

Storyboard (answer plan)

Section	Maintenance		
Weighting	60%	Page / Word Limit	No limit
Owner	James Alexander	Lead Author	Tony Fern
Contributors		Reviewer	
Evaluation Criteria			
The Question			
<p>Provide a specific reference example of where and when you have delivered maintenance activities on behalf of a similar sized client within the utility sector on a contract basis within the last 3 years.</p> <p>Include in your answer your chosen logistical approach and how you managed the process by taking into consideration the needs of both clients and end user customer.</p> <p>Please cover:</p> <ul style="list-style-type: none"> - How this service was carried out - The scale of the operation - How the Bidder was able to meet key service level requirements - How did you manage planning & scheduling capacity to meet the needs of the agreement - How did you maintain efficiency across your workforce - How did you convert the requirements for maintenance in to resource requirements 			
Defining Our Offer			
Client Drivers			
<p>Why has the client asked us this question? What is their underlying issues/concerns? By understanding their key challenges we can produce a winning response.</p>			
<p>A 'Good Response' will:</p> <ul style="list-style-type: none"> - Provide a relevant example from the utility sector - Evidence how they planned and executed the install of meters across a similar sized region - Explain how they ensured they met key service level requirements - Provide sufficient detail around how the increased capacity requirements were met and planned sufficiently in advance of deployment - Give real life examples of how supply chain risks were managed proactively - Give an example of overcoming a challenge when attempting to install in the past 			

A 'Poor Response' will not provide relevant information, or insufficient detail on multiple points from the above list in to how the activities were carried out

Win Themes

Which win themes could and should we emphasise in this answer? And what benefit will these provide to the client?

Win Theme	Benefits

Building Our Response

Below you should break down the answer to your response into the subsections within each section allowing for effective signposting to the client.

In each part detail your approach. It can be bullet points at this stage but should address all important technical points as well as client drivers, win themes and USPs. Proof points need to be included to back up statements.

Overall message

Our response

Thames Water Smart Metering Contract

Morrison Water Services (MWS) is a dedicated water sector services provider, with a turnover of £500m per annum and numerous active long-term frameworks across the water industry, including undertaking metering services for Thames Water, Yorkshire Water, United Utilities and Welsh Water. As part of M Group Services, we bring telecom network expertise through sister companies, Waldon Telecom, Magdalene, Avonline and Morrison Telecom Services, who actively support national companies such as British Telecom.

Our ongoing Thames Water Smart Metering Contract serves as a good example of where we are currently delivering meter install and maintenance activities similar to those required for Yorkshire Water's Smart Metering Delivery contract. This £30m per annum contract to install smart meters across the London region is scheduled to run to 2025.

We are providing a fully Thames-Water-branded service to deliver voluntary and compulsory water meter installations, replacements, meter maintenance and meter reading activities in an end-to-end managed service split over four streams:

- **Optant Metering Programme** – new meter installations arising from Optant applications (20,000 p/a).
- **Replacement Programme** – household and non-household meter replacements. Either planned/proactive exchange of meters outside their asset age or reactive replacement of meters reported to be broken or missing (between 30,000 and 60,000 p/a).
- **Progressive Metering Programme** – a compulsory metering programme where the customer has a meter installed externally or internally to help reduce water stress and PCC and increase meter penetration (between 50,000 and 100,000 p/a).
- **Meter Maintenance** – troubleshooting faulty or malfunctioning meters to arrange for repairs/replacement.

We are working collaboratively with Thames Water to support decisions, understand asset and network failures, creating detailed reports and solutions for Thames Water to resolve with partners Arqiva and Sensus. Our latest figures show we have completed 1,122,116 smart meter installations and associated activities, including 54,072 non-household meters, 5,948 bulk meters, 19,293 meter investigations and 40,000 acoustic logger deployments, since the contract started in 2015. We have also been supporting Thames Water by repairing customer side leakage, installing water saving devices and working with customers to reduce their consumption.

Our approach to logistics was to build a DLO focused delivery model, supported by subcontract labour and expertise, where necessary, to help us manage client/customer needs, work volume peaks and troughs and specialist work where needed. The ratio between direct labour and subcontract resources differs between the various work types; Optant metering dig, CSL and bulk dig activities are direct labour; progressive (compulsory) dig work is mostly subcontracted to help us programme needs; plumbing is around 60% subcontract; and surveying and other support is approximately 75% direct labour.

Planning and delivering large scale operations

Effective planning and resource allocation has been key to our successful delivery and performance on this contract. Currently, we have more than 360 operatives in the field; 130 internal meter fitters; 70 external meter fitters; 120 dig operatives and 40 support operatives – reporting to 50 operational supervisors / site managers. These teams are supported by over 100 administrative staff including contract management, commercial, planning and scheduling, and SHEQW staff. We also have a team of approximately 70 working in our dedicated call centre.

Our flexible approach and close collaboration with Thames Water has helped us build a truly integrated alliance featuring an end-to-end strategy including programme and performance boards, ongoing change and continuous improvement programmes and strategic planning.

We are using our bespoke fully integrated agile work management system MWorkS, which utilises the latest Salesforce Field Service Lightning product, to provide Thames Water with a full end-to end service. This advanced industry-leading metering system allows customers to book appointments on-line, schedule automation, work allocation to operations and the collation of accurate meter installation feedback (including photographs) via mobile and bar-coding devices.

We are also using Bliker to capture asset data, serial numbers and meter readings photographically – improving accuracy, efficiency and reducing the need for revisits. We recently added an innovative app called ‘Where’s My Tech?’, which allows customers to use an Uber-style mapping interface to view the location of our technician travelling to their appointment.

Meeting key service level requirements

Use of this innovative technology has been crucial to our meeting key service level requirements. For Optant meter installations, we have 50 days to install the meter from date of request. Each job is monitored through the surveying and planning processes via MWorkS. Any works highlighted that are in danger of failing any specified SLA are reviewed during our weekly jeopardy calls. This allows us to respond by managing the timeframe – potentially reallocating internal meter installers or re-planning dig work, where possible. Having sight of forecasted works and being able to balance resources across other workstreams enables us to best manage delivery in line with SLAs – despite receiving over 2,000 requests a week during peak times.

Over the last 12 months, across all four treams, we have achieved 98.600% compliance with our appointment targets, missing only 126 appointments from a total of over 87,000.

Ensuring planning, scheduling and deployment team capacity satisfies demand

As our operations cover the entire Thames Water area, our planning and scheduling capacity enables us to flex with overall demand and manage the volumes of work without change to the system or increase in resources. However, as our planning and scheduling system is entirely scalable, we can quickly address any increases required in the workforce without needing to make significant changes to the planning and scheduling team. For example, we needed to increase our internal meter fitter resource by 100% to meet the considerably greater number of internal installs required in this current financial year; but we achieved this by increasing resources in the planning and scheduling team by only 10%. We also increased dig teams by approximately 100% for the GER ramp up for the start of this financial year.

Our approach to managing resource requirements in response to programme changes is as follows:

- Establish the required increase/change to workload.
- Establish workload location, timeline and skills required.
- Confirm the skills/resource gap and determine whether this can be filled internally or needs external assistance.
- Create internal recruitment plan or seek external assistance, as appropriate, using current and trusted suppliers as first option, speaking to suppliers across the M Group Services supply chain – especially ‘sister’ Thames Water contracts.
- Build recruitment and training plan and logistics and support plan.
- Expand planning and scheduling team capacity to cover the new starters; and on-board and induct into contract.

Stock management and managing supply chain risks

Using our proven and reliable management system, MWorkS, and stores system, OrderWise, we continually and track meters ordered, received, dispatched and returned. This enables us to accurately manage stock levels and conditions depending on whether the stock is supplied by Thames Water or supplied direct.

Thames Water supplied stock levels (meters and LCEs) are reviewed weekly against forecast and planned works and then discussed with Thames Water on a fortnightly basis. This allows us to manage the short and long-term stock levels and advise the meter manufacturer of future requirements for the various models e.g. 15-mm in-line, 20-mm concentric etc. We are also able to forecast requirements by region so we can ensure deliveries are sent to the warehouse designated for that area.

Stock not supplied by Thames Water is loaded into OrderWise where minimum level requirements are set and then reviewed weekly to discuss risk of shortages and non-availability.

This process allows us to manage a lean stock level, but also to respond to forecast workloads and types by increasing or flexing stock, as necessary.

Addressing supply chain challenges

MWS has an extensive supply chain network (materials and subcontractors) with no dependency on single source arrangements. Currently, we have access to 1,617 approved material/product suppliers and 905 subcontractor organisations, together with 300 material/subcontractors. We can also draw upon resources from 20 specialist sister companies and have an extensive in-house capability. We have established and proven procedures in place to monitor the operational and contractual performance of our suppliers and to address any issues where suppliers fail to meet our expectations for those of our clients.

Our group-level five-stage subcontractor evaluation and approval management process carried out by our central Supply Chain Control (SCC) team ensures all our suppliers and subcontractors meet our exacting requirements; and helps fulfil our H&S obligations under CDM Reg. 13. However, most subcontractors proposed to the SCC for approval are pre-selected by our Contract Managers using a range of criteria including competence, specialist skills, experience, rates, proven delivery and client recommendations etc. Our Contract Managers work hard to develop long-standing relationships with our suppliers, preferring to work with those they know and who have previously delivered on similar contracts – knowing they are sustainable and that they have the resources, approach and proven commitment to deliver a successful outcome.

The strength and breadth of MWS, the wider M Group Services organisation and our extensive supply chain means we can call on temporary and longer-term support to increase contract resources during periods of peak demand or in response to unforeseen shortages. All contract resources (workforce capabilities, plant / equipment, subcontractors, suppliers) are recorded and stored. When needed, we can swiftly assess availability, location, and capability and then request re-assignment.

On our Thames Water Smart Metering contract, the client needed to rectify an error in their calculated end-of-year targets for the financial year; meaning they now required an additional 4000 installations. By replanning, rescheduling and reorganising our flexible, versatile and committed delivery teams and subcontractors, working additional hours and weekends, we were able to complete the additional installations and enable the client to meet its target.

Overcoming real world installation scenarios

We have experienced a number of installation issues on a daily basis throughout our delivery of this contract; which is inevitable when delivering a programme requiring installation of more than 2,000 internal meters per calendar month.

Key to overcoming common challenges such as access issues and missed appointments etc., has been our focus on customer communications. Proactive and timely communications help manage customer expectations and reduce additional and 'unwanted' contact from customers. We believe good customer service starts with the engagement and appointment making process – 'right first time' from the first contact. Our call centre is achieving exceptional C-MeX scores across all three meter installation programmes for Thames Water (OMP, PMP and CSL), averaging 86.89 compared with the industry average of 81.62 for UK water supply companies.

We ensure that when appointments are made, we honour our commitment – appreciating that some customers may have to remain at the premises to provide access. On this contract, we set up a bespoke call centre on our main site with a primary aim to book appointments, answer queries and handle first contact complaints from customers. Our dedicated website and call centre allows customers to easily check/make appointments and monitor progress; and we have recently introduced innovative technology that allows customers to track the journey of our operatives on their way to appointments via the 'Where's My Tech?' app. These initiatives have enabled us to significantly improve our access rates and reduce the volume of failed appointments, improving productivity and customer experience.

An example of an issue we experience regularly is the customer's perception of the meter's physical size; many of our fitting teams have been refused access because, based on the literature supplied, customers have perceived the smart meter to be something the size of a small bin! To overcome this, we consulted with our internal fitter team and changed the literature we send to customers; which now shows pictures of the meter positioned next to a baked bean tin – showing just how small they really are. This revised literature, which now also reinforces the message of benefits associated with smart meters, has seen us achieve a significant reduction in refusals and install more meters.

Effective troubleshooting and maintenance

Key to our success in meeting our clients' service requirements and delivering customer satisfaction is our focus on 'right first time' – minimising the need to revisit sites and carry out additional work such as repairs or troubleshooting.

Our experienced meter installers carry out a number of tests and inspections before leaving the customers premises to ensure work has been completed satisfactorily and the water supply restored. These are fully described in the MWS Metering Installation Handbook, which guide our installation teams through each stage of the meter installation, troubleshooting and maintenance processes.

However, when delivering metering programmes requiring thousands of installations each month, a small number of faults are to be expected; requiring our operatives to revisit site and rectify. Where this is necessary, we arrange for the team originally responsible for the installation to carry out the work, wherever possible, using their previous knowledge of the site to ensure efficient resolution.

Typical problems experienced post meter installation include:

- No internal water supply or low-pressure supply.
- Internal or external leaks.
- Damaged boundary boxes.
- Post reinstatement core sample failures for base and binder courses; and other defects identified by local authorities.
- Meter readings reporting 'negative' values.
- Meter malfunction.

We monitor a range of metrics, including the following, to measure our performance, identify trends and make any improvement actions necessary to ensure we deliver highest quality maintenance and achieve maximum customer satisfaction:

- Customers with 'No Water'
- Supply left off at OSV
- Response time to resolution

We also track the number of successful installations against customer refusals and 'unmeterable' instances encountered by our installation teams; using feedback received to celebrate team/individual performance and initiate additional training or coaching, where necessary. Unfortunately, unmeterables can sometimes affect our CSS ratings – e.g. customers expecting a meter install may be unhappy at not receiving one.

We are currently achieving just 0.24% instances of no-water issues following 20,894 supply interruptions.

In most cases, our experienced operatives are able to rectify each of the above problems during their first revisit to site, depending upon customer cooperation and access requirements etc., following our troubleshooting guide and maintenance processes. These include simple issues such as supply not reenergised at the outside stop valve (OSV) or inside stop valve (ISV), or a leaking/faulty OSV or ISV.

Where it is not possible to resolve the issue on the first revisit for any reason e.g. access issues, boundary box repairs requiring streetworks etc., our teams report the issue back to our dedicated call centre which then prioritises the issue depending upon severity; and then liaise with the relevant parties to arrange for the installation team to return and resolve the issue at a later date.

We have experienced instances of meters giving negative values, which indicates the meter has been installed incorrectly – simply rectified by removing and refitting the meter. However, a malfunctioning meter must be removed and replaced with a new unit, as we are unable to maintain/repair smart meters in the field. The faulty meter is taken out of service and returned to the supplier for repair/maintenance in accordance with our stock returns process. We use our proven works management system, MWorkS, and stores system, OrderWise, to continually track meter availability, including those returned, repaired and reissued for installation; ensuring our stock level readings are accurate and all meters are accounted for.

All site revisits and repair/maintenance work are recorded and monitored on an ongoing basis to identify trends and areas for improvement and, using any feedback received from the client, highways authorities and customers, arrange for further training/coaching and/or review of MWS processes, where required.

Absolute key word/phrases: e.g. CDM, Every Customer Counts relating to the question

Relevant Policies, MOPs accreditations, attachments etc
Linked Case Studies: Have we written about this before?

Name/Project	Growth Team Contact	Ops Contact

Graphics

A picture / diagram / flow chart is worth a thousand words!
Sketch any graphics needed to support the answer?

- Drop graphics in here and which subsection they apply to