'06 WORLD BASEBALL CLASSIC™
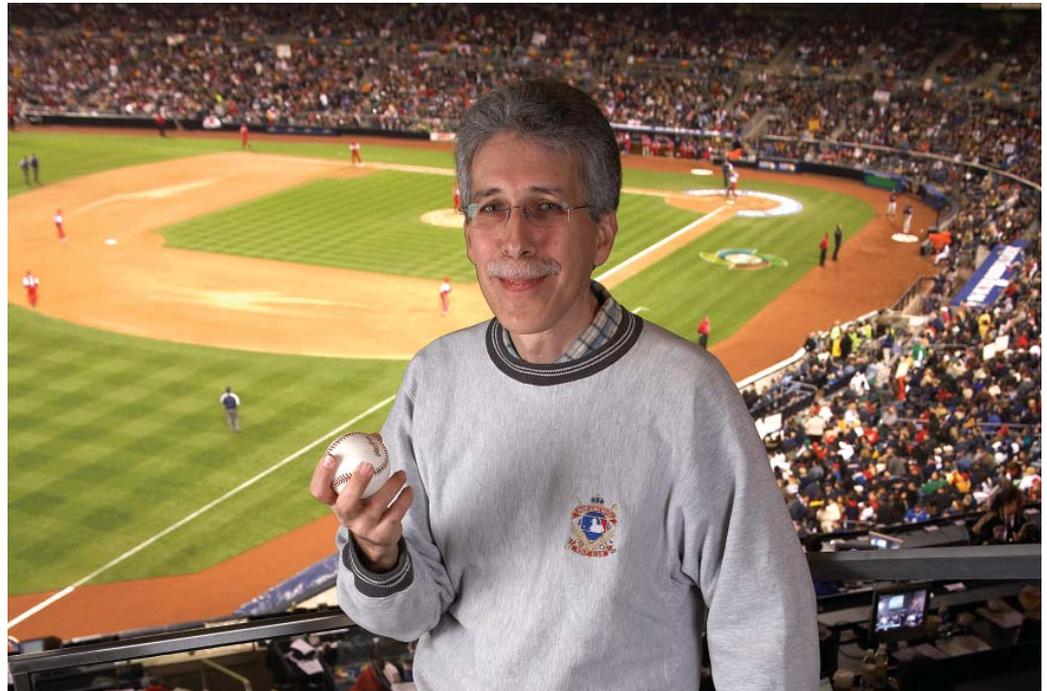
High-Speed D-Link Wi-Fi Networks Launched at Multiple Ball Parks Just in Time for the World Baseball Classic™

Install Teams Set-Up Complex, Temporary, Wi-Fi and Wired Networks in less than 72 Hours Each

Julio Carbonell, World Baseball Classic Executive for IT, at the championship game in San Diego.

Customer Profile:

To determine the best national baseball team in the world, Major League Baseball and the Major League Baseball Players Association hosted the inaugural 2006 World Baseball Classic™ – an 18-day international tournament, featuring 16 nations and territories. The event increased worldwide exposure of the sport and showcased the superstars of today and tomorrow.

The tournament was an overwhelming success, fans around the world loved it, and the international media ate it up. The Dominican Republic's David Ortiz slammed a home run out of Puerto Rico's Hiram Bithorn Stadium. Shairon Martis pitched a no-hitter for The Netherlands. Canada's Adam Stern hit an inside-the-park homer. And Japan took the title, beating Cuba in a 10-6 thriller.

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-Julio Carbonell
World Baseball Classic Executive for IT

Challenge: Sports media coverage is a 24-hour, always-connected business. At the World Baseball Classic, organized by Major League Baseball and the Major League Baseball Players Association, thousands of international media representatives needed wireless access at the host stadiums in North America. D-Link was engaged to provide a solution at PETCO Park in San Diego, California; Angel Stadium of Anaheim in California; The Ballpark at Disney's Wide World of Sports Complex in Orlando, Florida; and Chase Field in Phoenix, Arizona.

Existing connectivity and network capacity at each venue couldn't handle the increased user base the event needed to support. The stadiums had networks for typical baseball season needs, but they would need to handle up to 700-1000 additional users per venue for the World Baseball Classic events.

The World Baseball Classic and D-Link had a small window of opportunity for installations. Switches, wireless access points and hot spots had to be set up and secured at press boxes, dining areas, remote banquet tents, local hotels and mobile RV parking lots at the events. World Baseball Classic employees

needed to connect to corporate VPNs, authenticating via the new hot spot gateways. They would also need to accommodate non-wireless clients with wired connections.

The World Baseball Classic-D-Link team started from scratch at each location, taking IP addresses from the existing local networks and setting up state-of-the-art Wi-Fi networks. Each stadium was different, of course, with different structural impediments and space limitations.

There were structural dead zones, unique mounting challenges, and weather and public traffic considerations. Tens of thousands of people attended each of the games, and the staff didn't have the typical ceiling panel and networking closet luxuries of standard commercial office spaces. Access points needed to be mounted beyond the reach of curious fans and stadium employees – hung from poles, rafters and the undersides of bleachers.

A majority of the journalists and staff at the event would have Microsoft Windows XP laptops, however

PRODUCT FEATURES:

DSA-3200 — WIRELESS G PUBLIC/ PRIVATE HOT SPOT GATEWAY:
• 802.11G WIRELESS CONNECTIVITY FOR PUBLIC ACCESS.
• SUPPORTS UP TO 50 ONLINE USERS SIMULTANEOUSLY.
• KEEPS PRIVATE NETWORK SECURE.

DES-3226L — MANAGED 24-PORT 10/100 SWITCH:
• HIGH PERFORMANCE SWITCHING.
• INVESTMENT PROTECTION.
• ADVANCED STANDARDS BASED ENTERPRISE FEATURES.

DWL-2200AP — HIGH SPEED 2.4GHZ WIRELESS 108MBPS* ACCESS POINT:
• INTEGRATED POE.
• ALSO WORK AS POINT-TO-POINT BRIDGE, POINT-TO-MULTIPOINT BRIDGE, REPEATER.
• INCREASED SECURITY WITH 802.1X AND WPA.

DFL-700 — DESKTOP VPN FIREWALL:
• HIGH PERFORMANCE FIREWALL WITH NAT.

DFL-1100 — RACKMOUNT VPN FIREWALL:
• HIGH PERFORMANCE FIREWALL WITH NAT.

some would be running Service Pack 1 (SP1) and even some older versions of Windows. The wireless capabilities on SP1 and prior versions are not as easily configured as with XP SP2. Some of these laptops would have foreign language and non-alphabet characters, further complicating support.

Solution: The World Baseball Classic looked to D-Link for a complete wireless and wired solution. "We needed to make wireless access available to media from around the world at each of our venues," said Julio Carbonell, World Baseball Classic Executive for IT. "D-Link's switches and access points met our needs reliably and within budget."

The D-Link and World Baseball Classic technical teams installed switches and hot spot gateways at hotel locations and switches and Access Points (APs) at the stadiums. Cliff Harewood, World Baseball Classic Infrastructure Architect, said the hot spot solution at the hotels helped them keep costs under control.

"For our particular situation, the D-Link solution was better than anything offered by other vendors," said Harewood. "We could spend around $500 per hot spot and just add another one without having to add both access points and controllers. It gave us a lot of flexibility – which was important because of time and space constraints."

The cost of a D-Link DSA-3200 Wireless G Public/ Private Hot Spot Gateway is comparable to the cost of an AP from other vendors, said Harewood. Yet those APs require controllers that cost close to $3000. "With D-Link, we could start small and grow without having to forklift or add controllers," said Harewood.

D-Link and World Baseball Classic staff initially performed site surveys to understand the layouts and limitations at the venues. Wireless access was backed up by local switches, so if a user didn't have wireless capability they could easily jack into the physical network.The on-site teams installed multiple access points and hot spot gateways in focused areas. Pressboxes, for example would serve 75 to 100 users.

D-Link supported the event by providing switches, firewalls, wireless access points, hot spot gateways and installation manpower to get the networks up and running within 72 hours. In total, the four stadiums used 50 DSA-3200 Wireless G Public/Private Hot Spot Gateways, 20 DES-3010GA Managed 8-Port 10/100 Switches, 106 DES-3226L Managed 24-Port 10/100 Switches, 80 DWL-2200AP High Speed 2.4GHz (802.11g) Wireless 108Mbps* Access Points (with Power over Ethernet), 4 DWL-2700AP Outdoor 2.4GHz (802.11g) Wireless Access Points, 20 DSS-8+ 8-Port 10/100 Desktop Switches, 3 DFL-700 and 1 DFL-1100 VPN Firewalls.

At the stadiums, there could be no overlap of radio cells, so each AP needed power output minimization. Roaming was facilitated by using similar BSSIDs.

"The built-in firewall functionality on the hot spot gateways was nice," said Harewood. "We used these at hotel locations where players, media and World Baseball Classic employees needed access to open connectivity and private VPNs. It allowed people to connect without having a physical DMZ in the environment. Outside traffic never touched the internal network."

Journalists and media personnel from all over the world easily transmitted their stories, photos and videos home for publication. On-site support staff helped non-SP2 laptop users and foreign character versions of Windows connect.

Each stadium install took two to three days. The Florida site took one day. Usually, installations of this magnitude take a week and a half. Easily configurable equipment, motivated staff and deadline pressures kept the pace moving, however.

"The D-Link support staff was very helpful and experienced," said Harewood. "They came up with creative solutions on the fly, and made my life easy by getting the deployment done quickly and professionally."

* MAXIMUM WIRELESS SIGNAL RATE DERIVED FROM IEEE STANDARD 802.11G SPECIFICATIONS. ACTUAL DATA THROUGHPUT WILL VARY. NETWORK CONDITIONS AND ENVIRONMENTAL FACTORS LOWER ACTUAL DATA THROUGHPUT RATE.

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