True Internet enhances application availability and user experience with Citrix NetScaler
True Internet is the ISP arm of Thailand’s premier communication company, True Corporation Public Company Limited. Originally incorporated as Asia Net Corporation Co., Ltd. in 1995, the company was subsequently renamed as True Internet Co., Ltd. in 2004.

The company has grown extensively over the course of nearly fifteen years into a fully-fledged, one-stop Internet service provider. Today, its nationwide Internet network ensures that its customers, individual and corporate alike, enjoy the same high-standard Internet-related services and superior communication experience, no matter where they are in Thailand.

**The challenge: ensure high application availability to support exploding traffic growth**

True Internet is experiencing over 100% annual traffic growth due to increase in video and data usage by subscribers. To remain competitive, True Internet cannot afford delays in accessing cached Internet web and video content or downtime on their critical email servers, DNS servers and web portals as this would lead to poor customer experience and eventual loss of revenue. True Internet needed a high capacity, low latency, Telco-grade application delivery controller (ADC) that would optimize the performance of True Internet’s video and web caching and DNS infrastructure, prevent malicious email traffic and scale to support additional subscribers, all while enhancing the subscriber experience.

**The solution: deploy the NetScaler MPX with clustering capability and advanced management and analytics**

True Internet has been using earlier NetScaler® models such as MPX 10500s and MPX 9500s for the past nine years, adding and upgrading to newer models as they are released. “We also have F5 Networks products in our infrastructure but we picked NetScaler MPX™ 21500s over F5 products because of their advanced management capabilities, clustering technology, analytics and excellent support,” Dr.Viriya Upatising, Chief Technology Officer, True Internet says.

True Internet implemented a cluster of four MPX 21500 serving over 120 Gbps of cache redirection traffic (web caching, P2P caching, video caching, and Akamai and Google Global Cache). In addition, True Internet implemented MPX 10500s for caching DNS queries and load balancing of DNS and in-house email servers, as well as several MPX 9500s to accelerate their web portals using NetScaler AppCache™ feature and compression. True Internet is leveraging clustering capacity made possible by Citrix TriScale Technology™ to scale their caching infrastructure.

**Key benefit: provides scalability for cache infrastructure without replacing hardware**

By deploying NetScaler MPX 21500 in a high availability cluster, True Internet is able to provide scalability for its web and video caching infrastructure without replacing hardware. True Internet can grow their NetScaler cluster by adding more MPX platforms and scale to up to 3 Tbps of capacity.

---

**Key benefits**

- Provides scalability for cache infrastructure without replacing hardware
- Reduces DNS response times by up to 40%
- Decreases web page download time by 12%
- Mitigates spam and email threats by half
Case Study

Key benefit: reduces DNS response times by up to 40%
By implementing NetScaler MPX 10500s, True Internet is able to leverage the DNS caching and load balancing capabilities to reduce the load on DNS servers and reduce DNS response time by 40%.

Key benefit: decreases web page download time by 12%
By leveraging NetScaler MPX’s support of SPDY protocol, True Internet is able to decrease web page download time by an average of 12% to 13%, yielding an improvement in subscriber experience.

Key benefit: mitigates spam email threats by half
By enabling the rate limiting feature of NetScaler MPX, True Internet is able to detect email spammers in advance before they adversely affect mail servers. True realized about half reduction in spam email.

Looking ahead
“We are extremely happy with Citrix NetScaler MPX as a Telco-grade ADC and the support we receive from Citrix is excellent. I look forward to working with Citrix in implementing the NetScaler analytics features such as NetScaler Insight Center™ to gain visibility into applications and networks as we implement our own big data system,” Dr. Viriya Upatising concluded.

About NetScaler
Citrix® NetScaler is an application delivery controller that provides on-demand scalability, implements multi-tenancy and optimizes the availability and performance of applications delivered to subscribers. It is available as a physical or virtual appliance.

NetScaler MPX appliances are high-performance, hardware-based solutions that provide industry-leading application delivery and load balancing. They also enable a full-service delivery fabric that spans networks, data centers and cloud infrastructures to make applications and cloud services run five times faster. All NetScaler MPX appliances support Citrix nCore™ technology, which enables customers to tap the power of multi-core CPU systems to realize multi-gigabit performance and massive scalability for all application delivery workloads. Flexible pay-as-you-grow licensing helps customers protect their investments, avoid costly hardware upgrades and reduce the overall cost of ownership.

Customer Spotlight

“We are extremely happy with Citrix NetScaler MPX as a Telco-grade ADC and the support we receive from Citrix is excellent. I look forward to working with Citrix in implementing the NetScaler analytics features such as NetScaler Insight Center™ to gain visibility into applications and networks as we implement our own big data system,” Dr. Viriya Upatising concluded.

About Citrix
Citrix (NASDAQ: CTXS) is a leader in mobile workspaces, providing virtualization, mobility management, networking and cloud services to enable new ways to work better. Citrix solutions power business mobility through secure, personal workspaces that provide people with instant access to apps, desktops, data and communications on any device, over any network and cloud. This year Citrix is celebrating 25 years of innovation, making IT simpler and people more productive. With annual revenue in 2013 of $2.9 billion, Citrix solutions are in use at more than 330,000 organizations and by over 100 million users globally. Learn more at www.citrix.com.

Copyright © 2014 Citrix Systems, Inc. All rights reserved. Citrix, NetScaler, NetScaler MPX, AppCache, TriScale, NetScaler Insight Center and nCore are trademarks of Citrix Systems, Inc. and/or one of its subsidiaries, and may be registered in the U.S. and other countries. Other product and company names mentioned herein may be trademarks of their respective companies.