PRESS RELEASE

How to Drive Intelligence Into Your Next-Generation Networks

Friday, 4th July 2014 - The IT landscape has witnessed rapid change and developments in recent years, with growth in consumerization of IT, Bring Your Own Device (BYOD), and adoption of cloud computing.

Implementing changes, such as onboarding new applications (apps) or equipment upgrades, is difficult on a network not equipped to meet the needs of advanced compute and storage virtualization solutions. These networks may even complicate and convolute the entire IT implementation, impeding enterprises from reaping the true benefits of the cloud.

Unlike compute and storage layers, the vast majority of datacenter networking gear is app-unaware – blindly forwarding packets amongst user, apps and other networking services. More intervention is required by network administrators to manually deploy, configure and maintain networking infrastructure to support a myriad of demands from hundreds of apps.

Network fragilities make change management challenging in today's app-driven environment. **To reduce network fragility, network configuration models have to be app-aware in order to be app-driven. Mark Micallef, Area Vice President of Citrix ASEAN, shares key steps organizations need to break barriers of network fragility to securely maximize enterprise cloud efficiency.**

Step 1: Leverage Software Defined Networking (SDN) and equip IT with app-driven control

IT is all about delivering applications. Hence, the first step towards smarter next-generation networks is to create an app-centric and app-aware automated network environment. One way to do this is to separate the control panel and the data-forwarding panel, and abstract the control panel from the network hardware and implement it in software instead – offloading its functions to a centralized controller. This way, IT is equipped with a convenient interface to program the network to create more efficient and automatic network management and provisioning. With the centralized controller, IT can also allow other applications to control network resources and influence forwarding decisions in order to find the optimized route to delivery network services.

In addition, app-centric networking gear, such as application delivery controllers, next-generation firewalls and mobility gateways can also be leveraged to help control delivery of application services. These devices maintain information such as app state and resource requirements that can be intelligently mined to optimize overall app functions. This will help enterprises build an app-aware platform they truly need, one that unifies advanced network services while preserving the ability to select best-in-class functionality.

Step 2: Consolidate automated delivery and orchestration of apps

By centralizing network management into a single intelligent control entity instead of having distributed controls embedded in each individual network element, administrators can define policies tied to a specific application. IT is able to simplify intial deployment by pre-packaging network services and their associated topology according to the unique requirements of individual apps. Authorized IT personnel will also be able to easily allocate resources and balance bandwidth. The end-to-end network visibility, full network-policy and service-chain automation optimizes the network.

Furthermore the open and programmable nature of the network facilitates service integration. This provides organizations with an extensible, elastic and scalable virtualization framework that supports seamless and secure onboarding of additional services, while retaining full isolation and independence between these services.

Altogether, this increases the value of existing network computation resources, giving organizations the ability to promptly adapt and scale network behavior and characteristics to suit ever-evolving needs of customers which are constantly susceptible to volatile changes.

Step 3: Tighten security with granular security and control policies

With change comes uncertainty, and the transition to unfamiliar grounds might seem like opening a can of worms in terms of security management. However, when approached the right way, SDN helps boost network security. The high level of automation in SDN improves security postures through virtualization, by mitigating or even eliminating human errors. This gives IT better visibility, as well as a more streamlined, orderly and optimized policy deployment process.

Deploying a network-wide policy architecture can create, distribute and monitor security rules based on a contextual language, such as who, what, where, when and how. The security enforcement includes blocking access to data or devices, and initiating data encryption. For instance, when an employee connects to the corporate network from a smartphone, the network identifies the device and user, as well as the privileges granted them. The policy engine not only establishes policies for the device and user, but also shares these policies with all points on the network, and instantly updates information when a new device appears on the network. With just one flick of a switch, businesses can intelligently redirect network traffic to enforce granular security and control policies. By better defining app requirements, SDN becomes a security solution instead of a security problem.

A smarter network for the virtualized world

As apps take center stage in the business world today, the new enterprise IT landscape, which includes cloud services, mobility and BYOD, calls for a change in network architecture as network traffic and bandwidth requirements have progressed to support richer workloads with lower latency. In order to fully embrace cloud-based apps and services, organizations need smarter network solutions to deliver quality services for their business.

The future of next-generation networks lies in app-aware SDN. With the right governance and usage policies in place, enterprises could find themselves with a fully automated, broadly dynamic network infrastructure, capable of accommodating virtually any requirement users throw at it.

For a deeper discussion with Mark Micallef, Area Vice President, ASEAN, on next-generation networks, or if you require more information, please contact Jade Wong (012 219 5289) or email: jade@mustardtree.com.my

Please find below more information on Citrix NetScaler and other Citrix headlines which may interest you.

- **Solving the ADC Market Share Riddle: Why Citrix NetScaler is Winning the Data Center**
  Read the whitepaper discussing why Citrix NetScaler is the only application delivery controller to gain market share for five consecutive quarters according to Gartner Inc.'s recent report.

- **The Active Advantage: Why Networking Leaders Are Embracing ADC Clustering**
  Read the whitepaper discussing the critical role that application delivery controllers play in network operations and why deploying them in high-availability enhances the efficiency of data centers.

- **Mark Templeton to Continue as CEO of Citrix. Citrix appoints Robert M. Calderoni to Board of Directors**
  Citrix Systems, Inc. (NASDAQ:CTXS) announced that its President and Chief Executive Officer, Mark B. Templeton, will remain in his current role and will not retire next year as previously announced. In addition, as part of its ongoing commitment to evolve its board of directors, Citrix announced the addition of Robert (Bob) M. Calderoni to its board, effective immediately.

- **Citrix NetScaler Powers Over 100 Million Mobile Subscribers with Deployments in World's Largest Operator Networks**
  Citrix announced significant momentum in the adoption of its telco-grade NetScaler application delivery controller (ADC) platform within mobile core networks, including those of many of the world's largest Tier-1 communications service providers. The 100-million subscriber milestone reflects Citrix success in addressing the urgent need for operators to manage the onslaught of data and video, while ensuring they can effectively navigate the transition to network functions virtualization (NFV).

- **Citrix Innovators Program Introduces New Accelerator Model to Enable User-Focused Innovation**
  Citrix announced a new program as part of the Citrix Startup Accelerator, which has been successfully funding early-stage companies for the last three years. The Citrix Innovators Program introduces a new accelerator model that blends cutting-edge Silicon Valley approaches in design thinking and Steve Blank's Lean LaunchPad to support startups in developing and bringing to market enterprise technology offerings that focus on user needs and help people work better.

- **Citrix Named HP AllianceONE Servers-Moonshot Partner of the Year**
  Citrix announced that it has been awarded the HP AllianceONE Partner of the Year award in the Servers-Moonshot category. Citrix and HP have collaborated on the development of the HP Converged System 100 for Hosted Desktops with Citrix XenDesktop®. These solutions are ideally suited for HP and Citrix customers in the public sector, healthcare, education and financial services markets. The HP Converged System 100 for Hosted Desktops with XenDesktop is a solution that delivers simplicity in deployment; management and scale; an uncompromising user experience and reduced TCO. In addition, the solution breaks through the challenges of virtualizing and managing PCs by offering predictability in operating costs, performance and the ability to scale. This award builds upon a strong relationship across multiple technology areas, including application and desktop virtualization, mobility and cloud.

- **Citrix Positioned as a Leader in the Magic Quadrant for Enterprise Mobility Management Suites**
  Citrix announced that Gartner, Inc., has positioned the company in the leaders quadrant of the 2014 Magic Quadrant for Enterprise Mobility Management (EMM) Suites1 report. The report evaluates the Citrix XenMobile® solution, a comprehensive EMM solution that delivers mobile device management (MDM), mobile application management (MAM), mobile content management and enterprise-grade productivity apps on premises or in the cloud. According to Gartner, "leaders have the highest product revenue in the EMM market, several years of proven customer implementations, customer mind share, and extensive partnerships with channel and other technology providers. They have the most complete products in the EMM market. Leaders also demonstrate commitment to the EMM market. Their companies are aligned with the trends of the EMM market. They possess product road maps, which (if executed upon) would establish continued differentiation in the market. Overall, they have a strategy that creates a high likelihood of success in this market."

- **Busy Bees work flexibly as business booms**

Busy Bees, the UK's largest childcare nursery provider, has deployed Citrix desktop, application and server virtualisation technology to create a scalable, family-friendly, mobile workspace environment across its 200+ childcare sites in the UK. This combined solution is allowing nursery staff to spend less time on IT and more time on its core business.
Busy Bees worked with Citrix® Gold Solution Advisor Total Computer Networks to define a new IT infrastructure that combined server virtualisation with a virtual desktop for users. The childcare provider is using Citrix XenApp® 6.5 to deliver Windows® apps and desktops as a secure mobile service, providing a richer and more flexible experience, along with Citrix XenServer®. As a result, Busy Bees has reduced the number of physical servers required from 35 to just six, with a consequent saving on space and running costs. The company also deployed Citrix NetScaler® as a remote access gateway to provide employees seamless, secure access to the system from anywhere.

- **U.S. General Services Administration Identifies Citrix Mobile Device Management and Mobile Application Management Solutions for Federal Use**
  Citrix announced that the U.S. General Services Administration (GSA) has identified Citrix XenMobile® as a potential source for mobile device management (MDM) that capably addresses the Federal government's Mobile Device Management and Mobile Application Management (MDM/MAM) requirements. bXenMobile, a core component of the Citrix mobile workspace solution, provides secure delivery and management of mobile, web, and Software as a Service (SaaS) applications, data, and devices to enable people to work better.
  GSA's list of potential MDM and MAM sources identifies products that meet the Federal government's growing requirements for mobility. GSA evaluated MDM providers and solutions for technical compliance, acquisition processes, experience, and scalability. Additionally, the list of potential MDM and MAM solution sources are Federal Information Processing Standards (FIPS) 140-2 and FISMA compliant.

- **Citrix NetScaler Integration with Cisco ACI Available**
  At Cisco Live!, Citrix announced another chapter in its strategic relationship with Cisco. Citrix NetScaler will soon work in sync with Cisco Application Centric Infrastructure (ACI), a holistic architecture with centralized automation and policy-driven application profiles, giving customers business agility through unprecedented control of their networks in a unique application-centric perspective. Leveraging the same Citrix Triscale technology that powers the world's largest clouds, Citrix NetScaler and Cisco ACI help cloud administrators to more uniformly control Layer 4-7 network services while maintaining the benefits of an elastic and automated cloud network architecture.

- **Citrix appoints Crayon Middle East as first Service Provider Distributor**
  Citrix announced the appointment of Crayon Middle East as the Citrix Service Provider Partner Program Distributor in the Middle East region. As demand for cloud-based hosted workspaces continues to grow rapidly, Crayon will distribute Citrix portfolio of subscription-based technologies – Desktop-as-a-Service (DaaS), application hosting and mobility solutions – to service providers, with focus on UAE, Kingdom of Saudi Arabia, Qatar, Kuwait and Egypt. This will enable the growth of high-value pay-as-you-go desktop hosting services serving small and medium businesses, offering significant customer value by delivering IT services from the cloud – traditionally reserved for large enterprises with more resources – at predictable monthly fees.