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| **Situation/Obstacles** | **Obstacles** | **Action** | **Result** | **Skill/Competence** |
| Data minimisation for GDPR - CSG | | | | |
| GDPR legislation came into effect on 25th May. Needed to remove data from data warehouse and two data marts.  Needed to change how data was held in data warehouse so reflected retention policy applied to source systems. | Fundamental change to how the data warehouse stored data.  Requirements changed during development.  Unrealistic deadline originally applied.  Certain data had to be retained.  Full impact analysis required.  Test resource was not available for later parts of project | Worked with contractor to convert requirements into a design for the removal of data from warehouse and data marts.  Established design for putting data back in as required.  Established design for removing data not in source.  Worked with contractor to develop suite of reports for impact analysis.  Worked with contractor/dev team to implement design.  Reported progress to GDPR program manager.  Managed expectation of senior management as to when activity would be complete.  Deployed data minimisation over a number of phases.  Worked with project manager to define run-book for each phase.  Managed release and rollback strategy.  Worked during weekends as necessary. | Final phase of data minimisation went live November 2018.  No unexpected impact on end-users.  Data we were legally obliged to retain was reloaded. | * Solution design * Stakeholder management * Management of dev, test and contractor resource * Release and rollback management * Testing and QA responsibility * Commitment to delivery * SQL/T-SQL |
| Define and implement development workflow and Git flow for big data analytics platform - CSG | | | | |
| Analytics platform came out of initial build and into BAU. Required a development process to be defined and implemented. Required a Git branching strategy | Development environments were being used by multiple developers resulting in them blocking each other.  Development process need to fit into Agile process.  Technology was unfamiliar (HPCC) | Worked with DevOps resource to implement virtualised development environments.  Consulted with developers to understand current development process.  Consulted with SME about agile process.  Consulted with SME and other resource about standard Git process.  Designed development process based on standard software life cycle.  Designed git branching strategy  Documented in Visio.  Implemented as Jira workflow.  Communicated workflow to dev team.  Attended daily scrums to ensure development workflow was being followed.  Deputised scrum-master. | Workflow as being followed.  Eventually had virtualised development environment. | * Knowledge of agile process * Knowledge of the use of Git * Knowledge of types of testing and environments they are applied to * Setting up Jira workflow * Setting up Jira reports to monitor workflow * Utilise SME when needed |
| On-board HPCC developers -CSG | | | | |
| During initial build of analytics platform, additional resource was required as short notice. | Technology was unfamiliar (HPCC.)  Very short notice. | Established that current off-shore supplier (Merit) could provide HPCC developers.  Investigated alternative supplier.  Negotiated terms based on requirements from technical lead and obtained sign-off.  Created exercises that tested developers’ abilities and administered tests.  Set up infrastructure to allow off-shore developers to work within our network.  Insured other developers shared working practices/documentation.  Insured they were set up on Skype for Business so could attend daily scrums  Once working, monitored performance and ensured they were being fully utilised. | Positive feedback on the quality of the developers work.  Because of developers, the project delivered on-time. | * On-boarding of off-shore development resource |
| Create etouches data mart and integrate into data warehouse - CSG | | | | |
| New events platform was purchased that required integrating into data warehouse | Short notice of requirement.  Limitation of underlying data model did not allow key requirement to be met in straight-forward way. | Established requirements scope with BA.  Communicated scope with stakeholders.  Established timelines with project manager.  Understood etouches data model and used to create preliminary schema for data mart.  Created brief for off-shore supplier (Merit) for integration work (required web-developer resource.)  Established what would be delivered, negotiated terms and obtained sign-off.  Set up infrastructure to allow developer to work within our network.  Once delivered, managed testing and deployment of development.  Wrote mapping document from datamart to data warehouse.  Briefed in work to database developers.  Managed development, testing and deployment of work. | Etouches data mart went live to deadline. | * Data modelling * Managing dev team * Stakeholder management * Creating technical briefs * Resource planning |
| Create continuous delivery workflow for data warehouse - Unemployed | | | | |
| Release to the data warehouse were infrequent because they came with a large overhead. Features were released later than they could have been.  Also, testing was manual and was not always performed fully. | Requires change in culture within Operations team to allow dev teams to deploy to live.  Requires adoption by dev teams of object-based scripting which is more robust but more time consuming. | Created standards for development (eg object-based, JiraID tags.)  Created development workflow that covers process from an item being ready for development to deployment to live.  Created a PowerShell script to execute a build.  Created a PowerShell script to pull a Git branch.  Created Gitflow diagram.  Created Jira workflow |  | * GitBash * Powershell * GitHub * Jira workflow |
| Create technical design for Alteryx project - CSG | | | | |
| This project involved creating an Alteryx workflow that loaded data from the data warehouse to Eloqua. The project was in the build phase but it had been left to the developer to interpret requirements which had been done incorrectly. A technical design was required to show the developer how to build the Alteryx workflow | The project was already overdue so this had to be done as quickly as possible. It was on hold until it had been completed. | Understood requirements.  Feedback into requirements where they were unclear.  Interpreted requirements into a serious of data sets. Each data set had a logic and criteria for its creation. Actual SQL could be supplied in some cases. Each data set had its own acceptance criteria. Data sets built on each other.  Documented design in Visio and Excel.  Briefed design to developers and testers.  In some cases, actually tested the data set.  Was available for any questions during build. | Project was able to progress with requirements being met. | * Ability to translate requirements into a data model * Test-driven approach to technical design |
| Created Jira project - Marketing | | | | |
| No system in place for managing development or support tasks relating to data warehouse. Still used physical board which couldn’t be used once on-line developers were being used. | No one else had used Jira in Marketing. Got limited support from CSG. | Requested instance  Created project  Created dashboard  Arranged for all issues to be added into backlog  Defined status, epics, additional fields  Defined workflow  Created sprints  Created reports as required | Dev team were using Jira every day and was used in daily scrum | * Jira administration * Jira workflow * Development workflow |
| Created generic load solution – Marketing | | | | |
| There was a requirement to create a solution for loading data into the data warehouse that was not source specific. Any third-party or internal source that required data to be in the data warehouse could provide files in a particular format and followed certain rules. |  | Designed solution including control structure for SSIS load.  Developed an SSIS package that would loop through sources and load if correct, otherwise would log error.  Tested SSIS.  Created user-documentation (aimed at technical user) including tailored version for individual sources.  Briefed into third-parties as required. | Solution implemented successfully.  Continued to be used right to the end (new sources were being integrated as Diamond was being replaced.) | * Testing/QA * Solution design * User documentation * SSIS * SQL/T-SQL |
| Integration into Qualtrics - Marketing | | | | |
| There was a requirement to integrate the data warehouse into Qualtrics (third-party survey tool) | Requirement was complex. Required integration via API and so need architecture input.  Very engaged stakeholders | Created solution design that ensure the criteria of the feed could be changed without development.  Managed resource to develop API integration.  Performed SSIS and SQL Server development.  Managed expectations of stakeholders as development dead-line couldn’t be met (met them most days.) | Solution went live | * Stakeholder management * SSIS development * SQL/T-SQL * Solution Design * Able to implement strategic solution (could anticipate that audience criteria would change and hard-coding this would not be a long-term solution.) |
| Development of data warehouse - Marketing | | | | |
| There was an existing data-warehouse that was developed in Oracle and managed by a third-party. There was a requirement to redevelop this in SQL Server with much more enhanced capabilities. | No experience of SQL. No development process at all. No BA, no tester, nothing. The current front-end tool had to continue to work with the database. | Interpreted requirements from Marketing stakeholders.  Defined overall design (ETL\_Staging, Consolidated, Presentation)  Worked with DBA to define Consolidated schema.  Came up with schema for “Presentation” layer that would work with Set Analysis.  Did most SSIS/SQL Development work.  Hired and managed contractors as required.  Managed installation and configuration of Set Analysis (BOBJ tool.)  Defined “universe” for Set Analysis to use |  | * Solution design * Requirements gathering * Knowledge of principles of relational databases * Knowledge of normalisation/de-normalisation * Experience of configuring Set Analysis/Business Object * SSIS development * SQL/T-SQL |
| Development of integration from Salesforce | | | | |
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| Defined load-dashboard | | | | |
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