Metrics Case Study: Introduction of Configuration Management Database to IT Hosting

How the implementation of a basic CMDB of applications and services delivered value to an IT Hosting organisation.

The Challenge

The client company is a hugely successful Business Process Outsourcer employing in excess of 3,500 people, mainly in the UK, Germany and India.

It's phenomenal growth through mergers, acquisitions and partnerships had resulted in the inheritance and absorption of a mix of Information Systems, including Mainframe, AS/400, Unix and Windows machines, scattered between multiple data centres, each subject to historical local management control.

Consequently, there was no centralised record of what systems were in existence, and what applications and services they provide. The poorly documented federated approach resulted in a number of shortcomings, including:

- Inconsistent management controls of systems and data centres.
- Inadequate understanding of which how applications and business services were architected and which hardware components were required to support them.
- Lack of a high-level Impact Analysis of which business services would be impacted by a hardware maintenance, upgrade or unplanned outage. This was compounded by the fact that some business services utilised hardware and connectivity across multiple physical locations.

In addition, processes such as Incident Management and Change / Release Management needed to have this information in order to facilitate their smooth running.

Our Involvement

Dennis Adams Associates proposed the creation of a small-scale Configuration Management Database (CMDB), to hold the definitive list of all Applications, Servers and other equipment that were required to support each Application or Business Service.

At the same time, it was proposed to use an in-house centralised document storage area to hold Application documentation, and provide a central reference point for all applications. This store would be used by Client/Account Managers, Support teams and by the Service Desk to enable them to allocate Incidents to the appropriate resolving team.

We proposed to ensure that the CMDB and document store would be maintained up-to-date by putting in place processes that interfaced with the client's current working practices.

Approach

As the client already had a set of spreadsheets that contained some of the hardware information, these were used as the starting point for the data collection.

Although the CMDB was relatively modest in terms of it's content, it was essential to take a systematic, structured approach. Each category of data that was collected was initially retained in spreadsheets, and appropriate processes were implemented to ensure that the

data was "locked-in", and that it would continue to be updated following subsequent hardware or configuration changes.

The project therefore progressed as a series of stages, each of which consisted of:

- Review of current data for the category in question.
- Full data collection.
- Compilation into a standardised format, suitable for loading into a database.
- Validation by other parties within the organisation.
- Creation of processes to control future changes to this category of data.
- Publication and Deployment of these processes.

The target CMDB, which was developed in-house, included hardware & system information, system functions and roles, mappings of applications to systems, monitoring and backup status, as well as links to the client's core Financials system.

Benefits

The introduction of a CMDB and the necessary processes to ensure that it was maintained up-to-date, resulted in a number of clear benefits for the client:

- Introduction of a consistent, cross-corporate set of processes and procedures to standardise the management of systems and data centres.
- The CMDB provided the basis for a "baseline" configuration of hardware and technologies, which could be used by architects to design proposed solutions that were consistent with existing technologies.
- A reduction in the time needed to make appropriate impact analysis of the effect of proposed Changes. This was an essential pre-requisite to ensuring that the Change Management process ran smoothly.
- A significant input to the Availability Management and Service Continuity Management functions, since systems documentation was readily available.
- Allocation of Incidents, particularly major incidents, to the appropriate resolving group, and the appropriate prioritisation of resolving actions, led to an improvement in the Major Incident Management process.

Shortly after the information was captured, the company experienced a major power outage that brought down one entire data centre over a weekend.

They needed to restart all the servers in a controlled, prioritised way. Some of these hosted mission-critical applications. Others were only required at periodic intervals (eg at the end of the month), or had backup systems. What was needed was a means of prioritising the start-up work.

In a matter of minutes, an extract from the database was able to provide sufficient information to enable the company to appropriately prioritise this work, and minimise the financial loss that would be incurred by not having systems available when they were needed. This one incident alone was considered to have justified the expenditure on creating the CMDB.

Further Information

Dennis Adams Associates does not disclose any client names, details, or any commercially sensitive data with third parties.

For further enquiries, please contact us via our web site at **http://www.dennisadams.co.uk** or email to **info@dennisadams.co.uk**.