IBM

PGA TOUR and World Golf Village score a hole-in-one with IBM e-business solutions.

Application	Information, advertising and commerce Web sites; live scoring; online catalog; interactive golf museum
Business Benefits	Increased awareness of the sport through brand and image building; realtime information delivery to global audience; up to 11.5 million hits in one day; new sources of revenue
Software	IBM® Net.Commerce IBM AIX® IBM DB2® Universal Database™ Lotus® Domino™ Lotus Notes®
Hardware	IBM AS/400® Servers IBM Netfinity® Server IBM ThinkPad® IBM PC 330 Servers IBM 300 Desktop Systems IBM SCSI Disk Drives
Services	IBM e-business Services

Since the mid-19th century, when the gutta-percha ball, or "gutty," replaced the feather-filled ball that had been used for centuries, the basic technology of exacting contact with a tiny, dimpled ball has drawn more interest and participation than any other sport in the annals of history. Keeping pace with this enthusiasm, among others, are two golf entities – the PGA TOUR® and the World Golf Village® – both of which employ cutting edge e-business and communications solutions to link member professionals, the golf industry and golf enthusiasts worldwide.

IBM has served as the official scoring system partner for the PGA TOUR since 1992 and the official information technology partner since 1997. In 1997, IBM executed a ten-year extension with

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– Charlie Schmitt, Executive Producer, PGATOUR.com

e-business

IBM's e-business solutions are helping PGA TOUR and World Golf Village to promote the game of golf.

PGA TOUR and a new agreement with the World Golf Village to support several technological solutions designed to advance their brand identities. "IBM has been a great contributor to our past success, and we are very pleased with our expanded relationship and the impact it will have on our sport. This relationship will enable us to capitalize on emerging technology to enhance the presentation of our sport on-site at all tournaments and at the World Golf Village, on the telecasts of our events and through evolving interactive media, particularly through the Internet," notes Timothy W. Finchem, PGA TOUR Commissioner and Chairman of the World Golf Foundation.

The impact has already increased traffic, revenue and consumer awareness through the information and advertising tools intrinsic to IBM's Web-based solutions for PGA TOUR and World Golf Village.

The PGA TOUR

The PGA TOUR garners more corporate sponsorships than any other sports activity besides the Olympic games. To reach its goal of supporting its players and servicing approximately 120 tournaments annually, the TOUR has partnered with IBM to design customized electronic solutions, which include its Web site, *www.pgatour.com*, and IBM's premier live-scoring interface. "The relationship with IBM has helped the PGA TOUR bring greater awareness to our sport and the players who make up the PGA TOUR," says Charlie Schmitt, executive producer of PGATOUR.com. "And they've done that through improving our telecasts and greatly improving our Web site from one that was static to one that is dynamic, interactive and pleasing to view."

Building brand and image

Launched in January of 1997, the PGA TOUR team considers its Web site to be the leading site in golf and its major public image focus. On a record day in 1999, PGATOUR.com had more than 11.5 million hits. The live scoring capabilities are the main thrust of the

IBM's live-scoring system attracts millions to the PGA TOUR Web site.

site's popularity. Schmitt adds, "During tournament play, we get a tremendous amount of hits for the live-scoring element, especially on Thursday and Friday, which coincides with the time that people may not have access to a television. Our Web site sees almost double the traffic during the majors."

Besides current scores and results, the site houses up-to-date news on weather conditions, behind-the-scene details on the TOUR and players, statistics and records, contests, PGA TOUR history, archives and membership how-to's. Another popular online attraction, powered by IBM DB2 Universal Database and Net.Commerce software, is the PGA TOUR shop where users are able to purchase over 1,000 logo items electronically.

"The response to our Web site has been tremendously positive," Schmitt says. "There's a big affinity with golf and Internet users, and *pgatour.com* gives people a really good way to follow golf when they can't get it through any other distribution method. On top of that, the Web site is a fantastic communications resource for building brand and image — a resource that tells the general public who the PGA TOUR is and who its players are."

The Web site and each application designed for specific and customized solutions were developed by IBM e-business Services in Atlanta.

Scoring system – "It's more than adding 18 numbers together"
Considering the bounty of information and services available at *pgatour.com*, by far the most used portion of the Web site is the leaderboard, one of the several data distribution points of the innovative scoring system developed by IBM ten years ago. Currently crafting a new system for the 2000 season, Steve Evans, director of information systems, PGA TOUR, expects "it probably will become the most mission-critical system that we run on the TOUR."

Like the TOUR players, the live-scoring system travels from location to location and is set up and taken down for every tournament. Data collection, a central system and distribution make up the scoring system's three functional sections. Scoring, stroke and shot information are handwritten and then taken to volunteer scorers positioned at each hole. The data is then wirelessly transmitted to the central system for distribution. Two seconds pass from the moment the volunteer scorer presses the transmit button to the moment a change is recorded at one of several distribution points.

The PGA TOUR Hospitality area, employing 60 to 100 IBM ThinkPads at each tournament, is one such distribution point. This point delivers updates on the action as well as player biographies and statistics to the PGA TOUR's legion of fans. Other distribution points include direct interface to network broadcasts — the graphics and tickers viewers see on the screen — along with electronic scoreboards set up at the tournaments and the Web site leaderboard, which is updated every 30 seconds.

With the advances in technology over the past decade, the new scoring system's concentration on data collection will include a device that travels with players during play, capturing more data such as distance, location, club selection and lie.

Supporting the PGA TOUR

The establishment of 18 Tournament Player Clubs (TPC), with more on the way, are helping to promote and fund the PGA TOUR. Each Club is connected to PGA TOUR headquarters and utilizes a central IBM AS/400 Server. IBM Business Partner InfoGenesis provides software for TPC pro shop and restaurant point-of-sale solutions.

"The PGA TOUR is a very forward-thinking and focused organization," Evans explains. "And we know we're going to get value from IBM's ability to help us strategically with technology by developing customized solutions."

World Golf Village – Home of the World Golf Hall of Fame®

Opened to the public on May 19, 1998, the World Golf Village located off Interstate 95 in St. Augustine, Florida, now reigns as the mecca for golf devotees from around the world. The expansive resort complex includes an unprecedented alliance of the world's major golf organizations in support of the new World Golf Hall of Fame, the project's centerpiece. Leveraging e-business and multimedia technology, IBM has fashioned a dynamic interactive infrastructure for the Village's 750,000 to one million projected annual guests.

Originally conceived as a project of the PGA TOUR, World Golf Village grew so quickly that it was eventually spun off as part of the World Golf Foundation, Inc., a non-profit organization. Along with financial support, IBM developed key applications and provided the computer hardware, software and systems integration skills to run the Inductee Directory, Global Golf Center, the Walk of Champions™ and the Village's associated Web site. Supported by all 22 golf organizations worldwide, the total project was put together in a remarkable, eight-month time frame.

"The World Golf Hall of Fame is probably the first museum of its kind to be driven by such a large array of technology," says Raul Ramos, director of technology for the World Golf Foundation. "IBM expertise and consultants were available to immediately integrate the technologies, and we were able to open on time. We have been operational seven days a week, non-stop, with not one technology failure – that says a great deal about the quality we put into it."

Web site drives business

Months before the World Golf Village opened its doors, the Web site, *www.wgv.com*, was launched to promote the pending debut of the resort and museum. Designed by Atlanta's

World Golf Village is using IBM e-business technology to attract visitors to its Hall of Fame in St. Augustine, Florida.

"This is truly a global golf center. You can stand in this facility and at any time of the day or night see what's going on in golf throughout the world…All entirely run on IBM technology."

– Ruffin Beckwith, Executive Director, World Golf Village

IBM e-business Services, the site is filled with information about the Village. The homepage guides visitors through every element of the resort and presents descriptions of exhibits, listings of Hall of Fame inductees, and travel and tourist information for World Golf Village, surrounding areas and the extended region.

The Web site relies on an IBM Netfinity server running Lotus Domino under Windows NT®. Enabled by Domino, the content management technology helps World Golf Village to ensure that content is always current and relevant.

"World Golf Village means just that – World Golf Village," says Mark Berman, director of corporate marketing, World Golf Foundation. "So the only method to get that global message across to everybody, effectively and rapidly, is through a Web site. Our Web site is our 24-hour, 7-day-a-week, service person. It's an outstanding medium to deliver our message. We want to make sure that our Web site is not only the best, but also stays fresh – that will entice visitors to make a trip to World Golf Village."

On the drawing board are plans to expand the Web site to be more interactive, using virtual tours, online shopping, video clips and sound bites from some of golf's greatest moments, hot links to other golf sites, registration for information and fund-raising opportunities and World Golf Village amenities.

"It's a win-win situation," Ramos explains. "As we improve our Web site to make it more user-friendly and add technology to take advantage of some of the latest enhancements, like the virtual reality type tours, instant polls, smart e-mail replies – the more we enhance our Web site, the easier it is to market our destination."

The World Golf Hall of Fame
With exhibits set up to replicate an 18-hole golf course to be "played" by visitors, Ramos calls the Inductee Directory the masterpiece of the World Golf Hall of Fame. As the central attraction, the directory offers rich, multimedia profiles of the 76 Hall of Fame inductees and a wealth of golf information.

The Directory runs on IBM 300XL desktop systems and IBM PC330 Servers. IBM 9.1-GB SCSI disk drives are used in an IBM Redundant Array of Independent Disks to stream DVD video to the client systems. IBM e-business Services developed custom software for the Directory, custom middleware to enable stand-alone, kiosk application access to information stored in IBM DB2 Universal Database and a customer database that enables "data-driven" content management of the directory information – including textual statistics information and multimedia assets such as DVD video, bitmaps, audio clips and signature animations.

"What impresses me the most about this technology is we are able to update most exhibits in realtime," says Ramos. "This changes the profile of the exhibit every day so you can come in today, see something, and go back tomorrow and see something different. We can update most of the content quickly and at little cost to us, which is what you want to derive from technology."

Hole number 12, the Global Golf Center, uses flat-screen technology to allow users to search the Internet for any golf site in the world – from one of six high-speed stations. Positioned above the stations, a giant LED read-out panel feeds live scores from all major international tours along with the TOUR's leading money winners and latest worldwide rankings. The other side of the exhibit contains six television terminals that feed live and taped golf tournaments taking place around the world. The Global Golf Center runs Lotus Notes and Domino on IBM 300GL desktop systems, which act as the Web clients, and IBM PC330 Servers, which act as its Web proxy server and NotesBoard Server.

"This is truly a global golf center. You can stand in this facility and at any time of the day or night see what's going on in golf throughout the world," says Ruffin Beckwith, executive director, World Golf Village. "All entirely run on IBM technology."

The Walk of Champions

The Walk of Champions resides outside of the Hall of Fame building. Centered around a man-made lake, four kiosks are set along the half-mile path so visitors can access general information about current activities in the Village. These kiosks enable participants in the Commemorative Brick Program to locate their personalized bricks on the Village's Walk of Champions.

The Commemorative Brick Program allows an individual or a business to be immortalized among the greatest names in golf by the purchase of a brick to be installed along the Walk of Champions. Developed by IBM, the brick locator program allows kiosk users to enter information on a virtual keyboard and locate their brick along with a map of how to get to it. The brick locator will also show what's inscribed on the brick and who purchased it.

The Walk of Champions runs on IBM 300XL desktop systems and an IBM PC330 Server. All information is gathered through a touchscreen application developed by Microtouch in conjunction with IBM e-business Services.

Future

Already working their Year 2000 plan, developers for World Golf Village are designing and integrating cutting-edge technology into the museum and the Village. One of the projects being developed in partnership with First Union National Bank is a SmartCard for visitors to the complex. Hoped to be introduced in 2000, the cards would entail a big system integration to facilitate communications within the various components of the World Golf Village while personalizing the guest experience with easy access to information, reservations and purchases.

"We want to use technology to enhance the user's visit to the point where the user can walk into one location, be able to get all the information he or she needs and go to the right destination." Ramos concludes. "Electronically and financially, we want to be able to have users charge to one single point of sale, be able to walk out with whatever they need and not feel overwhelmed by technology – just delighted with their visit."

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