A10 CGN Enables Reliable Carrier Grade NAT (CGN) Services

Company
Wireless and Wireless Co., Ltd.

Industry
Service Provider

Network Solution
A10 CGN

Challenges
- Global IPv4 address exhaustion
- Rapidly increasing number of users

Decisive Factors
- Cost-efficiency
- Quick implementation of functions, and support

Results
- Support for a larger number of users
- Application transparency in the CGN environment

The A10 CGN is a highly cost-effective product, and A10 quickly responded to our request for application transparency functions. With devoted support from A10’s sales partner, we could start the service very quickly.

Shuichiro Asagai
Technical Department Manager

Wire and Wireless Co., Ltd. (Wi2) is a public wireless LAN service provider covering one of the largest areas in Japan. With wireless LAN spots deployed all over Japan, its "Wi2 300" service is a high quality service that is ready to be used without any complicated processes, and supports almost any wireless LAN device such as smartphones, laptops, and gaming devices. Wi2 provides a wide range of services including support for international tourists who may find it difficult to find Wi-Fi spots.

Challenge: Enabling IP Addresses for Rapidly Increasing Devices

Wi2 used to provide services by assigning public IPv4 addresses to client devices connecting to them. However, as available IPv4 addresses were being exhausted, and the number of connecting devices was expected to increase rapidly, the effective utilization and preservation of IPv4 addresses suddenly became imperative.

CGN is the Solution

In order to resolve this challenge, Wi2 focused on CGN (Carrier Grade NAT, also known as LSN, Large Scale NAT) to expand the available capacity of each IPv4 address. CGN’s NAT configuration enables the use of private IPv4 addresses for connecting devices, and increases the efficiency of the device capacity per public IPv4 address. To be able to configure the CGN service, Wi2 had to evaluate products that provide high transparency with any application without problems, and high stability to provide highly reliable services.

A10 CGN Selected for Cost Efficiency and Quick Implementation

In selecting a device, A10 Networks® line of Carrier Grade Networking (CGN) gateways was considered along with router products from other manufacturers. Compared to expensive router products, the cost-efficient A10 CGN became a prime candidate. For additional required functionality, A10 and its sales partner worked together to quickly implement the specific requirements. This quick response was appreciated and Wi2 decided to select the A10 CGN. Then, one month after this decision, Wi2 started to provide its users with the Wi-Fi service with A10 CGN.
CGN System to Provide High Application Transparency and Stability

Installed within Wi2’s system, A10 CGN operates with redundant high availability (HA) configurations. A10 CGN provides the function to flexibly control the maximum number of users per IP using the “Max users per IP” function. Also, A10 CGN’s logging function monitors the service utilization at all times.

A10 CGN solutions operate under Wi2’s stable system environment, and now, six months after the start of operation, are continuing to work stably without any problems reported from users regarding application transparency.

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About A10 CGN

The A10 CGN product line of Carrier Grade Networking gateways provides high-performance, highly transparent address and protocol translation services for service providers to extend their IPv4 network connectivity, while simultaneously making the transition to IPv6. The A10 CGN appliance delivers performance scalability up to 155 Gbps. The A10 CGN product line is built upon our Advanced Core Operating System (ACOS®) platform, with our Symmetric Scalable Multi-Core Processing (SSMP) software architecture that delivers high performance for enterprise and carrier networks.

For more information, visit: https://www.a10networks.com/products/ipv4-scalingipv6-transition

About Wire and Wireless Co., Ltd.

Wire and Wireless Co., Ltd. is a public wireless LAN service provider with one of the largest number of areas in Japan. With tens of thousands of wireless LAN spots deployed all over Japan, its “Wi2 300” is a high quality service that is ready to be used without any complicated processes. http://www.wi2.co.jp/index.html

About A10 Networks

A10 Networks is a leader in application networking, providing a range of high-performance application networking solutions that help organizations ensure that their data center applications and networks remain highly available, accelerated and secure. Founded in 2004, A10 Networks is based in San Jose, California, and serves customers globally with offices worldwide. For more information, visit: www.a10networks.com

A10 Networks, K.K. is the Japan office of A10 Networks. It holds a mission to deliver innovative application networking solutions, while proactively incorporating feedback and requirements from customers in the local market. For more information, visit: www.a10networks.co.jp.