

Optimizing Citrix Over the WAN

- **1,000% acceleration for Citrix ICA**
- **Avoid network infrastructure upgrades that often accompany Citrix ICA application roll outs**
- **Transparently add 50% more ICA users on the same infrastructure**

Compass enhances Citrix with:

- Up to 1,000% Citrix ICA acceleration over the WAN, with a consistent 300%
- Reliably add at 50% more user sessions on the same network
- QoS to protect ICA sessions performance
- Protocol acceleration to speed larger ICA transfers over the WAN
- Transparency to simplify infrastructure integration

The Mandate

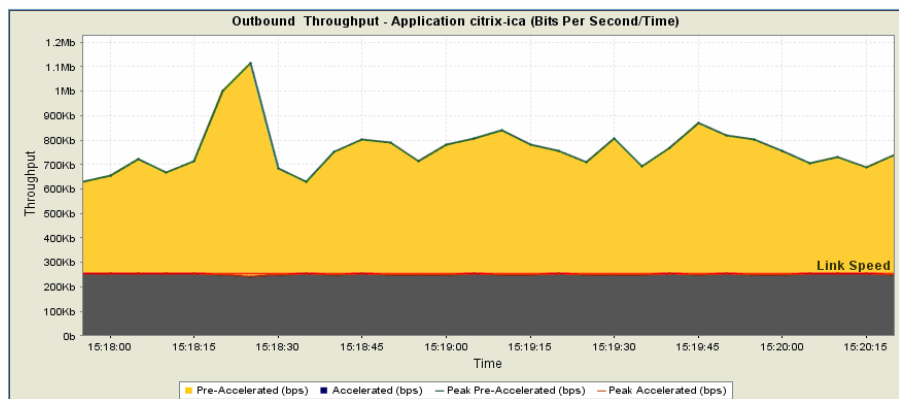
Economics and even regulatory compliance are pushing enterprises to look for better ways to manage their applications and data. Often, one of the best solutions is to centralize both the applications and the data.

Citrix's Presentation Server and ICA traffic have made this consolidation possible both from a management perspective, but more importantly, from a user performance and economical perspective. With a robust framework in place to ensure controlled and managed application delivery, it is little wonder that Citrix has successfully helped many enterprises consolidate their applications while ensuring excellent application delivery to the end user.

The Challenge

While Citrix has done a good job to minimize the chattiness and amount of data exchanged using ICA, the change to transporting application traffic across the WAN, where it previously traversed the LAN or even just the user PC, will create a slightly less exciting user experience.

To start, though thin, is the WAN ready for the extra load of ICA traffic? Link upgrades are often necessary, but even with larger capacity, unpredictable congestion will make for an unpleasant user experience. In addition, as new users need to be added to the infrastructure, more bandwidth is needed and will be consumed irrespective of how busy the user is (each ICA user marshals a dedicated and persistent pull on available bandwidth).



Performance improvements from between 100% and 1,000%, and averaging about 300%.

The Solution

When WAN congestion makes an efficient and economical plan perform poorly, Expand's Compass technology is precisely the solution fit for the challenge.

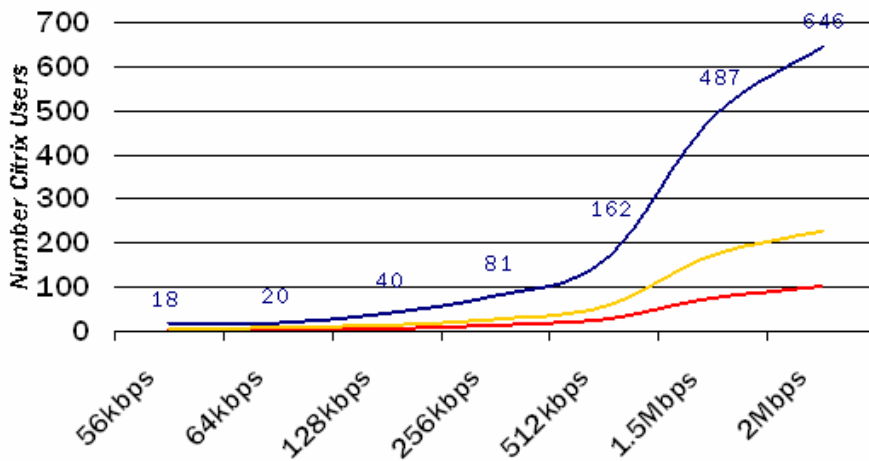
Unlike other WAN Optimization products in the market which cannot optimize Citrix ICA because they use block-caching (including Citrix's own WANScaler product), Compass' transparent Real-time All-IP engine, which optimizes at the bit and byte level, has the granularity necessary to optimize Citrix traffic. Reliably accelerating throughput on average by 300% transparently, congestion will be all but removed from the equation, without any changes to the client or server.

To completely remove congestion as an issue, Compass' easy to use QoS will make sure that what is important to the business is also important to the network. Citrix will not be slowed or flat out disconnected as a result of other traffic sharing the WAN link. Then,

taking this already valuable solution to the next level, Compass has a special Citrix plug-in technology to further optimize the traffic. This technology allows on average 50% more user sessions on the same bandwidth.

More sophisticated than either a data reduction or compression technique, this application specific optimization actually multiplexes Citrix ICA sessions together temporarily for transport over the WAN. Tightly and transparently integrated with Citrix, Expand's Compass platform ensures that cost savings server consolidation projects can be a success.

Infrastructure upgrades are avoided, while Citrix ICA user performance is closely managed. In fact, with the Citrix plug-in, user capacity is reliably extended on the existing infrastructure. The result is an effective and efficient proect that meets end user performance requirements.



The red line is unoptimized ICA traffic. The yellow line shows the performance when utilizing Citrix's own ICA compression. The blue line, the clear leader, shows ICA traffic optimised by Compass.