

# Connected Thurrock

People Connected and Enabled by Technology

Thurrock's Digital and Information Technology

Strategy 2017-20

Draft for Approval

### Welcome to Connected Thurrock

1. Thurrock is characterised by its connections. We connect the United Kingdom to the world through our three major ports. We connect the South East to the rest of the United Kingdom through our road and rail networks. We are a series of towns and villages with strong community connections, and we are historically connected to a number of events that have directly shaped our national culture, including the Peasants Revolt, the Armada and the Empire Windrush.
2. We are proud of our place and passionate about creating quality and affordable services that are delivered to our citizens 'right first time'. To help us do this we need a Council that is built upon a modern and robust technology foundation that underpins our people's needs whilst putting them at the centre of service designs - so that we can make their journey through life better.
3. Digital technology is transforming the way people live their lives - from the way we communicate to the way we purchase goods and services. The increasingly pervasive growth of online shopping, mobile device use, social media and ultra-fast broadband presents many opportunities and it is connecting us in ways that were unimaginable just a few generations ago. Across the globe business and public service users have been embracing advancements in digital interaction for decades and Thurrock is no exception. The smart use of smart technology will help us provide effective, efficient and reliable services to our citizens.
4. To embrace such opportunities we have developed this strategy to define how our future use of technology and human resources will be optimised to enable the efficient delivery of our business and community priorities to the businesses and citizens of Thurrock.
5. Connected Thurrock is about seizing the opportunity to build a digital infrastructure fit for the 21<sup>st</sup> Century to support the 21<sup>st</sup> century community. In much the same way that our 19<sup>th</sup> Century forebears built sewers, roads and houses to improve Thurrock we will create a digital infrastructure that will ensure that everyone who lives, works and visits Thurrock has the chance to benefit from these investments.

***Sign off by Leader and CEO??***

## Digital Vision

6. Our vision is to connect our community with technology so that Thurrock is a better place to live, learn, work and do business. We will:

### Create better outcomes for the people of Thurrock

This strategy will deliver this through:

- Better **Citizen Journeys** – enabling citizens and customers to interact with the Council digitally for better and quicker outcomes
- Developing **Smarter Working** habits– creating a 21<sup>st</sup> century workforce that is focused on delivering outcomes with bureaucracy minimized through automation
- Delivering **High Availability** technology – ensuring our services are available when and where they are needed

### Build a stronger community

This strategy will deliver this through:

- Encouraging **A Connected Place** – locally provided technology brings our communities together and improves quality of life within Thurrock

### Redefine how we operate as a council



This strategy will deliver this through:

- **Enabling Collaboration** – enabling us to work more effectively with our partners and each other
- Becoming more **Digitally Capable** – building our future capability to deliver technology services through a broader range of partnerships including suppliers and other public bodies

## Introducing Digital Government

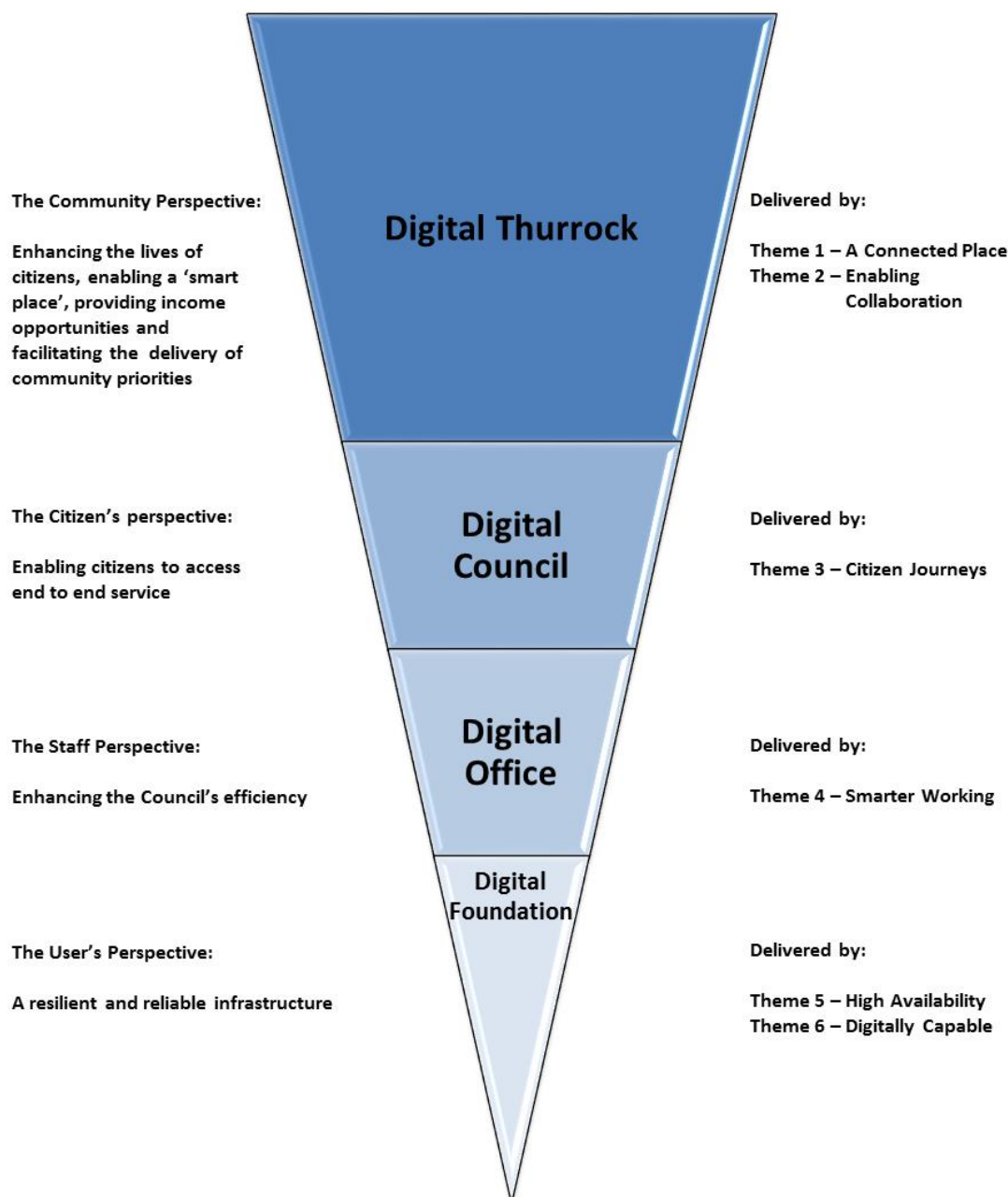
7. When we talk about a digital world, we are referring to the way that people and organisations interact. This new world has evolved through the emergence of technologies that have fundamentally disrupted the way that we now think and behave. For example:
- Mobile devices (smartphones and tablets) are rapidly changing the way that we work, rest and play by giving us the ability to access business and social data from almost anywhere - at any time.
  - Social networks (e.g. Facebook, LinkedIn and Twitter) have fundamentally changed the way that we organize our social and professional lives by enabling us to rapidly communicate with an expanding network of friends and contacts.
  - Analytical insights (e.g. store loyalty cards and online product searches) have fundamentally changed our shopping experiences by predicting our choices and preferences, and enabling us to make quicker informed decisions.
  - Cloud Computing (e.g. Office 365, Dropbox, iCloud) has allowed both individuals and smaller organisations to gain access to technologies that were previously prohibitively expensive. This is already resulting in wider inclusion during the continued evolution of the mobile digital world.
8. Connected Thurrock has been developed in collaboration with our key partners and describes how we believe digital technology can be used to make life in Thurrock better for everyone. It is a strategy of two sides: The 'Digital' side describes the behavioural, commercial and social outcomes that we aim to achieve. The 'Information Technology' side describes how our current technology will evolve to enable these outcomes. From our consultation a picture has emerged of what is important to people:
- A need to invest in ultrafast broadband infrastructure and public Wi-Fi across Thurrock to remove existing gaps in provision and enable economic growth
  - The Council needing to enable more collaboration, including virtual conferencing, flexible working and integration with its public and private sector partners
  - Building a data analytics capability to enable a more intelligent understanding of the needs of communities and individuals and to manage demand
  - Working with the education and voluntary sectors to provide courses and promote digital inclusion so as to avoid people being left behind by new technology
  - Ensuring our local education offer equips people with the skills needed to build a digital economy
  - Getting the basics right – ensuring our workforce is equipped with the right tools and applications to do their jobs and work from a reliable and stable platform
  - Making it easier for citizens to access services via mobile devices as that is their device of choice
  - Increasing the amount of service offers that are available online
  - Reducing the number of large scale business applications used by the Council and building more targeted applications that enable users to operate more agilely from mobile devices
  - Ensuring that future technology solutions are implemented via business change activity that redesigns existing business processes to make them agile and responsive to future change
9. This strategy builds on the achievements of previous IT strategies and is a statement of intent for the next 3 years **and beyond**. Connected Thurrock will be a journey to make Thurrock a digital exemplar. We will do this by embedding 5 key cultural building blocks in everything we do:
1. **Digital leadership** - Focusing on 'place making' by enabling economic growth, improving peoples' quality of life and strengthening the relationship with our communities
  2. **Digital awareness** – Building a recognition amongst our staff of the need to think and be digital
  3. **Digital by design** – As part of the service review process, services will be redesigned to be digital
  4. **Digital platforms** – Deploying technologies to improve efficiency and deliver user centric services
  5. **Digital skills** – Equipping our people with the skills needed for the 21<sup>st</sup> Century

10. We have taken these 5 building blocks and set out the steps that need to be taken to enable us to become a digital exemplar. These buildings blocks are underpinned by the delivery themes, digital principles and architectural principles (see appendices) of this strategy together with the wider programme of service reviews.

The steps we will take to become a Digital Exemplar				
<p>Where we are now... </p>				
	Digital Beginner	Digital Adopter	Digital Master	Digital Exemplar
Digital Leadership	A few isolated models of digital services. Absence of clear joined up ICT and data strategy	There are some digital service offers that are beginning to cross departmental and organisational boundaries. Tech and data strategies are starting to be merged	Research and innovation is widespread, with clear partnerships in place, and some clear proofs of concept for new models. Clear, linked tech and data strategies in place and working	Innovative models of service embedded, co-designed and partnered across our delivery system. Service solutions are constantly tested and evaluated.
Digital Awareness	Limited understanding among staff of impact of digital on service delivery and attainment of community priorities	There is a basic level of digital awareness and some opportunities to use digital to support business objectives	Comprehensive awareness of digital opportunities to transform service delivery and strong partnerships in place	Clear ability and competence to identify and pursue new strategic opportunities using digital expertise and collaborative work with partners
Digital by Design	Digital not considered or is an after thought for employee, public and partner services	Digital options for services are considered on a case by case basis and embedded in annual planning.	Digital designed as the default option for the majority of services and investment based on agreed priorities	All internal and external products and services designed, where appropriate, as digital and fully based on user needs
Digital Platforms	Little or no availability of digital platforms and tools and limited connection with ICT and others strategies	Limited use of digital platforms and tools and limited use of data. There is agreement on the approach to future use of technology	Increased organisational efficiency and effectiveness from general use of digital platforms and tools generating joined up data	Digital platforms and tools enabling smarter ways of working, with joined up technology, tools and data across local partners
Digitally Skilled	Low levels of digital skills	Key digital skills and roles are starting to be defined and basic digital competency in some areas	Advanced digital skills, clear workforce and recruitment development plan	Digitally 'native' with an implemented recruitment and development plan and widely available skills development
				

Acknowledgement: Based on a maturity model developed by Public Health England

## Our Digital Model



11. Our Digital Model allows us to visualise and rationalise the digital world from various stakeholder perspectives and motivations. It will evolve over time and forms the basis of our enterprise architecture that will realise quicker and better outcomes for users. It will be delivered by 6 thematic programmes:

1. **A Connected Place** – locally provided technology brings our communities together and improves quality of life within Thurrock
2. **Enabling Collaboration** – enabling us to work more effectively with our partners and each other
3. **Citizen Journeys** – enabling citizens and customers to interact with the Council digitally for better and quicker outcomes
4. **Smarter Working** – creating a 21<sup>st</sup> century workforce that is focused on delivering outcomes with bureaucracy minimized through automation
5. **High Availability** – ensuring our services are available when and where they are needed
6. **Digitally Capable** – building our future capability to deliver technology services through a broader range of partnerships including suppliers and other public bodies

**Theme 1 - A Connected Place – locally provided technology brings our communities together and improves quality of life within Thurrock**

12. Our ambition is to build Thurrock as a ‘smart place.’ A smart place uses digital technologies to enhance service delivery and wellbeing, to reduce costs and resource consumption, and to also engage more effectively and actively with citizens.
13. We will lead the creation of ‘Thurrock as a Platform’ to build an environment that supports the delivery of the wider community priority of place making. We will work with our partners and create new infrastructure and connectivity such as ultra fast broadband and widely available public access Wi-Fi. We will also share our existing infrastructure, technology and applications in ways that were not possible before to redesign services and enable a broad range of solutions to be developed to better meet community needs.

What we will do to create a Connected Place	
The Intended Digital Outcome	Potential Technology Enabler
Thurrock becomes a recognised smart place, fully connected to the Internet of Things	Develop a smart place strategy in partnership with commercial and community organisations
Consumers and businesses have a better online experience via the deployment of ultrafast broadband	Build and deploy an open standard smart Infrastructure, comprising wired and wireless networks and physical infrastructure, leveraging existing assets (e.g. street light network)
Quality of life is enhanced in Thurrock through the smart enablement of the borough	Traffic management platform to control congestion and air quality using sensors
	Environmental platform to control fly tipping, littering etc. using sensors and surveillance technologies
	Independent living platform, combining health and care data with home and wearable sensors to help the elderly and disabled live fully independent lives
Thurrock’s culture and heritage are readily accessible to all	Digitise our cultural and heritage assets

Cultural changes required
<ul style="list-style-type: none"> <li>• Connected Thurrock is aligned to key strategies such as the Local Plan, Place Making Strategy Health and Wellbeing Strategy, approach to community hubs and emerging smart place strategy</li> <li>• Publicise and advocate Thurrock as a Digital Community</li> <li>• Target the inclusion of citizens and businesses as key digital stakeholders</li> <li>• Provide community education, training and support to promote digital inclusion</li> <li>• Develop commercial and service models for consumers and businesses</li> </ul>

Success Criteria
<ul style="list-style-type: none"> <li>• 100 % of citizens and businesses have access to broadband</li> <li>• Higher satisfaction ratings achieved within residents survey</li> <li>• There is an increase in the number of small business start up rates</li> <li>• There is an increase in revenues from business rates</li> </ul>



**Theme 2 – A Connected Place: locally provided technology brings our communities together and improves quality of life within Thurrock**

14. Our current and future financial situation is characterized by having fewer resources and a rising demand for service from an ageing population. As a result demand is being generated to use data differently and this data, whether open data, or data shared within relevant public sector organisations, is becoming central to how we redesign our services. By developing a better understanding of customer data we can use it to target our services where they are needed the most and intervene early where appropriate.
15. The national agenda to integrate health and social care will feature largely in shaping the digital future of Thurrock. However a key challenge does not lie in the technology, but in placing the individual at the heart of service design and dealing with the cultural change implications of this. At its heart, it is about ensuring that everyone can get the right care and support, whatever their needs, at every point in their care journey. But it is also about efficient, joined-up and digital services. The demand for a closer integration of health and social care is providing an opportunity for a radical redesign of services.

What we will do to Enable Collaboration:	
The Intended Digital Outcome	Potential Technology Enabler
Communities and 3rd sector groups can work better together by accessing new digital channels and functionality	Create the Thurrock Community Cloud making council applications available on a tenanted basis for organisations to use on a paid or non-paid basis
The Council and its partners work better together through seamless sharing of data	Develop a Secure Data Exchange Platform that allows Thurrock data to be exchanged with external partners
The Council makes data sets and information available on a commercial or open basis	
Council partners can work seamlessly on council premises with full access to their own networks.	Provide single wireless point of access for partners across all council premises.

Cultural changes required
<ul style="list-style-type: none"> <li>• Alignment to cross agency strategies, including NHS Local Digital Roadmaps, Greater Essex Information Sharing, GDPR, national government transformation strategy</li> <li>• Thurrock assumes a “can do” leadership role in championing data transparency. Our default position is that we will share our data (in line with regulations) rather than hiding it.</li> </ul>

Success Criteria
<ul style="list-style-type: none"> <li>• Citizens needs are better understood through more intelligent use of data resulting in better targeting of resources</li> <li>• More efficient joint working with a wider range partners</li> <li>• Reduced total cost of providing services</li> <li>• Better outcomes for citizens</li> <li>• Reduced office accommodation requirements as employees from different organisations are enabled to collaborated electronically</li> <li>• Less time and money spent on travel expenses as the need to travel to meetings decreases</li> </ul>



### Theme 3 – Citizen Journeys: enabling citizens and customers to interact with the Council digitally for better and quicker outcomes

16. Our population is growing, due to migration into Thurrock, which is presenting a more diverse range of needs. The funding challenges we face means that we need to use our resources better than ever before and our traditional service offers are increasingly becoming unaffordable. We know from our residents' survey that, at present, people prefer to contact us by telephone but they also state that they are willing to move to other contact channels such as the Internet. Our future approach will be based on: a better understanding of customer insight; reengineering processes to offer a more efficient customer journey that provides quicker and better outcomes and people self-serving wherever possible.

What we will do to manage citizen journeys:	
Intended Digital Outcome	Potential Technology Enabler
We better understand the needs and expectations of our customers	Leverage the technology enablers defined in Theme 4: Smarter Working theme – including Business Intelligence, Artificial Intelligence, and Single View.
Multiple access channels means that citizens, residents and customers are able to contact us through the digital channel of their choice at any time of day	Deployment of an 'omni channel' contact platform that allows assisted services to be provided and managed efficiently.
	Deployment of a single sign on and verification solution that allows people to use other logins (e.g. Facebook, gov.verify, NHS) to access all online services)
Customers get a better service through the elimination of red tape	Deployment of Agile Automation Platform which will provide code-free integration and workflow capabilities, allowing rapid deployment of small standalone applications that can be integrated with legacy line of business systems.
Customer experience is improved due to all existing 'forms led' services becoming available online and automated by end of 2019	
A customer only has to tell us something once (e.g. a change of address) with all systems and services being updated automatically	

#### Cultural changes required

- Align Connected Thurrock to the delivery of key actions from the Customer Services Strategy
- Promote inclusivity programmes for customers and citizens so they confidently move towards interacting with us digitally (incentivisation, training, marketing, assisted support)
- Training and re-skilling of technical staff to support agile automation
- Future digital services must offer a user experience that is better than current phone or face to face

#### Success Criteria

- Citizens needs are better understood and provided for
- Customer experience is faster, better and more satisfying for them
- Reduced total cost of providing services
- Demand for services is better understood and provided for
- Better outcomes for citizens with fewer complaints
- A digitally literate customer base and more customers choose to do business digitally

**Theme 4 – Smarter Working: creating a 21<sup>st</sup> century workforce that is focused on delivering outcomes with bureaucracy minimized through automation**

17. As part of our drive to create a 21<sup>st</sup> century worker we will embrace the piloting of new technologies to test out ideas and create an ‘Innovation Hub’ to inspire and enable us to rethink our process and systems and promote new ways of working. Our staff are employed as professionals and they are passionate about their work. They want to do the best job possible for citizens and customers and to enable them to do that our technology offer has to match that ambition. To create smarter working we will improve and streamline existing business applications, create better management information, provide a wider range of devices and create a digital skills training programme.

What we will do to promote smarter working:	
The Intended Digital Outcome	Potential Technology Enabler
Performance is better managed across the council, its partnerships and contracts	Deploy a Business Intelligence Platform which allows data to be extracted and combined from all systems to provide detailed reporting and high level dashboards
	Upgrade, extend or replace our Enterprise Resource Planning (ERP) platform, currently used for managing Finance, Procurement and HR.
Staff focus on complex decisions as simple, time consuming, decisions become automated	Develop an agile ‘single view capability’ (such as customer, debt, household etc.) using the latest information from across multiple data sources
	Deploy an Artificial Intelligence platform to manage decisions which can be made based on data held in multiple systems, and which can learn to make progressively more complex judgements.
Staff work where they need to rather than where they have to	Roll out next generation mobile devices, which make it easier to perform any professional task remotely
	Extend our collaboration capability to make it easier to communicate with each other using social networking type technologies
All staff and members are digitally capable of performing the roles expected of them	Create a digital skills training syllabus that is continually refreshed to ensure it remains relevant
	Deploy a replacement mobile learning platform which allows individuals access to all of the training that they need to do, at any time of day
There are fewer documents produced which enables the development of big data	Develop a digital mail room to centralize mail delivery to the Council
	Create enforced sign on to ensure as much structured data about customers is captured

Cultural changes required
<ul style="list-style-type: none"> <li>Align Connected Thurrock to the delivery of the ‘Business’, ‘Customer’ and ‘Culture’ Outcomes of the People Strategy</li> <li>Managers embrace wider benefits of flexible working and encourage new working methods – eg online collaboration</li> <li>Staff embrace new and better ways of working</li> <li>Develop more robust approach to benefits realisation from business cases</li> </ul>

Success Criteria
<ul style="list-style-type: none"> <li>There is ‘one version of the truth’ in terms of information and data</li> <li>Citizens needs are better understood through more intelligent use of data resulting in better targeting of resources</li> <li>More efficient joint working with partners and colleagues</li> <li>Reduced total cost of providing services including accommodation</li> <li>A digitally literate workforce is created</li> </ul>

**Theme 5 – High Availability: ensuring our services are available when and where they are needed**

18. Our ambition is to build a resilient, reliable and highly available infrastructure that enables front line service delivery, and provides our users with a consistent good quality computing experience. Our platform will be based upon proven technology and provide the flexibility to meet the Council’s need. We will continue our hybrid cloud approach. The IT architecture must remain agnostic to where individual components are hosted and therefore we will continue to procure primarily on fitness for purpose and value for money rather than arbitrarily committing ourselves to either Cloud or On-premise solutions. It is expected that an on premise presence will be required for the duration of this strategy and beyond.

What we will do to ensure high availability	
The Intended Digital Outcome	Potential Technology Enabler
Our platform provides users 99.9 % availability 24 hours a day	Upgrade our main data centre to industry standard
	Prefer cloud solutions (Platform as a Service and Software as a Service) where appropriate and beneficial
	Maintain the infrastructure at all key business sites and provide an IT offering that meets the business needs
	User experience monitoring
	Removal of single points of failure within the infrastructure
50% of our people can continue to work in the event of a disaster to allow our priority services to continue	Develop a secondary data centre room capability
	Create mirror infrastructure
The information that we hold about people is safe and secure	Continually enhance our cyber security defences

Cultural changes required
<ul style="list-style-type: none"> <li>• Adoption of council wide Enterprise Architecture model</li> <li>• Adoption of strategic roadmap and forward schedule of change</li> </ul>

Success Criteria
<ul style="list-style-type: none"> <li>• Users can use our services online at any time of the day</li> <li>• User experience is faster, better and more satisfying</li> <li>• There are no successful breaches of our cyber defences</li> </ul>

**Theme 6 – Digitally Capable: building our future capability to deliver technology services through a broader range of partnerships including suppliers and other public bodies**

19. Our ambition is to be a digital council, serving a digital borough. This inevitably means there will be pressure on technology costs to rise. It is essential that our delivery capability is designed to ensure that we maximize benefits in the most efficient way possible and that our organisation evolves in a way that allows us to keep up with the ever increasing pace of digital change.

What we will do to become Digitally Capable	
The Intended Digital Outcome	Potential Technology Enabler
Technology is a significant revenue generator for the council	Develop business plan to deliver managed and professional services
Technology cost base is optimised	Share services (where appropriate) with other local authorities Centralise Digital and technology skillsets within the council
Technology informs individual service strategies	Broaden the capability of our engineering staff with more generalist service and strategic skills to better meet the needs of client services
Thurrock is recognised and respected for its technology capability	

Cultural changes required
<ul style="list-style-type: none"> <li>• Commercial culture to be encouraged and developed across delivery teams</li> <li>• Silo mentality to digital resources to be challenged</li> <li>• Matrix working to be accepted as normal across council</li> <li>• Effective communication of success stories</li> <li>• Recognition that the cost of providing new technologies will rise as a percentage of general fund expenditure which needs to be netted off against business case benefits realisation</li> </ul>

Success Criteria
<ul style="list-style-type: none"> <li>• Win at least one nationally recognized award for our digital achievement</li> <li>• The contribution to the General Fund from traded technology services increases significantly from current levels</li> <li>• Staff satisfaction survey for IT and digital capability surpasses national average</li> </ul>

## Appendix 1 - Governance and finance

20. Connected Thurrock is an ambitious and challenging strategy. Going digital provides us with a huge opportunity to transform both Thurrock Council and to deliver our place making community priorities. To realise our digital ambitions we need to improve how we use our technology, reskill our workforce, work differently with our partners and better understand our citizens' needs.
21. This strategy is the first stage in that journey. We will create a detailed delivery plan that sets out how the projects will be delivered along with their business cases, resource requirements, risks and implementation dates. We will review this delivery plan annually and renew it tri-annually.
22. The Digital Board will own this strategy and its annual delivery plans. All investment decisions relating to ICT and digital in general will only be permitted after consideration and approval by the Digital Board, with escalation to Directors' Board and Cabinet as appropriate.
23. It is predicted that existing technology costs will rise as a result of the investments set out in this strategy. These additional costs should be offset by a funding principle that we have established – for every £1 of investment in new technology we will make a £2 gross return.
24. The investments required to deliver this strategy will be funded through capital for non-cloud models. Public cloud solutions will be funded from revenue. The following table illustrates the pressure on costs based on current capital plans using a notional 5 year amortization to fit standard refresh cycles. We assume a 20% annual operating cost (maintenance and support) against each investment.

Funding Source	Investment (£k)	Annual capital payment (£k)	Annual operating cost (£k)	Total additional cost (£k)	Target ROI (£k)
Capital rolled over from previous years	4000	800	800	1600	3200
Approved capital 2017/2018	3247	650	650	1300	2600
Aspirational capital 2017/2018	15710	3142	3142	6284	12568
Total	22957	4592	4592	9184	18368

25. The aspirational figures assume that £5m grant funding will be secured, lowering the amount that Thurrock have to fund to £10710k.
26. The ROI will be defined in individual business cases and achieved through the following means:

- Direct like for like replacement of revenue costs where existing systems are retired /replaced
- Income generation
- Productivity cost savings

## Appendix 2 - Our Digital Principles

27. To drive up our digital maturity as an organisation, all services in the council are committed to the digital principles which were formalised in 2015:

### **To improve our customers' experience and reduce service delivery costs, you should:**

- Understand and adopt these principles
- Promote the principles with all your colleagues
- Check your services against the principles
- Implement the principles
- Contact our Web Team if you need new online forms – the Web Team can create these

### **Where a service is already available online:**

- Promote this in all communications
- Remove other channels from all communications to direct as much traffic as possible to the online channel:
  - do NOT publish phone numbers
  - do NOT publish email addresses – use online forms that capture structured data
  - do NOT ask for letters or other papers to be sent to the council – if forms need to be completed, use online forms
  - do NOT ask for payment by cheque – it's the least efficient way of taking a payment
- If an online form delivers an email that has to be processed manually, consider whether automation would deliver savings – the form could be entered into a system automatically to save time and effort

**Where a service is not yet available online:**

- Publish ALL information about the service on the website, adhering to our style and content guides – do NOT say 'contact us for more information' as all information should be online
- Consider whether an online form could be created to capture initial contact details
- If an online form is not appropriate:
  - publish only ONE phone number – ideally a number already in the public domain
  - do NOT publish an email address

**Where a new service is being considered:**

- Design the service to be delivered online from the outset – 'Digital by Default'
- Avoid the use of any other channels if possible – make it online-only, as:
  - those who don't have their own access to technology can get access in libraries
  - those who don't know how to use technology can get help and support from friends, family, neighbours or in libraries

**For ALL services, ask the following questions.**

- Is the service available online? If not, why not?
- Are cheque payments involved in the process? If so, put a plan in place to remove them.
- Is any paper involved in the process? If so, put a plan in place to remove all paper.
- Is an email address published? If so, put a plan in place to replace it with an online form.
- Is your technology integrated so the customer can automatically be notified of updates and outcomes? If not, assess the benefits of doing so and, where appropriate, submit a bid for funding to integrate it.

**Appendix 3 - Our Architecture Principles**

28. In conjunction with the Digital Principles, we have developed Architectural Design Principles to inform the delivery of this strategy:


1. **Secure by design** - The security of our systems and data is of overriding importance. Information security will be designed in to all our systems, changes and processes right from the start
2. **Cloud where appropriate** - We will reduce our local infrastructure through a preference that systems will be vendor or cloud hosted where it is cost effective to do so



3. **Information led design** - We will better use the data we hold to allow us to design and provide, more tailored services
4. **Share and reuse** - We will seek to join up with others and share services, capacity and capability. We will learn from others and reuse existing software, processes and ideas
5. **Using open data** – Wherever it is possible we will publish our data openly and online, for reuse by citizens, our partners, researchers and investors
6. **Using open source software** – We will always consider the use of open source software
7. **Any device, anywhere, anytime computing** – our staff and citizens will be able securely use our platform and services at any time and from any location using their device of choice
8. **Integration** - regardless of where our systems are hosted we will always work to ensure that the systems can talk to each other and are integrated with our partners where necessary
9. **A digitally capable workforce** – to realise maximum benefit from new technology we will create a skilled and technology confident workforce through investing in learning and development

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Appendix 4

Pen Portrait	
<p><b>Introducing Peter</b></p>	
<p><b>Today</b></p> <ul style="list-style-type: none"> <li>• Peter is a divorced 70 something retired office worker</li> <li>• He lives alone in a council provided flat in Corringham with his 3 cats</li> <li>• He has 2 adult children who live outside of Thurrock in the north of England</li> <li>• Peter does not have a car and is reliant on public transport or lifts from friends to get about</li> <li>• Peter survives on a modest work pension which is supplemented by the state pension. He is</li> </ul>	<p><b>As a result of Connected Thurrock</b></p> <p>His 'my life' app on his mobile device:</p> <ul style="list-style-type: none"> <li>• Reminds him that his bins will be collected at 11:10 on Tuesday morning</li> <li>• Reminds him that his TransVol bus will collect him at 2:00 that day to take him to his exercise class and that it is running on time</li> <li>• Tells him that there is currently pollution in East Thurrock but that it will leave the borough by 4pm</li> </ul>

<p>struggling financially and lives month by month</p> <ul style="list-style-type: none"> <li>Without the means Peter doesn't have many hobbies or luxuries but he is an avid reader and makes use of Corringham library</li> <li>He buys food on a budget from Asda and Lidl and in the past this has been supplemented by food that he has grown himself on his allotment although he finds managing the allotment increasingly difficult</li> <li>Peter suffers from cardio vascular disease and is on medication to control blood pressure, cholesterol and diabetes</li> <li>His diabetes has resulted in surgery which makes it difficult for him to get about but he is registered with a council owned gym where he goes to an exercise class for seniors twice a week</li> <li>As a former office worker Peter is confident with IT and has a PC and tablet that was bought for him as Christmas present a couple of years ago. He uses his tablet to read books and to catch up on the news so as to avoid buying a newspaper</li> </ul>	<ul style="list-style-type: none"> <li>Informs him of a message from the Council to say that his carer will arrive at 12:00 to help clean his flat</li> <li>Alerts him to a message from his doctor to say that his blood pressure readings are higher than normal and that he needs to book a check up appointment</li> <li>Asks him to complete the application for an adult social care package that he started yesterday</li> <li>Asks him to complete an online health survey to help his doctor monitor his care package</li> <li>Informs him that a volunteer gardener from his allotment at Giffords Cross will bring him some vegetables for his evening meal</li> <li>Advises him of reading recommendations from his local library based on his preferences and feedback on previous e-books that he had borrowed</li> </ul>
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Appendix 5

Pen Portrait	
<p><b>Introducing Sarah</b></p>	



Today	As a result of Connected Thurrock
<ul style="list-style-type: none"> <li>• Sarah is a 20 something who works for Thurrock Council</li> <li>• Although she has a reasonable standard of living she is supported by her parents and lives with her family of 4 in Orsett and has access to the family's cars</li> <li>• Sarah is a graduate and is in the early stages of building a career. As a result she is undertaking lots of professional development courses and remote learning</li> <li>• When not at work she enjoys going to the gym, and socialising with friends</li> <li>• Sarah is tech savvy and an early adopter who uses a variety of devices to consume media, keep in touch, run her work and social life and respond to digital marketing</li> <li>• She is well immersed on line and streams music, films and games to her iPad and iPhone and enjoys social networking</li> <li>• She rarely watches television preferring instead to watch programmes on her mobile which is</li> </ul>	<p>Her 'my life' app on her mobile device:</p> <ul style="list-style-type: none"> <li>• Tells her of her diary appointments for the day, where her meetings are and how to get to them</li> <li>• Opens up a copy of a letter from a resident that has been sent to her to deal with</li> <li>• Reminds her to complete her latest CPD course through the online learning portal</li> <li>• Prompts her to look at her Oracle dashboard to update the progress against her appraisal objectives</li> <li>• Gives her a real time summary of expenditure against the budget she has responsibility for</li> <li>• Summarises in one place all the news headlines that are of interest to her</li> <li>• Suggests the purchase of a new jacket which it thinks she will like</li> <li>• Advises her to avoid travel routes where temporary road works or congestion are happening that day</li> <li>• Suggests coffee houses / restaurants to work from when she is out and about and between meetings</li> <li>• Keeps her up to date with what residents are saying</li> </ul>

<p>never far away</p> <ul style="list-style-type: none"> <li>• Sarah is in the prime of her life, living it up and not taking life too seriously – feeling good and keeping in touch with her friends is important to her</li> </ul>	<p>on twitter</p>
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Appendix 6

<p><b>Pen Portrait</b></p>	
<p><b>Introducing Aaron</b></p>	
<p><b>Today</b></p>	<p><b>As a result of Connected Thurrock</b></p>
<ul style="list-style-type: none"> <li>• Aaron is 23 and lives in East Tilbury</li> <li>• He lives in a council provided flat with his girlfriend and his mum</li> </ul>	<ul style="list-style-type: none"> <li>• Aaron has signed up to course to build his digital and IT skills</li> <li>• A local community group has provided him with</li> </ul>

<ul style="list-style-type: none"> <li>• Aaron's mum suffers from a muscular skeletal condition and finds it difficult to walk and get about</li> <li>• His girlfriend is 3 months pregnant</li> <li>• Aaron is unemployed and has not worked since he left school at 16</li> <li>• Aaron spends his time watching TV, socialising with friends and following Tottenham Hotspurs – his favourite football team</li> <li>• He is not technology literate and has a mobile phone but it is not a smart phone. Aaron does not have access to a tablet or personal computer</li> <li>• Aaron does not have a car and is reliant on public transport or lifts from friends to get about</li> <li>• Aaron is unhappy with his life and has been persuaded by a local area co-ordinator to visit the Tilbury Community Hub to see what services are available to help him into work and to support his family</li> </ul>	<p>a low cost tablet device to help him embed the ICT skills he is learning on his course.</p> <ul style="list-style-type: none"> <li>• The broadband network that the Council and its commercial partners has built provides him with low cost access to the Internet</li> </ul> <p>His 'my life' app on his mobile device:</p> <ul style="list-style-type: none"> <li>• Allows his girlfriend to access an app created by a local mums charity which gives her the information she needs to help her with her pregnancy</li> <li>• Provides him with access to an online job portal through which he is applying for work opportunities</li> <li>• Allows him and his family to apply for the benefits they are entitled to</li> <li>• Allows his mum to join a number of on line support groups to help her live with her condition</li> </ul>
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