

CASE STUDY

Helping to Deliver the 2012 Olympics Docklands Light Railway



“North Star was a key support organisation in the 16 month run up to the games. Their extensive knowledge of rail services and customer requirements added tremendous value to our Olympic Planning team and crucially to the excellent travel experience that Docklands Light Railway provided throughout the Olympic period.”

**David Stretch, Managing Director,
Serco Docklands**

1. SUMMARY

North Star was commissioned to help Serco Docklands in their preparation for the 2012 London Olympic and Paralympic Games. This started in April 2011 with two consultants supporting the planning of an event over 450 days away. By June 2012 North Star was contributing to resource planning, performance improvement, contingency, and crisis planning and improving customer information during disruption. North Star helped deliver:

- a highly motivated and customer focused team of Serco Docklands staff, both core and temporary;
- detailed and specific contingency arrangements for the management of incidents; and
- a great travel experience for Olympic spectators.

In terms of performance delivery the results for the 16 days of the Olympics were:

- DLR carried over 100% more passengers than the same time in 2011
- DLR carried over 20% more passengers than were forecast on most days
- DLR set new passenger records on every single day of the week during the Olympics
- Day 7 was the busiest day, when DLR carried 500,706 passengers – 73% higher than on a typical Friday
- Train availability against Plan was 100% on all days
- Service Reliability performance averaged at 99.1% - peaking at 99.95% on Day 6
- Service Departure performance averaged at 99.0% - peaking at 100% on Days 6 and 15

On a number of occasions North Star provided high quality resources, sometimes at short notice, to support our delivery of a complex and evolving programme in preparation for the Games. Their ability to quickly integrate into the team and consistently deliver on time played an important part in enabling us to provide assurance to stakeholders that we would be able to deliver a safe and reliable service.

Andy Brooks, Safety and Assurance Director, Serco Docklands



Challenges for London transport during Olympics

The London transport system faced a number of challenges over the Olympic period and these were to be felt particularly by organisations such as DLR, which was relied upon heavily to transport spectators to and from games. Key Olympic areas such as the Olympic Park (consisting of 9 venues), the Greenwich Arena and Park, the Excel Arena and the Royal Artillery Barracks relied heavily upon DLR trains given their proximity to DLR stations.

The capacity of these Olympic venues ranged from 6,000 to 95,000 and as DLR trains run to already-busy locations such as Bank and Canary Wharf, there was an obvious strain on the existing infrastructure and a large additional staffing requirement to recruit and train. As an integral part of East London’s transport system, the DLR was required to be ready to “welcome the world” and maintain a level of service, security and safety expected by the UK public and the foreign visitors.

What North Star brought

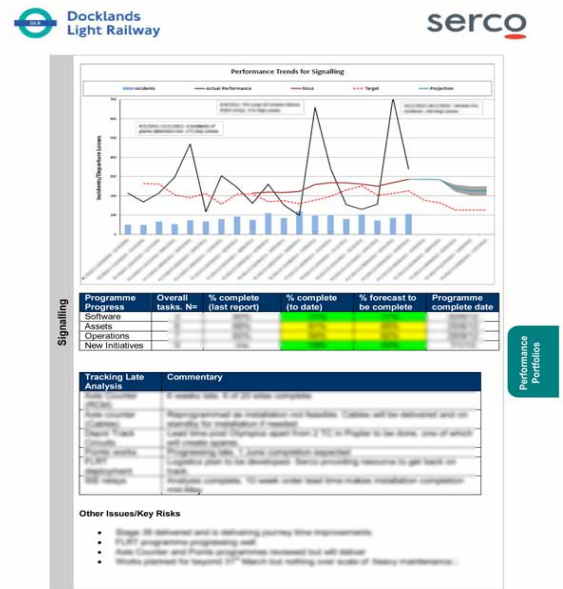
North Star brought a wide range of experience to this Olympic project. With extensive knowledge and experience of ‘best in class’ rail services, the consultants offered tailored and innovative operational solutions to meet the requirements of this historic and unique event.

Specific challenges for DLR

To make a difference during the Olympic Games the DLR needed to:

- provide **world-class reliability**; to maintain and improve upon an excellent level of performance despite the additional pressure on infrastructure that required maximum train availability and leverage of timetable opportunities to transit up to double the usual passenger numbers;
- **be prepared** to manage variations to the plan of any scale from minor disruptions to service, through to management of crises and ensuring the best response to possible incidents; and
- provide spectators with the best **Customer Experience** through people to ensure they got to and from Olympic destinations in an informed and assured manner.

North Star made significant contributions to these areas and the following three sections describe them.



“North Star was able to respond quickly and professionally to both planned and emerging requirements that I had throughout the preparation period for the Olympics. In a uniquely demanding environment all of my requirements were met.”

Danny Fox, Operations Director, Serco Docklands

WORLD-CLASS RELIABILITY DURING THE GAMES AND BEYOND

Improving and maintaining performance

One of the biggest challenges faced by the DLR was the need to improve on already excellent levels of performance to withstand the pressure on the DLR system with additional trains running all day to meet the increase in passengers due to the Olympics. With all eyes on London, it was even more important than ever to ensure service ran smoothly. North Star was able to provide valuable assistance to the Performance Improvement team to help them realise their improved targets.

Four improvement programmes (Signalling, Rolling Stock, Bank Station and Service Delivery) were put in place with the aim of delivering an improvement in performance by the start of the Olympics. Performance had to improve from 98% to 99% departures on time and 98% to 98.7% for journey reliability. This was delivered through a governance framework required by the DLR client organisation. North Star helped to implement the governance process in the Serco organisation, especially in the areas of Service Delivery and Rolling Stock where the greatest performance loss was being experienced.

North Star's efforts with regards to performance resulted in:

- structured performance improvement project plans and action trackers to monitor progress in delivering the required outputs;
- organised and documented steering and working groups to drive change. These crucially reported to executive review meetings on progress of all 4 workstreams in a succinct way (see figure right);
- identifying delay-causing gaps through performance analysis, so that initiatives could be put in place to manage these;
- a performance action database and a process for generating new performance ideas which was used pre-Olympics and going forward is an on-going arrangement; and
- a Post-Olympics performance improvement programme.

Almost all performance work conducted by North Star for DLR has legacy value beyond the Olympic Games, including processes project plans, databases, analysis and meeting documentation. North Star made a big impact in performance improvement, both in preparation

“The professional support and advice given to the performance team was a significant contribution to exceeding targets for departures and journey reliability throughout the games period.”

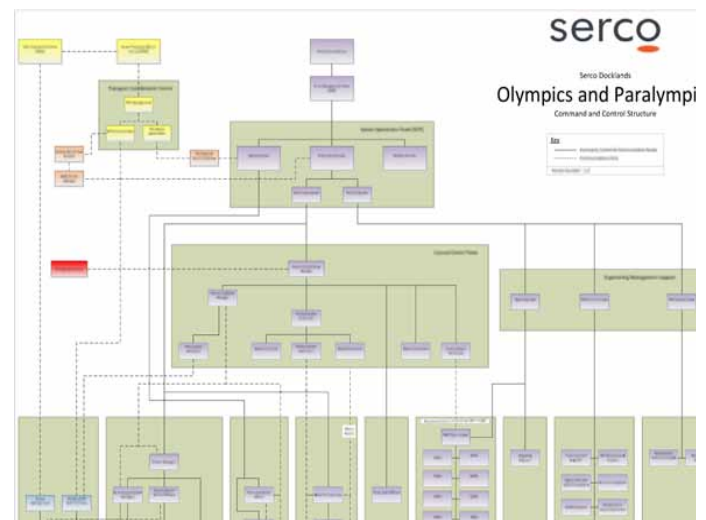
Danny Fox, Operations Director, Serco Docklands

for the Olympic challenges and in setting up long-term structures to improve department efficiency and record-keeping.

BEING PREPARED FOR ALL EVENTUALITIES: BEING PREPARED TO WELCOME THE WORLD

Simplifying Command and Control Complexity

The large number of organisations involved in ensuring that the Olympics were a success, along with additional teams within Serco Docklands, meant that there needed to be clear Command, Control and Communication arrangements to ensure that all staff/managers and organisations were clear how all the parts fitted together. North Star was asked to assist with the development of the Command, Control & Communications document. The complexity of such a large event resulted in a complex set of arrangements. North Star summarised the document in one clear and simple chart that showed all the main command, control and communication channels for trial during the 2012 London Marathon. After a successful trial the chart was adopted for use both for the Olympics and as the standard format for all future events.



Contingency planning – Ensuring World-Class Service Recovery

The Olympics created a very dynamic environment in which to plan contingencies. This was because the usual pattern of travel was changed radically, not least because the DLR had major Olympic venues on its network with multiple events taking place throughout each day. The Olympic Park and Excel were key Olympic sites with Woolwich Arsenal and Greenwich Park also on the network. To cope with unprecedented customer demand (in terms of volume, time of day and pattern of flows) the timetable was both increased to maximum possible capacity to cope with peak demand and was designed in 10 different 'day patterns', sometimes changing up to

5 times per day to cope with changes in the predicted demand. This meant that the contingency plan not only changed daily, but also by time of day. North Star created contingency plans to cope with every time of day and were focussed on moving as many people as possible via alternative routes in the event that disruption occurred.

In addition to the train service contingency, North Star assisted Serco with Olympic contingency planning for loss of key assets. This strategic work considers 20 scenarios of key asset losses within Power, Communications, Signalling, Depot and Rolling Stock systems and assessed the potential service impact of loss and the extent of redundancy of these key assets and their vulnerability to single point and common cause failure. The plan provided a consistent and clear description for all the asset disciplines showing the operational response to the asset loss alongside the specific engineering contingency actions to reduce the likelihood or mitigate the failure. This is an innovative approach, linking engineering contingency actions to mitigating single point/common cause failures and connecting these actions with the operational response.

North Star’s understanding of railway operations and the interface with engineering allowed a constructive relationship to be quickly established with the Serco engineers and the resulting plan provided a clear description of actions required in the event of failure and helped determine the assessment of readiness.

Managing Disruption - Securing the best response to possible incidents

In order to be as prepared as possible for any eventuality, North Star was commissioned to deliver a solution which would help management disruption with regards to minimum impact on DLR customers.

North Star conceptualised and created a Disruption Manual for this purpose. This Service Delivery Handbook collected together both good existing practices and set targets for improved communication with customers during disruption. It provides consistency and a single plan



“The innovative contingency and communication plans that they produced were first class and added tremendous value not only through the Olympics period but have left a legacy that will improve the passenger experience for many years to come. “

Danny Fox, Operations Director, Serco Docklands

for staff to use during disruption leading to improved customer satisfaction and assurance for all staff that they are working to an understandable plan that helps passengers complete their journeys. All staff now have access to this plan, including on every train.

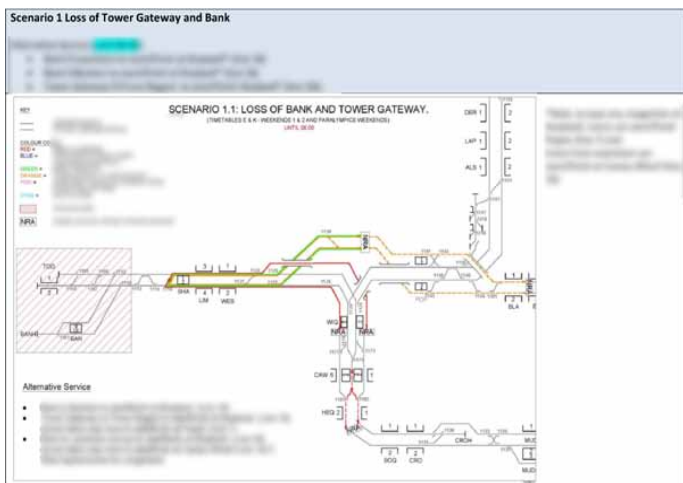
Control Room readiness

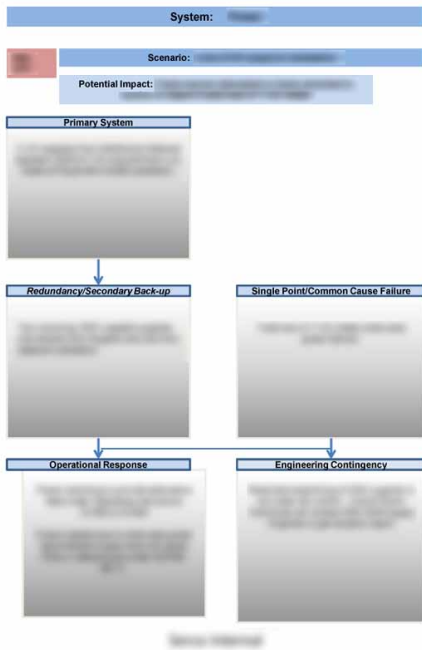
North Star was asked by Serco Docklands to undertake a review of its Control Centre processes and procedures as a health check prior to the Olympic period. A gap analysis was undertaken and North Star recommended that both changes and a number of new procedures should be drafted to help the post of Information Assistant within the Control Centre. This reflected the criticality of this role with so many first time and foreign users of the network during the games.

A Control Manual containing the procedures in need of reference the most was created, putting procedures in one place for ease of reference. Whilst this work was carried out as part of the Olympics preparedness, the outputs also have a legacy value in improved Control Centre efficiency.

Crisis Management

Reviewing and implementing enhanced crisis management was identified as a crucial part of operational readiness for the Olympics. The Crisis Management Plan was developed with the involvement of all the Serco Executive Directors. The plan clearly shows the relationship between Crisis Management, Incident Management and Contingency Planning and the strategic, tactical and operational hierarchy of the plans. The plan includes the organisation of the Crisis Management Team (CMT), the plan activation and mobilisation process, and the roles and responsibilities of the CMT members with key activ-





ity check sheets agreed by each CMT member. The Plan was developed and tested prior to the Olympics. This also provides a legacy for the application of sound crisis management principles beyond the Games.

BEING 'PEOPLE READY'- PROVIDING THE BEST CUSTOMER EXPERIENCE TO VISITORS

North Star was heavily involved in staffing and customer communications, all of which are vitally important to ensure the best possible customer experience for Londoners and visitors to Games.

Consultants were engaged as workstream leaders from a very early stage in the planning. They identified required resources and devised a plan for recruiting and training additional staff to cope with increased service running and anticipated customer demand, including the delivery of a volunteer programme.

Recruiting

The first task was to prepare a mobilisation plan detailing additional numbers and skills required and how they would be recruited, trained and integrated into the existing workforce including a plan to 'demobilise' once the Olympic Games had completed.

Parallel with this, North Star also identified changes required to existing workforce shift patterns, hours of work and incentive arrangements over the Olympic period. This gave Serco a clear picture of the requirements and allowed the enhanced Olympic service to be fully understood, costed and financed.

Working alongside Serco HR and operational managers, North Star was instrumental in implementing this plan, recruiting over 100 new staff, supporting internal staff movement and at the same time ensuring that the current day-to-day service did not suffer.

Training

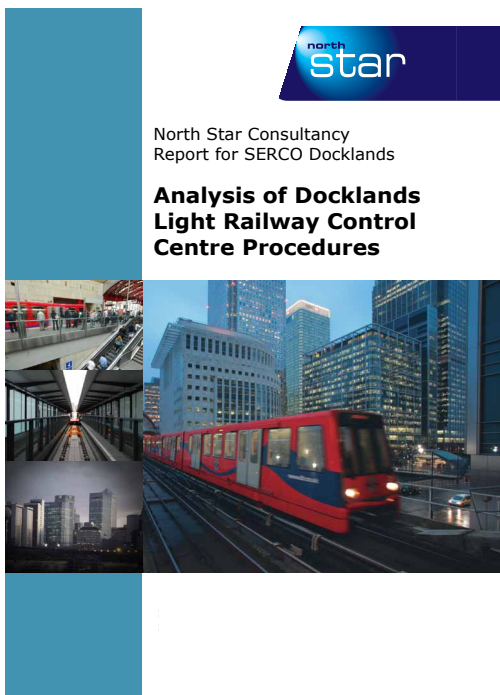
Aside from training new recruits to ensure competence in delivering the service, North Star organised the delivery of additional Olympic specific training, focusing on 'hosting' games time travel for all customer facing employees. This involved integrating plans with the wider GLA requirements of London Ambassadors.

Volunteers and Rosters

As the assignment progressed, North Star was asked to consider how volunteers might be engaged to further enhance the customer experience of travelling to the Games on the DLR. North Star undertook a

"We delivered outstanding and world class service to Olympic spectators and visitors on the Docklands Light Railway. This required extensive planning, preparation and testing. North Star was a key support organisation in the run up to the games. Their extensive knowledge added tremendous value to our Olympic Planning team and crucially to the excellent travel experience that Docklands Light Railway provided throughout the Olympic period."

David Stretch, Managing Director, Serco Docklands



scoping exercise, covering how volunteers could be utilised, how many would be required and where they would be deployed and what they would do. North Star also specified how volunteers would be managed and the recruitment and training required.

To meet the expected volume of passengers during the Olympics the train service was enhanced to provide extended service hours and provide peak time levels of service for much of the day. There was a requirement to alter staff rosters to cover the extended hours and provide additional staff during the extended peak time. North Star was requested to provide suggestions as to how the rosters could be adjusted to provide the required staffing levels. North Star worked with Serco Docklands management and staff to develop a rostering strategy that adjusted rostering practices to ensure that;

- the revised staffing requirements would be met,
- the need to recruit additional staff was minimised,
- existing staff had the opportunity of play their part during the Olympics,
- that fatigue was managed to ensure there was no compromise in safety, and
- helped set the staffing budgets.

Following the acceptance of the rostering strategy North Star was asked to compile rosters for all Serco Docklands staff. North Star provided rosters that complied with the strategy, kept within the staffing budget and managed the transition from and to the business as usual rosters. The analysis of the business as usual rosters during the process has resulted in several opportunities to revise them to increase efficiency and enhance the management of fatigue, providing value for money well beyond the Olympics.

Through our solid experience and great client relationships, North Star consultants created and delivered the DLR resource mobilisation planning and ensured that over 100 additional staff were recruited and trained, with 500 existing employees receiving Olympic specific training. Our planning and rostering experts designed customised, precise and highly comprehensive plans to ensure volunteers needed were in place to help DLR deliver a successful and inspirational Olympic rail service.

CONCLUSION

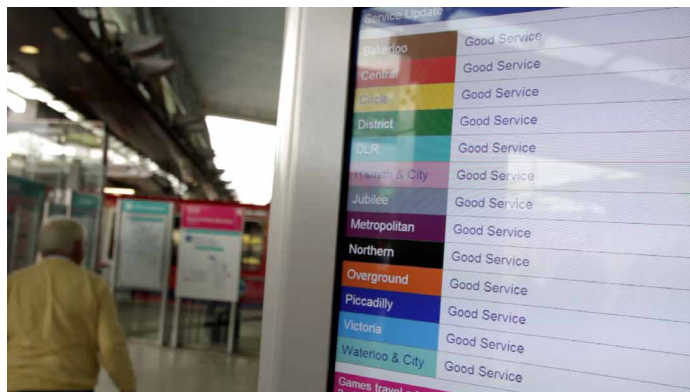
Serco Docklands required professional consultancy support to help prepare for the London 2012 Olympic and Paralympic Games. It relied on North Star to provide this through 7 consultants over an 16 month period.

As a one-off high profile event, delivery and quality were vital. North Star delivered on all of its promises and delivered innovative approaches.

Many of the outputs not only delivered a highly successful Olympic Games period for the DLR but also provided sustainable improvements. This legacy will provide a better value for money delivery of service for many years to come.

AWARD WINNING

North Star received recognition for its achievements at the 2012 Light Rail Awards and was named Supplier of the Year (<€10m) for support to DLR Olympic preparedness. Serco Docklands was also named Operator of the Year.



“The games period had a profound effect on Dockland Light Railway services with a need to prepare for up to 100% increases in passenger numbers to multiple events across the network. This was a unique event with an immovable deadline and we required trusted and capable consultant support to deliver value adding outputs.

North Star delivered on all of our requirements efficiently and on-time making them an impactful and cost effective professional service for a one-off event of the highest profile.”

Rick Davey, Olympics Planning & Programme Director, Serco Docklands