



Manchester United and DXC Technology

BEYOND THE GAME: ENHANCING FAN EXPERIENCE THROUGH INNOVATIVE ANALYTICS SOLUTIONS AT MANCHESTER UNITED





Context

Manchester United is the most popular club in the world's leading sport – with over 1.1 billion fans and followers globally. Its elite sporting pedigree has secured an illustrious record at the highest level. The club is a pioneer of top-tier football business strategy.

DXC Technology is Manchester United's Official Digital Transformation Partner. Together we aim to move technology from a supporting to an empowering function.

Manchester United seeks to optimise its performance as a data-driven organisation. This requires the transformation of its data processing capabilities to allow for actionable insights.

The club is a multifaceted B2B and B2C business, and the efficient and advanced use of data is essential for continued operational success. Alignment of many stakeholders is required on how best to leverage data-led insights.

Making the most of data

Our partnership seeks to optimise on-the-pitch and off-the-pitch performance by leveraging the power of data and analytics.

Common framework shows universal value

To manage and analyse data, it's essential to have a well-defined and effective framework. The framework comprises the ways in which data is managed, processed and analysed – using standardised methodology and tools.

DXC applied a common framework for handling data related to both football and fans. This shows that DXC Data and Analytics expertise is flexible – and applicable to businesses from all industries and geographies. This framework can be applied to support your business goals.

Four data pillars

Our framework considers four fundamental pillars when handling and drawing insight from data. The challenges we faced and successfully addressed in relation to these four pillars were:

- **Data volume and relevance.** Dealing with the vast amount of data generated by a global following poses a significant challenge. Manchester United needed to sort large volumes of data to determine what was relevant for specific tasks. This included over a hundred data pipelines across the club's data platforms.
- **Data quality and completeness.** The inconsistency in data quality and completeness presented hurdles in obtaining accurate insights. Ensuring the reliability and completeness of data is crucial for making informed decisions.
- **Multiple business applications and channels.** The presence of numerous business applications and customer channels created a fragmented data landscape. Integrating and synchronising data from various sources is essential to gain a comprehensive view of fan interactions, as well as Manchester United's and third-party player performance data.



- **Personalising the official Man Utd app.** The challenge of delivering personalised experiences to fans and maintaining loyalty is a key objective. Meeting this demand requires not only understanding individual preferences but also continually adapting to maintain and grow the fan base.

DXC data framework delivers actionable insights

In partnership with Manchester United, DXC has designed and developed a comprehensive data infrastructure consisting of two data hubs:

Digital Data Hub

Optimising digital assets and fan experience

The Digital Data Hub is up and running and deeply integrated with the club's data operations.

How did we align with the customer?

DXC is an integrated partner, working alongside the Manchester United Technology team at Old Trafford. We have explored the current and future needs of the club in depth to create a comprehensive and future-facing

Digital Transformation Roadmap. This aligns Manchester United's technical platforms with its core objectives.

Football Data Hub

Supporting on-pitch performance

DXC designed a distinctive architecture tailored for player data by developing and implementing a data strategy, cloud infrastructure, data ingestion framework and data processing framework, empowering the club's own data scientists to tailor their tools precisely to the demands of player performance analytics. From real-time insights during matches to comprehensive data modelling, every piece plays its part in enhancing on-the-pitch excellence.

Making the club future ready

In partnership with Manchester United, DXC has set clear targets for the future. This involves designing and advancing the data framework, integrating diverse data feeds, and expanding data collection from multiple sources.

The two data hubs are now serving as a comprehensive data infrastructure for Manchester United, enhancing the fan experience as well as supporting on-the-pitch operations.



A breath of fresh air

Sometimes you don't know what you don't know.

That's where DXC can be a breath of fresh air. We bring a wealth of insight from diverse industries and top-tier businesses. This expertise can be applied to help your business in surprising ways. We can reveal unexpected areas for improvement, generate cost savings you hadn't considered and improve your profitability through data-led insights.

Coaching Agile

Technology is at its most powerful when deployed to teams which fully embrace it. That's why DXC collaborated with the wider club to develop an enhanced Agile development culture, moving away from the traditional Waterfall approach. This transition required engagement with senior stakeholders to align project prioritisation.

DXC helped Manchester United become even more proficient working in an Agile methodology, a journey starting with Kanban and later embracing Scrum. Our approach involved promoting an Agile mindset, working collaboratively with shared priorities. The outcome is a tightly knit team sharing responsibilities and thriving.

Hybrid resourcing lets you have it all

DXC's hybrid resourcing model provides cost-effective world-class expertise and as much in-person presence as needed.

The partnership with Manchester United has made significant progress quickly because DXC is well resourced with highly expert, dedicated teams. We embrace the immense value of cultural variety to leverage remote working. Our Data and Analytics hub is located in Poland, with expert hubs in the UK, Egypt and India. The club greatly appreciated the cultural diversity that DXC delivered, and the varied and valuable perspectives that our global resourcing provided. In concrete terms, this means innovative solutions that are possible only thanks to these diverse teams.

We also ensure that we have sufficient local presence to work in the same room as the club. We have many senior experts on site at Old Trafford day to day, as well as many more who live within a short commute and are available for face-to-face work as needed. This creates a cohesive, responsive and united team.



Insights are relevant and accessible

Comprehensive data and valuable insights have little value if decision-makers are not influenced by them. A key skill in data and analytics is engaging with stakeholders and leaders, understanding their perspectives and presenting relevant insights in an accessible way.

DXC worked to engage decision-makers at Manchester United to understand which data is useful to drive successful outcomes. We then engineered the data and analytics to produce insights that can inform critical business decisions. DXC is helping the club to gain relevant insights from complex data, in ways which translate for key decision-makers. DXC Data and Analytics makes a practical and real difference to business operations and decisions.

Data standardisation and cost optimisation

Standardisation of technology

DXC focused on a standardised approach to all technology relating to data and analytics. DXC established the DevOps and DataOps tech stack, standardised the coding language and streamlined the technology stack for data storage. Additionally, we outlined the data ingestion and processing framework. This standardisation of technology generates efficiency and consistency across Manchester United's data landscape.

Cost efficiencies

By replacing the legacy ETL tool with an ELT tool, DXC was able to achieve significant cost efficiencies

for the club. These tools handle the processing of data at large volumes – and the legacy tool was no longer fit for purpose.

This replacement allowed for data processing capacity that accelerates Manchester United's progress towards advanced analytics.

Outcomes – the power of actionable data insights

Data visualisation

As an integral part of Manchester United's broader digital transformation initiative, DXC identified the need for a data visualisation overhaul. The goal was to convert complex data into actionable insights, empowering decision-makers both on the pitch and in the boardroom.

DXC's initial step involved migrating over 150 reports from legacy BI tools to a new platform, laying the foundation for a dynamic, interactive and user-friendly data visualisation platform.

The migration process was orchestrated by DXC's experts and transformed static and cumbersome reports into dynamic dashboards. These dashboards now provide real-time insights to business analysts and stakeholders. This streamlines accessibility of data and ensures decision-makers can easily interpret and act upon the insights it provides.

DXC's establishment of an enterprise technology stack ensured consistency in data visualisation tools throughout the club. This not only simplified operations but also facilitated collaboration between different departments, fostering a unified approach to data interpretation and decision-making.



Data engineering

Over a hundred data pipelines, once embedded in legacy systems, underwent a transformative migration, shifting from legacy ETL to the dynamic data integration. More than a technology upgrade, this move was a thoughtful strategic change that streamlined operations and ensured agility and cost-effectiveness.

Manchester United's data processing capabilities underwent a valuable shift, transitioning from a static approach to real-time dynamics. DXC's strategic interventions empowered the club to process data swiftly, providing decision-makers with timely insights crucial for strategic and tactical decision-making.

We implemented a meticulous approach to data cleansing, ensuring that the insights derived were accurate and reliable. Manchester United's decision-makers can trust the clarity and precision of their data.

DXC's data engineering team compiled a sophisticated data model, serving as a robust backbone for advanced analytics and machine learning applications, fostering innovation.

Infrastructure development

In the pursuit of future-proofed architecture, DXC created an enterprise technology stack that laid the foundation for a unique cloud architecture. We recognised the need for a block-based modular model, where each software serves a singular purpose, allowing seamless replacement. This enables a future-proofed and dynamic ecosystem tailored to Manchester United's specific needs – as they evolve over time.

DXC crafted an architecture that supports all of Manchester United's objectives:

The cloud architecture dedicated to handling fan data is a triumph of simplicity. Each component serves a distinct function, interlocking seamlessly with other components as part of a robust whole. From the entry point protected by a DMZ (demilitarised zone) to the carefully crafted data pipelines, the architecture ensures data flows securely and efficiently, fostering an enhanced digital fan experience.

DXC's architecture for player data is dynamic by design. Our modular approach allows Manchester United to tailor its tools to the specific needs of player performance analytics, and to change these components as needed. From real-time insights during matches to comprehensive data modelling, every piece can evolve over time.

Secure by design

The architecture isn't just about innovation – it's about security by design. The DMZ serves as a shield protecting all data.

Manchester United can now seamlessly integrate new tools and technologies, adapting to the ever-evolving landscape of digital transformation.

The DMZ secures both data platforms, instilling confidence in the club's data integrity and compliance.



How DXC can help you

DXC can help your business by guiding you through the key elements in drawing value from data:

- Understand business goals and deploy data and analytics to support them
- Standardise technology stacks to align teams and reduce costs
- Coach your people so they deliver more value in data and analytics
- Install frameworks for data harvesting and use to enable actionable insights
- Make data and insights digestible for leaders so they can take action
- Protect your data in future-ready frameworks

The dual work DXC has completed with Manchester United – on and off the pitch – shows that our approach is broadly applicable across industries. DXC can bring a breath of fresh air to your business with novel ideas and alternative perspectives.

Learn more at
dxc.com

Get the insights that matter.
dxc.com/optin



About DXC Technology

DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds. The world's largest companies and public sector organizations trust DXC to deploy services to drive new levels of performance, competitiveness, and customer experience across their IT estates. Learn more about how we deliver excellence for our customers and colleagues at [DXC.com](https://dxc.com).