Public Document Pack

18 September 2023

Dear Councillor

NOTICE OF DELEGATED DECISIONS – (DD22 23) IT SYSTEM

Please find attached details of decisions taken by Mr Mike Davis, Strategic Director (Finance and Housing) and Section 151 Officer, in relation to the Council's IT system.

As non-Key Officer Decisions, call-in does not apply (paragraph 18(a) of Part 4 (Rules of Procedure) of the Constitution).

Members of the public who require further information are asked to contact Democratic Services on 01304 872303 or by e-mail at democraticservices@dover.gov.uk.

Yours sincerely

Democratic Services Officer

ENCL

Decision Notice

Delegated Decision

Decision No:	**DD22**
Subject:	**IT SYSTEMS**
Date of Decisions:	**11 September 2023**
Notification Date:	**18 September 2023**
Implementation Date:	**19 September 2023**
Decisions taken by:	**Mike Davis, Strategic Director (Finance and Housing) and Section 151 Officer**
Delegated Authority:	**Delegation C64 to the Section 151 Officer ('To authorise new projects up to £50,000 that can be funded within the overall resources of the approved Medium-Term Financial Plan') of Section 6 (Scheme of Officer Delegations) of Part 3 (Responsibility for Functions) of the Constitution**
Decision Type:	**Non-Key Executive**
Call-In to Apply?	**No (*Call-in does not apply to non-Key Officer Decisions*)**
Classification:	**Unrestricted**
Reason for the Decisions:	See attached reports.
Decisions:	(a) To approve new projects to migrate: (i) Xpress to Azure (ii) Proval servers to Azure (iii) Iken to Azure (b) Separation of Feature Manipulation Engine from Canterbury and migrate to Azure.

1. **Consideration and Alternatives** *(if applicable)*

1.1 See attached reports.

2. **Any Conflicts of Interest Declared?**

2.1 None.

3. **Supporting Information** *(as applicable)*

3.1 See attached reports.

Subject:	**XPRESS MIGRATION TO AZURE**
Date:	**11 September 2023**
Decision to be taken by:	**Mike Davis, Strategic Director (Finance and Housing)**
Report of:	**Abi Robinson, Digital and Technology Manager**
Portfolio Holder:	**Councillor Jamie Pout, Portfolio Holder for Transport, Licensing and Environmental Services**
Decision Type:	**Executive Non-Key Decision**
Call-in to apply:	**No (*Call-in does not apply to non-Key Officer Decisions*)**
Classification:	**Unrestricted**
Delegated Authority:	**Delegation C64 to the Section 151 Officer ('To authorise new projects up to £50,000 that can be funded within the overall resources of the approved Medium-Term Financial Plan') of Section 6 (Scheme of Officer Delegations) of Part 3 (Responsibility for Functions) of the Constitution**
Purpose of the report:	To migrate Xpress servers (used by Electoral Services) to Azure
Recommendation:	To approve a new project to migrate Xpress to Azure.

1. **Summary**

1.1 To migrate the Xpress system to the Microsoft Azure cloud environment. The project is a continuation of the Council's cloud programme to move to one of three options:

- Software as a Service (SaaS) – where the supplier provides cloud-based applications over the internet and this can be accessed from anywhere, provided the user has the correct security.
- Suppliers hosted environment – where the supplier hosts the applications in their cloud environment and the user accesses the system from within the DDC network.
- Dover District Council's Azure environment – where DDC hosts the applications in our own cloud environment (Azure).

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 for the provider to host them or to move to DDC's Microsoft Azure cloud. In this case it is to move to DDC's Microsoft Azure cloud platform.

1.4   Xpress software is used by the Elections department for end-to-end election management.

2.   Introduction and Background

2.1   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 but during the following period we have moved systems to SaaS solutions where viable. The next phase is to start migrating systems with no SaaS option to either the providers hosted solution or 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 Cloud 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 Xpress solution to Microsoft Azure.

2.3   The Xpress system has been used in the Council for over 15 years.

3.   The Xpress System

3.1   The Xpress system has been in use since approximately 2005.

3.2   It is used by Elections for the elections register and mobile canvassing.

3.3   The current Xpress server is based in the Thanet datacentre. This report is to approve a project to relocate the Xpress infrastructure to the Microsoft Azure cloud environment.

3.4   The Xpress solution does not yet have a fully featured SaaS offering or supplier's hosted environment.

4.   Microsoft Azure Delivery

4.1   Moving to Azure will bring the Council benefits such as improved security and Business Continuity due to resilience 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   The Xpress system can use the Azure subscription created as part of the Idox migration process (See Decision DD06 23).

5. **On Premise Delivery**

5.1 The option of moving the Xpress 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 Storage Area Network (SAN) 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 Xpress solution servers.

Description	Proposed £000
One-off Preparing Datacentre	10
VM Host Server Cluster (1 x servers and support)	25
SAN, FC Switches and Support	60
Server Licences	7
	£102,000

5.3 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 CRM solution. As this happens the large investment for an on-premise datacentre would quickly become underutilised, giving a poor return on investment. The cloud 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 within the data centre.

6.3 Option 3 – Move Xpress to 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. 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 with a 3-year contract.

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   Current costs for the existing service to include:

- Staff time – previously paid to East Kent Services as part of the ICT service costs;
- £22k pa Xpress costs;
- £25k three yearly server replacement cost;
- £7k three yearly Storage Area Network (SAN) costs.

8.3   There is an initial one-off cost for ROCK to complete the Iken migration to Azure of £5,600 and a one-off to Xpress for installation of £5,500.

8.4   The initial monthly cost for running the Xpress server in Azure is £900. This is an annual cost of £10,800. However, the cost will reduce over the first 3 months as the team work with ROCK to optimise the running of the server in Azure. At present the exact reduction cannot be calculated, and this will not be known until the server is relocated to Azure.

8.5   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 £7,000 based on optimisation estimations from ROCK.

8.6   In summary the 3-year forecast for the service is:

	Current £000	Proposed £000
Solution Running Cost	66	66
Server Replacement	25	0
SAN	7	0
Azure Cost	0	32
Migration to Azure	0	11
Total	98	109

8.7   The new proposal creates an ongoing revenue budget pressure of c£10k per annum, but will reduce the need for future server and SAN charges. It is also considered that this is the most efficient route to meet the timescales to vacate TDC's datacentre.

8.8   It should be noted that in the longer term, there will also be a reduction in the annual contributions to the Digital & ICT Equipment & Servers due to capital costs reducing for on premise hardware and licences.

9.   **Climate Change and Environmental Implications**

9.1   No comments received.

10.   **Corporate Implications**

10.1   Comment from the Director of Finance (linked to the MTFP): Accountancy have been consulted on the report and have no further comments to add. (AG)

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 recommending the approval of a project to migrate Xpress 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):

11. **Appendices**

None.

12. **Background Papers**

Relevant papers on Digital Services files.

Contact Officer: Abi Robinson, Digital and Technology Manager

Subject:	**PROVAL MIGRATION TO AZURE**
Date:	**11 September 2023**
Decision to be taken by:	**Mike Davis, Strategic Director (Finance and Housing)**
Report of:	**Abi Robinson, Digital and Technology Manager**
Portfolio Holder:	**Councillor Jamie Pout, Portfolio Holder for Transport, Licensing and Environmental Services**
Decision Type:	**Executive Non-Key Decision**
Call-in to apply:	**No (*Call-in does not apply to non-Key Officer Decisions*)**
Classification:	**Unrestricted**
Delegated Authority:	**Delegation C64 to the Section 151 Officer ('To authorise new projects up to £50,000 that can be funded within the overall resources of the approved Medium-Term Financial Plan') of Section 6 (Scheme of Officer Delegations) of Part 3 (Responsibility for Functions) of the Constitution**
Purpose of the report:	To migrate Proval servers (used by Strategic Housing and Finance) to Azure.
Recommendation:	To approve a new project to migrate Proval servers to Azure.

1. **Summary**

1.1 To migrate the Proval system to the Microsoft Azure cloud environment. The project is a continuation of the Council's cloud programme to move to one of three options: -

- Software as a Service (SaaS) – where the supplier provides cloud-based applications over the internet and this can be accessed from anywhere, provided the user has the correct security.
- Suppliers hosted environment – where the supplier hosts the applications in their cloud environment and the user accesses the system from within the DDC network.
- Dover District Council's Azure environment – where DDC hosts the applications in our own cloud environment (Azure).

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 for the provider to host them or to move to DDC's Microsoft Azure cloud. In this case it is to move to DDC's Microsoft Azure cloud platform.

1.4   Proval software is used by Strategic Housing and Finance to provide detailed appraisal and viability data for social housing.

2.   Introduction and Background

2.1   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 but during the following period we have moved systems to SaaS solutions where viable. The next phase is to start migrating systems with no SaaS option to either the providers hosted solution or 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 Cloud 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 Proval solution to Microsoft Azure.

2.3   The Proval system has been used in the Council for approximately 2 years.

3.   The Proval System

3.1   Dover District Council has great ambitions for the future in terms of delivering improved outcomes for residents and businesses investing in our places. The Strategic Housing team plays a key role in delivering on these ambitions.

3.2   A large part of securing these ambitions is ensuring the deliverability of opportunities through site feasibility and viability appraisals. Together with community and stakeholder engagement, these assessments enable the Council to make informed decisions as to whether schemes should go ahead and the parameters as to how it could go ahead.

3.3   Proval is a financial viability tool that measures capital costs of delivering a scheme. The tool allows the Council to make the best use of its developable land and land assembly opportunities.

3.4   The Strategic Housing team implemented Proval 2 years ago with 3 licences and an on-premise solution. Within this time we have added 2 more licences and this is expected to grow within the next year, due to the growth of social housing schemes.

3.5   The current Proval server is based in the Thanet datacentre. This report is to approve a project to relocate the Proval infrastructure to the Microsoft Azure cloud environment.

3.6   The Proval solution does has a supplier hosted offering, but the costings for this does not provide value for money currently.

4.   Microsoft Azure Delivery

4.1   Moving to Azure will bring the Council benefits such as improved security and Business Continuity due to resilience 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 The Proval system can use the Azure subscription created as part of the Idox migration process (See Decision DD06 23).

5. **On Premise Delivery**

5.1 The option of moving the Proval 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 Storage Area Network (SAN) 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 Proval solution servers.

Description	Proposed £000
One-off Preparing Datacentre	10
VM Host Server Cluster (1 x servers and support)	25
SAN, FC Switches and Support	60
Server Licences	7
	£102,000

5.3 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 CRM solution. As this happens the large investment for an on-premise datacentre would quickly become underutilised, giving a poor return on investment. The cloud 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 within the data centre.

6.3 Option 3 – Move Proval to 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. 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 Current costs for the existing service include:

- Staff time – previously paid to East Kent Services as part of the ICT service costs;
- £2.5k pa Proval support costs;
- £25k three yearly server replacement cost;
- £7k three yearly Storage Area Network (SAN) costs.

8.3 There is an initial one-off cost for ROCK to complete the Proval migration to Azure of £3,500 and DDC would complete the installation from our own resources. It is proposed that this will be funded from the ICT reserve.

8.4 The initial monthly cost for running Proval server in Azure is £115, which would be an annual cost of £1380. However, this cost will reduce over the first 3 months as the team will work with ROCK to optimise the running of the server in Azure. At present the exact reduction cannot be calculated, and this will not be known until the server is relocated to Azure.

8.5 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 £1100, based on optimisation estimations from ROCK.

8.6 In summary the 3-year forecast for the service is:

	Current £000	Proposed £000
Solution Running Cost	7.5	7.5
Server Replacement	25	0
Storage Area Network (SAN)	7	0
Azure cost	0	4
Migration to Azure	0	3.5
Total	39.5	15

8.7 The new proposal creates an ongoing revenue budget pressure of c£1.5k per annum but will reduce the need for future server and SAN charges. However, it is considered that this is the most efficient route to meet the timescales to vacate TDC's datacentre.

8.8 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 & Server due to capital costs reducing for on premise hardware and licenses.

8.9 Installation of the software and configuration of the firewalls would need involvement of the ICT department.

9. **Climate Change and Environmental Implications**

9.1   No comments received.

10.   **Corporate Implications**

10.1   Comment from the Director of Finance (linked to the MTFP): Accountancy have been consulted on the report and have no further comments to add. (AG)

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 recommending the approval of a project to migrate Proval 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):

11.   **Appendices**

        None.

12.   **Background Papers**

        Relevant papers on Digital Services files.

Contact Officer: Abi Robinson, Digital and Technology Manager

Subject:	**IKEN MIGRATION TO AZURE**
Date:	**11 September 2023**
Decision to be taken by:	**Mike Davis, Strategic Director (Finance and Housing)**
Report of:	**Abi Robinson, Digital and Technology Manager**
Portfolio Holder:	**Councillor Jamie Pout, Portfolio Holder for Transport, Licensing and Environmental Services**
Decision Type:	**Executive Non-Key Decision**
Call-in to apply:	**No (*Call-in does not apply to non-Key Officer Decisions*)**
Classification:	**Unrestricted**
Delegated Authority:	**Delegation C64 to the Section 151 Officer ('To authorise new projects up to £50,000 that can be funded within the overall resources of the approved Medium-Term Financial Plan') of Section 6 (Scheme of Officer Delegations) of Part 3 (Responsibility for Functions) of the Constitution**
Purpose of the report:	To migrate the Iken legal system to Azure.
Recommendation:	To approve a new project to migrate Iken to Azure.

1.   **Summary**

1.1   To migrate the Iken system to the Microsoft Azure cloud environment. The project is a continuation of the Council's cloud programme to move to one of three options: -

- Software as a Service (SaaS) – where the supplier provides cloud-based applications over the internet and this can be accessed from anywhere, provided the user has the correct security.
- Suppliers hosted environment – where the supplier hosts the applications in their cloud environment and the user accesses the system from within the DDC network.
- Dover District Council's Azure environment – where DDC hosts the applications in our own cloud environment (Azure).

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 for the provider to host them or to move to DDC's Microsoft Azure cloud. In this case it is to move to DDC's Microsoft Azure cloud platform.

1.4   Iken software is used by the Legal department for case and document management.

2.   Introduction and Background

2.1   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 but during the following period we have moved systems to SaaS solutions where viable. The next phase is to start migrating systems with no SaaS option to either the providers hosted solution or 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 Cloud 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 Iken solution to Microsoft Azure.

2.3   The Iken system has been used in the Council for approximately 20 years.

3.   The Iken System

3.1   The Iken system has been in use since 2004.

3.2   It is used by Legal Services to open, track, manage and report on all business being undertaken by Legal Services. It contains all case files and information, and is the system whereby all legal information, advice and communication is stored securely. In addition, it supports time recording of legal business undertaken and analysis reporting across business sectors, teams and Legal Services officers.

3.3   The current Iken server is based in the Thanet datacentre. This report is to approve a project to relocate the Iken infrastructure to the Microsoft Azure cloud environment.

3.4   The Iken solution does have a fully featured SaaS offering, DDC's legal team confirm that it is in its infancy and does not offer the full functionality of the desktop version. We will review the SaaS offering again in 2024.

4.   Microsoft Azure Delivery

4.1   Moving to Azure will bring the Council benefits such as improved security and Business Continuity due to resilience 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   The Iken system can use the Azure subscription created as part of the Idox migration process (See Decision DD06 23).

5.   On Premise Delivery

5.1   The option of moving the Iken 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 Storage Area Network (SAN) 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 Iken solution servers.

Description	Proposed £000
One-off Preparing Datacentre	10
VM Host Server Cluster (2 x servers and support)	50
SAN, FC Switches and Support	60
Server Licences	7
	£127,000

5.3 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 CRM solution. As this happens the large investment for an on-premise datacentre would quickly become underutilised, giving a poor return on investment. The cloud 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 within the data centre.

6.3 Option 3 – Move Iken to 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. 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 with a 3 year contract.

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 Current costs for the existing service include:

- Staff time – previously paid to East Kent Services as part of the ICT service costs;
- £6k pa Iken support costs
- £25k three yearly server replacement cost;
- £7k three yearly Storage Area Network (SAN) costs.

8.3 There is an initial one-off cost for ROCK to complete the Iken migration to Azure of £5,600 and a one-off to Iken for installation of £2,250.

8.4 The initial monthly cost for running the Iken server in Azure is £880, this is an annual cost of £10,560. However, this cost will reduce over the first 3 months as the team work with ROCK to optimise the running of the server in Azure. At present the exact reduction cannot be calculated, and this will not be known until the server is relocated to Azure.

8.5 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 £7,900 based on optimisation estimations from ROCK.

8.6 In summary the 3-year forecast for the service is:

	Current £000	Proposed £000
Solution Running Cost	18	18
Server Replacement	25	0
SAN	7	0
Azure Cost	0	31
Migration to Azure	0	8
Total	50	57

8.7 The new proposed creates an ongoing budget pressure of c£10k per annum, but will reduce the need for future server and SAN charges. However, it is considered that this is the most efficient route to meet the timescales to vacate TDC's datacentre.

8.8 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**

9.1 No comments received.

10. **Corporate Implications**

10.1 Comment from the Director of Finance (linked to the MTFP): Accountancy have been consulted on the report and have no further comments to add. (AG)

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 recommending the approval of a project to migrate Iken 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):

11.   **Appendices**

None.

12.   **Background Papers**

Relevant papers on Digital Services files.

Contact Officer: Abi Robinson, Digital and Technology Manager

Subject:	**FEATURE MANIPULATION ENGINE (FME) SEPARATION FROM CANTERBURY AND MIGRATE TO AZURE**
Date:	**11 September 2023**
Decision to be taken by:	**Mike Davis, Strategic Director (Finance and Housing)**
Report of:	**Abi Robinson, Digital and Technology Manager**
Portfolio Holder:	**Councillor Jamie Pout, Portfolio Holder for Transport, Licensing and Environmental Services**
Decision Type:	**Executive Non-Key Decision**
Call-in to apply:	**No (*Call-in does not apply to non-Key Officer Decisions*)**
Classification:	**Unrestricted**
Delegated Authority:	**Delegation C64 to the Section 151 Officer ('To authorise new projects up to £50,000 that can be funded within the overall resources of the approved Medium-Term Financial Plan') of Section 6 (Scheme of Officer Delegations) of Part 3 (Responsibility for Functions) of the Constitution**
Purpose of the report:	To separate our Feature Manipulation Engine (FME) from the current shared licence and server and migrate the server to the Microsoft Azure Cloud environment.
Recommendation:	To approve a new project to migrate the Feature Manipulation Engine server to Azure.

1. **Summary**

1.1 To migrate the Feature Manipulation Engine (FME) to the Microsoft Azure cloud environment. The project is a continuation of the Council's Cloud programme to move to one of three options: -

- Software as a Service (SaaS) – where the supplier provides cloud-based applications over the internet and this can be accessed from anywhere, provided the user has the correct security.
- Suppliers hosted environment – where the supplier hosts the applications in their cloud environment and the user accesses the system from within the DDC network.
- Dover District Council's Azure environment – where DDC hosts the applications in our own cloud environment (Azure).

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 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 for the provider to host them or to move to DDC's Microsoft Azure cloud. In this case it is to move to DDC's Microsoft Azure cloud platform.

1.4   FME is a powerful tool used across the council's data portfolio by the digital team to enable us to transfer, merge, manipulate and create new data as required by scheduled or triggered processes.

2.   **Introduction and Background**

2.1   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 Covid-19 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 but during the following period we have moved systems to SaaS solutions where viable. The next phase is to start migrating systems with no SaaS option to either the providers hosted solution or 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 Cloud 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 FME solution to Microsoft Azure.

2.3   The FME system has been used in the Council for approximately 5 years. It was procured jointly with Canterbury City Council, and the shared server is located in Thanet District Council's data centre.

3.   **The FME System**

3.1   FME runs in the background transforming data from most databases within the council's data portfolio for use in other locations such as mapping layers, websites, dashboards, and reports. Currently we share floating licences with Canterbury City Council (CCC).

3.2   The software is used to put data into the mapping system, website and Power BI reporting software. Examples where the use of the software streamlined or improved a process are: Covid 19 data integration with Government/NHS and all internal data, Ukrainian refugee data, Planning weekly list replacement for the website, extraction of data from Planning system to present in the corporate mapping system, automating processes to load M3 with data from public forms, data manipulation for system migrations (Idox, Tascomi, M3) and linking to cloud hosted data via interfaces.

3.3   FME provides easy to create processes that can be created quickly as and when required, it is integral to all data migration projects where data needs to be prepared for new systems, it enables DDC to transform data as and when required as one offs and also as scheduled processes.

3.4   The current FME server is based in the Thanet datacentre, as more services move to cloud or Azure, FME will need to move away from Thanet so we are not crossing domains to access data.

3.5   This report is to approve a project to relocate the FME infrastructure to the Microsoft Azure cloud environment. The Council's extensive reliance upon the FME application

means that any decision to change solutions would be extremely complex and would take a year to plan and deliver.

3.6 The FME solution does have a fully featured SaaS offering, but the costings for this does not provide value for money.

3.7 We currently pay £3k per year for FME.

4. **Microsoft Azure Delivery**

4.1 Moving to Azure will bring the Council benefits such as improved security and Business Continuity due to resilience 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 The FME service can use the Azure subscription created as part of the Idox migration process (See Decision DD06 23).

5. **On Premise Delivery**

5.1 The option of moving the FME 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 Storage Area Network (SAN) 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 FME solution servers.

Description	Proposed £000
One-off Preparing Datacentre	10
VM Host Server Cluster (1 x servers and support)	25
SAN, FC Switches and Support	60
Server Licences	7
	£102,000

5.3 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 CRM solution. As this happens the large investment for an on-premise datacentre would quickly become underutilised, giving a poor return on investment. The cloud approach allows us to utilise the cloud infrastructure while we need it and scale down easily as modern solutions are developed.

5.4 The nature of the FME service accessing databases would mean additional complexity accessing data stored in multiple domains.

6. Identification of Options

6.1 Option1 – Do nothing.

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

6.3 Option 3 – Move FME to 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. 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 with a 3 year contract.

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 Current costs for the existing service include:

- Staff time – previously paid to East Kent Services as part of the ICT service costs;
- £3k pa FME licence fee;
- £25k three yearly server replacement cost;
- £7k three yearly Storage Area Network (SAN) costs.

8.3 There is an initial one-off cost for ROCK to complete the FME migration to Azure of £3,500 and Miso completing the software installation costing £1,200.

8.4 The initial monthly cost for running FME server in Azure is £450, this is an annual cost of £5,400. However, the cost will reduce over the first 3 months as the team work with ROCK to optimise the running of the server in Azure. At present the exact reduction cannot be calculated, and this will not be known until the server is relocated to Azure.

8.5 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 £4,000 based on optimisation estimations from ROCK.

8.6 In summary the 3-year forecast for the service is:

	Current £000	Proposed £000
Solution Running Cost	9	15
Server Replacement	25	0
SAN	7	0
Azure Cost	0	16

Migration to Azure	0	5
Total	41	36

8.7   The new proposal creates an ongoing revenue budget pressure of c.£7.3k per annum, but will reduce the need for future server and SAN charges. It is also considered that this is the most efficient route to meet the timescales to vacate TDC's datacentre.

8.8   Installation of the software and configuration of the firewalls would need involvement of the ICT department.

8.9   It should be noted that in the longer term, there will also be a reduction in the annual contributions to the Digital & ICT Equipment & Servers due to capital costs reducing for on premise hardware and licences.

9.   Climate Change and Environmental Implications

9.1   No comments received.

10.   Corporate Implications

10.1   Comment from the Director of Finance (linked to the MTFP): Accountancy have been consulted on the report and have no further comments to add. (AG)

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10.4   Other Officers (as appropriate):

11.   Appendices

None.

12.   Background Papers

Relevant papers on Digital Services files.

Contact Officer: Abi Robinson, Digital and Technology Manager