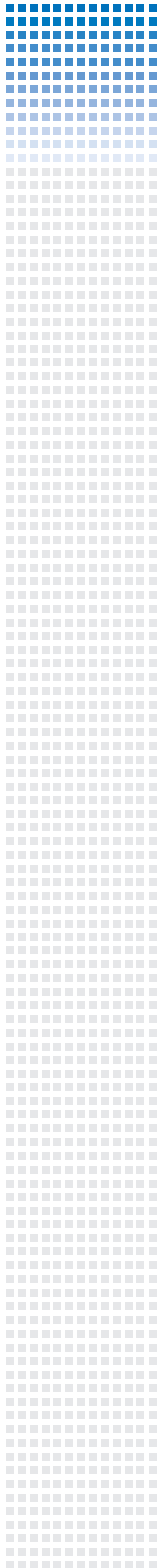


AscenVision **Success of AscenLink in** **Singapore National** **Day Parade**

AscenLink ensures absolute wireless network connectivity at the Singapore national event

AscenVision Technology Inc. The Intelligent Network Provider



Background

Singapore National Day Parade (NDP) is a yearly extravaganza with more than 5,000 participants, 65,000 spectators and 6 months of organization. The event lasts 4 hours and is culminating in splendid fireworks illuminating the night sky. Spectators are enraptured in sounds and colors of marching soldiers, singing and dancing, acrobatics, and more patriotic performances.

In 2006, the 41st birthday of Singapore, the organizers faced new challenges of increased security issues from the recent concerns on terrorist threats and the 33 year-old aging National Stadium slated for demolition and replacement. In order to ensure the event security without compromise and invest least amount of money on the outdated stadium, the organizers eventually decided to choose Firetide mesh network as the Wireless LAN (WLAN) backhaul and build a multimedia network with additional security cameras and voice capabilities to reinforce security.



Challenges

The NDP WLAN is required to serve 40 IP cameras, 50 access points, 200 mobile surfers, and Wi-Fi Voice over IP phones. Such huge demands, therefore, present two main challenges:

[Challenge 1]

How to ensure sufficient bandwidth and constant connectivity

The control and command center of this NDP event is some distance away from the stadium in order to save valuable space for spectators. Organizers monitor the whole stadium via the 40 IP cameras hanging all over the site in real-time. How to ensure sufficient bandwidth and non-stop connection for latency-free and jitterless video delivery and simultaneously satisfy Wi-Fi VoIP phones and surfers, therefore, is one of the main challenges to the event organizers.

[Challenge 2]

How to guarantee absolute network availability and usability

The organizers of the national event must predict and avoid all possible interruptions due to network fluctuation or even connection failure. Guaranteeing absolute network availability and offering optimal network usability, as a result, are the key factors to the success of the NDP event.

Why AscenLink

AscenLink, the industry-renowned WAN load balancer, offers greatest WAN optimization solution helping the Singapore NDP event organizers achieve a constantly available and reliable high-speed WLAN. After rigorous study and considerable comparison, the organizers select AscenLink due to followings reasons:

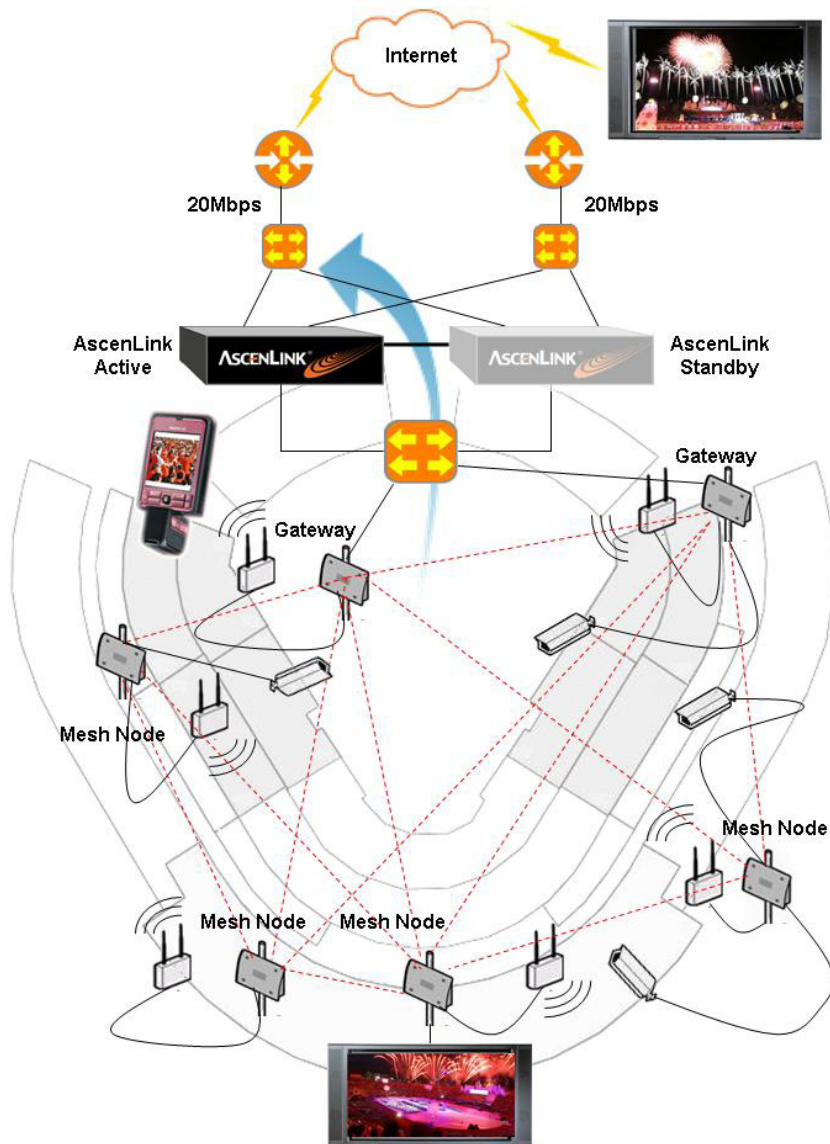
1. AscenLink performs the best price-to-performance ratio in its class and is the most suitable solution to the Singapore National Day Parade event.
2. AscenLink is capable of aggregate multiple WAN links from disparate ISPs to load balance both inbound and outbound traffic and offer fault tolerance to ensure network connectivity. Together with the combined bandwidth, AscenLink delivers LAN-like file delivery speed over the WAN, ensuring high up and downloads speed of video transmission to the organizers.
3. AscenLink's High Availability (HA) function totally eliminates the organizers' worries about the contingent hardware failure by offering an active/passive deployment for a timely contingency backup. In the event of hardware failure in the active unit, the passive unit is automatically activated and takes over immediately to ensure network continuity and availability.

Solution

Two AscenLink AL680 are deployed to achieve HA for contingency backup. One of them acts as the active unit connecting to two 20 Mbps fiber Internet lines for load balance and fault tolerance. The other one plays as the stand-by unit to avoid network disruption due to hardware failure (as illustrated in the figure below).

The configuration key points and benefits are:

1. An AscenLink AL680 aggregates two 20 Mbps Singtel fiber Internet lines to ensure the bandwidth capacity for the applications mentioned above during the event. Furthermore, AscenLink achieves optimal traffic response time and link utilization with load balancing of all traffic in and out of the stadium.
2. AscenLink achieves WAN link redundancy with employment of two WAN links to prevent possible WAN link failure by its fault tolerance function. In the event of WAN link failure, AscenLink's failover mechanism not only can detect the failure of Internet link and redirect all traffic to the available one so that the connectivity maintains intact, but also can automatically detect the recovery of the abnormal link with its fallback mechanism. Furthermore, by smart Auto Routing algorithms, AscenLink takes full advantage of two fiber links for maximum performance and equilibrium usage of both WAN links. The network connectivity, as a result, is absolutely ensured to Wi-Fi surfers and critical applications.
3. With deployment of two AscenLink, High Availability is achieved to avoid hardware failure. The stand-by unit (also called as "Slave") is configured identically to the active unit (also called as "Master") and would immediately take over the responsibility if the active one accidentally failed, so that hardware failure is effectively prevented. During the event, the active AscenLink performs very well without any flaw, which proves that AscenLink is a reliable and trustable WAN optimization solution for such a significant event.
4. AscenLink is seamlessly integrated into the NDP network without complicated configuration. Furthermore, with the intuitive web-based user interface and policy-based administration, AscenLink helps the event organizers save large amount of labor, cabling, and engineering costs. In addition, the remote management enables MIS personnel to easily adjust the deployment according to the situation in the stadium.



Summary

AscenLink ensures a reliable network with optimal performance to the Singapore National Day Parade, satisfying the enormous bandwidth demands and providing stable and accelerated connection between the stadium and the remote control center. In addition, possible WAN link abnormality is effectively prevented from WAN link redundancy and fault tolerance. The considerate High Availability function successfully avoids the contingent hardware failure, which double ensures the network connectivity.

The successful integration of AscenLink in NDP WLAN proves that AscenLink can be integrated into various types of network environment such as cable network and wireless network. With a complete product line, AscenLink is able to cater to the requirements of all sized organizations such as ISP, IDC, headquarters, large enterprises, medium-to-large enterprises, small-to-medium enterprises, branch offices, and SOHO. We believe that AscenLink's excellent performance and all-in-one design can help you achieve an always-on-line network environment at affordable price with most return on investment and at same time increase your business productivity and customer satisfaction.