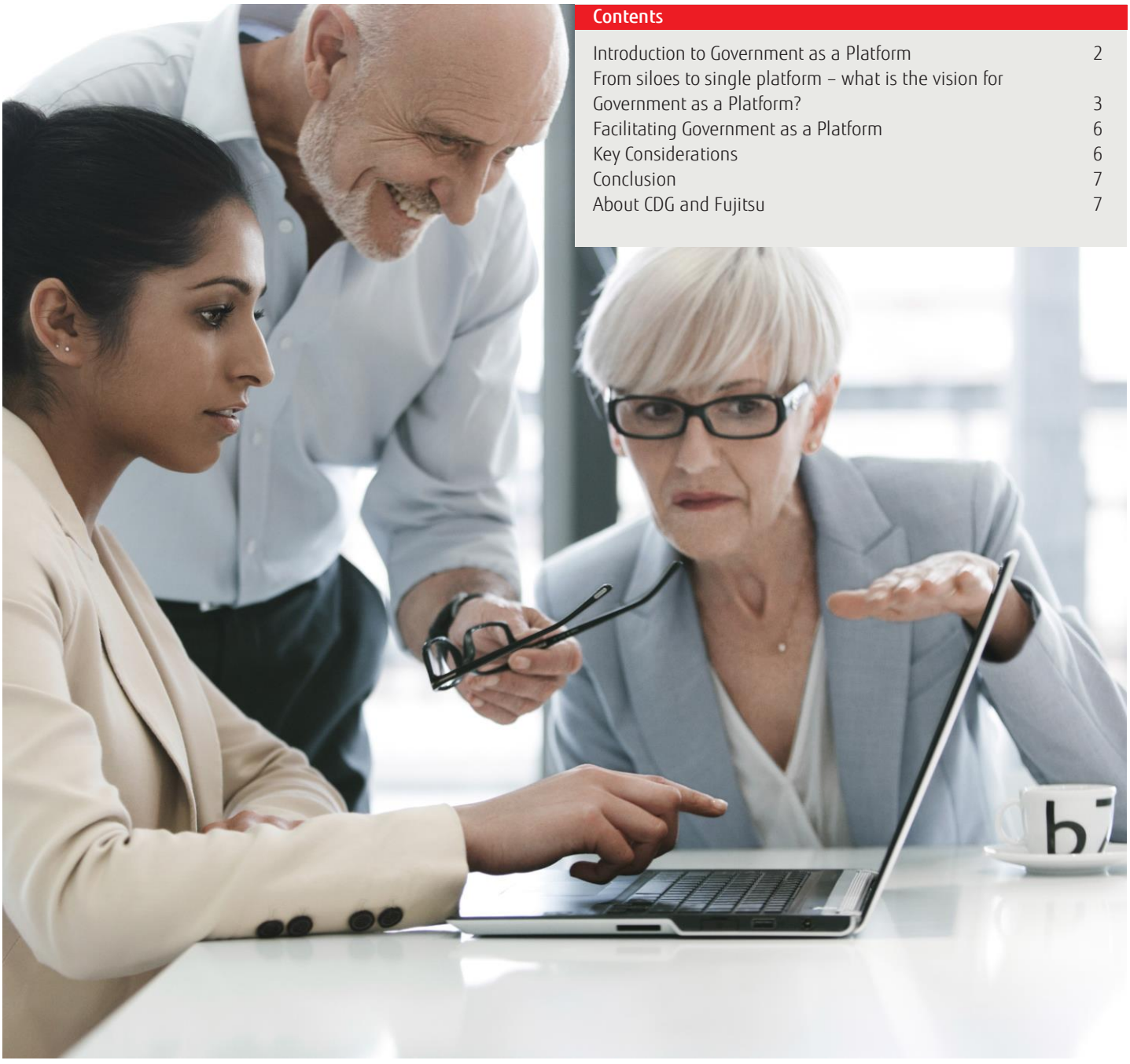
Government as a Platform

Creating a more connected society.
Fujitsu is creating a more connected society. Harnessing the power of technology to improve the lives of people around the world. It's an approach we call human centric innovation. Together we can make that happen.



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Introduction

This is the first in a series of Fujitsu points of view that talk about important and relevant topics that will shape the way Government will interact with its citizens. Its intention is to prompt discussion, contribute to and stimulate debate around the subject of Government as a Platform rather than provide a definitive answer. It provides an overview of the opportunities that present the UK Government in meeting efficiency savings targets over the coming decade. It will provide insight into how the strategies developed by GDS can be applied further within government IT, from new digital service offerings through to fundamental changes in how Government provides support to citizens.

The approach here is based on the introduction of shared digital infrastructures that can be replicated across Government, reducing costs and increasing interoperability. This use of shared infrastructure allows departments to concentrate on their Mission IT requirements.

More importantly, Government can learn from the best practice approaches that are being taken up across both public and private sector organisations, turning individual transactions with separate departments into personalised services that evolve in time with the citizen. This long-term shift has been termed "Government as a Platform." While it is currently a goal for the future, Government as a Platform is also a realistic and achievable target, and essential if Government is to meet its efficiency savings objectives whilst providing world class services to citizens.

Background

- According to the Efficiency and Reform Group report on 2013-2014 savings, the reform programmes delivered in the past four years have led to Government savings of £14.3billion in the period 2013-2014 compared to 2009-2010. In 2014, the Government announced further efficiency savings would be required to ensure public finances remain on a sustainable path.

- The Government ambition is to make a further £10billion of savings for 2017-18, with a potential for £15-20billion of savings for 2019-20. Much of this is to come through becoming a "Digital by Default" Government.

- The next phase of the efficiency and reform programme is anticipated by Government to be harder to achieve. Transformative cross-departmental strategies are central to achieving these targets.

- Much of the perceived cost is locked away in large IT systems and operations that were constructed for time when "singular" services were required by citizens, the world however has changed immensely over the last 10 years. Citizens and businesses alike now require far more personalisation of services and thus the underlying systems and Government departments that run them will require fundamental change. If approached correctly this will have a huge bearing on the cost savings that the Efficiency and Reform Group is hoping to achieve.

Delivering Digital Government

- One of the key priority areas to deliver efficiency savings is by enabling and providing digital services. Digital offers up new opportunities to improve service to citizens, while reducing the underlying costs to provide those services. The move to digital will involve replacing and eventually sun setting offline channels and will look beyond the publishing layer for online services to a "Government-as-a-Platform" approach.

- Government Digital Services (GDS) is already succeeding at transforming the citizen experience of engaging with Government online, when they want to interact and how they want to. With the successful launch of GOV.uk as the publishing layer and the current introduction of Verify as the identification and assurance layer, attention is now focused on applying digital solutions to create new Mission IT services that integrate existing legacy IT systems and operational processes i.e. creating the foundation of "Government as a Platform".

Citizen-Centric Government

There are three main points where the use of new, shared IT models can benefit both the UK Government approach to delivering services and reduce costs. These are:

- To deliver greater efficiency from the point at which the citizen engages with a digital service back through to the systems of record. This move to digital also provides more insight from the data being processed. This insight into what citizens require from their services is key to achieving a closer relationship with them in the future, providing them with access to services that were not possible under previous siloed approaches to managing data.

- End-to-end digital transformation of systems and processes will be a key facilitator in the Government's ability to be more creative and more efficient in how it delivers public services. The core of this is the extension of a common framework for delivery of digital projects – that is, a set of IT architecture, based on open systems, standards and APIs, that complements the move towards shared systems while protecting the integrity, stability and reliability of existing high volume transactional systems.

- Government as a Platform involves a redesign of the Government's IT infrastructure and architecture to create a core, cross-departmental digital platforms for Central Government. This approach promotes greater interoperability between IT systems and the Departments that run them. However, there is currently a vacuum between Central Government and Local Government IT systems of record. Looking into the future, Government as a Platform can be used as part of any approach to bridge this gap. This approach could extend the potential service improvement and cost reduction benefits from Central Government out into Local Government as well, providing further opportunities to reduce spending and increase savings over the long term.

From siloes to single platform – what is the vision for Government as Platform?

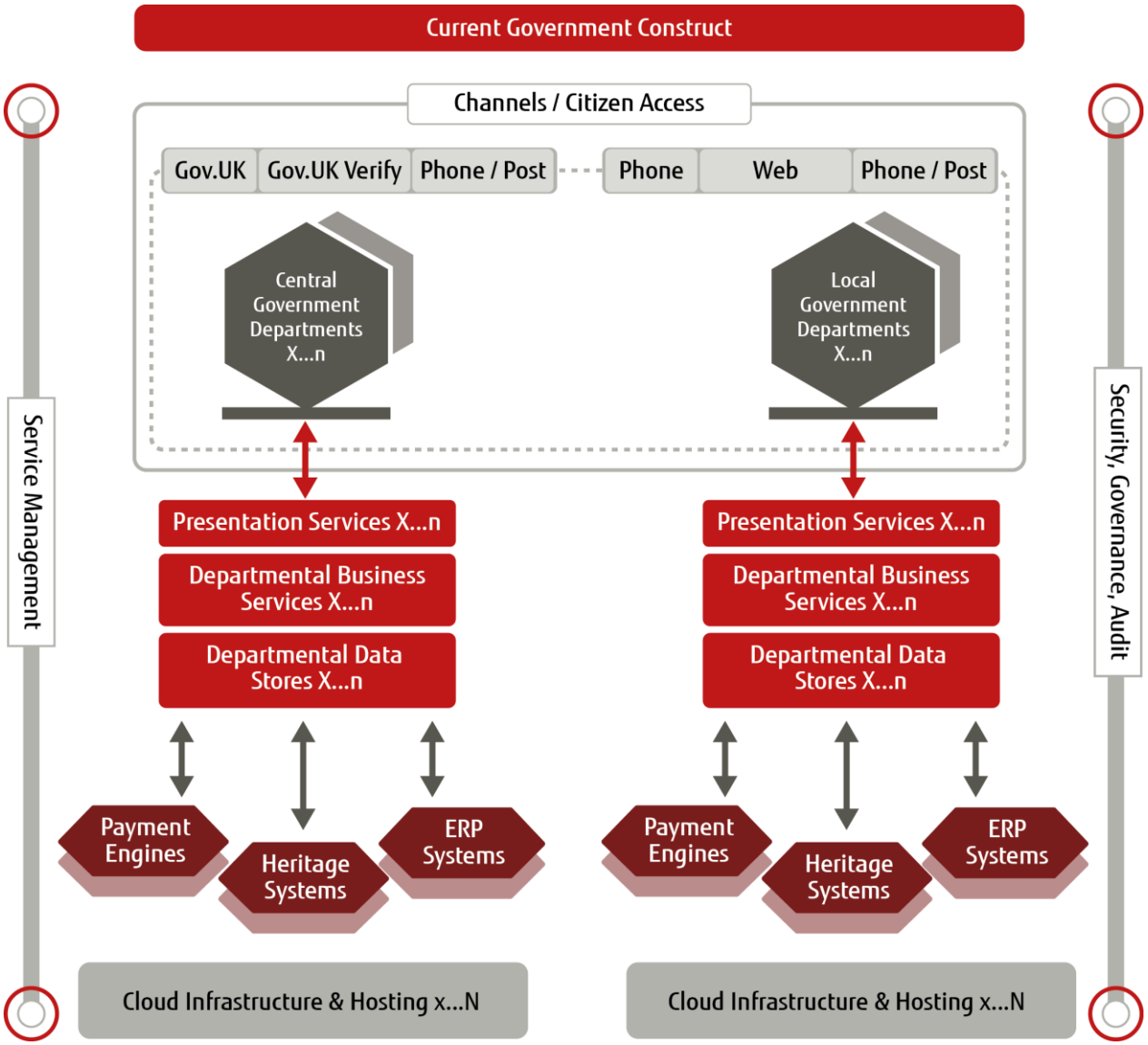
The vision for Government as a Platform, and the importance of Digital Sustainability

- The transformation from individual departments with heritage IT systems to digital platforms is already underway. For departments with large transactional systems, the use of new open systems and agile delivery methodologies means that services can be redesigned quickly. Applying agile software development concepts to systems design thinking enables more rapid iteration and deployment of digital operations without the need for large-scale, costly migration projects.

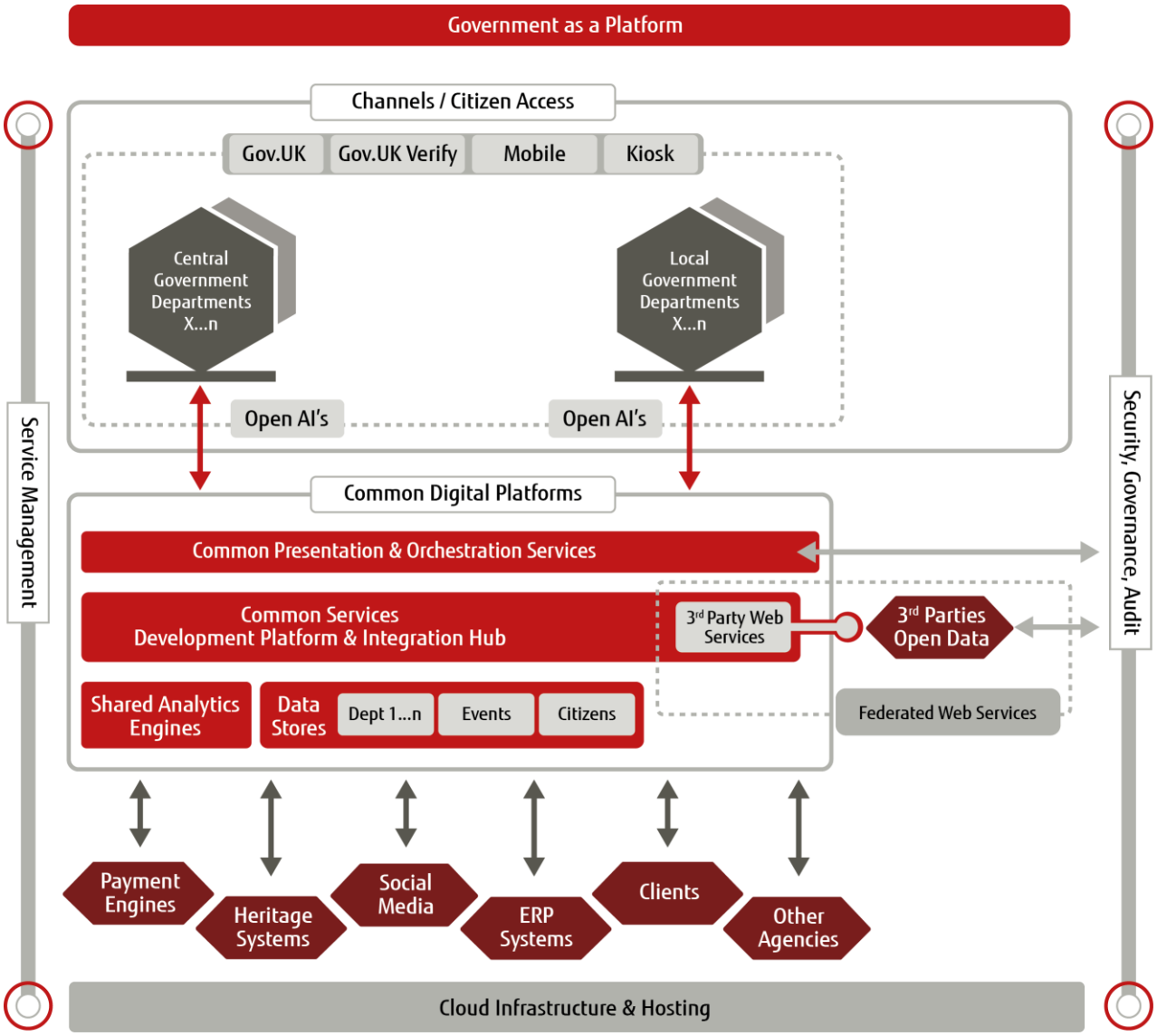
- Digital platforms provide faster, more convenient services for citizens as well as greater ease of data analysis. Using this concept, it is possible to extract data and present this information in new ways.

- Alongside this move to shared IT infrastructure and models, there is also more emphasis on how to increase the use of other shared service and shared platforms within Government. Initiatives like ISSC2 have started successfully, yet there is more opportunity to link IT and service delivery into other shared service approaches as well. Further information can be found here. https://www.gov.uk/government/news/shared-service-strategy-to-save-taxpayer-money

- The diagram below is a high level representation of how citizens currently access Government services based on multiple platforms providing services across departments.

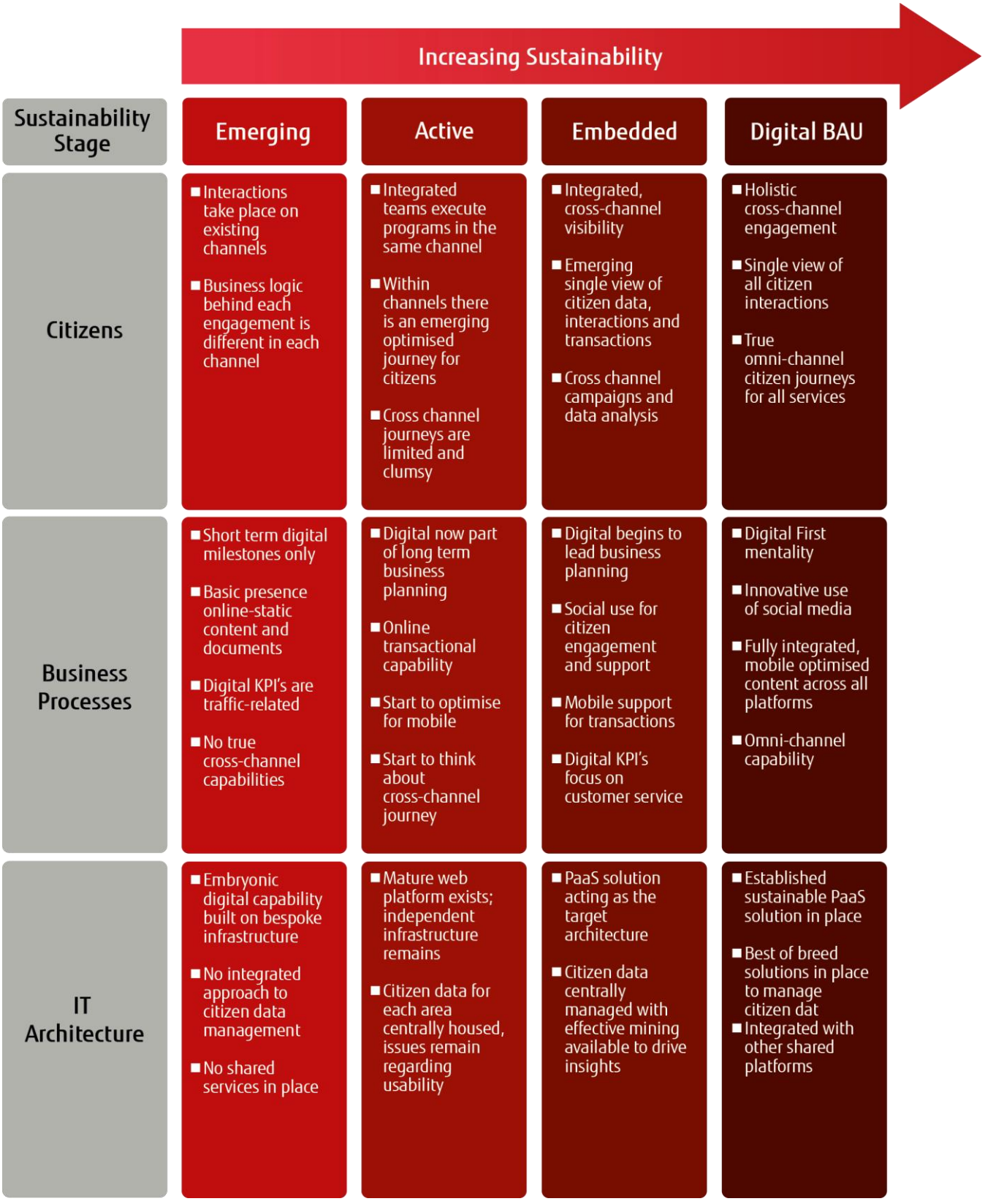


- At the same time, the complexity of heritage systems requires operational teams to consider a number of components during the process of transformation. The move to digital services should not be based on implementing new systems that have to be removed and replaced in their turn. Instead, the sustainability of supplying digital services has to be considered from the start.
- The requirement here is for an architectural approach that can cover all these bases without requiring massive amounts of customisation. The most effective way is to create and apply the common framework approach to an existing environment, so that the organisation can extract value from its heritage systems and enable the data to run in a new architecture. The ability to extract valued data from heritage operational systems to new open source platforms can result in better services and more informed decisions.
- The diagram below shows a possible representation of how common platforms can be shared across Central and Local Government departments to start to facilitate Government as a Platform.



Digital Sustainibility Grid

- Organisations across Government will have to consider how sustainable their approaches are around implementing new and open systems alongside heritage IT. To achieve this requires a careful review of existing systems alongside new operational online databases and traditional data warehouses, as well as the types of workloads and applications that are running on each system. By considering the requirements of the service, the right approach can provide the speed and personalisation elements expected from mass online services, while also retaining the single architecture approach. Achieving " Digital BAU" can be looked at through the lenses of Citizens, Business Processes and the IT Architecture that underpin these and the evolutionary change required against each as organisation and Government departments as they gain maturity along the journey.



Facilitating Government as Platform

Digital inclusion

- The Government has set out objectives to increase digital uptake of government public services by 10 per cent by mid-2016 and have a digital uptake of 90 per cent among Internet users.

- As services are replaced or moved offline, the alternatives must be preferable or simpler to use. Around 13 per cent of the adult population is currently not online, due to cultural and economic factors as well as lack of education and skills. This can be addressed through education, improving ease of access, adding value to the experience of engaging with Government online and by providing public access points to Gov.UK in more places. The introduction of Verify for identity assurance will support this use of online services in more places as well addressing the potential issue of security.

- The transition to core digital platforms will be further supported by a common payments platform to be available by 2016.

Open Government

- There is a strong push to provide open APIs to encourage private sector innovation. The Government is defining data standards for the public sector with a view to letting individuals track and control the information the government holds about them.

- With the creation of Data.gov.uk and the Public Data Group, the Government is committed to the development of new services by making public data available for greater use.

- A shared infrastructure strategy will provide the ability for cross-departmental teams to control their data, how it is being shared and accessed, what should be shared and what shouldn't. It also gives Government the ability to consider new ways of using information for the benefit of citizens – for example a citizen could access their personalised Gov.Uk space to manage all interactions around items within their lives. For a citizen's car, this would include details on MOT status, car tax management, and link into other uses of a driving licence.

- This approach applies some of the existing best practice around retail and e-commerce experiences to public sector service delivery.

Cost reduction – Managing fraud and errors, increasing savings and efficiencies

- Real-time information systems provide the ability to not only create more responsive services but will equip the Government with greater analytics capabilities around transactions. These are fundamental to tackling the issue of fraud, error and debt within government.

- Spotting transactions that are anomalous in real time, and preventing them from going through, offers more potential to reduce costs compared to manual intervention and follow up after transactions have been completed.

Key Considerations

Data Growth

- A common platform for digital service development will require technologies that can manage the increase of data created by a digital Government and the influx of connected data (driven by people, processes, devices and things. As new projects around the Internet of Things and Smart City deployments are implemented, the potential growth of data that can be used and embedded within citizen services will increase. At the same time, this data will have to be used and searched in real time as part of certain services where speed of access is required to make things work.

- The British Standards Institute has delivered guides on Smart City deployment and strategies in 2014, and the work developed here can be utilised in the design of new approaches to managing data growth.

- This also dovetails into the work already being carried out around the Government's vision for IOT, particularly the commissioning and support of services. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/389315/14-1230-internet-of-things-review.pdf.

- This growth of data will not happen for its own sake. It has to be linked into improving the delivery of current services to citizens, and eventually provide new services that benefit them in new ways.

- As the UK Government makes more data available to the public under its open data initiatives, this flow of information will also be potentially used by private sector organisations as well.

Availability of services

- As we move from heritage to digital the need to maintain the integrity of the supporting infrastructure for real-time processing is imperative. Open source systems can build redundancy into the services, creating no single point of failure in a multi-datacentre environment. Using "masterless" components that can span multiple sites and survive failures is one approach.

Privacy and security of data

- As custodians of data there is a need to balance open access with confidentiality and security. Gov.UK.Verify is a key component of this but as data is shared between departments there is a need to define the rules on the journey of the data.

- For citizens, it will be important to provide them with easy methods to manage and control how their data – and data on or about them – is used, such as online portals that can display all relevant information back to them.

Conclusion

- The move to a Government-as-a-Platform will be instrumental in redefining how Government interacts with citizens and industry. In addition to ensuring continuous service availability the transition from heritage systems to digital must also consider the demands of the decades ahead. While the task is significant it is achievable. Incremental steps are already being made and the results are delivering tangible value and creating the building blocks for the wholesale transition of heritage systems and infrastructure.

- Being able to equip Government teams with the skills, technology and design thinking that is required for transformation is key. The focus is on being citizen-centric and adding value for the citizen to want to engage. This has the ability to transform the relationships Government has with citizens from punitive to value driven.

Fujitsu and CDG – supporting the ethos of Government as a Platform

This document has been produced by Fujitsu Services Public Sector leadership team and CDG (an SME partner to Fujitsu specialising in Digital technologies) to provide some insight on how Government as a Platform strategies can be supported by public sector organisations in partnership with GDS and Department IT teams.

- CDG helps organisations adapt to the new world of digital by creating systems that transform their operational capabilities and service delivery strategies.

- CDG brings systems thinking to digital services in order to help all the stakeholders involved in digital transformation programmes meet their personal and company objectives, from creating faster, leaner, more powerful services.

- Fujitsu Services has been powering government for more than forty years. The company enables critical functions of government at national, local, regional and devolved levels, touching the lives of millions of citizens and employees every day.

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