

Forward Plan reference number: FP/474/07/22

Report title: Purchasing of Voice and Data Network Services	
Report to: Cabinet	
Report author: Councillor Kevin Bentley, Leader of the Council	
Date: 13 September 2022	For: Decision
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County Divisions affected: All Essex	

This report includes a confidential appendix which is **not for publication** by virtue of paragraph 3 of Schedule 12A to the Local Government Act 1972.

1. Everyone's Essex

- 1.1 Everyone's Essex sets out four strategic aims and 20 commitments for Essex County Council (ECC) to deliver over the next 4 years. These commitments reflect outcomes that really matter to our community and underpin how we focus the collective effort of ECC and our partners. The economy; the environment; children and families and promoting health, care, and wellbeing.
- 1.2 Reliable, resilient, and secure network services form part of the critical infrastructure that enables ECC to carry out its core mission. Collaboration with partners, and empowering communities lie at the heart of our approach to delivering Everyone's Essex. – Working across organisational boundaries and to provide seamless, cost-effective services requires us to share data, expertise, and assets to drive out value for money. Making use of cloud technologies and modern network services will mean we can work in a more seamless way with our local authority, health and wider network of partners. It will provide a platform for real-time collaboration as well as trusted methods to create new delivery models.
- 1.3 Empowering our residents and building community resilience requires well connected physical and virtual spaces. Providing a modern network that can flex to meet the changing demands on our physical real estate is essential in meeting the growing use of data, voice and video traffic.
- 1.4 As we move towards carbon net zero, these technologies will become even more prevalent as we seek to reduce unnecessary journeys and remove energy intensive legacy physical network equipment across the ECC estate.
- 1.5 The proposals set out in this report describe how our core technology that provides voice telephony and data networks across our diverse estate from libraries to country parks will be delivered, making use of modern technology that better adapts to our changing organisational needs. In particular, how we

can operate a more flexible estate, with the potential to co-locate with partners, while still providing safe and secure access to our ECC networks and data. At its core is the transition to a Software Defined Wide Area Network (SD-WAN).

- 1.6 This technology will reduce the complexity of our network and remove physical equipment such as network switches that exist in our buildings consuming power, and the associated cost and carbon impacts, whilst enabling network traffic to operate more efficiently by removing bottlenecks within the network architecture.
- 1.7 This change in technology will help support the commitments in Everyone's Essex around our move to a net zero carbon organisation. It will enable us to commission our network into sites where it does not currently exist quicker and cheaper, allowing for potential co-location opportunities with partners.
- 1.8 The proposal also seeks to engage with the market to deliver a cost effective and modern contact centre solution which supports us in our continuing journey towards excellence in service delivery. Such cloud-based technology allows for the accelerated delivery of new features that support automation of routine tasks, and improved business intelligence that can assist the business in terms of identify and address the causes of demand.
- 1.9 Furthermore, the proposal recommends a competitive process to procure a new contract for mobile voice and data connections. This will make use of the Crown Commercial Framework (CCS), by aggregating our demand with that of other public sector organisational to drive the best rates for mobile airtime contracts. This aligns to service design principles contained within Everyone's Essex, specifically in terms of collaborating with partners to improve the cost-effectiveness of our services.
- 1.10 The proposals in this paper are to:
 - **Disaggregate the current contract** for services to allow greater flexibility and to improve services. An extension of the current Next Generation Network (NGN) contract will be required to ensure continuity of service.
 - **Network:** Modernise our network technology in line with the cloud transformation already underway. This will provide greater flexibility and reduced cost. It also improves resilience by providing each site with a direct network connection rather than routing through County Hall and will improve performance by increasing bandwidth and removing choke points.
 - **Network:** Prepare for a new supplier to take on a modernised, documented Network at the end of the NGN contract extension in January 2025.
 - **Contact Centre and Telephony:** Procure a new, modern Contact Centre platform and Telephony service via a new supplier.
 - **Mobiles:** Procure a new Mobile Connectivity and Data Service via a new supplier to make significant savings.

2. Recommendations

- 2.1 Agree to vary the NGN Contract to remove Contact Centre and Telephony services, on a phased basis, by no later than 30 September 2023, and Mobile services by 31 March 2023.
- 2.2 Agree to extend the current Next Generation Networks (NGN) contract with Daisy Udata Communications Limited (DUCL) for two years from 1 January 2023.
- 2.3 Agree that the Executive Director for Corporate Services, in consultation with the Cabinet Member for Finance, Resources and Corporate Affairs may issue an additional service request under the NGN contract with DUCL to modernise ECC's Network to use Software Defined Wide Area Network (SD-WAN) technology, if they are satisfied with the proposal and the price is less than the amount specified in the confidential appendix.
- 2.4 Agree that the Executive Director for Corporate Services, in consultation with the Cabinet Member for Finance, Resources and Corporate Affairs may approve the competitive procurement of an alternative provider for the modernisation of ECC's network. This will be necessary if ECC cannot agree final terms with DUCL, DUCL's proposal is not within the threshold stated in the confidential appendix or if the Executive Director for Corporate Services otherwise determines that a competitive procurement is in the Council's best interests.
- 2.5 Agree to call off from the Crown Commercial Services Network Services 2 framework RM3808 to procure a new cloud-based Contact Centre and Telephony Service. The contract will be tendered for via a mini competition to run for a 5-year contract term from January 2023 with an option to extend for up to 2 years as set out in paragraph 4.6.
- 2.6 Agree that the Executive Director for Corporate Services may award the contract for Contact Centre and Telephony services to the successful bidder.
- 2.7 Agree to call off from the Crown Commercial Services Network Services 2 framework RM3808 to procure new Mobile Connectivity and Data Services. The contract will be tendered for via a mini competition by Crown Commercial Services, as an aggregation of public sector customer requirements, to run for a two year term from January 2023 with an option to extend for up to 1 year as set out in paragraph 4.6.2.
- 2.8 Draw down £1.050m from the Transformation Reserve and £2.397m from the Technology and Digitisation Reserve to provide the Network and Voice Programme with the resources it needs to support the mobilisation and delivery of the new contracts and services.
- 2.9 Note that the draw downs proposed above exclude a contingency of £345,000, which is recommended to be notionally ring fenced in the reserve for this programme and that if required, draw down of the contingency would be subject

to approval of the Cabinet Member for Finance, Resources and Corporate Affairs.

3. Background and Proposal

- 3.1 Network and Voice services are currently delivered under the Next Generation Networks (NGN) contract with Daisy Updata Communications Limited (DUCL). Services commenced 1 January 2013 for a 10-year term and the contract is due to expire on 31 December 2022, with the option to extend for up to a further two years.
- 3.2 Networks consist of the Local Area Network (LAN) – connectivity within our buildings and Wide Area Network (WAN) – between our buildings and out to the internet. Across this infrastructure operates a complex set of services such as ECC wi-fi services email, applications, software connectivity, data storage facilities, cloud connectivity physical cabling in buildings, as well as technical equipment such as video conferencing facilities, printers and sensors.
- 3.3 ECC Voice services are provided through and operate over the LAN and WAN. These are critical services for all public services and require high availability and resilience by design and robust support and maintenance arrangements.
- 3.4 Network and Voice services are therefore key enabling technologies for ECC and the proposals in this report are aimed at improving the Council's ability to deliver the commitments in Everyone's Essex.
- 3.5 A review has been undertaken to determine the best approach to the provision of Network and Voice Services. For the purpose of the review, ECC separated Network and Voice services into three distinct services:
- **Network Services WAN/LAN** - the connectivity between ECC sites, the internet and third parties and our data centres. This is an underlying technology to allow staff to communicate and provides access to applications and services, including email, Microsoft 365 and all software that staff use every day to undertake their duties.
 - **Contact Centre and Telephony** – This provides a modern telephony platform that enables ECC to manage inbound and outbound contacts and transactions safely and efficiently in a structured and auditable way.
 - **Mobile Connectivity and Data Services** – This comprises mobile voice and data contracts, SIM cards and their data allowance for ECC staff and Members.
- 3.6 Disaggregation of the services contained in the current contract into three separate elements will allow greater choice and flexibility, that better meets the diverse needs of the organisation. This approach will allow ECC to drive out value in established and competitive markets such as mobile and telephony, while moving to modern network design and maintaining critical services.

- 3.7 Due diligence work has been undertaken with DUCL, and the market, to identify the most cost-effective provision for each of the Network & Voice services from 2023. This work has demonstrated that Network and Voice services can be provided in more cost effective, flexible, scalable, and resilient ways than through the current contract.
- 3.8 It is proposed to extend the NGN contract with DUCL so that we can transform the Network and undertake planned exit of the services for Contact Centre, Telephony and Mobile Voice and Data Services. The plans will ensure continuous provision of these services whilst we move to new suppliers. These changes will need to be phased so that we can maintain services for the people of Essex during these changes.

Network- LAN/WAN

- 3.9 Over the ten years of the current NGN contract the nature of the network services ECC uses has remained largely unchanged. Newer technology, known as 'Software Defined Wide Area Network' (SD-WAN) would allow Essex to simplify its configuration, reduce underlying costs and provide a network that is built around cloud first technology rather than dedicated telecoms circuits.
- 3.10 This would provide benefits such as greater reliability, removal of congestion and improved speeds. It would also allow sites to function independently of each other to improve resilience and allow equivalent access to systems and services from all ECC sites on the network. A similar transition is already underway in several other public bodies who we have engaged with and is considered to deliver better value and flexibility with the changing nature of the wider public sector estate.

Contact Centre and Telephony Services

- 3.11 The current contact centre solution has served ECC well but is now approaching the end of its serviceable life and is a constraint on delivering greater efficiency and automation. In accordance with the ECC Technology Strategy the proposed approach will see a move to a cloud -based solution. This will deliver greater resilience and availability. It will also allow for consumption-based pricing through a subscription model based on utilisation. This will enable the contact centre to 'flex' up and down based on demand, and to take the advantages of new capabilities as they emerge from the cloud contact centre partner and will see contact centre telephony replaced with a modern and flexible platform to support ECC's Citizen Engagement ambition.
- 3.12 The new contact centre solution will be a key enabler providing the capabilities and detailed insight and analysis required to deliver the Customer Services Engagement Hub Strategy. A key aspect of the strategy will be a reduced cost to serve through seamless end to end self-service with most transactions achieved in a single interaction. When deciding the final design of contact centre platform we will take account of the need to integrate with other major platform and application changes including for example the proposed new social care case management system

- 3.13 These savings will be delivered by Customer Services as part of the implementation of the Engagement Hub Strategy and will be new savings that are not currently included in the Council's Medium Term Resource Strategy. It should be noted that not all inbound calls are within the scope of the Customer Services Engagement Hub Strategy as Customer represents one of seven key contact points into ECC
- 3.14 Outside of the contact centre, ECC operate a significant number of fixed telephony lines (land lines) – known as Public Switched Telephone Network (PSTN). Ofcom has announced that the PSTN will be replaced by a digital network by 2025, with individual BT Openreach exchanges being switched before that date.
- 3.15 This means that all equipment currently using the old PSTN network will need to be switched over before that time. We have a solution for the vast majority of ECC users. Telephony can be provided through greater use of Microsoft Teams. This will bring a consolidated technology footprint for ECC, centralising all communications channels into a unified collaboration suite, within Teams. It is therefore important that we minimise the number of land lines required to be switched. Taken together with the work on Network LAN/WAN services, our assessment is that many of the PSTN lines will no longer be required and can probably be decommissioned.

Mobile Voice and Data Services

- 3.16 Through market engagement with suppliers on the CCS Network Services 2 framework and benchmarking with other councils, we have identified that mobile voice and data services for ECC mobile devices is a commodity item and can be satisfied through a framework tender exercise where bidders can match services to our requirements. There are more efficient and cost-effective ways to provide communication services, as demonstrated in the financial implications section of this paper. It is therefore proposed to remove mobile voice and data services from the current contract at the earliest opportunity and procure services through an aggregation under the CCS framework.
- 3.17 The proposed approach is to allow CCS to compete our requirements, together with those of other public sector bodies, using the framework. This can leverage better pricing through greater volume discounts, and benchmarking with other councils has illustrated that they have achieved significant savings through aggregation. CCS will undertake the procurement on our behalf and ECC will award a call off contract to the winning bidder of the CCS mini-competition, subject to pricing being at or below the threshold stated in the CCS indicative savings analysis.

4. Links to our Strategic Ambitions

- 4.1 This report links to the following aim in the Essex Vision:
- Connect us to each other and the world

- Reduces cost and improves experience for our staff and the people of Essex.
- The modernised network will remove the need to connect all sites through County Hall. This improves resilience as problems experienced within County Hall will no longer affect the network connectivity at other ECC sites. This would reduce disruption to staff duties, and removal of traffic bottlenecks will improve performance.
- This proposal will further reduce the physical reliance on County Hall and Goodman House as key sites which will facilitate either partial or full site disposal if necessary.

4.2 Approving the recommendations in this report will have the following impact on the Council's ambition to be net carbon neutral by 2030:

- The new Contact Centre solution will allow more functions to be performed remotely than at present. This will reduce the need for office presence and related travel.
- The modernised network will have the effect of improving performance and homogenising the network estate. This will remove technology blockers and allow most roles to be performed from any ECC site, reducing the need to travel.
- Modern Software Defined Network (SDWAN) technology uses normal broadband connections to join sites instead of dedicated 'circuits' as per the current network. This removes the need to have ECC equipment in telephone exchanges and reduces the overall equipment / power requirement.
- The modernised network can be managed centrally which will reduce the need for engineer on site visits.

5. Options

5.1 Option 1 – To allow the NGN contract to expire and bring Network and Voice services and support in-house

ECC lacks the capacity and capability to support Network and Voice services. We would need to recruit specialist expertise, which is scarce, expensive and in-demand. It would be difficult to recruit permanent employees and could result in the need to use interim agency staff at great cost. Whilst some DUCL staff would transfer to ECC under TUPE they may be difficult to retain and would need management support. ECC doesn't have the expertise to transform our existing Network, and if the NGN contract is not extended, there would be a significant risk of disruption to Network and Voice services, which would have severe impacts on the Council's ability to function.

5.2 Option 2 – Extend the Network and Voice services under the NGN contract for 2 years

There is an option to extend all the services under the current contract. This option is not recommended as the costs to extend are far more than costs we

expect to achieve by going to market. The existing contract is now 10 years old and the technology solutions, and service delivery methods, have advanced considerably in that time so ECC can realise benefits from these developments by going to market now for new suppliers who have proven expertise in this area.

5.3 Option 3 - To extend the NGN contract for two years, disaggregate services and transform ECC's Network to SD-WAN with DUCL – Recommended Option

This option allows ECC to make changes to services for Contact Centre, Telephony and Mobile now, to realise ongoing cost savings and make use of new technologies from expert suppliers on the CCS Framework. DUCL, as the incumbent service provider for ECC, have the necessary day-to-day knowledge of our Network, as well as the resources and capability, to be able to deliver a transformation to a new, modern Network solution. This is the most cost-effective option identified and avoids some of the complexity and risk associated with transferring ECC's Network to a new supplier and then transforming the Network.

5.4 Option 4 – Don't extend NGN contract and procure new suppliers now

There is insufficient time to re-procure all services now, and the aged network would make costs prohibitive. In addition, a big-bang Network transformation approach without a contractual extension represents a significantly higher risk to delivery than managing the change on a phased basis.

6. Issues for consideration

6.1 Financial implications

6.1.1 The annual budget for the current NGN contract with DUCL is circa £4.8m (excluding additional project spend and service requests). Within the contract extension period, it is proposed to disaggregate this budget to support the anticipated contract and delivery costs for each workstream and to realise the estimated savings as set out in Table 3 in the confidential appendix.

A total investment of £3.447m (excluding contingency) is required to implement the proposed changes as set out in Table 2 in the confidential appendix.

6.1.2 The recommendations in this decision include a two year contract extension as detailed in the confidential appendix; this includes:

- A 2 year extension of Network Services, including the modernisation of the WAN to SD-WAN
- 3 months of Mobile Services; and
- up to 9 months of Contact Centre and telephony Services.

- 6.1.3 In addition to the contract extension, the investment proposal set out in Table 1 in the confidential appendix also includes the costs to undertake the procurement and implementation of the new Contact Centre solution and Telephony services and the procurement and implementation of the new mobile services.

Cost of Change

- 6.1.4 A summary of costs to undertake the implementation of the Network services, new Contact Centre solution and Mobile and Telephony services is set out in Table 2 in the confidential appendix. This includes the cost to modernise the Network from WAN to SDWAN, the resource costs to support the implementation of the transformation, plus the discovery phase for the longer-term re-procurement of network services; it also includes termination costs to exit the DUCL contract at the end of the two-year extension. A provision has been included for potential staffing costs associated with the transfer of Voice services from DUCL to a new provider; this remains subject to confirmation and validation through engagement with DUCL as part of the exit arrangements for these services from the contract.
- 6.1.5 It is proposed to fund the implementation costs as follows: £1.050m from the Transformation Reserve, in respect of the contact centre and telephony investment and £2.397m from the Technology and Digitisation Reserve in respect of the networking investment. There is currently sufficient funding in the reserves to meet these costs, however, prioritising it for this programme will reduce funding available to invest in other programmes, including the Technology Roadmap. The actual implementation period and costs will be dependent on the final scope and solutions to be implemented. Any funding not required by the Programme will be returned to reserves in accordance with the Financial Regulations.
- 6.1.6 Table 2 in the confidential appendix includes the implementation of the SD WAN equipment which is expected to have a support life of circa 7 years; after this period, the equipment may need to be refreshed, the costs for which will be in addition to those set out in this decision.

Financial Benefits

- 6.1.7 The estimated financial benefit arising from the recommendations set out in this decision is a total net saving against budget of **£3.263m** by 2026/27, which may reduce due to the impact of inflation in subsequent years, as costs assume an on-going - inflationary impact. The total net impact of the decision, taking into account the implementation costs over the 5 year period is a net saving of **£175,000** (see table1).
- 6.1.8 During the implementation phase, costs for the current contract will be incurred in addition to transition costs for the new services; the net impact of the transition costs in 2022/23 and 2023/24 are included in the implementation costs identified in Table 1.

- 6.1.9 The estimated costs of the network services are based on indicative pricing from DUCL and market analysis. Within this, it is assumed that as the network is transformed to SD WAN, the existing WAN costs will reduce in line with the current contractual cost model. These costs will be confirmed once the contract extension agreement has been finalised with DUCL.
- 6.1.10 It should be noted that final pricing, including those for the SD-WAN licences are subject to variation, including from fluctuation in the dollar to sterling exchange rate, inflationary pressures in the market and changes to ECC's scope of requirements, such as addition or removal of end sites and changes to circuit bandwidth or licence requirements; these risks will continue to be monitored through the implementation process to ensure they are mitigated as far as possible.
- 6.1.11 The estimated costs of the new Contact Centre solution and Telephony services for are based on indicative pricing from the CCS Network Services 2 framework RM3808. Within this, it is assumed that the volume of fixed lines will reduce from 1,300 to 200 as the services move to a new supplier from June 2023. The estimated costs of new Mobile services for are based on indicative pricing from the CCS Network Services 2 framework RM3808
- 6.1.12 The new contact centre solution will be a key enabler providing the capabilities and detailed insight and analysis required to deliver the Customer Services Engagement Hub Strategy. A key aspect of the strategy will be a reduced cost to serve through seamless end to end self-service with the majority of transactions achieved in a single visit. These savings will be delivered by Customer Services as part of implementation of the Engagement Hub Strategy and will be new savings that are not currently included in the Council's Medium Term Resources Strategy (MTRS).
- 6.1.13 Table 3 in the confidential appendix sets out the forecast savings compared to the current budget, which are £682,000 from 2024/25, £1.506m in 2025/26 and £1.434m in 2026/27, giving a net value of the forecast saving compared to budget from 2024/25 to 2026/27 of **£3.263m**. This position does not take account of future price pressures that may be caused by inflation. The savings will be reassessed following the finalisation of the contract extension agreement, which will validate the on-going costs in this respect. These savings will be added to the Council's Medium Term Resources Strategy (MTRS).

6.2 Legal implications

- 6.2.1 The proposals in this report comply with the Public Contracts Regulations 2015.
- 6.2.2 Given the current international situation it is important to ensure that all solutions have security designed so as to minimise the risk of a cyber attack.
- 6.2.3 The NGN contract contains provision for service improvement initiatives which allow for Network transformation to be awarded directly under the contract.

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7. Equality and Diversity Considerations

7.1 The Public Sector Equality Duty applies to the Council when it makes decisions. The duty requires us to have regard to the need to:

- (a) Eliminate unlawful discrimination, harassment and victimisation and other behaviour prohibited by the Act. In summary, the Act makes discrimination etc. on the grounds of a protected characteristic unlawful
- (b) Advance equality of opportunity between people who share a protected characteristic and those who do not.
- (c) Foster good relations between people who share a protected characteristic and those who do not including tackling prejudice and promoting understanding.

7.2 The protected characteristics are age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, race, religion or belief, sex, and sexual orientation. The Act states that 'marriage and civil partnership' is not a relevant protected characteristic for (b) or (c) although it is relevant for (a).

7.3 The Equalities Comprehensive Impact Assessment indicates that the proposals in this report will not have a disproportionately adverse impact on any people with a particular characteristic.

8 List of Appendices

- Appendix 1 – Service Options
- Appendix 2 – Confidential Appendix
- Appendix 3 – Equalities Comprehensive Impact Assessment

9 List of Background papers

None.

I approve the above recommendations set out above for the reasons set out in the report. Councillor Kevin Bentley, Cabinet Member for Leader of the Council	Date 13th Sept 2022
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In consultation with:

Role	Date
Nicole Wood, Executive Director of Corporate Services consulted	13th Sept 2022
Executive Director, Corporate Services (S151 Officer) Stephanie Mitchener	06th Sept 2022
Director, Legal and Assurance (Monitoring Officer) Paul Turner	06th Sept 2022