ICT Strategy
2018/19 to 2022/23

transforming
yourcouncil

West Lothian
Council
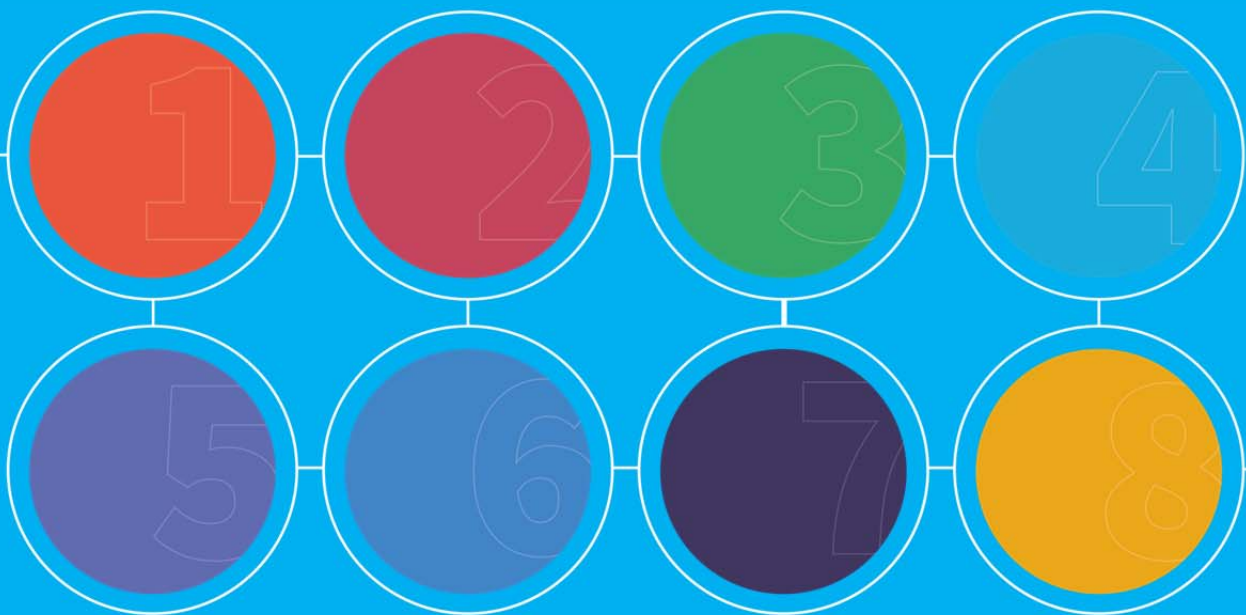
Welcome to the ICT Strategy

The ICT strategy sets out the key outcomes, activities and behaviours that the council will pursue in support of our corporate priorities and a culture of continuous improvement

The West Lothian Council ICT Strategy provides a framework for managing ICT across the council over the next five years. The Council is committed to maximising the use of technology to support the delivery of efficient services for our customers. The strategy focuses on ICT as an enabler for improving efficiency across the council, achieving compliance with legislation and regulatory factors to ensure we can continue to securely provide transformed services.

The ICT Strategy supports the council's Corporate Plan 2018/23 and its eight priorities supporting the delivery of council services dependent upon technology. The ICT Strategy also aims to ensure that there are efficient and effective policies, processes, technologies and solutions in place to defend the council's systems and information from cyber-crime.

The strategy is underpinned by a Technical Framework that sets out the infrastructure, systems and security required to support the delivery of council services.

The strategy will support the delivery of digital transformation and improved customer service and has been developed in conjunction with the Digital Transformation Strategy and Customer Service Strategy. The strategy provides significant support for digital transformation with an improving infrastructure, the adoption of new technologies and a new approach to delivering systems and support to the council service areas.

While it is recognised that the pace of change in technology continues to accelerate, the Strategy aims to ensure the council can make best use of its ICT infrastructure into the future.

The ICT Strategy is one of a suite of corporate strategies aimed at transforming the way the council delivers its services in an efficient and effective manner in support of the Corporate Plan 2018/23 and the council's priorities.

Lawrence Fitzpatrick
Leader of the Council

Graham Hope
Chief Executive

Strategy outcomes

The ICT Strategy is designed to provide a framework for the council to make best use of its ICT Infrastructure and maximise efficiencies through the use of technology whilst securing the council's network from cyber threats and supporting business transformation.

The ICT Strategy has three outcomes:

- Outcome 1: Ongoing sustainability of the ICT infrastructure and systems to support the use of technology solutions which improve efficiency and effectiveness
- Outcome 2: Securing the council's infrastructure, systems and data
- Outcome 3: Supporting business systems and transformation

Maintaining the ICT infrastructure at an optimum level across a high speed network which is capable of supporting all the council's systems is a priority aim which this strategy addresses. The strategy recognises that in today's cyber world, new threats to systems and data arise daily. The approach to securing the council's infrastructure, systems and data, which includes the development of Service Continuity Management designed to support the Council's business continuity planning, will not only mitigate against cyber-attack but allow the Council to recover in the event of a cyber breach.

The strategy also sets out the Council's approach to supporting the council to "close the digital gap" as referred to in the Digital Transformation Strategy. Making more extensive use of existing tools providing the capability for council services to employ emerging business and artificial intelligence software creating information from data.

The strategy also recognises that Council staff have an expectation that they will be able to work remotely or from multiple locations with no impact on performance of the technology.

The replacement and upgrade of major council systems and software tools will ensure that operational needs are addressed while simultaneously providing the data to supply business intelligence software processing.

Progress on the outcomes will be monitored by the ICT Programme Board and reported to the Corporate Management Team and the Council Executive on an annual basis.

Corporate strategies

The council has nine strategies to support the delivery of the Corporate Plan. Each has been developed to address specific factors that are critical to the sustained success of the council and to management and governance. The strategies have been aligned and provide specific support towards; transformation, digital services and behavioural change in the council.

Customer service strategy
A strategy to develop the council as a customer-oriented organisation through an understanding of customer needs and excellent service provision.

People strategy
A strategy to ensure the council has the people to deliver in the priority areas and that all employees are led, managed and developed effectively.

Raising attainment strategy
A strategy to align the council's resources in the delivery of positive change in the council's number one priority, improving attainment and positive destinations.

Digital transformation strategy
A strategy to support the development of digital services in the council.

Improvement strategy
A strategy to ensure the council has a strong culture of high performance and capacity to deliver in the priorities.

Risk management strategy
A strategy to ensure effective management of risks that may impact on the council's ability to deliver our priorities or objectives.

ICT strategy
A strategy to ensure the council has the ICT infrastructure to succeed in the priority areas.

Asset Management Strategy
A strategy to ensure the council assets are effectively and efficiently used to support service delivery.

Audit and Counter Fraud strategy
A strategy to direct audit activity. This will ensure that the council has effective governance and controls and effective measures for the prevention, detection and investigation of fraud.

1 Outcome: Ongoing sustainability of the ICT infrastructure and systems to support the use of technology solutions which improve efficiency and effectiveness

Description

The council will make best use of the technology solutions available that can support the delivery of the council services over the next five years.

Key to the delivery of efficient and effective systems is continued investment in technology, which will support ongoing sustainability of the ICT infrastructure and systems and making best use of the technology solutions available now and in the future.

Software tools will continue to evolve over the period of the strategy and the Council will keep pace with software enhancements and innovative solutions that complement the existing software tools.
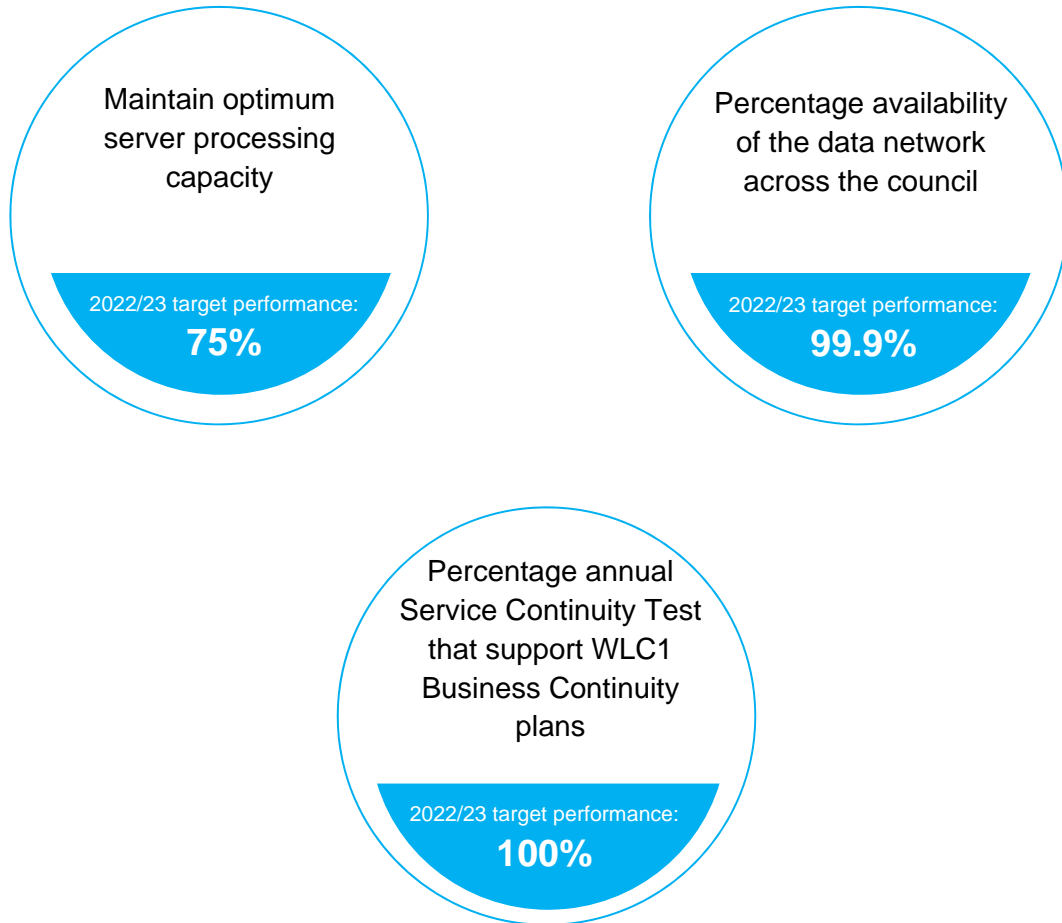
Activities

The main activities of the Council during the period of the strategy will be:

◆ Investment in the corporate and education networks, central servers and storage equipment, mobile computing and desktop device refresh will be phased in accordance with the approved capital programme.

◆ The Council will continue to provide high performance network connectivity supporting mobile working, enabling system interfaces, electronic communication, access to the internet and the support of digital services.

◆ Service Continuity Management will provide infrastructure and system resilience designed to support the Council's Business Continuity Plans.

Key performance indicators

We have identified the key measures of the success for this outcome and will track, monitor and report on our performance in these performance indicators throughout the lifetime of our strategy:

Maintain optimum server processing capacity

2022/23 target performance:
75%

Percentage availability of the data network across the council

2022/23 target performance:
99.9%

Percentage annual Service Continuity Test that support WLC1 Business Continuity plans

2022/23 target performance:
100%

2 Outcome: Securing the council's infrastructure, systems and data

Description

The Council recognises that the increased reliance and dependency on ICT systems to support the re-design of council services, enable the delivery of efficiency savings and meet the needs of our customers means that these systems have to be protected from cyber-attack.

In accordance with the National Cyber Security Strategy 2016-2021 the Council will take the necessary "DEFEND" measures for the protection of information systems (hardware, software and associated infrastructure), the data on them and the services they provide, from unauthorised access, harm or misuse.

Activities

The main activities of the Council during the period of the strategy will be:

◆ The Council will deploy the latest antivirus, malware, email filtering and encryption software to protect the council's systems and data across the corporate and Education networks. The achievement of the Public Services Network (PSN) Code of Compliance will continue to be an annual objective.

◆ The Council will annually achieve Cyber Essentials Plus accreditation.

◆ Council services will implement effective defences to the network, data and systems and have in place cyber incident reporting measures and be able to respond effectively to cyber-attack, maintaining functions and recovering quickly through appropriate service and business continuity arrangements.

◆ Implement "Security by Design" by carrying out cyber risk assessments when selecting new systems, on-line services or implementing digital processes.

◆ Ensure that cyber security skills and awareness within the Council are maintained to mitigate the cyber security threats including the monitoring and reporting of incidents.

Key performance indicators

We have identified the key measures of the success for this outcome and will track, monitor and report on our performance in these performance indicators throughout the lifetime of our strategy:

Percentage Cyber Risk Assessments

2022/23 target performance:
100%

Percentage of cyber protection software deployed on Microsoft Windows devices

2022/23 target performance:
100%

Annual PSN Compliance Certification

2022/23 target performance:
100%

Staff with email accounts who have completed the council's mandatory online training courses

2022/23 target performance:
100%

Annual Cyber Essential Plus accreditation

2022/23 target performance:
100%

3 Outcome: Supporting business systems and transformation

Description

The Council will ensure that the technology and systems which will support the delivery of digital services are designed to improve customer service and react to customer demands whilst delivering financial and system efficiencies.

The increasing move towards cloud technology and Software as a Service by software providers is likely to influence the decision on new systems to be purchased during the lifetime of the Strategy.

The Council will focus on innovative technologies to reduce costs, such as the use of business intelligence to improve decision making and artificial intelligence to manage automated workflows. Business Intelligence (BI) and Artificial Intelligence (AI) require access to information across disparate systems to use this data to continuously improve its processes to be more efficient and effective. New systems capitalising on these extensive data sets, known as Big Data, and designed to reflect the structure of the data have entered the software market and the Council will maximise the potential to further develop the use of Business Intelligence.
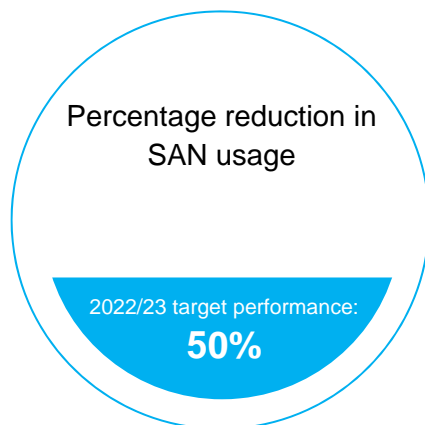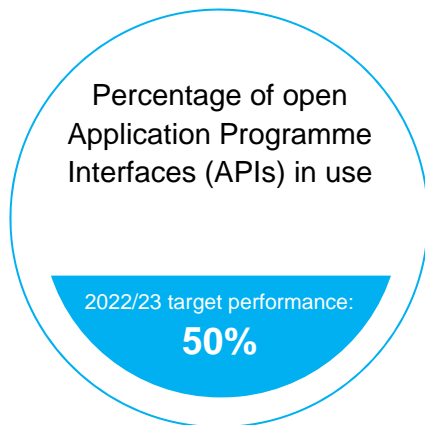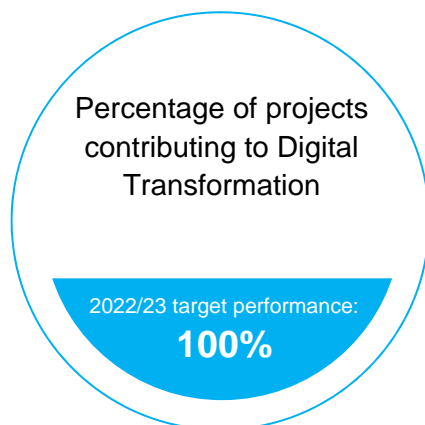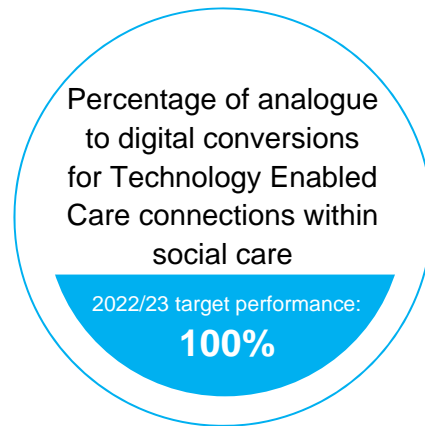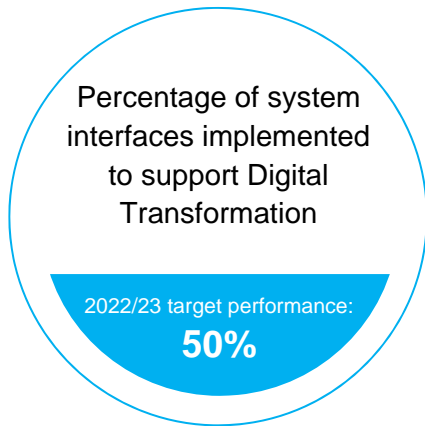
Activities

The main activities of the service during the period of the strategy will be:

◆ Replace the key Council systems as they approach end of life with systems that provide the functionality required and that exploit digital technologies to support the Council's Digital Transformation strategy.

◆ Develop a systems portfolio which supports the rationalisation of systems in use across the Council and supports improved system integration.

◆ The interface between systems is essential to support the Digital Transformation Strategy and this will be provided by ensuring that Application Programme Interfaces (APIs) are open and accessible.

◆ The additional storage and processing power which will be available as a result of technological advances will be capable of processing and analysing data from disparate sources or systems unlocking the potential data to provide information. The Council will support the technology and tools available to use Big Data to deliver efficient and effective business processes through business and artificial intelligence.

◆ The Council will use existing tools such as Microsoft Excel, SAP Business Intelligence Suite and specialised open source software to provide business intelligence capabilities. System interfaces, web services and electronic forms will continue to be developed to support the delivery of digital transformation.

◆ The Council will further develop the workflow element of the Electronic Content Management System to automate processes and deliver process efficiency, supporting reduction of storage in the SAN.

◆ ICT projects will be delivered according to the most appropriate project management methodology.

Key performance indicators

We have identified the key measures of the success for this outcome and will track, monitor and report on our performance in these performance indicators throughout the lifetime of our strategy:

Percentage of system interfaces implemented to support Digital Transformation

2022/23 target performance:
50%

Percentage of analogue to digital conversions for Technology Enabled Care connections within social care

2022/23 target performance:
100%

Percentage of projects contributing to Digital Transformation

2022/23 target performance:
100%

Percentage of open Application Programme Interfaces (APIs) in use

2022/23 target performance:
50%

Percentage reduction in SAN usage

2022/23 target performance:
50%

Percentage of customers who rated the overall performance in project management as good or excellent

2022/23 target performance:
100%

Developing the strategy and reporting progress

The strategy was developed to support the delivery of the Council's Corporate Plan and to take account of a range of factors that are likely to impact the delivery of council services in the next five years.

Context

The next five years will be a period of significant challenge for the council with ongoing spending constraints expected to continue. However, the council has clearly defined long term aims relating to the development of high quality services, designed to meet the needs of its customers. These long term aims are captured in the Local Outcome Improvement Plan, Community Plan and in the council's Corporate Plan and together these strategic plans determine the work of the council's services.

The development of the Corporate Plan 2018/23 has been directly influenced by the views of the people living and working in West Lothian, ensuring that all employees are focused on meeting the needs of a growing and vibrant community. The Corporate Plan sets the strategic priorities for the council up to 2022/23 and this will be the continued focus for all council services during the period.

This will help to ensure that we continue to tackle the most important issues for West Lothian. Also, that we invest in and prioritise the services which make the most significant contribution to the achievement of positive outcomes.

Influences

The government's National Cyber Security Strategy 2016-2021 has had a direct influence on an ICT Strategy outcome. The NCSS has three components DEFEND, DETER and DEVELOP. The council's priority is DEFEND and respond effectively.

Other influences, the Scottish Government's A Digital Strategy for Scotland and Audit Scotland's Principles for a Digital Future are more indirect as their influence is greater on the Digital Transformation strategy.

Strategy development process

This Strategy builds on the themes from the 2015/17 ICT Strategy and was developed by taking account of the views expressed by the community, partners and stakeholders.

The priorities and associated activities are key to ensuring that the council's overall aim of continuing to deliver excellent public services is achieved.

The process and timescales for the development, publication and review of the strategy is set out, including consultation with the appropriate stakeholders.

Strategy governance		
Group	Governance Scrutiny role	Reporting Frequency
Council Executive	a. Engagement on the strategy and outcomes b. Updates to the Council Executive on the progress of specific programmes of work	◆ Approval ◆ End of strategy review
Partnership and Resources PDSP	a. Engagement on the strategy and strategy outcomes at the development stage b. Update to the PDSP on the progress of specific programmes of work	◆ Annual progress report
Corporate Management Team	a. Engagement on the strategy and strategy outcomes at the development stage b. Regular updates to the Corporate Management Team on the progress of specific programmes of work	◆ Annual progress report
ICT Programme Board	a. Development of the strategy and strategy outcomes b. Regular updates to the ICT Programme Board	◆ Bi-monthly
Stakeholders	a. Engagement on the strategy and strategy outcomes at the development stage	◆ Consultation
Customers (Internal)	a. Engagement on the strategy and strategy outcomes at the development stage	◆ Consultation

Strategy monitoring

The strategy lead and the ICT Programme Board (responsible for delivering and monitoring progress in the strategy) will ensure that appropriate arrangements are in place to track and monitor in-year progress.

An annual review will be undertaken and reported to the council's Corporate Management Team and to the Partnership and Resources PDSP.   This will include an update on the agreed performance scorecard and action plan and will also be published on the performance pages of the council website.

An end of strategy review will be undertaken in the final year of the strategy to report on the achievement in the outcomes and final position in the performance indicators (against the target) and the agreed actions.

Supporting the delivery of Council priorities

This strategy will support the delivery of the Council's Corporate Plan

Corporate strategies are designed to support the delivery of the Corporate Plan 2018/23 by improving the culture, agility, resilience and performance of the council. Each strategy has clearly defined outcomes and measurable indicators of success and actions for the period. Specifically, this strategy aligns to the enablers and deliverables that have been identified as key to the success of the Corporate Plan, this outlined in the following table.

Alignment with Corporate Enablers					
Council enabler	Deliverable	Strategy key activity / process	Indicator(s)	2017/18 Performance	2022/23 Target
Modernisation and Improvement	(E3.8)Investing in IT resources that will support digitisation and modernisation of council services and will assist services to deliver efficiencies.	◆ Supporting technology change for channel shift and digital services.	Percentage of system interfaces implemented to support Digital Transformation	New	50%
			Percentage of projects contributing to Digital Transformation	New	100%
			Percentage of open Application Programme Interfaces (APIs) in use	New	50%
			Percentage of analogue to digital conversions for Technology Enabled Care connections within social care	New	100%
			Percentage reduction in SAN usage	New	50%

Alignment with Corporate Enablers

Council enabler	Deliverable	Strategy key activity / process	Indicator(s)	2017/18 Performance	2022/23 Target
Modernisation and Improvement	(E3.9) Building an information technology and communications (ICT) infrastructure to help the council succeed in the priorities and outcomes. This will include development of an ICT strategy and application of new technology in support of new, more efficient, sustainable, flexible, and customer focused ways of working.	◆ Support, maintenance and development of the council's ICT infrastructure assets.	Maintain optimum server processing capacity	New	75%
		◆ Support, maintenance and development of the council's ICT application/system assets.	Percentage availability of the data network across the council	99.9%	99.9%
			Percentage annual Service Continuity Test that support WLC1 Business Continuity plans	New	100%
		◆ Service management and project management and improvement.	Percentage of customers who rated the overall performance in project management as good or excellent	New	100%
		◆ Strategic, policy and technical advice in ICT, information and records management including IT security.	Staff with email accounts who have completed the council's mandatory online training courses	100%	100%
			Percentage of cyber protection software deployed on Microsoft windows devices	New	100%
			Annual PSN Compliance Certification	100%	100%
			Annual Cyber Essentials plus accreditation	New	100%

Alignment with Corporate Enablers

Council enabler	Deliverable	Strategy key activity / process	Indicator(s)	2017/18 Performance	2022/23 Target
Modernisation and Improvement	(E3.10) Protecting against the threat of and risks associated with Cyber Security	◆ Strategic, policy and technical advice in ICT, information and records management including IT security	Percentage of staff with an email account who have completed the council's mandatory online training courses	100%	100%
			Percentage of cyber risk assessments	New	100%
			Percentage of cyber protection software deployed on Microsoft windows devices	New	100%
			Annual PSN Compliance Certification	100%	100%
			Annual Cyber Essentials plus accreditation	New	100%

Strategy Scorecard

The council will report on the following key measures of the success throughout the lifetime of our strategy, targeting performance improvement against the baseline year (2017/18).

OUTCOME 1 – Ongoing sustainability of the ICT infrastructure and systems to support the use of technology solutions which improve efficiency and effectiveness

Indicators	Baseline Performance 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Target 2021/22	End of Strategy Performance Target 2022/23
Maintain optimum server processing capacity	N/A	75%	75%	75%	75%	75%
Percentage availability of the data network across the council	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Percentage annual Service Continuity Test that support WLC1 Business Continuity plans	N/A	100%	100%	100%	100%	100%

OUTCOME 2 – Securing the council's infrastructure, systems and data

Indicators	Baseline Performance 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Target 2021/22	End of Strategy Performance Target 2022/23
Percentage of cyber risk assessments	N/A	100%	100%	100%	100%	100%
Percentage of cyber protection software deployed on Microsoft windows devices	N/A	100%	100%	100%	100%	100%
Annual PSN Compliance Certification	100%	100%	100%	100%	100%	100%
Percentage of staff with an email account who have completed the council's mandatory online training courses	100%	100%	100%	100%	100%	100%
Annual Cyber Essentials Plus accreditation	N/A	100%	100%	100%	100%	100%

OUTCOME 3 – Supporting business systems and transformation

Indicators	Baseline Performance 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Target 2021/22	End of Strategy Performance Target 2022/23
Percentage of system interfaces implemented to support Digital Transformation	N/A	10%	20%	30%	40%	50%
Percentage of analogue to digital conversions for Technology Enabled Care connections within social care	N/A	20%	40%	60%	80%	100%
Percentage of projects contributing to Digital Transformation	N/A	20%	40%	60%	80%	100%
Percentage of open Application Programme Interfaces (APIs) in use	N/A	10%	20%	30%	40%	50%
Percentage reduction in SAN usage	N/A	10%	20%	30%	40%	50%
Percentage of customers who rated the overall performance in project management as good or excellent	N/A	100%	100%	100%	100%	100%

Strategy Action Plan

The council will undertake a range of actions to support delivery of corporate priorities and objectives, improve services and deliver transformation.

Actions 2018/23						
Action	**Description**	**Planned Outcome**	**Owner(s)**	**Start**	**End**	**Status Update**
Infrastructure Investment	The infrastructure refresh programme will maintain the computing performance over the period of the strategy.	Infrastructure refreshed	IT Services Manager	April 2018	March 2023	Active
Upgrade Microsoft Product Suite	Microsoft Windows system and Office to be updated to the latest versions.	Microsoft systems updated to the required version.	IT Services Manager	Oct 2018	March 2022	Planned
Upgrade the Corporate Enterprise Content Management (ECM) system	The ECM system will be upgraded in accordance with the improved functionality delivered by the vendor.	The corporate EDRM system updated to the required version.	IT Services Manager	Oct 2018	March 2023	Planned
Mobile applications and devices can access council systems	Mobile applications and devices will be assessed by IT Services to ensure that they meet cyber security best practice.	Mobile devices and mobile applications are connected securely to council systems.	IT Services Manager	April 2018	March 2023	Active
Implement IT Service Continuity Management (ITSCM)	IT Service Continuity Management ensures that appropriate continuity mechanisms are in place including design, support, training and testing.	All WLC1 systems will be included in ITSCM.	IT Services Manager	Oct 2018	March 2019	Planned

Actions 2018/23

Action	Description	Planned Outcome	Owner(s)	Start	End	Status Update
Securing the council's infrastructure, systems and data	IT Services will ensure that measures are in place to protect systems, networks, staff and data.	Secure networks, systems and data.	IT Services Manager	April 2018	March 2023	Active
Achieve PSN Compliance	Resources and processes will be put in place to ensure that PSN compliance is achieved.	Successful accreditation	IT Services Manager	April 2018	March 2023	Active
Achieve Cyber Essential Plus accreditation	Resources and processes will be put in place to ensure that Cyber Essential Plus is achieved.	Successful accreditation	IT Services Manager	April 2018	March 2023	Active
Implement cyber incident reporting	Important to understand the extent of the incident, the immediate impact, provide recommendations, produce an incident report and give an impact assessment.	The successful management of cyber incidents.	IT Services Manager	April 2018	March 2023	Active
Improve cyber security awareness across the council	To mitigate the cyber threat all staff with access to council computer or digital devices will undertake annual cyber security training.	All council staff trained on cyber security	HR Manager and IT Services Manager	April 2018	March 2023	Active
Reduce the number of systems that provide similar functionality	Less systems available for use enabling more simplified and efficient processes	Efficiency savings through faster and simpler processes.	Digital Transformation Manager & IT Services Manager	April 2018	March 2023	Active
Employ appropriate project management methodology	Prince 2, Prince 2 Agile and Agile are project management methodologies that can be used to more efficiently implement systems.	Reduced implementation times and reduced project management costs.	IT Services Manager	April 2018	March 2023	Active

Actions 2018/23

Action	Description	Planned Outcome	Owner(s)	Start	End	Status Update
Connect Technology Enabled Care (TEC) digital services to the Council's network	The Council will provide advice and guidance on the interface and security that the TEC Programme requires to connect to the council's network infrastructure.	All council care facilities connected to the council through digital network services	Head of Social Policy and IT Services Manager	April 2018	March 2023	Active
Business Intelligence	Develop existing tools and identify new open source solutions that can provide Business Intelligence capabilities	Information provided to the council to allow for more informed decision.	Digital Transformation Manager & IT Services Manager	April 2018	March 2023	Active
Artificial Intelligence	Develop the EDRM workflow capabilities to reduce the manual intervention and make processes more efficient.	Efficiency savings through faster and simpler processes.	Digital Transformation Manager & IT Services Manager	April 2018	March 2023	Active
Software as a Services (SaaS)	Provide guidance to services that are considering Cloud based systems as a solution.	Cloud systems deployed as the preferred solution.	IT Services Manager	April 2018	March 2023	Active

ICT Strategy

West Lothian Council

June 2018

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