UCISA ITIL Case Study on the University of Birmingham

1. Introduction

The University of Birmingham is a research and educational institution with approximately 30,000 students, including overseas students and approximately 6,000 staff. There are a number of additional users, which brings the total users to be supported in the region of 45,000.

In August 2008, the University of Birmingham moved to a new academic structure. There are now five colleges, each of which is divided into a number of Schools. Corporate Services have been realigned with Colleges to provide a unified administration. Central IT Services and the devolved IT support in the Colleges work together in close partnership. This new structure will allow a considerable amount of standardisation across the whole University – this includes use of the Service Management tool and the ITIL processes.

IT Services is responsible for development of strategies, policies and standards covering the future development and usage of IT within the University.

2. Using ITIL

In 2004, as part of a broader initiative, the post of Head of Quality was created to drive forward quality improvement within IT. The case was made to align IT service delivery with ITIL, so version 2 was adopted at that time and a number of projects were launched.

The original drivers for choosing ITIL were:

- To manage major incidents
- Implement change control/change management
- Using an existing recognised quality framework (not re-inventing the wheel)
- Introduction of a customer focussed service culture and to increase staff awareness of service management
- Using a common language

The ITIL implementation/review did not start with the Service Desk because at the time the Help Desk was not managed by IT Services. A new call logging tool had been purchased in 2003, and a centralised Help Desk established for IT queries. Incident management was working satisfactorily and was not a focus for immediate improvement.

Factors which led to its success and ongoing use:

- commitment of funding for ITIL training so that IT staff could see that it made sense, was what they do already, but provided an overall context and framework
- dedicated post of Head of Quality – someone there to progress ITIL so it didn’t stop once the major incidents and change projects were completed
- identifying champions to help push ITIL forward

ITIL specific roles are not in place other than Head of Quality. IT Services is organised into functional teams, with ITIL processes cutting across all teams.

IT Services is committed to ITIL and as a result of the benefits seen has now procured a service management software package to integrate and underpin the ITIL processes. This forms the basis of a broader quality initiative with the focus to regroup on ITIL version 3.
The drivers for ITIL now are:

- Delivery of cost effective services
- Alignment with business requirements
- Focus on customer service
- Using an existing recognised quality framework (not re-inventing the wheel)
- Maintaining and improving the service culture
- Process improvement

3. The service life cycle – service strategy

Governance and strategic direction

There are two high level University committees which perform governance to which IT Services report; these are the Business Systems and Strategy Group and the Estates and Infrastructure Strategy Group. These groups approve all major projects.

Service portfolio management and project management

There is a Project Office which has been in place since 2005.

There are two project registers – for the two different committees with the University (the Business Systems and Strategy Group and the Estates and Infrastructure Group). In 2005, a Project Coordination Group within IT Services was created to review the status of all the projects across both areas, deal with issues and ensure that adequate resources are available to meet all project demands.

There are also some IT projects undertaken which are controlled within IT under the IT Director. These are more IT centric projects – server replacements etc.

Project management is based on PRINCE2 methodology, with a Lite version for smaller scale projects.

Project management training has been provided for all IT staff involved in projects. This has been undertaken in house by the Project Office staff. Key project managers have also undertaken formal certification (PRINCE2 Foundation and Practitioner).

Communications

Internally within the University, IT Services places articles in the University magazine and staff e-newsletter about successes and new projects/services.

An Essential Guide to Services booklet is provided for new students.

General communications with Users are predominantly via email, digital signage, specific intranet pages and the Portal, notice boards and meetings.

Notification of service status and outages is provided via the status web page, help desk telephone system and mailing lists to key users for cascade within departments.

4. The service life cycle – service design

Service catalogue management

There is a service catalogue in place, which is available on the IT Services’ site.

There are currently 27 services that are at university level, which is the business view of the service catalogue – and these are all individually supported by a number of technical services which form the technical view of the service catalogue.

The service catalogue is being enhanced with the implementation of the new service management tool to identify business service owners and present different views from the user perspective, e.g. staff, student, end to end service views across the business will support the incident management process within the service management tool.
Business relationship management/service level management

The role

Business relationship management is carried out through sub-groups of the two main university IT committees. These groups are concerned with projects for developing new services or major service enhancements to central IT systems.

IT Services has an IT Manager in each College and business relationship management is their responsibility. They are the primary contact for the Schools to establish strategic and tactical plans for IT service delivery within each College.

IT Services are continuing to develop the relationships with Colleges, and as the new structure has only been in place for a year, it is planned to continue to develop the evolving business relationship management process.

The IT Services Facilities Management Team, which supports high performance computing undertakes the business relationship management role with researchers in the Colleges directly.

The process and documents

Service Level Agreements are not currently used within the University. Some SLAs exist with peripheral groups who use university IT services.

Measuring service

KPIs and metrics are in place and are constantly monitored and measured. These are based predominantly on IT metrics for example, availability.

Service Desk measures are in place for each interaction with the Help Desk.

The Help Desk undertakes a customer satisfaction survey at call resolution, which achieves a 6% response rate and averages a 95% rating of the service as good or excellent. For other customer feedback IT Services relies on university level student satisfaction surveys.

Capacity management

Capacity management is an emerging process. There is capacity planning at a component level, which is operationally focused but the tactical and strategic capacity planning is not being carried out at the moment.

Availability management

Availability was a particular concern in 2004/05 as high availability was required – in some instances 24/7. Out of hours support, in particular for major incidents is provided by an external help desk.

There was significant investment in resilience, monitoring tools and training which have assisted in ensuring an increase in the availability of services. These activities have changed from being predominantly reactive to more proactive, with threshold alerts allowing IT staff to take action to prevent service outages occurring.

Availability is also regularly reviewed as part of major incident reviews.

Information security management

ISO 27001 is used as a basis for security management, although the University are not pursuing accreditation at this stage. A small amount of consultancy and the UCISA Information Security Toolkit have been used, as appropriate, to support the implementation of IT security management.

There is a Senior Information Security Strategy Group in place, which reports to the Estates and Infrastructure Services Group. This group sign off the policies and the codes of practice and, more recently, has extended its remit to include IT service continuity.

IT security and IT information security management are implemented processes and there is commitment to further work in both areas.
**IT service continuity management**

This process is more mature than availability and capacity.

Over 30 workshops were held with IT Services technical staff, and some consultancy work involving business owners in 2005, to look at all aspects of IT service continuity management and to understand the criticality of individual services and the requirements for recovery.

Investment has been made in IT service continuity and a five year resilience programme is in place to support the agreed strategy. This programme is ahead of plan. This investment has also meant investing in availability and capacity to support the overall IT service continuity plan.

**Supplier management**

Supplier management as a process sits with Procurement. The University has a Procurement Office as part of the Finance Department. They produce guidelines and procedures that have to be followed to select suppliers, including preferred suppliers and framework agreements. IT Services follow these practices. IT Services will also take part in supplier reviews that will be managed through Procurement.

Relationships with the suppliers are managed more locally within IT Services for day to day contact and resolution of issues.

**5. The service life cycle – service transition**

**Change management**

The Head of Quality currently owns the process of major incidents, change management and configuration management.

Major, minor, standard and emergency changes have been defined and documented.

A pilot Configuration Management Database (CMDB) for equipment located in the two main Data Centres was developed with an associated mechanism for submitting requests for change in 2005.

A scheduled weekly Change Advisory Board (CAB) meeting is well established to review and schedule changes. There is a forward schedule of change in place.

**Release management**

Release is not fully defined and managed as a separate process but overlaps with project management.

Some work has been done to identify the links between projects and release management and a separate checklist developed for IT project managers. This identifies all the areas that need to be considered when undertaking an IT project and flags when project managers should submit requests for change, e.g. to request space for equipment in the Data Centre, to notify the CAB when a new service is to go live.

**Configuration management**

The development of the pilot CMDB allowed the identification of requirements for a full CMDB and will enable integration with other ITIL processes within the new service management tool and to expand the scope, e.g. to include applications, PCs.

**6. The service life cycle – service operation**

**The Service Desk**

The term Help Desk is still in place, but this will be changing to Service Desk, as part of the implementation of the new Service Desk tool.

The current Help Desk is the single point of contact for the support of the central IT services and is organised into two tiers. If the first tier on the Help Desk cannot resolve the user’s issue within five minutes it is passed across to the second tier on the Help Desk. This improves the response rate on the phones and allows second line support to concentrate on the more difficult problems. There are a number of additional Service Desk tools, which have improved the quality of the service provided, including ACD call management and remote access software.
Following the University reorganisation, the Help Desk software was rolled out across the Colleges. Not all of the local College IT teams are using the same application, but the goal is to achieve this once the new Service Desk tool is implemented in 2010.

The Help Desk does take calls and log incidents for the College IT teams, providing two different levels of service. Calls are triaged and resolved by the Help Desk, but for some teams all calls are passed directly to the College IT teams for resolution.

The Help Desk hours are Monday–Friday 08.00–09.30, Saturday 09.00–19.00 and Sunday 10.00–18.00. In the past, the Help Desk was open until midnight, but there were not enough calls to warrant this service. The resource has been reallocated to busier peaks during the day.

Staffing is: one Service Desk Manager; two Deputy Managers; four first line; five second line Service Desk Analysts.

Twelve casual staff work the out of hours shifts and weekends to provide Service Desk activities and additional cover over exam periods, accounting for 1.5 FTE staff.

In addition, there is a Web Registration Help Line between July and November. This is manned by four additional casual staff and takes on average 7,000 calls (web and phone).

The distinction between incidents and problems is understood, but there is no problem management process at the moment.

In 2006, one major objective was achieved: to shift the way the majority of calls were logged from email to web self service. Today over 50% of all call logging is done by the users via the web, and under 3% by email.

**Incident management**

Managing major incidents was one of the original drivers for ITIL being introduced in 2004.

IT Services uses an impact algorithm that is used to calculate tangible impact to the University for all major incidents.

Day to day incident management is the responsibility of the Help Desk Manager. This process is well established and understood. Call categorisation is being redefined to align with the requirements of problem identification and greater clarity to distinguish between faults and requests is being implemented.

**Problem management**

Problem management is undertaken by individual service managers but is not supported by the current Help Desk software. Root cause analysis of major incidents is taking place.

**Access management**

There are mature processes and procedures in place for: access control and management; password usage and management; and remote access.

7. The service life cycle – continual service improvement

The quality comments that are included as feedback from incidents that have been closed are included in the monthly management report.

Feedback is mainly from the annual University Survey and the National Students Survey. Surveys are coordinated by the Marketing Department to regulate the number taking place and the timing of surveys.

There is a requirement from the new service management software to be able to do follow up on an individual release or project for a short period of time – to allow review and comparison to contribute to ongoing service improvement.

**8. Service management software**

E-Service Desk from ICCM is the application currently being used. This has been in place for approximately six years.

It was chosen based on the fact that it could do work flow and could accommodate the additional requirement of AV and equipment bookings and laptop loans. The call logging was already in the product, but over the six years there has been a great deal of customisation, which means the tool needs considerable internal support. It is also not possible to easily upgrade this customised version.

Service request fulfilment aspects of the functionality are being used and the associated workflows are in place. There is no knowledge base currently being used.
The current number of users of E-Service Desk is 215 (this is on a named licence basis) and the product has done the job until now. However, a procurement project has taken place and a new product has been chosen and will be implemented for February 2010. The new product will be Service-Now.

**Recommendations on purchasing a software tool**

- Spend time assessing and documenting your requirements
- Web based and platform independent – if you are looking at a product to fit all parts of the University
- Make sure that the product is an integrated service management tool and ITIL V3 compliant
- Configurable not customisable so you can focus on improving services, not maintaining the system

**9. ITIL development and qualifications**

In 2006, training was put in place at Foundation Level for ITIL v2 to understand the language and to use this training as an opportunity to plan the direction for ITIL in the University of Birmingham.

This first course was provided on site and was attended by IT staff from a number of different areas. Since then, approximately 90 staff have been through this training. Two people have also completed the v2 Manager’s course.

Since this original course, there is now always a waiting list for the ITIL training, and training now includes staff from a number of other areas, including IT departments from the Colleges, Finance and the Library, and is carried out at Foundation level under v3 of ITIL.

There have also been a number of one day overviews with HP Race for Results – the service management simulation F1 Racing game and the Quanta Apollo Service Management game. This has been a far more successful introduction to ITIL and service management than death by PowerPoint.

The ITIL training has been carried out by a number of companies including: Fox IT, Quanta and Remarc.

**10. ITIL conclusions and recommendations**

The University of Birmingham would recommend ITIL as a service management framework based on:

- ITIL has enabled IT to become recognised as a service organisation and has contributed to its professionalism
- The framework allows you to adopt and adapt – it doesn’t expect one size to fit all
- It’s good/best practice – how can you not want to do that?

**11. ITIL lessons learned**

- Simulation overviews rather than death by PowerPoint when starting out – much more successful at winning over reluctant staff.
- Need training to be done by individuals that have lived ITIL – makes it relevant and not just another management initiative.
- Be prepared to follow up training by selling the benefits to every individual, day in, day out, to change the culture.
- You can’t start with the tool – you don’t know what you need at the outset and can’t define a detailed specification of requirements.
- Go for hearts and minds first and win over some champions to help you.
- Start with the processes that are the problems/pressure points within your own institution – it’s a quick win as people will see the benefits and you can build on those.

**12. Significant areas of experience**

- Major incident management – impact algorithm
- Service management tool selection
13. Contact information

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1 Subjective rather than objective assessment.