

Pushing the Limits of Texting in India with Cisco ACE

Comviva, one of India's leading provider of integrated VAS solutions improves performance of its short messaging infrastructure with Cisco Application Control Engine (ACE) appliance, resulting in improved responsiveness and higher Service Level Agreements

EXECUTIVE SUMMARY
<p>Comviva</p> <ul style="list-style-type: none"> • Provides value-added telecom solutions to over 500 million people • Solutions are content, commerce and community focused, generating revenues for operators, and innovative products and applications for mobile users. <p>Challenge</p> <ul style="list-style-type: none"> • Improve the roll-out times of messaging services under demanding deadlines • Increase the performance and availability of messaging applications • Meet and exceed Service Level Agreements (SLA)
<p>Solution</p> <ul style="list-style-type: none"> • Cisco Application Control Engine (ACE) Appliance • Cisco IP Transfer Point
<p>Results</p> <ul style="list-style-type: none"> • Faster roll-out of messaging services and applications with reduced deployment time • Reduced the operating expenses of messaging infrastructure • More competitive SLA-based services

Introduction

Comviva is a leading provider of integrated VAS solutions to mobile communities. Based in India, it currently provides telecommunication services to over 500 million people. Initially focusing its service efforts on local operators and customers, Comviva has since expanded its portfolio, with offerings available to customers around the globe.

With Comviva, operators are able to provision the optimum mobile experience to all customers, from the basic user to the busy executive who requires more complex applications. The organization's portfolio encompasses a wide range of services – including mobile payments, messaging applications, chat services and financial management.

As new markets emerge, Comviva is expanding its service base to include new subscribers. Hence, there is a rising demand for features such as remote access, voice-enabled applications and financial services. Comviva must ensure the successful and rapid roll-out of these services.

Business Challenge

With the emergence of 3G networks in India, user traffic of short message services (SMS) are expected to increase as well. SMS traffic will grow exponentially, straining existing mobile operators' signaling networks and infrastructure. Besides facilitating user-to-user communication, SMS has long been used in voting, instant messaging, and gaming applications. And now, SMS messages are finding new uses as “social bookmarks”, pointing users to online information that can be accessed via mobile devices. As a core offering in its portfolio, Comviva's messaging solutions enable swift SMS and multimedia messaging services (MMS) message delivery whilst cost-effectively handling increased traffic volumes.

However, as customer demands for faster short message service center (SMSC) rollouts, Comviva was under tremendous pressure to deploy its solutions under stringent time lines, and provide high service level agreements (SLAs) throughout its operation.

In addition, Comviva needed to create a packaged solution that incorporated high application availability and uptime, while reducing the time taken to integrate it into their customer's environments.

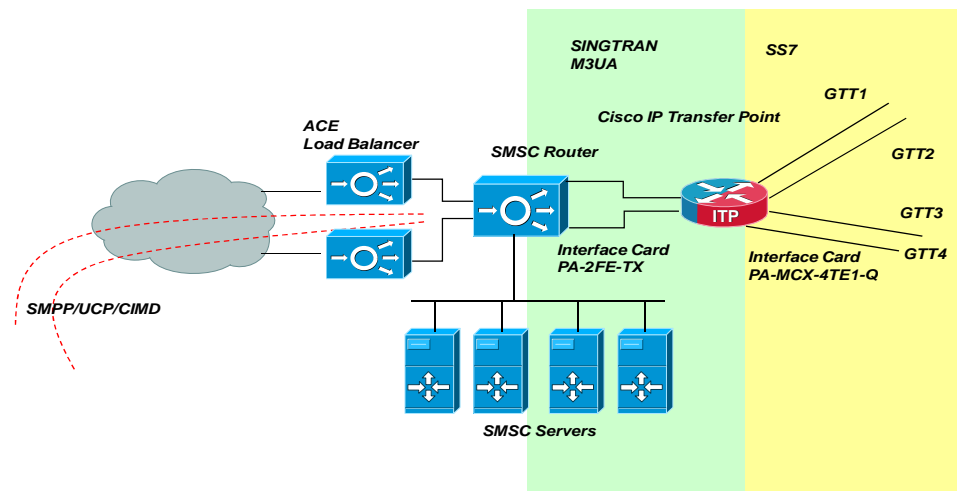
Solution

Existing mobile networks usually work on a centralized messaging architecture, where all messages are routed to a messaging center for delivery to their destination. This places a strain on the costly messaging center and on the core network transporting the messaging traffic. As more applications are deployed using SMS and MMS as bearers, operators need a way to offload the traffic from the core network and messaging server.

Comviva needed a messaging solution that achieves more efficient message handling by implementing a distributed, load balanced messaging service. Such distributed intelligence provides two main benefits: offloading messaging traffic, and allowing clients to move to IP-based delivery of messaging traffic.

With these requirements in mind, Comviva began its search for a powerful load balancing solution backed by a technology provider. The result was a messaging solution that utilized the Cisco Application Control Engine (ACE) Appliance – together with the Cisco IP Transfer Point (ITP) – thus allowing it to create a package that was both efficient and manageable.

Through a broad set of load balancing and content switching capabilities, coupled with a unique virtualized architecture and granular user access control, Cisco ACE modules provide industry-leading time and cost reduction for Comviva's messaging application deployment, build-out, and performance. With Cisco's support, Comviva tested the Cisco ACE load balancing capabilities with their SMSC application, and were impressed by the seamless interoperability between them.



*SMPP – Short Message Peer to Peer Protocol
UCP – Universal Computer Protocol (SMSC protocol Developed by CMG)
CIMD - Computer Interface to Message Distribution (SMSC protocol Developed by Nokia)*

Figure 1: Diagram showing how messaging traffic (from left) is intelligently routed via Cisco ACE modules to Comviva's SMSC Routers, which then direct messages to its processing servers.

The proposed solution proved to meet every one of Comviva's requirements. Together with ITP, the Cisco ACE module was able to operate seamlessly with Comviva's SMSC router, experiencing little or no operational conflicts. Comviva engineers also discovered that it was much easier managing and deploying ACE's load balancing applications than its other market equivalents.

Results

The Cisco ACE solution combined with the ITP generated tremendous results for Comviva. Its messaging applications can be deployed much faster, and operate at higher availability, creating an enhanced user experience to subscribers. "With Cisco ACE bundled as part of the SMSC solution, the deployment time of the network based load balancing has significantly reduced. We have also reduced our dependency on other implementation partners," said Sajith Nambiar, Senior Manager, Value Added Services, Comviva.

"The solution has reduced the implementation cycle time lines significantly," said Sujit Datta Bhaumik (SDB), Manager-Alliance & Solution, Comviva. With its virtualized architecture, Cisco ACE has allowed the organization to lower operating expenses for the solution (in terms of rack space, power, and cooling expenses, as well as ongoing management cost of the applications).

Using the Cisco Application Networking Manager (ANM) software, Comviva engineers also have a unified interface for Cisco ACE provisioning, operations, and monitoring across multiple Cisco ACE appliances, making deployment transparent. Template-based configuration and

auditing complement service activation and suspension capabilities to enable quick implementation of applications.

Subscribers to Comviva's services have also benefited from the accelerated applications and are greatly pleased with their high availability. Frequent network slowdowns and substandard response are now a thing of the past. Comviva's servers can now deliver services and applications of the highest quality more consistently. In addition, the solution has given the organization more confidence in managing the increasing traffic flow of SMS messages.

The rapid deployment rates, accelerated applications and lowered operational costs have given Comviva the ability to stay ahead in the industry. Empowered with the Cisco solution, Comviva can now offer more competitive Service Level Agreements (SLA), improving their profit margins and corporate stature.

PRODUCT LIST

- Cisco 4710 Application Control Engine (ACE) Appliance
- Cisco IP Transfer Point

Next Steps

Comviva are looking forward offering their messaging services as a bundled system, complete with Cisco ACE appliances. Cisco ACE has opened up a wider horizon of possibilities for the future of Comviva's services.

For More Information

For more information on the Cisco Application Control Engine Module, visit:

www.cisco.com/go/ace

For more information on Comviva, visit: www.comviva.com/



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