

Project Documentation

**PROJECT INITIATION DOCUMENT
(PID)**

Business Continuity Infrastructure

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Approved by:	<Name and date>

Document History

Revision Date	Version	Summary of Changes	Reviewer(s)
24.01.2019	0.1	Initial draft	JM
7.02.2019	0.2	Minor changes before wider circulation	

Consideration by the Corporate Improvement Team

Date	Reviewing Officer	Comments for Consideration
04/02/2019	A. Buckley	Reviewed, no comments.

Approvals

Name of person, group or committee
Joe Mildred
John Ward
Cabinet

Distribution

Name	Job Title
John Ward	Director for Corporate Services
Kevin Carter	CCS Divisional Manager
Warren Townsend	Health and Safety Manager

Glossary of Terms

EPH	East Pallant House
BCP	Business Continuity Plan
WAN	Wide Area Network
SAN	Storage Area Network
DR	Disaster Recovery
VPN	Virtual Private Network
GCSX	UK Government Connect Secure Extranet (<i>secure WAN</i>)
PSN	Public Services Network
ARP	Asset Replacement Programme
RAID	Risk – Assumption – Issue - Dependency

1. PURPOSE OF DOCUMENT

This Project Initiation Document (PID) defines the Business Continuity Infrastructure Project. It builds upon the Initial Project Proposal Document and sets out the aims of the project, why the project should go ahead, who is involved and their responsibilities.

This PID will provide the baseline for the project's management and for an assessment of its overall success.

2. PROJECT DESCRIPTION

'To build and commission an offsite disaster recovery solution for Chichester District Council's (CDC) Information, Communications & Technology (ICT) infrastructure. That will provide access to key systems in a business continuity scenario.'

Our project will deliver a major improvement in corporate operational capability and service resilience. Gained through the creation of a CDC 'cloud', and housing a fully functioning duplicate of the East Pallant House (EPH) ICT architecture. Providing, in the event of serious disruption to EPH, hosted system continuity and support as per corporate business continuity planning (BCP) expectations.

Leveraging the new West Sussex County wide area network (gigabit WAN) we will create a mirrored IT environment at the Westhampnett Depot. As our Disaster Recovery Site (DR) this is where we will conduct our regular system backups and hold dormant applications of all major programmes and systems. Ready, in the event of a major outage at EPH, to be brought out of suspension and provide IT support and enable continuity and service delivery.

3. BACKGROUND

Currently, in the event of a major disaster/incident destroying or rendering unusable/inaccessible the current (EPH) IT architecture, recovery of systems, services and technical functionality would require siting from a suitable location, purchase, build and configuration of new hardware, software and the establishment of new network connectivity.

With optimistic estimations ranging from 4 to 6 weeks for hardware purchase and delivery, and service restoration in weeks 7 to 8, the Business Continuity Infrastructure Project has been developed to mitigate these risks to an acceptable level.

Through the creation of an offsite back up facility, with the hosting and scalable capability to enable fast re-establishment of critical council services, we will increase corporate assurance, and service resilience whilst reducing risk to a manageable level - in essence through creation of a fully operational Chichester District Council - 'Cloud'.

4. PROJECT OBJECTIVES AND SUCCESS CRITERIA

4.1. Outputs

1. Storage Area Network (SAN) server replacement at EPH
2. Provision of server facility within Westhampnett depot (premises): including server cabinets, electrical, network, cooling, security, fire proofing and suppressant systems.
3. 'Kit out' of server facility: provision of network, storage area network, windows, oracle servers, telephony and backup infrastructure.
4. Replication of key council system codes/programmes (software).
5. Replication (backup) of data from the main data centre at EPH.
6. Connectivity and hardware to provide internet access, email and virtual private network (VPN) for essential users (design will include scalability options to enable the facility to be built up quickly to provide full operational capacity).

4.2. Outcomes

A new server located remotely from EPH, with appropriate cooling, security and power facilities from which ICT service will provide

1. Appropriate network, storage and server hardware and systems (to minimise impact on essential operations during a business continuity event).
2. Provide internet connectivity for hosted systems, email and telephony.
3. Ability to undertake (usual) off site backup and restoration of the council's data and systems.
4. Provide resiliency for key council systems in the event of a hardware failure.
5. The ability to scale the solution to allow for additional services and capacity in the event that longer running is required from the DR site.

4.3. Outcome Measures

Existing DR capacity is reliant on external variables: unknown nature of disaster; inability to anticipate accessibility of existing EPH infrastructure; unknown availability of replacement hardware; unknown location for constructing replacement hardware; quality control of existing 'tape' back up unverifiable.

Once our new server location has been commissioned we will;

1. Remove most DR unknowns. Regardless of 'physical' situation at EPH we will have capability to 'switch' instantly to our fail over site remotely.
2. In the event of a BCP emergency ICT service staff will be able to focus immediately on recovery of full system capability and supporting service continuity.
3. Remove the time required to replace and commission hardware: In the event of a disaster we will have a fully operational and available immediately, system capable of supporting the Corporate Business Continuity and Disaster Recovery Plans. Additionally the system will offer scalable options should the EPH infrastructure remains out of action in the medium to long term.
4. Quality control: back up will be faster and 100% verifiable, with the option of increased frequency (currently 'snapshots' taken daily, full back up weekly)

4.4. Dis-benefits

None

4.5. Out of Scope

1. Contact Centre Phone system and main external numbers: current DR arrangements have recently been successfully tested. We will consider improvements and options once the new server site has been commissioned.
2. UK Government Connect Secure Extranet (GCSX): connection is currently based at EPH. Central government are currently reviewing the future of both the GCSX and Public Services Network (PSN). Given the uncertainty, consideration of the new server options will be delayed until government have clarified the position / replacement of GCSX and PSN.

5. PROJECT CONSTRAINTS

Additional funding is required to deliver the proposed solution. Although we propose to make more efficient use of existing Asset Replacement Programme funding, an unavoidable shortfall has been identified. Due to the nature of the infrastructure requirements, it is not possible to scale down the proposals and obtain the same assurance.

6. PROJECT ASSUMPTIONS

1. The project is dependent on agreement to access ARP funds to replace end of life servers.
2. Corporate insurance company approval. We have approached Zurich and are currently waiting for their comments.
3. SAN replacement at EPH: the existing EPH SAN is due for replacement during the first half of 2019. Initially we considered the viability of using this as the basis of our backup solution. However, having now reached 'end-of-life' the model will not be supported beyond 2019.

Replacement of the EPH SAN will be necessary even if this project does not progress. However, as a major project dependency it has been included as a deliverable within the wider project plan.

4. Clarity/define essential users: we will require early confirmation of both the essential users and services that will be hosted on the fail-over server. Scoping of the users will be necessary in order to inform the accessibility options (specifically VPN/Wi-Fi) early in the project. An exercise in establishing this baseline is now underway and will be completed before this project commences.
5. Gigabit (West Sussex County WAN): delivery of this super-fast fibre network will provide greater capabilities in terms of user access and Wi-Fi options. Initially scoping of the business continuity project was undertaken before this opportunity arose. So, although a dependency, delivery of our project is not reliant on this capability. However, without the network the operational capacity and scale would be adversely impacted.

7. PROJECT COSTS

In arriving at our preferred solution we have considered a number of factors, consolidated a number of opportunities and leveraging greater corporate benefits than those achievable in isolation. Detailed costings have been undertaken to ensure that full benefit is made of a number of Asset Replacement Programme (ARP)

funding pools, and that greater efficiency is delivered through holistically reviewing our infrastructure as defined in the ICT and digital strategy.

Further SAN server replacement costs have substantially reduced over the past few years. We will explore the second hand server market, as there may be some value in our old SAN.

7.1. Project Delivery Costs

To deliver:

1. A replacement SAN server at EPH (this is now 'end-of-life'), and associated connections and oracle boxes.
2. Mirrored replication of EPH servers (1 above) plus connections, hosts and licences at the Westhampnett Depot.
3. New VPN infrastructure to support access to the new platform at the Depot.
4. Connectivity to the new West Sussex County WAN (gigabit).

Costs:

<u>IT Related</u>	<u>£</u>	<u>Building Related</u>	<u>£</u>
SAN Server	63,000	Building works	16,000
SAN Connectivity	20,000*	Generated supply & power works	45,000*
Sun Oracle Boxes	15,000*	Raised floor	2,000
Network Connectivity	40,000*	AC system	6,000
Sundries	25,000	Netbotz security	3,000
<i>(gigabit network cards, cables, cabinets)</i>		Roller shutters	1,800
Consultancy	25,000*	Fire suppressant	8,000
TOTAL:	188,000	Change over switch	5,000
		TOTAL:	86,800
<u>New Capital Requested:</u>	<u>88,000</u>	<u>New Capital Requested:</u>	<u>41,800</u>

(* propose funding from existing ARP capital provision)

7.2. On-going Costs Following Project Completion

Once operational, ongoing impacts on our revenue expenditure will be small are not expected to exceed the £10k as in the draft 19/20 budget, this will include any insurance implications, the additional internet connection for the Depot and minor costs. Economies of scale in terms of staff support, monitoring, licenses etc. will be achieved as a result of the mirrored site approach.

In terms of asset replacement, the current ARP server replacement budget would be sufficient to cover both sites – based on today's wholesale prices.

8. OPTIONS SUMMARY

Alternative options considered included:

1. West Sussex County Council:
Could we make use of County's DR solution?

- a. County use their own data centre (Power Place) which is managed by Capita. Data is backed up to County Hall North, Horsham.
- b. County's IT strategy is to move to cloud based operations.
- c. Power Place will no longer be required once (b) has concluded.

2. Arun:

Could we partner with Arun?

- a. Arun currently use Power Place (as above).
- b. Viability of Power Place will be questioned once County have affected their cloud strategy.
- c. They will require an alternative back up data centre and DR solution.

3. Cloud Solution:

Could a cloud solution work for us?

- a. Running council service applications from a separate cloud location (during a disaster recovery scenario) would require the purchase of duplicate software licences. Recent conversations with Northgate have confirmed this is the case. The last full assessment (undertaken 2017 by Accordant Solutions Ltd) reported that additional costs per year for moving to cloud solutions for just three of our key applications was:
 - i. Civica: additional £60,000 plus one off migration fee £15,000, on top of £15,000 annual licence fee. (additional £75,000 per year)
 - ii. Northgate: additional £120,000 per year licence fee
 - iii. Trent (HR): Additional £6,000 plus one off migration fee of £23,000, on top of annual licence of £28,000. .
- b. Staff access to cloud based applications would still need to route through a secure 'gateway'.
- c. We will still need a DR hosting solution for this platform.

4. Duplicate Server Site:

- a. Minimal difference in server specification between requirements (gateway or fully hosted) as per 3 (c).
- b. Future replacement could be funded from current ARP provision.
- c. Minimal disruption to IT service availability – switching between the two in seconds with little configuration changes.

9. PROJECT APPROACH

Project has been developed in house. It is a core deliverable highlighted in the new ICT & Digital Strategy.

It is a complex project with a number of external dependencies and stakeholders. A detailed project plan and Risks-Assumptions-Issues-Dependencies (RAID) log has been developed. Consultations with the stakeholder group have been ongoing, and a critical path has been defined.

Critical Path – Key Project Deliverables:

1. Depot Room
2. EPH Infrastructure (SAN)
3. BCP/DR Infrastructure (Back up, VPN, software)
4. Gigabit connectivity

5. User acceptance testing (UAT) & commissioned site

Project governance and delivery structure options have been developed:

Project Board / Sponsoring Group	Business Improvement Board
Senior Responsible Officer (SRO)	Joe Mildred
Project Manager	Andrew Forward
Project Delivery Team	Mike Cannings, Mike Noyce, Daniel Bramley

Stakeholders:

IT (Infrastructure)	Mike Noyce	Facilities Management	Roland Robinson
IT (Operations)	Mike Cannings	Emergency Planning	Michael Rowland
CCS – Depot	Kevin Carter	Health & Safety	Warren Townsend
Building Services	John Bacon	West Sussex WAN (Gigabit)	Sylva Andriova (WSCC)

Systems in Scope:

- | | |
|-------------------------------------|----------------------------------|
| 1. Civica (financial system) | 11. Exchange (email) |
| 2. Trent (HR & payroll) | 12. Express (elections) |
| 3. Capita–(back office cash system) | 13. ModernGov (Committee system) |
| 4. IDOX Uniform | 14. Car Parks |
| 5. Northgate | 15. Mapping (Astun) |
| 6. CRMDomain Controller | 16. Housing database |
| 7. Sophos (antivirus) | 17. Asset Inventory (TrackIT) |
| 8. Print servers | 18. Microsoft Office |
| 9. Departmental and Home drives | 19. Internet |
| 10. Web servers & iCM database | 20. VPN |

10. PROJECT PLAN

April 2019 – November 2019

Task No.	Task / milestone	Duration	Completion Date	Responsible Owner	Dependency
Stage 1	Depot Room (Network Configuration)				
1.0	Room prepared inc 1 st fix / 2 nd fix	4 weeks	0+6weeks	Roland Robinson	Approval
Stage 2	EPH & Depot Infrastructure (Server Room Built)				
2.0	Network Design	2 weeks	0+2weeks	Mike Noyce	Approval
2.1	Network Install (EPH)	1 week	0+2weeks	Mike Noyce	2.0
2.2	Network Install (DR Site)	2 Weeks	0+7weeks	Mike Noyce	2.0
Stage 3	EPH & Depot Infrastructure (SAN)				
3.0	SAN Replacement (EPH)	3 weeks	0+5 Weeks	Mike Cannings	Approval
3.1	SAN Install (DR)	2 weeks	0+7Weeks	Mike Cannings	3.0
3.2	SAN Install at	2days	0+10Weeks	Mike	1.0

	DR Site			Cannings	
3.3	Replication Test	3days	0+10Weeks	Mike Cannings	3.2
Stage 4	BCP/DR Infrastructure (VMWare Upgrade)				
4.0	Procure licences	2days	0+13Weeks	Mike Cannings	-
4.1	Install	1 Week	0+13Weeks	Mike Cannings	4.0
Stage 5	BCP/DR Infrastructure (Dell Citrix Host Upgrade)				
5.0	Install – Hosts (EPH)	2 Weeks	0+15Weeks	Mike Cannings	4.1
5.1	Install Host at DR Site	3 days	0+16Weeks	Mike Cannings	5.0
Stage 6	BCP/DR Infrastructure (Oracle Server Replacement)				
6.0	Oracle Server Install (EPH)	1 Week	0+18Weeks	Mike Noyce	-
6.1	Oracle Server Install (Depot)	1 Week	0+20Weeks	Mike Noyce	6.0
Stage 7	BCP/DR Infrastructure (VPN / WIFI / DMZ)				
7.0	DMZ - Network	3 Weeks	0+23Weeks	Mike Noyce	-
7.1	WiFi	2 Weeks	0+25Weeks	Mike Noyce	7.0
7.2	VPN	2 Weeks	0+27Weeks	Mike Noyce	7.1
7.3	Migrate users to new VPN Inc. 2FA	1 Week	0+30Weeks	Mike Noyce	7.2
Stage 8	BCP/DR Infrastructure (Backup Circuit Install*)				
8.0	Procure FTTC	1 Day		Mike Noyce	2.0
8.1	Install	1 Day		Mike Noyce	9.0
Stage 9	Gigabit Connectivity (Gigabit Install)				
9.0	Ground Works				
9.1	Commissioning Phase	1 Week	0+30Weeks?	Mike Noyce	8.0
9.2	Go Live (all sites)	1 Week	0+31Weeks?	Mike Noyce	8.1
Stage 10	UAT & Commissioned Site (Full Site Test)				
10.0	Test Shut down at EPH	1 Day	0+33 Weeks	Mike Cannings	8.1
10.1	Power up at Depot	1 Day	0+33 Weeks	Mike Cannings	10.1
10.2	Run UAT	1 Day	0+33 Weeks	Mike Cannings	10.2
10.3	Return to steady state	1 Day	0+33 Weeks	Mike Cannings	10.3
Stage 11	UAT & Commissioned Site (Sign Off)				
11.0	Evaluate UAT	1 Day	0+34 Weeks		10.3
11.1	Issue Complete Certificate	1 Day	0+34 Weeks		11.1

11. PROJECT TEAM

CF Section 9

12. COMMUNICATION

Project team meetings: Weekly / Monday morning
 SRO: Monthly 1:1's
 Performance/ Highlight Report: Monthly (Covalent)
 Project Board: Quarterly (exception)

13. RISK LOG

The following risks have been identified together with an assessment of their severity and actions that can be taken to mitigate/reduce the risk. Details of all project risks will be recorded as and when they are identified.

Risk No	Risk Description	Likelihood Unlikely Possible Probable Certain	Impact Minor Significant Serious Major	Planned Actions to Reduce Risk	Responsible Officer
01	Resources: that 'people' and time resourcing is sufficient to deliver the project to specification and on time.	Possible	Significant	Undertake weekly project and ICT service workload prioritisation reviews – being better informed aids proactive management and reduces impact of conflicting prioritisations.	A Forward
02	Finances: insufficient funding to deliver project to desired quality standards – compromised outcomes as a result of financial restraints.	Possible	Significant	Detailed costings undertaken as part of business case development. Ongoing budget management as a key project deliverable – weekly checked.	A Forward
03	West Sussex County WAN: the gigabit project fails to deliver a full fibre network (linking EPH and Depot)	Unlikely	Serious	Continue to monitor project delivery (as a stakeholder attend regular update meeting).	A Forward