Subject:	**APPROVAL OF PROJECT TO MIGRATE IDOX SERVERS TO AZURE**
Date:	**15 June 2023**
Decision taken by:	**Brinley Hill, Head of Transformation**
Report of:	**Andrew Way, Technology Lead**
Portfolio Holder:	**Councillor Jamie Pout (Transport, Licensing and Environmental Services)**
Decision Type:	**Executive Non-Key Decision**
Classification:	**Unrestricted**
Delegated Authority:	Authority delegated by Cabinet (Cabinet decision CAB 94 of 27 February 2023) and Council (at its meeting held on 1 March 2023) when approving the Council Budget 2023/24 and Medium-Term Financial Plan 2023/24-2026/27 (as set out in Annex 10 of the report) as follows: 'Delegates the approval of projects included in Annex 6D, the Digital & ICT Programme, to the Head of Transformation, in consultation with the Portfolio Holder for Finance, Governance, Digital and Climate Change.'
Purpose of the report:	To migrate the servers for the IDOX system (used by Planning, Building Control, Trees, Land Charges, Street Naming and Numbering and our Local Land and Property Gazetteer (LLPG)) to the Microsoft Azure cloud environment.
Recommendation:	To approve a new project to migrate Idox servers to Azure.

1.   **Summary**

1.1   In July 2019 DDC approved a report to enable the Council to move to MS365, divided into phases. Phase 1 was the move to MS365 which was completed just before the Covid19 pandemic. Phase 2 was the appointment of a consultant to carry out an assessment of our infrastructure (completed), and the move to Azure cloud by December 2020. This was delayed due to the pandemic and is now reconvening for the reasons set out in this report.

1.2   The nature of the ICT environment is requiring councils to move to the cloud as an alternative to holding servers. DDC is following this route for the following the reasons:

- Loss of on-going use of the data centre hosted by Thanet District Council (TDC)
- Improved Business Continuity and Security
- Enabling digital transformation
- Leveraging new technologies
- Flexibility of infrastructure (coping with high demand periods)
- Readiness for modernisation of systems (SaaS)
- Eventual reduction in capital ICT costs

1.3   This involves moving ICT systems and data from servers managed at Thanet District Council (TDC) by the (soon to be closed) joint ICT service to "the cloud". The preferred

cloud solution is Software as a Service (SaaS) which is where the company providing the system would host and manage the solution on their infrastructure. If this is not viable the next preferred option is to host them in DDC's Microsoft Azure cloud.

1.4   The IDOX system (used by Planning, Building Control, Trees, Land Charges, Street Naming and Numbering and our Local Land and Property Gazetteer (LLPG)) currently operates on servers at TDC and is currently operating out of support and will be the first to move to Azure.

2.   Introduction and Background

2.1   DDC started the journey to cloud when migrating to Microsoft 365 late 2019. Since then, we have moved systems to SaaS solutions where viable. The next phase is to start migrating systems with no SaaS option to Microsoft Azure.

2.2   There are still over 20 servers based in the Thanet datacentre. The project to move the systems on these servers to Azure has been accelerated due to the disaggregation of the ICT service previously shared by DDC, CCC and TDC under EK Services. This report is to approve a project to move the Council's IDOX solutions to Microsoft Azure. The systems to follow after Idox are not as data heavy, as such the costs will be lower for running them in Azure.

3.   The IDOX System

3.1   IDOX is used in Planning, Building Control, Trees, Land Charges, Street Naming and Numbering and is used for our Local Land and Property Gazetteer (LLPG). The solution is used by around 90 staff in DDC and some parts of the system are accessed by the public via the DDC website, including planning applications.

3.2   The current IDOX applications are located in the Thanet Datacentre and are out of support. A recent report was approved for the upgrade of these applications; however, they also need to move to Microsoft Azure to enable the disaggregation of the ICT service.

3.3   This report is to approve a project to relocate the IDOX infrastructure to the Microsoft Azure cloud environment which is in line with our Digital Transformation project of moving to an overall 'cloud first' solution to further enhance application resilience, security and business continuity.

3.4   The Council's extensive reliance upon IDOX applications means that any decision to change solutions would be extremely complex and would take 1-2 years to plan and deliver.

3.5   The IDOX solution does not have a fully featured SaaS offering currently. If one was available, due to the timelines of the ICT disaggregation and the server being out of support we would not have enough time to plan, test, implement, train and deploy a new solution in time for the April 2024 disaggregation deadline. There will be a later project to look at the future of the IDOX solution.

3.6   IDOX do offer to host the existing servers on their infrastructure, but the cost of this is greater than hosting the servers in our own Azure platform.

4.   Microsoft Azure Delivery

4.1   Moving to Azure will bring the Council benefits such as improved security and Business Continuity due to resiliance between datacentres across the UK holding DDC data, the ability to scale up/scale down virtual environments on demand to cope with high demand periods and save money during low demand periods. It also helps mitigate issues with legacy operating systems having to be updated and removes utility costs (power, air conditioning) and unexpected large costs if hardware, such as servers fail out of warranty and need replacing. It also means that the Council does not have to face significant costs if, at a later date, it wishes to re-configure the Whitfield offices

and re-locate the data centre. Nor does it face these constraints if it ever wishes to re-locate to other premises.

4.2   A project is currently underway in conjunction with a company called ROCK to implement an Azure Landing Zone for the Council. ROCK are one of the only UK Partners to get funding for the analysis work within Azure and have experts within this area. They successfully bid for funding from Microsoft for the work they have completed so far for DDC.

4.3   By following the Cloud Centre of Excellence which promotes best practice approach to drive the adoption of cloud services, ROCK is practiced in ensuring governance is followed and maintained for the Council.

4.4   The proposed project includes ROCK implementing a co-managed service with Dover, as such there will be knowledge transfer to our infrastructure team to enable us to support Microsoft Azure for future years.

4.5   This is the second phase of the project and will enable us to move the IDOX servers to Azure with a co-managed service with Rock.

5.   **On Premise Delivery**

5.1   The option of moving the IDOX solution to servers on-premise at the DDC offices has also been considered. For systems providing statutory services, the offices do not currently have a well enough equipped data centre. Costs to renovate the room used as a data centre and the equipment needed, such as SAN storage system with built in redundancy to mitigate risk of outages due to hardware failures and similar specification servers would surpass the costs listed above. Keeping on-premise systems is also not aligned to the DDC cloud approach.

5.2   The estimated costs for implementing servers, storage and infrastructure into a datacentre are shown below. These are not annual costs but would on average be required every 5 years. The costs would setup the datacentre for hosting all on-premise servers rather than just IDOX solution servers.

Description	Cost
One-off Preparing Datacentre	£10,000
VM Host Server Cluster (4 x servers and support)	£100,000
Server Licences	£20,000
SAN, FC Switches and Support	£60,000
	£190,000

5.3   Over a 5-year period the Azure platform may be more expensive (dependant on the optimisation savings available), but it also holds benefits mentioned previously in this report.

5.4   Another consideration is during the next 2-3 years more systems will either move to SaaS or may be replaced with in house-built applications as part of a cloud based customer relationship management (CRM) solution. As this happens the large investment for an on-premise datacentre would quickly become underutilised, giving a poor return on investment. The Azure approach allows us to utilise the cloud infrastructure while we need it and scale down easily as modern solutions are developed.

6. **Identification of Options**

6.1   Option1 – Do nothing.

6.2   Option 2 – Provide on-premise servers and data centre.

6.3   Option 3 – Approve project for ROCK to migrate IDOX applications to Microsoft Azure.

7. **Evaluation of Options**

7.1   Option 1 - The option to not go ahead with the migration has been considered but is needed to begin the next phase of the DDC cloud agenda. There is added urgency for this project to proceed for moving DDC servers out of the Thanet datacentre due to the ICT disaggregation. The current IDOX servers are currently not supported, so as such are a security risk to the Council. This option is not recommended.

7.2   Option 2 – This option is not aligned to the DDC cloud approach and would likely result in an underused data centre. This option is not recommended.

7.3   Option 3 - This option supports the move to a preferred cloud first route and resolves the challenges with the unsupported servers and disaggregation plans at TDC. This is the recommended option.

8. **Resource Implications**

8.1   As detailed in the 2023/24 budget and Medium Term Financial Plan the Digital & ICT Equipment & Servers reserve is held in order to support the requirements of the current and future digital strategies. This project falls within those requirements and the implementation and year one costs will be funded from the reserve.

8.2   There is an initial one-off cost for ROCK to complete the IDOX server migration to Azure of £11,000.

8.3   During the first 6 months of the Azure platform being set up, ROCK's managed service for 3rd line support will be used while knowledge transfer and documentation is created. After 6 months is completed, the DDC Infrastructure team will have the knowledge to maintain the solution. The cost for 6 months managed service is £39,300 which covers all services used in Azure, not just the Idox migration.

8.4   The initial monthly cost for running the IDOX servers in Azure is £3,360. This cost will reduce over the first 3 months as the team work with ROCK to optimise the running of the servers in Azure. At present the exact reduction cannot be calculated, and this will not be known until the servers are relocated to Azure. It is estimated that there will be a25% to 50% reduction, reducing the on-going costs of the provision.

8.5   Based on the full costs of Azure the total first year cost for this project would be £90,620. It is anticipated that the actual cost of this should be significantly lower when services have been optimised over the first 3 months. These implementation costs will be funded from the Digital & ICT Equipment & Servers reserve.

8.6   The on-going costs of running the Azure servers will be dependent on the level of optimisation achieved post-implementation. It is anticipated that these will be in the region of £20k-£30k, based on optimisation between 50% and 25%.

8.7   Previous costs paid to East Kent Services were just to cover staffing and all other associated costs with regards to infrastructure were paid by each Council. With regards to Idox, we would have replaced the server approximately every 3 years at a cost of £25k per server (funded from the Digital & ICT Equipment & Servers reserve). Dover also contributed to the Storage Area Network (SAN) at a cost of £7k every 3 years. These costs will no longer be required under the new proposals, resulting in a net budget pressure of c.£13k-£23k.

8.8 Even though the new proposal creates an ongoing budget pressure, this is the most efficient route to meet the timescales to vacate TDC's datacentre.

8.9 It is anticipated that in the longer term this budget pressure will be offset by a reduction in the annual contributions to the Digital & ICT Equipment & Servers due to capital costs reducing for on premise hardware and licenses.

9. **Climate Change and Environmental Implications:** No comments received.

10. **Corporate Implications**

10.1 Comment from the Director of Finance (linked to the MTFP): Members are reminded that the Council's revenue and capital resources are under pressure and will wish to assure themselves that the proposal progresses the Council's priorities, is the best option available, is affordable and will deliver value for money. (HL)

10.2 Comment from the Solicitor to the Council: The Solicitor to the Council has been consulted in the preparation of this report and has no further comments to make.

10.3 Comment from the Equalities Officer: This report to approve a new project to migrate Idox servers to Azure does not specifically highlight any equality implications, however in discharging their duties members are required to comply with the public sector equality duty as set out in Section 149 of the Equality Act 2010 http://www.legislation.gov.uk/ukpga/2010/15/section/149

10.4 Other Officers (as appropriate): The Procurement Manager has been consulted on this report and has no further comment.

11. **Appendices**

None.

12. **Background Papers**

Relevant papers on Digital Services files.

Contact Officer: Abi Robinson, Digital Services Manager