in usage, which slows delivery of cloud applications. You can assure their performance by reserving bandwidth for them. Start by reserving 25 percent of links for cloud applications, burstable at a high priority. This dynamic allocation of bandwidth allows you to accommodate spikes in SaaS bandwidth usage. For more advanced policies, you can reserve per-user or per-connection bandwidth. To do this, however, you need QoS systems that are intelligent enough to identify cloud applications and differentiate them from other port 80/443 traffic. Additionally, you need to control traffic in an Internet world, where you don't have control over remote servers (see next).

**2 Contain Contentious Applications with Specialized Asymmetric QoS** – Video traffic – YouTube, BBC and other media outlets – move huge amounts of video that is consuming 80 percent of all Internet capacity today. The volume of traffic generated by celebrity deaths, tragedies, news events or just everyday usage can crowd out SaaS applications. Then there's the mind-boggling traffic from iPhones, iPads and Androids: app downloads, content downloads, OS downloads, video and picture uploads and cloud drive/backup systems that together have created a 20-200GB network data load per user. You can manage this traffic with a containment partition that caps recreational traffic at 15 percent of capacity, burstable at a low priority if excess bandwidth is available. Low priority assures that more important applications have first access to capacity. Most QoS technologies, however, work as queues; they can't control the remote servers that can flood your network with traffic. The combination of application-level QoS and asymmetric TCP rate control technologies can intelligently manipulate windows sizes and ACKs to throttle the sending rates of remote servers, effectively enforcing QoS policies.

**3 Monitor Response Times** – As you manage bandwidth, smart tools can passively monitor the response times of key applications. By tracking network delay, server delay and total delay, you can set proactive alarms that alert when you dip below expected performance levels – for example, an SNMP trap when Salesforce.com normalized network delay exceeds 1000ms. You can then be aware of degrading conditions before users start phoning in complaints.

**4 Accelerate Performance with Asymmetric Optimization Technologies** – WAN optimization technologies are used to reduce bandwidth and accelerate performance. Because they typically require something on each side of the transaction, they are mostly useless for SaaS apps, where vendors don't use that type of optimization. Asymmetric caching technologies – a single appliance or virtual appliance (VA) – at the branch office and/or Internet ingress can speed delivery significantly. You can intelligently cache entire video files, dashboard queries, business intelligence reports – accelerating performance 25x and multiplying bandwidth up to 500x.

**5 Re-architect Your Network for Today's Applications** – Cloud/SaaS, video, BYOD and other recreational traffic comes from outside the enterprise from the Internet. Yet networks are architected for internal applications, with Internet access backhauled over the WAN. With new cloud security architectures, you can now safely connect branch offices to the Internet. You can maintain proper usage and protection from malware while reducing networking costs by 67 percent – and improving cloud performance by eliminating that “extra hop” of latency through the data center.

Blue Coat can help you gain visibility and control over both SaaS and recreational traffic on your Internet/network connections to assure SaaS performance and access while controlling recreational traffic.

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