# Fusion Reforms Cost of Japanese Telephony with Juniper Networks

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A new Japanese service provider is radically cutting the cost of telephony by sending consumer and business calls over its all-Internet Protocol (IP) network and the Internet. **Fusion Communications Corp.** sells Japan's first single rate, 24-hour-per-day, location independent voice service based on IP. Speech quality rivals the expensive service from incumbent carriers. Fusion has slashed average incumbent rates for three-minute calls by approximately 60% for local, 33% for national and 50 to 70% for international calls.

Popularity is soaring for this new service. Since its debut in April 2001, Fusion attracted a half million subscriber lines within its first six months and more than 1.3 million lines to date. The Tokyo-based company bypassed incumbent providers by building the largest IP network in Japan. The demanding performance and technical requirements for Voice over IP (VoIP) and other services led Fusion to Juniper Networks, which provided all IP routing infrastructure for this revolutionary New Public Network service offering.

## Fusion uses Juniper Networks IP routing technology to challenge Japan's incumbent telephony providers.

Until last year, Japanese telephony charges always became more expensive as calling distance grew. Fusion Communications devised a strategy to avoid the incumbents' overhead of building and maintaining costly separate infrastructures for voice, data, Internet access, and other services. To implement this strategy, Fusion built a single IP network as a foundation for multiple services, thereby reducing costs of capital expenditures, network management, and operations. In turn, Fusion passes these savings to their customers.

Fusion found that overlaying new IP services on a conventional circuit-switched network was inadequate for quality voice service. "We required a new technology, a new operating method and a new partner," says Yoshiaki Hirayama, general manager of Fusion's Network Engineering Division.

"Our construction policy was to focus the network on simplicity," says Hirayama. "We used a redundant configuration of Juniper Networks M-series routers to ensure stability and achieve a lower cost of ownership."

## Juniper Networks software provides reliable transmission of multiple IP services

Fusion chose IP routers from Juniper Networks for scalable performance, reliability, cost performance, and strong support for an array of IP services. A key attraction was software support for Multiprotocol Label Switching (MPLS), used to control simultaneous traffic flow of multiple services such as VoIP and virtual private networks (VPNs)."No other routing systems came close to matching the capabilities offered by Juniper Networks," says Hirayama.

Fusion bought and deployed a redundant mesh configuration of Juniper Networks M20 and M10 Internet routers. A pair of routers was configured for IP edge and access services in each of Fusion's 18 access points in Japan.

Since installation, Juniper Networks routers have enabled high speech quality in Fusion's VoIP services. "We haven't seen any delay at the IP level and feel certain that the speech quality of our VoIP services is almost as high as circuit-based offerings from NTT," says Hirayama.

## All-IP network enables popular services

To use the VoIP service, users enter a "0038" prefix to regular telephone numbers, which bypasses the incumbents' networks and routes VoIP traffic onto the FUSION-IP Network.

A flat rate of 20 yen (about 26 cents US) per three minutes applies to all calls in Japan—an average savings of 33-60%. International rates vary, but the average overall savings ranges up to 70% for many destinations.

Fusion also provides Internet access and services, including VPNs for corporate networks, and data centers for equipment housing and hosting. "Integrating all voice, data and video services on one all-IP network from Juniper Networks has resulted in drastic cost reductions," says Hirayama.

## Juniper Networks—A foundation for quality services

The foundation of Fusion's service quality is its IP router infrastructure from Juniper Networks. "I believe Juniper Networks products deliver quality beyond what was originally expected," Hirayama says.

From an operational perspective, Hirayama says Fusion has not encountered any performance or scaling issues since installation – reducing the cost of operations. "For Fusion, Juniper Networks offers an ideal solution," says Hirayama.



Part Number: 352001-001 04/02