

GREATER MANCHESTER COMBINED AUTHORITY

Date: 25 March 2022

Subject: Greater Manchester One Network Procurement

Report of: Councillor Bev Craig, Portfolio Lead for GM Digital; and Tom Stannard, Portfolio Lead Chief Executive for GM Digital

PURPOSE OF REPORT

This report sets out the process for a joint procurement of ICT Wide Area Network services across several councils, GMCA including GMFRS and Transport for Greater Manchester under the title of GM One Network.

RECOMMENDATIONS:

GMCA is requested to:

- Approve delegated authority to the GMCA Treasurer and GM Digital Portfolio Lead Chief Executive to enter into contract between GMCA and Cisco International for GM One Network Integrator Services on behalf of the GMCA including GM Fire & Rescue and TFGM, and Bury, Stockport, Oldham and Rochdale Councils as described in this report.
- Approve delegated authority for the GMCA Treasurer and GM Digital Portfolio Lead Chief Executive to procure and enter into contracts to deliver BT Openreach Exchange Services and for ServiceNow capabilities as described in this report.
- Approve delegated authority to the GMCA Monitoring officer for GMCA to enter into the GM One Network Collaboration Agreement with TFGM and Bury, Stockport,

Oldham and Rochdale Councils and to review and complete all necessary legal documentation and commend to those organisations that they sign their respective Collaboration Agreements.

- Approve £5.67M of expenditure over 10 years against existing and planned GMCA Wide Area Networking budgets for GMCA(FRS) connectivity via GM One Network.
- Approve investment of £9.546M for Wide Area Networking services, implementation and operation for GMCA / TFGM Urban Traffic Controls Signals and TFGM sites via GM One Network to be funded from existing TfGM revenue budget of £4.890m and additional capital and revenue investment of £4.656m in line with the decision made by GMCA in January 2020.
- Note that this collaborative procurement has secured substantial value for money and social value commitments and creates a platform for future connectivity requirements.
- Note the progress towards completion of the GM Local Full Network Programme and the efforts of officers and commercial partners in its delivery.

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Equalities Impact, Carbon and Sustainability Assessment:

| Impacts Questionnaire | | | |
|---|---|---|---|
| Impact Indicator | Result | Justification/Mitigation | |
| Equality and Inclusion | | | |
| Health | G | The Service will improve digital connectivity and resilience for relevant services and organisations. | |
| Resilience and Adaptation | G | The Service will improve digital connectivity and resilience for relevant services and organisations. The Service will improve digital connectivity and resilience for relevant services and organisations. | |
| Housing | | | |
| Economy | G | The Service will create a globally significant set of digital capabilities. The Service will create a globally significant set of digital capabilities. | |
| Mobility and Connectivity | G | The Service will "light" much of the GM Local Full Fibre Network in a scalable manner. The Service will upgrade equipment and connectivity in GM Urban Traffic Control Signals The Service will improve digital connectivity and resilience for relevant services and organisations. This Service provides scalable and resilience Wide Area Network capabilities The Service will upgrade equipment and connectivity in GM Urban Traffic Control Signals | |
| Carbon, Nature and Environment | G | This Service will provide equipment and capabilities that are more energy efficient than at present. | |
| Consumption and Production | | | |
| Contribution to achieving the GM Carbon Neutral 2038 target | | | |
| Further Assessment(s): | Carbon Assessment | | |
|  Positive impacts overall, whether long or short term. |  Mix of positive and negative impacts. Trade-offs to consider. |  Mostly negative, with at least one positive aspect. Trade-offs to consider. |  Negative impacts overall. |

Risk Management:

See section 10

Legal Considerations:

See sections 3, 7, 8 and 9

Financial Consequences – Revenue and Capital

There are both capital and revenue cost implications of the proposals in this report with a total cost of £22.542m of which £12.053m is estimated to be capital and has been included in the GMCA capital programme approved by GMCA on 11th February 2022. The overall cost of the contract will be met from financial contributions from local authority partners

and GMCA including GMFRS and TfGM based on a cost apportionment model included in the collaboration agreement set out in this report. The cost to GMCA including GMFRS and TfGM will be met from existing and previously agreed additional capital and revenue resources.

Number of attachments to the report: 0

Comments/recommendations from Overview & Scrutiny Committee

N/A

Background papers

- GM Digital Blueprint. GMCA Report February 2020.
- Greater Manchester Local Full Fibre Network Programme – GMCA Report 7 January 2020.
- Greater Manchester LFFN Programme – Public Sector Building Upgrade – GMCA report 18th December 2020.
- WLT report GM One Network, May 2021.
- GMCA Capital Programme Report, February 2022

Tracking/ Process

Does this report relate to a major strategic decision, as set out in the GMCA Constitution

Yes

Exemption from call in

Are there any aspects in this report which means it should be considered to be exempt from call in by the relevant Scrutiny Committee on the grounds of urgency?

No.

GM Transport Committee

n/a

Overview and Scrutiny Committee

Corporate Issues and Reform Overview and Scrutiny Committee, 8 March 2022

1 INTRODUCTION/BACKGROUND

- 1.1 When Greater Manchester's Digital Blueprint was launched in February 2020 it included a specific ambition to Extend Our World Class Digital Infrastructure as a cross cutting enabler to underpin the city regions economic and social ambitions.
- 1.2 A key element of this has been the GM Local Full Fibre Network (LFFN) "anchor tenancy" programme that is in the final stages of laying up to 2,700km of new fibre infrastructure across Greater Manchester leveraging approximately £20M of DCMS funding plus investment from GMCA(FRS), TFGM and seven of the councils. This work will be complete by early 2022/23 and will connect approx. 1,600 public sites, pushing fibre into new areas of Greater Manchester. A report published in January 2022 by Virgin Media Business identified over £11M of economic and social value in its first year.
- 1.3 Due to the pandemic, work installing new fibre across Greater Manchester has been challenging. Project leads in Bury, Bolton, Oldham, Rochdale, Stockport, Trafford and Wigan councils plus TFGM and GMCA(FRS) are to be commended for work with Virgin Media Business Group on its progress.
- 1.4 Related fibre infrastructure work led by Manchester City Council is also underway and shortly due to complete, connecting 130 further sites. In Tameside the fibre programme being delivered through the innovative Digital Infrastructure Cooperative continues to grow successfully.
- 1.5 As part of the GM LFFN anchor tenancy grant agreement, GMCA and each of participating Local Authorities committed to using the fibre infrastructure – referred to

as “lighting the fibre”. This paper relates to a joint approach to that work across several GM public sector organisations.

2 COLLABORATIVE NETWORK PROCUREMENT

- 2.1 Each of the public sector organisations that are part of the LFFN anchor tenancy programmes operate a “Wide Area Network” (WAN) so that users and computers in one location can communicate with users and computers in other locations.
- 2.2 These WAN services are often procured from major telecoms companies and include both infrastructure and services. Recognising that LFFN is providing a shared fibre infrastructure, in 2020 several of partners with similar WAN contract end dates considered the option for jointly procuring WAN services across the LFFN fibre infrastructure for their own organisational needs and to take advantage of economies of scale.
- 2.3 A set of options were considered with the three principal ones are summarised below:
 - **Do Nothing** – including not lighting the fibre delivered under the LFFN programme. This option is discounted as each organisation needs effective network services and wishes to leverage the infrastructure. This option could also require repayment of the DCMS funding for LFFN as a condition of the grant funding is to use the fibre.
 - **DIY** – involving each organisation procuring network services separately across the LFFN infrastructure. It was felt that this would result in a missed opportunity to provide network services with higher resilience, capabilities and bandwidth at lower cost.
 - **Collaboratively light the fibre with other LFFN partners** - this option was preferred on the basis that a join approach could generate savings and service improvements plus wider strategic benefits with potential further gains as other organisations join at a later stage. In addition it would avoid duplicate procurements. The network design would still enable each organisation to manage its services across this shared network.

- 2.4 Having undertaken significant financial and technical analysis of a collaborative approach, three councils plus TFGM and GMCA(FRS) agreed to commence a joint procurement for network services under the collective title of GM One Network. Bury Council subsequently joined the procurement for the scale outlined in Table 1.
- 2.5 In line with procurement guidelines it was agreed that this would be brought to each organisation's governance and GMCA in due course in line with previous WAN refresh procurements.

| Partner Organisation | Number of circuits* |
|--|----------------------------|
| GMCA (GMFRS) | 71 |
| Bury MBC | 131 |
| Oldham MBC | 74 |
| Rochdale BC | 97 |
| Stockport MBC | 138 |
| TFGM inc. GMCA sites managed by TFGM (Urban Traffic Control) | 804 |

Table 1: LFFN Partner Organisations and circuits within GM One Network initial scope.

**Most sites have 1 circuit. Some sites have two circuits for resilience purposes, including 24 of the GMFRS sites.*

- 2.6 Whilst also part of the LFFN anchor tenancy programme, Bolton and Wigan Councils have existing arrangements. Trafford Council had specific timing requirements which meant that they needed to make separate provision, but have expressed interest in joining at a later stage.
- 2.7 All Greater Manchester councils, GMP and health services were named in the tender documents to create provision for scaling. Importantly, the procurement does not restrict partners with non-LFFN sites from joining in the future. If other public organisations were to join, this would be on an equitable basis with the original partners, with either a financial return to those partners or further investment as

determined appropriate by the partners. This is defined in a Collaboration Agreement described below.

3 PROCUREMENT OUTCOME

- 3.1 Following a rigorous Public Contracting Regulations 2015 compliant procurement process, Cisco International has been selected as preferred bidder for Greater Manchester One Network to deliver Wide Area Network services for GMCA including GM Fire & Rescue, GMCA/TFGM Urban Traffic Controls Signals and select TFGM sites, and Stockport, Oldham, Bury and Rochdale Councils. The contract value and commercial components are included in the Part B report.
- 3.2 GM One Network will utilise a multi supplier approach which has been successful in other GM digital programmes. Consequently two further procurements are currently underway and delegated authority is requested to complete them as per the recommendations at the top of this report. These are for:
 - Access to network cabinets, power and interconnecting cables in 33 BT Exchanges across GM. A specialist reseller of BT OpenReach Exchange services is being procured using a Public Contracting Regulations 2015 compliant Open Tender procedure.
 - A network management system overlay called “ServiceNow” for all the partners which simplifies and harmonises tooling run by each partner. This is being procured via Government G-Cloud frameworks.
- 3.3 In addition, between years 3-5 there would be a refresh of the WAN operations contract component and in year 8 a procurement to refresh equipment. These will be revisited in due course however provision has been made in the financial model.
- 3.4 Taken together, the 10 year cost of GM One Network will be up to £22.54M which will be shared between partners as described in section 7 and with GMCA acting as Lead Authority. The budget includes transition support activity, data centre access, contract management capability and cost of borrowing as is described in more detail in the Part B report.

4 OVERALL BENEFITS

4.1 The summary benefits from the GM One Network procurement are that it:

- Fulfils the DCMS grant obligations for activating the LFFN dark fibre infrastructure across the four councils, TFGM and GMCA(FRS) sites.
- Supports effective digitalisation of public sector services, in particular significant improvements in user experience via service speed and quality, particularly for those partners migrating from copper infrastructure to fibre through this process. This is highly relevant as industry wide data consumption is doubling approximately every three years and projections indicate may be eight times higher by 2030.
- Provides overall financial savings of £3.7M against current spend levels (see Part B report) with potential for future downstream savings and more if further partners join.
- Improves resilience by effectively lighting the pan GM digital infrastructure connectivity “backbone” created by the LFFN programme.
- Leverages the free 2 x 10GB internet connections offered by Virgin Media Business through the LFFN programme and the ability to consume other relevant digital services jointly in the future.
- Creates significant social value including high skills employment opportunities for GM residents with a combined value of £3.7M (See Part B report).
- Establishes an advanced network platform which will give partners more flexibility to deploy, configure and install network infrastructure, using automation to reduce the need for third party site visits.
- Progresses GM’s ambition to become a globally recognised digital city region – there is potential to showcase Greater Manchester’s involvement in Digital and Smart City developments through preferred bidder’s global network of Partners and industry commentators.

4.2 GM One Network is also highly scalable which is important given that there are an increasing number of pan GM programmes which require digital connectivity which it could underpin. These include:

- Bus Reform: This will require connectivity to on-bus services for operating payment and performance monitoring and for Network Planning as well as CCTV.
- CCTV: Greater Manchester currently has over 6,000 CCTV cameras many of which have their own connectivity arrangements and this number is increasing.
- Smart energy and environmental monitoring initiatives across the ten boroughs in line with the city region's carbon neutral ambitions.
- Potential to offer open access connectivity in support of GM's digital inclusion ambitions and as expressed in the Young Person's Guarantee and GM Inequalities Commission report.
- Potential extension of the TFGM led smart traffic optimisation pilot that is linking traffic signals on a section of the A6 in Salford with internet based machine learning capabilities in order to test the ability to improve flow.

5 GMCA (GM FIRE & RESCUE) WIDE AREA NETWORK

5.1 It is proposed that GM One Network provides Wide Area Network services for GMCA(GMFRS) following the end of the current arrangements in March 2023.

5.2 The current annualised expenditure of GMCA(FRS) Wide Area Network capabilities extended over 10 years is £6.00M. The cost of GM One Network to GMCA(FRS) will be up to £5.67M over the same period including the capital repayment for the LFFN programme.

5.3 Whilst this offers only a modest saving, there are significant bandwidth, resilience and service quality benefits which align with the future needs of the organisation as shown in Table 2.

5.4 GMCA(FRS) also intends to benefit from equipment discounts as networking equipment in FRS Stations is 10 years old and due for replacement.

| CURRENT MANAGED SERVICE | GM ONE NETWORK |
|---|---|
| <ul style="list-style-type: none"> • 47 connected sites* • 22 resilient sites (with dual connections) • Partially resilient network (all sites to go one of two Virgin Media exchanges) • Station connectivity speed: 200MB (fixed) • HQ, Stretford & Tootal connectivity speed: 10GB (fixed) • Backbone connectivity speed: 10GB • Contracted availability: 99.9% • Security: Internet firewall • Internet bandwidth: 1GB x 2 (dedicated) • Expires March 2023 | <ul style="list-style-type: none"> • 46 connected sites* • 24 resilient sites (with dual connections) • Highly resilient network (all sites go to two of 33 BT Exchanges) • Station connectivity speed: 1GB (controllable) • HQ, Stretford & Tootal connectivity speed 10GB (controllable) • Backbone connectivity speed: 100GB (shared with partners) • Contracted availability: 99.9% • Security: Internet firewalled • Internet bandwidth: 10GB x 2 (shared with partners) • Future discounts potential on kit purchases |

*Table 2. GMCA(FRS) benefits of GM One Network compared with existing contract. * NW Fire Control connectivity in Warrington is being supported separately but included in the financial model.*

6 GMCA / TFGM URBAN TRAFFIC CONTROL SIGNAL CONNECTIVITY

- 6.1 It is proposed that GM One Network provides Wide Area Network capabilities for TFGM in relating to GMCA/TFGM Urban Traffic Control Signals (UTCS).
- 6.2 Recognising that there would be a cost for lighting the GMCA/TFGM Urban Traffic Control Signals, an initial investment of up to £3M initial investment plus £200k per annum was approved by GMCA in January 2020 as part of the GM Local Full Fibre Network programme.
- 6.3 TfGM's partner share of GM One Network is £8.414M profiled at £841K per annum over 10 years. Implementation and TFGM specific operational costs are a further £1.131M, totalling £9.546M.
- 6.4 This is to be funded via:
- Current TfGM budget for UTCS connectivity over this period (4.890M)
 - £4.656M from the amount approved by the GMCA for this purpose in January 2020:
 - £200K revenue budget from 2023/24 over ten years (£2M).
 - £2.656M from the maximum £3M approved, made up of £1.5M of capital and £1.156m revenue.
- 6.5 This will significantly improve currently capabilities by providing ruggedised equipment to light the fibre, connecting 775 UTCS sites plus approximately 20 TFGM sites, replacing end-of-life connectivity to UTCS sites and upgrading other connections.
- 6.6 The enhanced connectivity to these sites will support not only TFGM operations but provides city region wide transport system connectivity that could be used for a variety of purposes as described above.

7 COST APPORTIONMENT

7.1 Each of the partners in GM One Network carries a proportion of the overall cost which is dependent on a range of factors including number of sites and circuits; bandwidth requirements; and BT Exchanges used. The cost model developed in collaboration with all the partners is based on the following financial principles:

- Any apportionment of costs should be fair and equitable.
- The model should allow for additional partners or customers contributions when joining in the future.
- It should enable future costs or income to be distributed in a fair and equitable way across partners.
- It should enable future developments by one or more partners to be supported without detrimentally impacting others.
- All accounting for GM One Network should be open and transparent to all partners.
- If no services are added or increased then costs to partners should remain constant.
- Changes with a financial impact greater than £10,000 per partner per year must be approved by the One Network Partner Collaboration Board.
- Implementation should avoid where possible dual running costs during migration.

7.2 On this basis and using the financial planning assumptions listed in Annex A, the partner contributions towards GM One Network are as shown in Table 3. As highlighted above, if more public partners join One Network the costs would be shared more widely.

| Partners | 10 Year cost | Annualised cost |
|-----------------|---------------------|------------------------|
| GMCA (FRS) | £5.67M | £0.567M |

| | | |
|--|----------------|----------------|
| GMCA / TFGM for UTC | £8.41M | £0.841M |
| Councils (Bury, Stockport, Oldham, Rochdale) | £8.45M | £0.845M |
| Total | £22.54M | £2.254M |

Table 3 – GM One Network cost allocations.

8 COLLABORATION AGREEMENT

- 8.1 This procurement proposes contracts for ten years with the GMCA acting as contracting Lead Authority on behalf of the partners and supported by a Collaboration Agreement.
- 8.2 The Collaboration Agreement confirms the funding contributions; the governance arrangements; the support that will be provided by the GMCA GM One Network team to each participating organisation; and the general agreed contract management approach. It will provide confirmation of commitment and funding obligations from all GM partners and will act as the principal document by which the partners will engage on the project.
- 8.3 A copy of the Collaboration Agreement has been co-developed and supported across the partner organisations’ officers and legal teams. It has been tested against several “what if” scenarios to determine that issues can be dealt with quickly and effectively through direct supplier liaison by each partner as is currently the case with GMCA, as Lead Authority, providing escalation and support if multiple partners are impacted.

9 GOVERNANCE FOR PROGRAMME DELIVERY

- 9.1 Individual partners are taking these proposals through their own organisational governance in line with their own formal decision-making processes with the intention that each partner has internal support for GM One Network ahead of the GMCA meeting on 25 March 2022.
- 9.2 At present a Project Board is co-ordinating GM One Network activity. This is chaired by Stockport Council with attendance from GMCA(FRS), TfGM and Bury, Oldham,

Rochdale and Stockport Councils. This reports into the GMCA Digital Portfolio governance which reports to the GMCA. It is supported by the GMCA Digital Services team.

9.3 It is proposed that this group continues to coordinate activity between the partners and reports back into each partner organisation until the Collaboration Agreement is signed.

9.4 The Collaboration Agreement specifies the creation of a Collaboration Board to provide oversight and governance going forwards which would include all Partners and Lead Authority.

10 KEY RISKS

10.1 The risks set out in Table 4 below relate to the procurement and migration to the GM One Network Platform.

| Risk | Impact | Likelihood | Mitigation |
|---|---------------|-------------------|--|
| Significant upfront capital investment and overall affordability of the contract for GMCA is problematic. | High | Low | Agreement of the financial model by all partners reflected in the collaboration agreement approved by all partners |
| Existing contract end dates may result in dual running costs for some partners and lower number of non LFFN sites may result in increased per site costs. | Medium | High | Plan migrations to minimize impact, with each partner looking to offset any transition costs through optimum timing. |
| Lack of network operations skills may limit effectiveness | Medium | Medium | GM One reduces complexity and improves efficiency of |

| | | | |
|---|------|-----|---|
| and impact business case if recruitment required. | | | network operations however new skills will be required – this has been factored into the programme. |
| Initial partners do not fully maximise the potential benefits of this initiative which increase as further partners join. | High | Low | High levels of engagement and co-design. Basis for equitable arrangements for future partners investment is being established through financial model. |
| Initial Partner organisation(s) choose not to join the GM One Network Platform creating a financial risk for the GMCA. | High | Low | GMCA to not enter into contracts until formal approved received from each of the partner organizations. |

Table 4: Key Risks

11 RECOMMENDATIONS

11.1 Please refer to the to the Recommendations section at the top of this document.

ANNEX A. KEY ASSUMPTIONS IN THE FINANCIAL MODEL

- GM One Network is a 10 year investment, aligned to the 30 year Local Full Fibre Network (LFFN) anchor tenancy programme as approved by the GMCA in January 2020.
- Hardware asset lifetimes will be assumed at predominately 10 years, with some components 5-7 years, in line with industry standards.
- The financial case is based on providing connectivity to the LFFN sites of the initial partners and the services supporting them. However a further procurement is planned that will enable circuits and equipment for non-LFFN sites to be procured more effectively through economies of scale across GM.
- The connectivity costs within individual sites - such as Wi-Fi routers - are not included in either the “as-is” or “to-be” financial case, however the procurement has generated a means for these additional elements to be procured at significant discounts.
- As is typical in WAN contract changes, bridging contracts with current suppliers may be needed for short periods which may create a reduction in benefits for part of the first year. The first financial year (22/23) of the programme is being treated as Year 0 adhering to the financial principal of minimising the impact of transition and dual running costs as far as possible for all partners.
- To ensure an equitable share of investment in the GM One Network platform build, and scalability for future joiners, a fair basis for apportionment of core build costs has been determined that takes into account factors such as number of connections, BT Exchanges used and average cost of current connectivity per site for each organisation. This will also be used to return resources to partners in an equitable manner if other public sector organisations join GM One Network.
- The cost of borrowing for capital, exchange rates, contingency and impacts of inflation have been factored into the model by GMCA Finance.
- There is a cost to running this complex procurement based on the need for project management, specialist legal guidance and support for the Competitive Dialogue

activity. The collective costs for this have been included within the financial modelling although individual organisations are also bearing costs which are not included but are expected to be less than if each were to re-procure WAN services.