

Manchester City kicks off innovative smart-card services and sponsorships with wireless, RF-enabled Intelligent Stadium

HP success story



Manchester City Football Club, one of the UK's oldest soccer clubs, is pioneering an advanced wireless solution based on an RF-enabled Fortress Smart FC Scheme system. The Intelligent Stadium solution from HP, Fortress GB, and Cisco Systems admits up to 1,200 patrons per minute into the 48,000-seat stadium; extends access to real-time information and e-purse transactions stadium-wide; supports customer relationship management (CRM); and enables the club and its sponsors to create and deliver CRM-driven joint products that build fan relationships, brand value, and revenues.

Manchester City Football Club is one of the UK's oldest soccer clubs. In the UK Premier League for the last two seasons, the club has a large and loyal following. But even when the club was not in the top tier, fans still packed its matches. Today, Manchester City counts 400,000 fans nationwide and, with supporters' clubs in more than 25 countries, estimates that its total fan base exceeds two million.

Founded in 1894, the club retains a customer focus as it adapts to today's high-stakes sports industry. The club nurtures fan loyalty and brand value with marketing acumen as well as prowess on the field. Manchester City is among the first UK



football clubs to offer civic programs, such as football coaching clinics in local schools. Sponsorships are critical to most club operations, from its City in the Community scheme—a registered charity since 1986—to a retail franchise that sells club memorabilia and clothing to fans worldwide.

In 2003, Manchester City kicked off its 110th season with two new strategic assets: a state-of-the-art stadium and a pioneering IT infrastructure that enables the club to deepen ties with fans and sponsors—and expand revenues.

After 80 years in its former 34,000-seat stadium, the club moved into the City of Manchester Stadium, a complex built to host the XVII Commonwealth Games, held in 2002. The club converted the new stadium into a 48,000-seat football venue with 30 percent more seats and 60 percent more VIP suites than its previous stadium and twice as many food and drink concessions. Manchester City also equipped the stadium to host conferences. And it can function as a 60,000-seat concert arena—the largest stadium performance site in the UK.

Working with Hewlett-Packard (HP) and its partners Cisco Systems and Fortress GB, Manchester City further enhanced the venue by introducing an Intelligent Stadium (I-Stadium) solution.

The solution integrates an 802.11b (WiFi) wireless network based on Cisco Aironet WLAN technology with Fortress Smart Stadium Scheme and Radio Frequency Identification (RFID)-enabled smart cards. This environment supports ultra-fast, contact-free stadium entry, builds customer relationship management (CRM) data on every patron, and extends secure, wireless access to real-time data and electronic (e-) purse transactions throughout the stadium.

"Manchester City has the best fans in the world," says Manchester City Manager Kevin Keegan, a former national team captain and the only Englishman twice voted European Footballer of the Year. "We're enhancing our fans'



experience as active supporters and adding to their enjoyment of a match with the I-Stadium solution, which makes our new stadium among the most advanced in Europe."

Building a stronger club

"As one of the country's leading professional football clubs, we have to be agile both on the field and as a business," says Manchester City Managing Director Alistair Mackintosh. "By enabling us to expand and innovate in our services to fans, merchandising initiatives, and sponsorship arrangements, our I-Stadium solution helps us build an even stronger club."

"Our competitiveness is determined by how well we do both on and off the pitch," Mr. Mackintosh continues. "By making ticketing and entry more efficient, by getting fans in sooner where they can spend more, and by inventing entirely new revenue streams with our sponsors, we have a big opportunity to generate far more cash revenues and be even more competitive as a club."

"Our various stakeholders—including our community, shareholders, and supporters—have a common goal: to build a better team," says Mr. Mackintosh. "Revenue growth gives us more resources to invest in our fans and our team."

Pioneering "first wireless stadium" with proven partners

Consultants from HP Services planned, designed, and implemented the wireless I-Stadium environment, which employs Cisco Aironet 1200 Series wireless access points, RF-enabled kiosks and turnstile control boxes from Fortress GB and WiFi access devices—HP iPAQ Pocket PCs equipped with RF readers.

Integrated within this wireless infrastructure, all RF-equipped components—including the turnstiles, kiosks, and iPAQ handhelds—access the same real-time CRM data.

At the core of I-Stadium is Fortress Smart FC Scheme, an award-winning suite of venue-management software from Fortress GB. Integrated with a CRM database developed by Computer Software Limited, Fortress modules support loyalty programs, electronic purse transactions, online betting, employee time and attendance, and management of facilities, such as box seats.

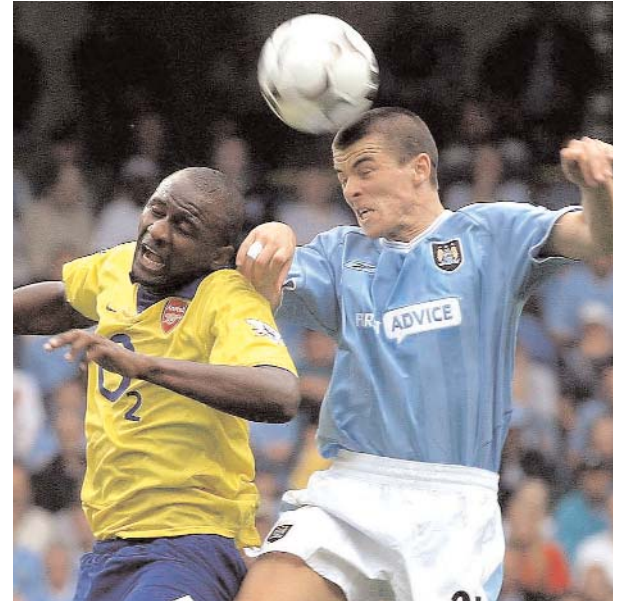
"The club chose Fortress GB after a competitive tender process for the smart card," says Manchester City Retail Controller Duncan Martin. "We also wanted to partner with major technology companies that have a strong global track record and proven expertise. What we are building is brand new—the first wireless stadium we know of. With HP and Cisco, we've stepped into the future with top professionals who innovate with us."

System reliability is also a must for the club. "It is crucial that we operate smoothly on a match day," says Mr. Martin. "We are comfortable with the robustness and stability of the iPAQ devices, cabling and wireless systems and the fact that they all work together with no conflicts."

Contact-free access curbs queues, admits up to 1,200 fans per minute

Instead of paper tickets or season-pass books, fans receive a smart card with an RF microchip that contains transaction details, including the holder's permanent customer number and designated gate and seat.

Fortress GB equipped all of the stadium's 84 turnstiles, as well as handicapped and VIP/corporate entrances, with



RF-activated access control units. Fans gain split-second entry into the stadium by simply showing their cards at the units that control their assigned gates.

As the fan passes through the turnstile, the wireless smart-card solution instantly updates the microchip as well as the CRM database with the entry time. Thwarting such abuses as ticket pass-backs, the system allows each card just one entry per match.

The contact-free solution admits up to 1,200 patrons per minute stadium-wide and also eliminates box-office queues. Instead of waiting for hours to pick up tickets before a match, fans simply order a seat by phone or via the club's website. Linked to the club's ticketing system, the Fortress software records the transaction in the CRM database, which is accessible wirelessly from all RF-equipped devices, including the iPAQ handhelds used by stewards throughout the stadium.

Working with the club, Fortress GB devised a color-coded entry system that alerts stewards of failed entries and signals usage of discounted cards. Stewards can readily spot an adult with a child's card. They solve patrons' access problems—or collect upgrades—on the spot using their iPAQ PCs, which update the CRM database. According to the club, gate-side upgrades are adding £3,000 to £4,000 of revenue per match.

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—Alistair Mackintosh, Managing Director, Manchester City Football Club

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—Kevin Keegan, Manager, Manchester City Football Club

Behind the scenes, security personnel view real-time, aggregate data from the system to monitor traffic flows. The infrastructure feeds a color-keyed aerial display in the control room that highlights sections approaching maximum capacity. Staff can reassign stewards to crowded areas and, after games, review statistics to refine allocation of personnel for future events. Stewards register on the Fortress Smart FC Scheme time-and-attendance module, which interfaces with the club's payroll system.

"One customer one card and one record"

"There's only so much that a stadium can charge for a seat," says Mr. Martin. "We can't increase revenue from tickets alone. With 48,000 fans, we could not increase the speed of entry or maximize revenues using manual methods. Our new stadium gave us an opportunity to apply technologies to achieve these goals."

Replacing the club's static records of season ticket holders and mail order buyers, the dynamic CRM repository tracks all club transactions with 85,000 cardholders in real time.

"Each card is registered to one holder," says Mr. Martin. "We follow one customer with one card and one record throughout the fan's life with the club. All of this person's purchases feed back into our central CRM database. We can build a history, learn what the customer is doing, and start cross-selling merchandise and services across club businesses."

While logging each purchase, the infrastructure awards the cardholder with loyalty points that accrue year over year. Supporters can redeem their points for a host of benefits, including premium seats and discounts.

The I-Stadium solution's CRM capabilities will soon extend to out-of-town and overseas fans. New loyalty rewards targeting visitors include a travel package that bundles match tickets and accommodations.

£500,000 from seat buy-backs

Unlike paper tickets, digital smart cards are flexible—an advantage that enables the club to adapt its offerings to customers' preferences.

The club's current smart cards offer fans three tiers of patronage: City Season Cards; Citycard memberships, which give holders priority access to seats for league and cup games; and City Matchcards.

Mining CRM data, the club learned that most Season Card holders miss some matches. Working with Fortress GB, the club used the infrastructure to implement a new buy-back scheme that allows the Season Card holder to cancel a seat and receive partial credit. The club then resells the seat. The program is expected to increase revenues by up to £500,000 this season.

"A week before a match," says Mr. Martin, "we use the system to see what seats are available, look at the CRM database, and notify members by e-mail instead of running an expensive ad."

Inside stadium sooner, fans have more time to shop

Now that fans no longer languish in box-office queues, the club wants them to spend more time inside the stadium.

"The vast majority of our 48,000 seat holders enter within 30 minutes of kick-off," says Mr. Martin, who examines marketing data with the same zeal that fans bring to match statistics. "If supporters get in earlier, they spend more. With our CRM data, we can easily see who attends matches and at what time."

"We plan to significantly increase the average spend on the concourse this season," continues Mr. Martin. "Using e-mail, we can offer extra loyalty points and discounts to bring 50 percent more fans inside 45 minutes before the match. And the system makes it easy to measure results."

The infrastructure devised by HP consultants simplifies both daily management and continuous adaptation of the I-Stadium solution. Working with Fortress GB, HP, and Cisco, the club plans to make full use of the solution's Fortress Smart FC Scheme software, which supports e-purse transactions and online betting and tracks availability of such amenities as suites and box seats.

Inside the stadium, the wireless infrastructure will soon offer fans such conveniences as cashless transactions and ubiquitous access devices that move services close to buyers. Instead of queuing up at half time to place bets, punters will simply go to the nearest Ladbrokes betting representative, who can process the transaction on an iPAQ Pocket PC. HP handhelds can also supply fans and journalists with real-time photos of a match.

From their press boxes, deadline-driven reporters will gain secure Internet access through the I-Stadium network to file their stories and photos. Kiosks in the club's VIP suites will enable patrons to order club merchandise and receive in-suite delivery.

Inventing with IT partners and sponsors

The I-Stadium infrastructure will also enable the club to customize services to its 5,000 corporate accounts.

"CRM drives our strategy to strengthen ties with supporters and sponsors," says Steve Sayer, the club's head of sponsorship. "We have a fantastic stadium that is purpose-built to enhance the spectator experience. Our I-Stadium solution enables us to become equally customer-focused as a marketing organization."

"Using CRM data," Mr. Sayer continues, "we can understand and segment our fan base and partner with our sponsors to offer joint packages tailored to fit our supporters. We're already creating and delivering financial and travel products via our wireless, smart-card infrastructure."

Within the club's flexible and scalable I-Stadium infrastructure, all of these innovations are simple enhancements, not major projects.

"Now, so much more is possible," concludes Mr. Martin. "As we explore new smart-card applications with Fortress GB, our partners HP and Cisco have the experience and technologies to keep us moving forward."

Challenge

- Build brand value and loyalty
- Strengthen ties with fans and sponsors
- Gain better customer information
- Grow revenues in stadium and beyond
- Gain ROI from new, multi-purpose venue

Solution

HP Services

- Planning, site survey, design, and implementation of stadium-wide wireless infrastructure, including HP iPAQ security and integration

Software

- Fortress Smart FC Scheme solution and RF-driven smart cards and kiosks from Fortress GB Ltd.
- CRM database developed by Computer Software Limited

Hardware

- Cisco Aironet 1200 Series Access Points, supporting 802.11b
- HP wireless iPAQ 5550 Pocket PCs equipped with RF readers (30)
- Fortress GB turnstile control boxes

Results

- Within first season, 85,000 fans purchased smart cards and began accruing loyalty points.
- 48,000-seat stadium fills at an unprecedented rate of up to 1200 fans per minute.
- Buy-backs of City Season Card seats yield £500,000 in the first season.
- Club's new CRM database guides innovative services and sponsorships.
- Joint smart cards with sponsors enhance value and reach of club brand.

To learn more, visit www.hp.com or www.mfc.co.uk

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