Report to CenSus Joint Committee

9th December 2016

By the Director for Corporate Resources

INFORMATION REPORT

Not exempt

CENSUS JOINT COMMITTEE – FUTURE OF CENSUS ICT PARTNERSHIP: "The Census Cloud"

Executive Summary

Purpose of Report

1. To report to Committee the progress made in determining a new strategic approach for the Census ICT Partnership over the next three years.
2. To get Committee approval for the strategy and to reallocate unspent budget to fund the transition to the new model, and to confirm new governance arrangements.

Summary

1. Over the course of the Census ICT Partnership the technology market has developed and matured. As a result of this, the nature of the Partnership must adapt to ensure the member Councils are making the best use of the latest developments in ICT and continue to deliver high quality, cost effective services.

2. Each of the three sites within the Partnership have undertaken 'Cloud Readiness Assessments' – reports which outline the potential for the Councils to move to hosting data centres in the cloud, rather than on servers on Council premises. These reports are available to members on request.

    All the reports have given the go-ahead for the move, and all the Councils are strategically aligned on making this move. Given this alignment, there is an opportunity to redesign the Partnership to enable the individual Councils to deliver their own digital and technology strategies whilst making the most of the opportunities that collaboration and sharing infrastructure can bring.

3. This is made up of four main elements:

    a. The transition of each Council's data centres to the cloud
    b. The transfer of staff to be employed by the Council where they are based
    c. A review of the governance arrangements of the Partnership
    d. A review of the cross-site, shared roles within the Partnership

4. This report requests that Members approve the new strategic direction, that they approve the reallocation of unspent budgets to fund the work involved, and that they approve the proposed governance arrangements.

Recommendations

The Joint Committee is asked to:

i.   Approve the new strategic direction of the Census ICT Partnership to a shared cloud hosting environment, called the "Census Cloud"
ii.   Approve the reallocation of unspent budgets to fund the transition to the new model
iii.   Approve the proposed governance arrangements for the new "Census Cloud" partnership

Reasons for Recommendations

i.   To set the future direction of the Census ICT Partnership to continue to deliver modern, high quality ICT infrastructure services to the member Councils.

Background Papers	
Consultation	Census Programme Management Board
Wards affected	All
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Background Information

1. Introduction

1.1 Over the course of the Census ICT Partnership the technology market has developed and matured. ICT infrastructure and its support has increasingly become commoditised making market solutions both financially viable and improved value. For many of the Census partners this has meant an increase in the number of applications that are provided as a service, not requiring hosting at a site and with greater integration and mobility options. For example: Worthing and Mid Sussex are using Salesforce, a cloud based Customer Relationship Management system hosted in the cloud; Worthing and Horsham have the system supporting Parking services hosted in the cloud; and productivity suites (Google and Microsoft) for all Census partners are either in the cloud or moving there. Therefore, the Census ICT partnership as it is currently configured is at a crossroads. There is the option for all the sites to break away and deliver their strategies separately, or to redesign the partnership for a new way of operating.

1.2 All three sites have had cloud readiness assessments completed, which outline the viability of the Councils moving away from on-premise data centres to cloud hosted 'infrastructure as a service'. All the assessments give the green light with some minor caveats, all of which are very similar concerning resources, such as budgets and skills.

This points to there being an advantage in a Census-wide initiative to transition away from on-premise data centres to public cloud infrastructure, notably around economies of scale, the ability to continue to share the hosting of applications and data where appropriate, and in developing a shared talent pool in the new skills required to operate within the new environment.

1.3 The reasons for switching to a cloud strategy are as follows:

- o **Increased resilience –** the sheer scale of operation of large cloud providers such as Amazon, Microsoft and Google means that the availability and uptime of their platforms cannot be rivalled by in house offerings. Disaster recovery is a major risk for all three sites at present and the move to the cloud will help mitigate this
- o **Better performance –** again, the scale available to cloud providers means that the latest technology is available and supported, meaning our technology will run quickly and efficiently
- o **Access to skills and knowledge –** as a group of relatively small district and borough councils, with limited financial resources, it is difficult to recruit staff with skills and knowledge in the latest developments in IT infrastructure. Working with much larger, specialist organisations will ensure that niche and expensive skills will be available to us when we need them.
- o **Information security –** we can maintain our emphasis on excellent IT security by tapping into the greater resources and knowledge that our partners will be able to provide. Utilising the guidance issued through central government on cloud security, we can ensure we deliver maximum flexibility in our technology stack whilst also ensuring our data is as secure as it has to be.
- o **Narrowing focus –** district and borough councils are already responsible for the delivery of a wide range of different services. Our focus in an increasingly pressured financial environment must be on those areas where we have the opportunity to add value. Technology infrastructure is an area with a well established market of highly commoditised products and services, the effective use of which will enable us to focus on our areas of specialism and avoid getting distracted.

1.4 The Census Partnership in the future will be comprised of the "Census Cloud": a jointly procured and managed cloud hosting environment for applications and data; and a contracted-out managed service to support that environment. This will provide the Councils with the modern, flexible and robust infrastructure needed to deliver services in the manner in which our customers expect in the digital age.

1.5   Given the reduced scope of on-premise infrastructure, there will be a reduced need for staff to support that infrastructure. To enable each Council to be able to quickly make their own strategic decisions around staffing and support, it is proposed that all site-specific staff are transferred under TUPE to be employed by their host Council. The roles affected by this are:

        o   Site Service Delivery Managers
        o   First, second and third line support technicians.

1.6   Furthermore, there are four shared roles across the Partnership which do not have a specific Council focus. Starting January 2017 there will be a review of these roles to assess whether they will be needed under the new strategy. These roles are:

        o   Service Desk Manager
        o   Technical Design and ICT Programme Manager
        o   Finance and Procurement Officer
        o   Project Co-ordinator

1.7   Staff and Unions were informed of these developments in early December 2016, before the publication of this report.

1.8   The project to transition the three sites into the cloud will take an estimated two years to complete. The stages of the project are as follows:

        o   **Design –** the procurement of a design of the new cloud hosting platform, what products and features are required, along with costings and support requirements. The design will also account for all the security issues relating to hosting Council data in the cloud
        o   **Financial projection –** it is inevitable that the Councils will 'double pay' for a period of time as the data centres are wound down and the new cloud hosting environment scaled up. A financial projection will be produced to enable the Councils to understand at which stages costs can be removed from local provision to ensure the project delivers best value for money
        o   **Procurement of the environment and the managed service –** before transition begins, we will need to purchase the new cloud hosting environment and also the managed service to support it for us
        o   **Planning –** a full project plan will be put together, outlining which systems and data will be moved to the cloud when
        o   **Implementation –** The project will then begin in earnest and we will expect to see a constant, steady flow of applications and data being re-hosted in the new environment, and eventually the local data centres at the Councils closed down.
        o   **Close down –** once everything has been moved that can be moved, a short exercise will be carried out to consider what is left on-premise and how it is best supported.

1.9   To ensure successful delivery of the transition, a dedicated project manager will be recruited with specific experience of moving on-premise data centres into the cloud. This role will be jointly funded through Census project budgets.

        Several projects have been identified that are currently in the programme and budgeted for, but will not be needed given the new strategy. It is recommended that these budgets are reallocated to the transition project. Details are provided in section 6.

1.10   Given that the nature of the Census ICT partnership is dramatically changing, and that the pace of the transition project is likely to be too great to sensibly fit into the current meeting structure, it is proposed that the governance of the Partnership be changed.

        The proposal is that local officers keep the relevant executive members for their authority up to date with the project progress through existing meeting arrangements, which should be more regular than the current quarterly meeting arrangements.

A quarterly progress report will be generated for the transition project and this will be circulated to all members of the Joint Committee. However it is proposed that the Committee does not need to physically meet unless on an exception basis where a Member feels an issue should be discussed in Committee.

2. Statutory and Policy Background

2.1 Statutory background

N/A

2.2 Relevant Government policy

N/A

2.3 Relevant Council policy

N/A

3 Next Steps

3.1 Subject to members' approval, the next steps for the Census Cloud strategy will be to:

- Recruit the Cloud Transition Project Manager during January 2017
- Scope the work involved and begin the implementation of the TUPE transfer of Census staff to their host Councils from January 2017
- Review the shared Census roles (Service Desk Manager, Finance and Procurement Officer, Technical Design & ICT Programme Manager, and Project Co-ordinator) to determine whether they will be needed under the new strategy
- Go out to procure for the Cloud Environment Design in February 2017
- Develop the financial projection and transition project plan when the design has been delivered
- Once the project plan and financial projection has been agreed, the project implementation phase will begin.

3.2 It is estimated that the transition project will take two years from start to finish.

4 Views of the Policy Development Advisory Group and Outcome of Consultations

4.1 Consultation has been carried out with the Census staff to ensure they are aware of the potential impact of the new strategy on their roles.

4.2 The three cloud readiness assessments that have been delivered for the Councils outline the pros and cons of the new strategy, and all give the go ahead for the transition.

4.3 During the design, financial projection and project planning stages, consultation will take place with all involved in the work, and expert guidance will be used to ensure all necessary views are considered.

5 Other Courses of Action Considered but Rejected

5.1 The Partnership could choose to break up and not continue in any form in the future. However this would mean that opportunities would not be realised around collaborative working and sharing of resources.

5.2 Continuing with the Partnership in its current configuration is not an option that could be considered because it cannot support the direction of travel of the technology strategies of the member Councils.

6 Resource Consequences

Finance

6.1 The full business case for the transition to the cloud is to be developed as the first stage of the project, where the design for the new environment can be put together and costed up. Alongside this will be a financial projection of the local staffing requirements needed to maintain the remaining local infrastructure and future hardware investments that will no longer need to be made.

6.2 There are unspent budgets from the 2016-17 Census ICT budget that can be repurposed to fund the initial work on the cloud transition. These budgets are:

	HDC budget	MSDC budget	AW budget	Total
Identity and Access management tool	£10,000	£10,000	£10,000	£30,000
WAN Exit strategy	£16,667	£16,667	£16,667	£50,000
Cloud Based Back up	£19,000	£19,000	£19,000	£57,000
Infrastructure as a Service reviews	£20,250	£27,000	£20,000*	£67,250
Total				£204,250

* Adur & Worthing did not fund their Infrastructure as a Service review through Census and this budget does not appear in the current Census budget. Adur & Worthing will therefore need to add matching funding for this element of the budget.

6.3 As part of the design phase of the transition project, a full financial projection will be developed, demonstrating when investment in the new platform will be required and when savings will be realised. These savings will include planned investments in hardware in the data centres that will no longer be required under the new arrangements, and staffing changes as a result of reduced local support requirements.

6.4 As more financial resource is required, Committee will be asked to approve bids as part of the budget process.

Human Resources

6.4 The new Census Cloud strategy will mean that the local requirements for support of infrastructure will be very different in the future. Because the skill set required to support the new environment will be very specialist, a managed service will be procured to deliver this capability.

6.5 To enable each site to manage the resources needed to deliver the local technology strategy flexibly, the first, second and third line support staff and the Site Service Delivery Managers will be transferred to be employed by the Council where they are based. This process will begin early in 2017. Individual Councils within the partnership will then be able to decide about the most suitable level of local support needed on top of the managed service.

6.6 Furthermore, there are still four shared roles across the partnership and a review will be undertaken in early 2017 as to the future of these roles.

6.7 In order to manage the transition project, an experienced dedicated project manager will be appointed to work across the three sites, ensuring that the project is complete on time and in budget.

These roles are:

- o Service Desk Manager
- o Technical Design and ICT Programme Manager

- o   Finance and Procurement Officer
- o   Project Co-ordinator

6.8   Staff have been briefed on the potential impact on their roles and all changes will be managed in consultation with local HR teams and Unions.

7   Risk Assessment

7.1   The following high level risks have been identified at this stage:

7.2   **Lack of knowledge and skills –** the current Census ICT team has little experience of cloud hosting environments and technologies and this risk must be mitigated by buying in experience via consultancy in the short term and an ongoing managed service in the medium to long term.

7.3   **Budget –** financial savings are not a key driver for the transition to the cloud, with the principle benefit being in productivity and resilience. However, cost will be an important factor in the project, with the potential for long periods of 'dual running' becoming prohibitively expensive. Realistic financial projections and strong budget management will be vital in mitigating this risk.

7.4   **Bandwidth –** with all applications and data hosted in the cloud and accessed via an internet connection, the dependency on each council's connection to the internet will be dramatically increased. Early engagement with the County Council and Capita, who manage the Wide Area Network, will be very important, as will exploring other connectivity opportunities, such as the Gigabit Coast project being explored by Adur & Worthing.

7.5   **Security –** every possible action must be taken to ensure that the new technology environment provides the security required by the Councils to ensure compliance with PSN requirements. There is a great deal of specialist, professional security knowledge that can be tapped into in this area to help mitigate this risk

7.6   **Loss of skills and knowledge –** with the potential for staff to leave the partnership, they are likely to take knowledge and experience with them. Much of this knowledge will be around the old way of doing things, which won't be needed in the future, however during the transition it will need to be managed carefully to ensure exposure is kept to an absolute minimum.

7.7   As part of the project planning for the transition, a comprehensive risk register will be produced and regularly updated.

8   Other Considerations

8.1   Ensuring our IT infrastructure is robust and fit for purpose ensures that Council services can continue to be delivered in a timely and cost effective manner, benefitting all the residents and businesses of the three local authority areas within the partnership.

8.2   Cloud computing offers many benefits in terms of sustainability, with the greater scale of large providers able to deliver 'green IT' more effectively than small, in house data centres. There will be a sustainability element in the scoring for the procurement of the new cloud hosting platform to ensure the Councils are meeting their obligations with regard to protecting the environment.