Ofwat IT Strategy

Executive Summary
April 2016

Note: detailed IT Strategy report available on request

Ofwat set out the ‘Trust in Water’ strategy focused on customer, society & investors

‘TRUST IN WATER’ STRATEGY

The strategy defines a clear vision for Ofwat – “working at the leading edge, trusted and respected, challenging ourselves and others to build trust and confidence in water”. It ensures trust and confidence in service delivery, the sector must listen to customers and deliver outcomes they want and can afford.

Ofwat will help by:

- ✓ focusing on what matters for customers, the environment and society;
- ✓ overseeing sector performance with assurance from providers that they are engaging with customers:
- ✓ ready to step in when things go wrong; and
- ✓ act clearly and predictably.

STRATEGIC OUTCOMES

1. **Customer Confidence**
   Customers confident in the service they receive at a price they can afford
2. **Societal Trust**
   Society trusting that decisions made today will protect future generations and the environment
3. **Investor Confidence**
   Investors having the confidence to invest in water and wastewater service providers

To ensure the long-term resilience of the full water value chain

Source: Ofwat website and Intro to Water Sept 2015_FINAL’

There are a number of key external and internal factors affecting Ofwat

External factors

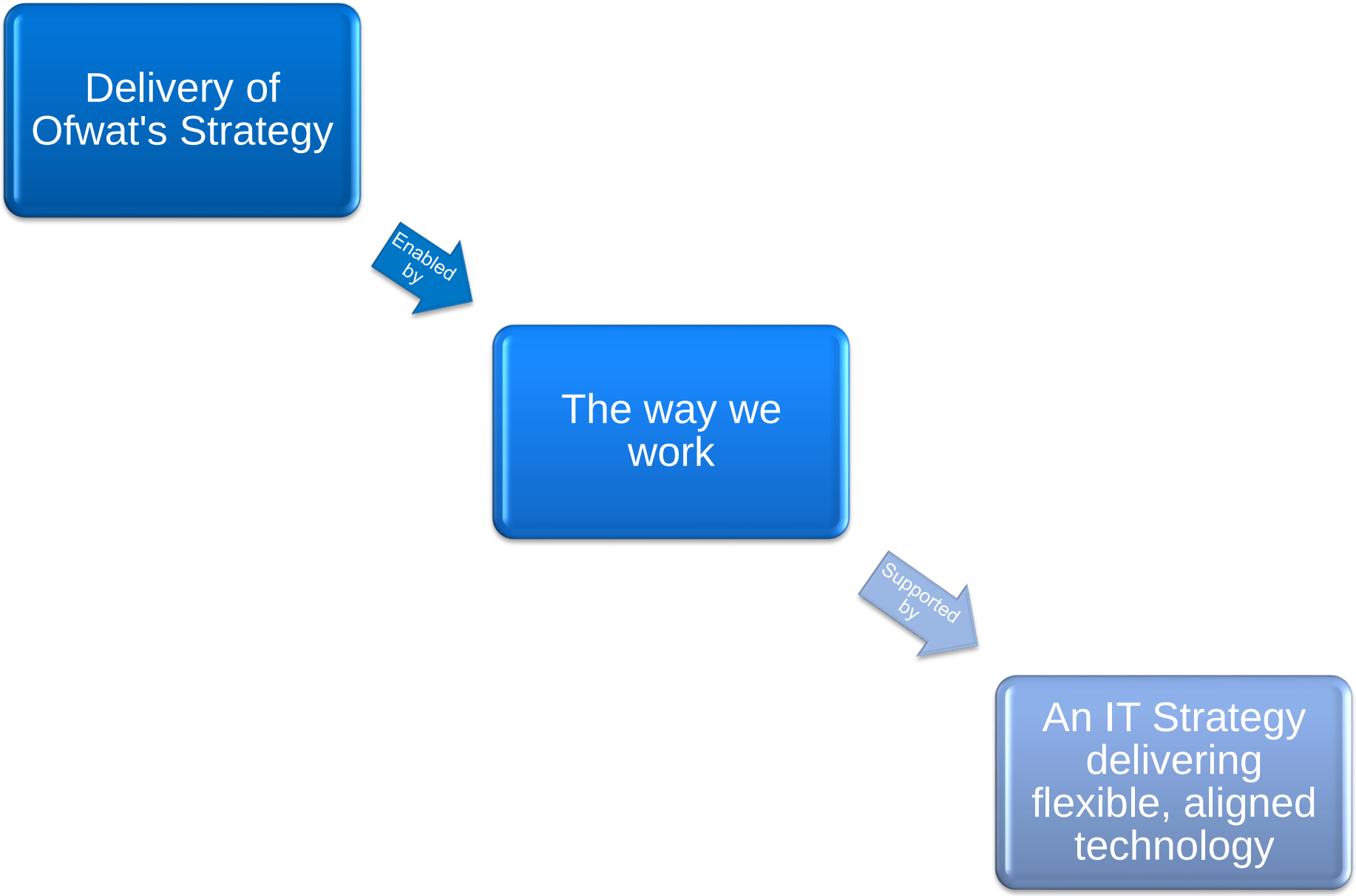
1. The water sector is tackling a number of challenges including:
    - Environment
    - Economy
    - Population growth
    - Water scarcity
    - Expectations
2. Increasingly informed and empowered consumers want better services & choice like in other sectors
3. Public scrutiny and the Freedom of Information act
4. Continued governmental pressure to reduce expenditure
   and alternative delivery model considerations
5. The need to comply with Cabinet Office security & privacy policies, as well as information management – e.g. document classification scheme and Departmental Security Health Checks

Internal Factors

1. Building more relationships / partnership working- embracing new ways of working
2. Working at a leading edge – modern systems, processes and continuous improvement
3. Attracting, retaining and developing key staff – providing opportunities for staff to develop, learn new skills and work across different projects
4. Working flexibly – matrix structure, away from divisions, to allow better information sharing and multi-skilled teams to respond flexibly to new challenges;
5. Staff also expect IT to be flexible too, to be trained on it and for it to meet their needs

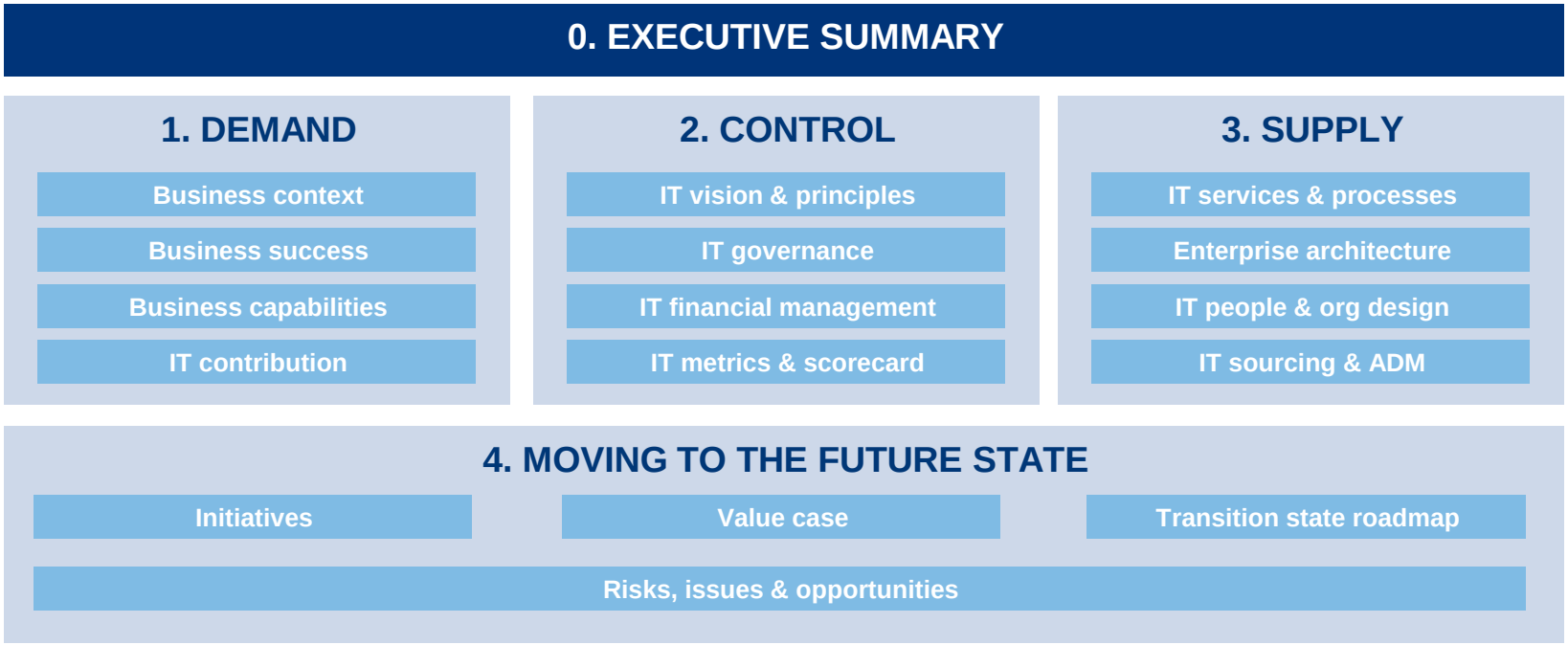
Source: Ofwat website and Intro to Water Sept 2015_FINAL'

Ofwat's IT strategy is designed to fully support the Ofwat strategy



The IT Strategy has been developed using an Industry Standard framework[1]. It is broken down into 4 sections which details Ofwat's demand in IT; how IT will operate; what IT Services are required to meet this demand and finally how to move to the future state This strategy will be delivered over transition state over 3 years timeline as these services are not immediately available. Transition state one will focus on enabling Ofwat to deliver PR19.

IT Strategy Framework



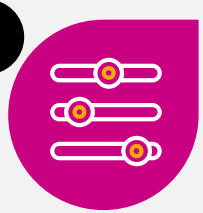
1 Framework is based on Gartner's demand-control-supply model. This document is the executive summary only and further detail is available that covers all the other aspects of the framework.

Demand – what are the business issues that IT needs to resolve?

Six key themes have been identified at Ofwat, creating demands for IT

There are a number of key themes affecting business performance which are classed as the strategic drivers for the IT Strategy. Through a number of sources we have classified these as:

1 Inefficient water company submissions



Water company data submission processing is performed on incomplete data sets due to a) of lack of pre-submission validation and acceptance of numerous submission formats.
Fountain workflow is not aligned to the business processes and many processes are manually intensive and error prone.

2 Poor workforce mobility & e-collaboration

There is a poor capability for remote, mobile and e-collaborative working – both for Ofwat staff and delivery partners.
There is end user device clutter and the devices are not integrated. Connectivity to Ofwat network for remote working needs to be further improved.

3 Lack of information strategy & capability

No information strategy. Lack of governance, process and document repository structure results in inability to find information or an excessive time to find it. There is a legacy offline paper document archive storage. Knowledge management capability is not embedded. Security is on best endeavours basis.

4 Low IT resilience, not fit for business demands

Low IT resilience from a business continuity and disaster recovery perspective. All IT estate is run from Birmingham and there is a physical location dependency and single point of failure. Recovery time is 3-5 days and well above required 0.5 days. Backup is done on tapes.

5 IT focused on commodity activities with sub-optimal processes in certain areas

IT services is currently focused on managing servers and platforms – a highly commoditised activity and could be doing more value-add business improvement activities. Certain IT processes need improvement, especially SLA reporting, delivery and annual IT strategy reviews.

6 Silo-ed core applications supporting the business are not integrated

Core business applications are not integrated leading to difficulty in producing MI of sufficient quality. Manual processes integrate the data but there are reconciliation issues between systems and lack of understanding of the data. There are no applications in place for project portfolio management (PPM).

Source: Ofwat business and IT stakeholders

IT can deliver a step change in business performance across the six themes

To address these business themes, IT will prioritise and implement enablers over the next 3 years that will include new systems, infrastructure and services.

1 Online water company submissions & automation

Water companies will make data submissions online with input validation, ensuring completeness and correctness of data for processing and modelling. Workflow will be automated and application aligned to business processes. Data model run time will be significantly reduced.

2 Mobile & empowered workforce

Workforce will be fully mobile having remote and online access to MS Office applications, documentation and collaboration enablers such as integrated instant messaging, voice / video call and conferencing. From a device perspective one mobile and hybrid tablet per employee will be fully integrated to MS Office.

3 Information enabled delivery & continuous improvement

Online document management and collaboration solution designed to facilitate effective access, co-working and sharing. Knowledge management is embedded for continuous improvement. Archive documents will be searchable and accessible online. Federated information security of all key information assets.

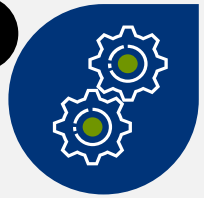
4 Cloud IT estate & organisation resilience improved

Resilient cloud based IT estate will be implemented and replicated outside Ofwat in a secure and resilient cloud (tbc), thus removing physical dependency and matching recovery of 0.5days set by the business. IT estate will be in full compliance with government security and privacy policy and recommendations.

5 IT focused on value-add with optimised processes & services

IT estate, infrastructure and platforms will be outsourced to cloud, allowing IT services to focus on more value-add activities. New optimal IT processes and service changes will be implemented. These will also be changed to allow effective management of cloud providers.

6 Core Line of Business (LOB) applications are fully integrated



Core LOB applications will be upgraded for Ofwat business demands and moved to an Enterprise Resource Planning cloud solution (tbc). New PPM solution will be introduced and integrated to LOB apps / ERP, to deliver integrated resource planning and more detailed management information reporting with insights.

Source: Ofwat and Atos Consulting

Control – how will IT need to be governed to deliver the demand

IT Principles

ITP01 – Vanilla IT	When making changes to the service portfolio, IT will by default deploy standard, non-customised, Commercial-Off-The-Shelf (COTS) services before customising or building bespoke services
ITP02 – Cloud first	Services will be based upon cloud services (Software as a Service, Platforms as a Service and Infrastructure as a Service) or fully managed by Ofwat
ITP03 – Trail the bleeding edge	IT will exploit modern and emerging technology services, but using a fast follower approach and avoiding the risk of being the first adopter of new, unproven services
IPT04 – Opex over Capex	When designing services and appraising investment cases, preference shall be given to cost profiles based on operating expenses over capital expenditure
ITP05 – Always mobile	Services shall be accessible from any location, with no requirement to be in Ofwat premises
ITP06 – Agnostic Services	Services shall be agnostic of the end user computing device, operating system or browser
ITP07 – Follow best practice	Where available, IT industry standards shall be adopted including ITIL and ISO27001
ITP08 – Secure & compliant	Services, applications and devices, will be highly secure and compliant with all applicable Cabinet Office policies and government standards including offshoring guidance, cloud security principles, data protection and personnel security
ITP09 – User focussed	Services, applications and devices will be selected to support and enable Ofwat people to work flexibly and will be provided with training and support.

Supply – how IT will deliver the services to the business

The target state architecture will provide a major shift in resilience & mobility

Current State: on premise, silo-ed & physical location dependent

Device clutter is present, and devices are not integrated and lack of 'virtual team' collaboration capability

The applications are not integrated and some not fit for purpose – leading to inefficient resource planning, low application effectiveness and additional reporting reconciliation work

Ofwat manages the full IT stack – most of it highly commoditised and insourced. Physically located in Birmingham, with single point of failure and physical dependence

Information

Applications

Infrastructure

Ofwat Birmingham

Ofwat backup and recovery is from tapes – this is highly inefficient and there is a significant security risk

Target State: in cloud, mobile, integrated & resilient

One mobile, one surface pro per employee, that is fully integrated to office 365 and has skype for business

Key enterprise resource apps including new PPM will be upgraded and integrated - enabling effective planning, reporting and control of resources, and delivery.

Ofwat will manage key custom applications, and cloud providers will manage most of the IT stack. Physical dependency and single point of failure will be removed as IT stack will be in a distributed multi-location cloud. Risk will be transferred to cloud providers.

Ofwat backup and recovery from cloud (tbc) – frequency can be adjusted as desired, per app and business calendar. Cloud can further be replicated

Ofwat will always own and have access to its data.

Information

Applications

Infrastructure

Ofwat public cloud – onshore & offshore locations

Cloud backup & disaster recovery

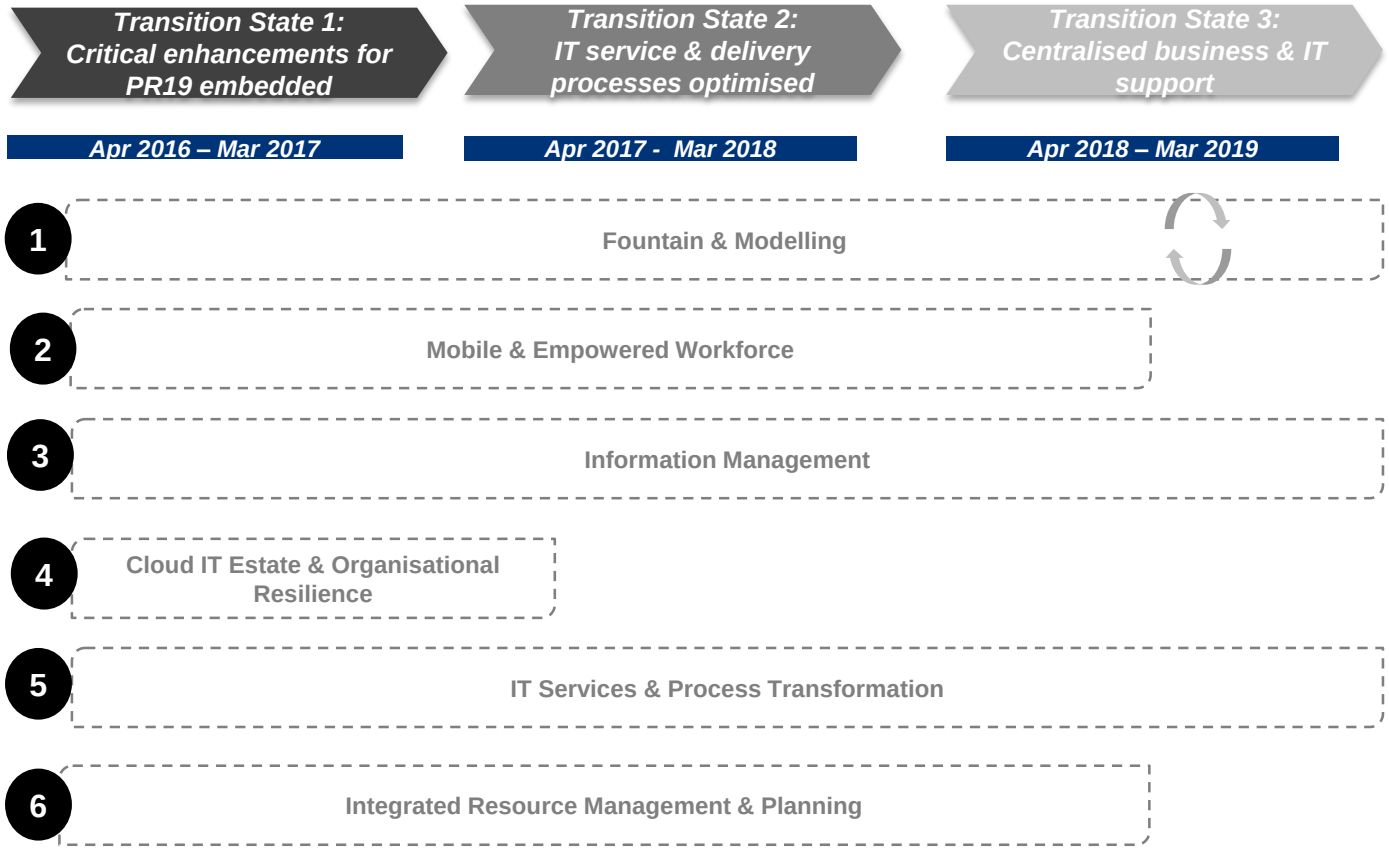
Legend: Ofwat Owns | Provider Owns | Ofwat & Provider

Source: Ofwat and Atos Consulting

Moving to the future state

IT strategy will be implemented through three Transition States

The strategy should be delivered by six initiatives across three transition states, enabling sustainable change across people, process & technology



- The IT Strategy will be broken down into a 12 month plan that will provide more detail and direction on the implementations
- The IT Strategy will be implemented over 3 years, with a refresh in year 2
- The IT Strategy shows the direction of travel

Initiative 1 – can be delivered via Finance & Governance Programme; Initiatives 2-4 and 6 – can be delivered via Continuous Improvement Programme; Initiative 5 – can be delivered by the Compliance & Assurance Programme

Implementing the Transition States will deliver tangible value for Ofwat

1. Resource Utilisation

- Increase workforce mobility and remote working
- Right sized IT platforms and infrastructure
- Increase visibility of workforce availability & skillsets

5. Decommissioning Income

- From desktop phones: £7.5-9k
- End user computing devices income will also be obtained
- IT hardware / servers will be decommissioned – income obtained

2. Process Efficiency

- Elimination of 2-3 weeks delay between company submission and data available for processing
- Reduction in processing time from max c.20mins to 1-5 mins per user per run (numerous during day) - Fountain

4. Risk Reduction

- 0.5 days critical apps recovery time (last year delivery outage approximately 1-5 days)
- Risk transferred to cloud providers
- No physical location dependency and single point of failure
- Reduction of errors due to fewer manual data processing steps (Fountain)

3. Cost Savings

- Per employee devices reduction from 3-4 to 2
- New telephony model will result in £68k less opex
- Up to c.150 less laptops will be issued to delivery partners and also lowering support effort
- £26k less opex by moving paper archive to online storage

Source: Ofwat – various sources from IT teams; Further quantification will be carried out as business case is developed. **Note**: This is non-exhaustive list

Delivery success depends on active management of a number of key risks

Risk	Implication	Potential Mitigations
1. ADM decisions / sourcing	ADM shared service, out or insourcing decisions, could reduce the resource capacity for delivery or have other impacts	Obtain regular ADM updates and share with executives the impact on IT and this roadmap
2. Executive Team support is not fully provided	IT does not receive a clear mandate and support for the plan from the executive and business leadership, especially in the ERP domain	Ensure that the Executive Team fully understands the strategy and plan, and commits to provide the required support for its delivery
3. Plan is not communicated effectively	The organisation does not understand the way forward for IT and fails to fully engage	Set out an appropriate on-going communication plan and IT roadshow
4. Ofwat wide reprioritisation	Ofwat wide reprioritisation under way might alter the roadmap	Implementation of the roadmap should be done in a agile approach so that it is flexible to change that may come as a result of reprioritisation
5. Start date delay	High level planning assumed that business and IT will be able to commence work on variety of initiatives in April, delays may mean work on some initiatives may not be complete in the next year	Increase resource capacity to ensure delivery within next financial year
6. Government cloud security & privacy policy	Government cloud security & privacy policy might not implementable or at competitive cost by potential cloud providers	One of the first activities is to ensure the cloud journey proposed in the strategy is in adherence to the government guidance

Three key next steps to kick start the implementation of the IT strategy

1. Review the IT Strategy in light the ADM project work updates
2. Prioritise project to deliver through BTP or C&A programmes
3. Detailed planning and business case development via BTP or C&A programmes

Thank you and questions

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Glossary

Word	Definition
ADM	Alternative delivery models
Capex	Capital expenditure
CRM	Customer relationship management, is a term that refers to practices, strategies and technologies that companies use to manage and analyse customer interactions and data throughout the customer lifecycle, with the goal of improving business relationships with customers, assisting in customer retention and driving sales growth
ERP	Enterprise resource planning, is a business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back office functions related to technology, services and human resources
IaaS	Infrastructure as a service, is a form of cloud computing that provides virtualized computing resources over the Internet.
ITIL	Information Technology Infrastructure Library, is a set of practices for IT Service Management that focuses on aligning IT services with needs of business
LOB	Line of business
Opex	Operating expenditure
PaaS	Platform as a Service, is a category of cloud computing services that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app.
RACI	Responsible, Accountable, Consulted and Informed. A RACI chart is a matrix of all the activities or decision making authorities undertaken in an organisation set against all the people or roles.
SaaS	Software as a Service, is a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. It is sometimes referred to as "on-demand software".