**Cloudbusting UWL’s Library Management System**

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**Background**

The University of West London (UWL) Library Services uses a Library Management System (LMS) from Capita called Alto. This is a core system underpinning key Library operations with various supporting modules. The key functions include:

* Library catalogue for locating items with user account functionality (Prism)
* Circulation control of physical stock, including handing of reservation and charges
* Acquiring, accessioning and cataloguing physical items, including ordering, invoicing and bookfund management
* Interlibrary loan handling
* Library metadata exchange with other Library/University systems: Talis Aspire (Reading Lists); Summon (Library search); 3M self-service kiosks; Portal etc

There are c.50 other universities using the Capita system in the UK with another 50 public library authorities. The UWL implementation dates back to its pre-Thames Valley University days when the then Ealing College of Higher Education procured the BLCMP Integrated Library System which ultimately became Talis Alto then Capita Alto.

**Issues**

1. Back in early 2014, Alto was running on life-expired physical servers (with nearly full disk space) in a difficult to access server room in the middle of new campus building works. The system was at high risk of terminal (sic) failure if hardware problems occurred. Data backup and recovery was not guaranteed in the event of server failure.
2. IT Services new IT Strategy would require the decommissioning of these servers anyway as part of their datacentre project to reduce the number of physical servers they needed to support locally on campus in favour of hosted solutions.
3. Library Services was paying a considerable annual maintenance bill which was not deemed to be representing value for money at the time, especially in comparison with different LMS maintenance charges at previous institutions at which the Director had worked.
4. The LMS agreement at the time did not include the flex for additional modules that we would need to support our future plans, e.g. book sorter in our new Library space. More importantly, such modules were also dependent on the infrastructure issues above being addressed and the latest version of the system installed.
5. A further constraint was that there was not the staff resource available in 2014 (whether in the Library or IT Services) to commit to a major LMS change project, even presuming that the current set-up could last a while longer.

**Strategic options**

There were various standard options identified for a way forwards:

1. migrate current system to a new local physical server
2. migrate current system to a new local virtual server
3. migrate and upgrade system to an externally-hosted physical or virtual server
4. migrate and upgrade system to a Software as a Service (SaaS) or managed service
5. take the opportunity to procure a new LMS using a variant of the one of the options above

**Justification**

After various consultations with the supplier and internal stakeholders around resource availability, priorities, timings and technical feasibility, a pragmatic decision emerged in favour of a cloud-based solution. Given that:

* the current LMS software was broadly meeting UWL needs
* the supplier could offer different delivery options (hosted and managed LMS service options) that fit in with the new IT Strategy’s approach to hardware infrastructure
* there were additional modules available that could help Library Services deliver benefits in future
* the disruption and expense of a new LMS implementation project was not feasible at this time given other priorities
* the new system could be built in parallel to the old one as ‘a greenfield server’ and data migrated across minimising downtime
* the LMS market was (and still is) in a transitory state as new web scale systems are being developed and shared service operations being tested – there was therefore some value in making the best of our current set-up and waiting for first and more heavily-resourced first-movers to resolve the problems with the next-gen systems on our behalf!
* UWL could realise cost savings by changing hosting method;

it was proposed to the formal IT Project committee that, subject to final technical approval by IT Services, Library Services should migrate and upgrade to the Capita Chorus (externally hosted version of Alto) and take advantage of the Capita Managed Service at the same time to outsource most major server administration work.

Depending on IT resource availability, it was preferable to try and make this change in the June to August 2014 vacation window from a student experience perspective as it minimised disruption during term time and also offered a chance of epayments being ready for the new session in September 2014, including at our Reading site which was being upgrade to be a full site library. There were also strategic staffing reasons for completing the move before the end of August. All the above was accepted and the decision approved.

**Review**

So nearly 12 months since the original proposal was made and green-lit and five months since the main transition was completed, how did the LMS project go?

Positives

* The upgrade itself went smoothly, even using the old server infrastructure.
* There was minimal loss of access (half a day?) for end users whilst the switch to the cloud was happening
* The servers had failed in the run up to the migration necessitating the short-term renewal of Oracle server support agreements for the problem to be identified and fixed – this further vindicated the decision adopted with a 99.8% up time since the upgrade and server hosting outsourcing.
* New modules were available quickly which fitted in with other work
* We were able to get better VFM from our new agreement very quickly
* Supplier project management helped reduce the overhead for IT Services’ project team

Negatives

* We have experienced some local problems with rolling out the VPN tunnel (which enables local staff PCs to connect to the remote server hosted by Capita securely) and associated client configurations on Library staff PCs using a packaged software approach, either due to network timeouts or system configuration privilege issues on host PCs. But these were resolvable.
* It became apparent that libraries still need some form of dedicated systems resource even when paying for a combination of external hosting and managed services to provide the local first point of contact with the supplier, monitor progress on outstanding calls logged, serve as a source of local knowledge and also to serve as a honest broker between various internal agencies and the LMS provider. A delay in recruiting such resource has meant that some new modules have not yet been able to be implemented and old inefficient processes and workflows having to remain in place.
* Our respective legal teams are still finalising the contract!
* Misunderstanding around the pricing of the new setup meant that any savings from the new setup were not as great as originally understood but nevertheless VFM calculations still made it a “no brainer” given the constraints.
* Additional needs emerged as the implementation progressed and the extent of local scripted workarounds to known legacy system limitations emerged. Some of these could be solved by taking advantage of new functionality in the upgraded system (e.g. user notifications), others required additional paid-for modules– e.g. for management information and reporting..
* The short timeframe meant that there was little time to resolve internal differences of opinion around PCI compliance for e-payments which has delayed roll-out of this module

**Conclusions**

Every LMS implementation is unique to each individual institution even when using supposedly standard systems. This means that it may be difficult to draw conclusions of value to others from this particular project.

Nonetheless, it is fair to say that the trend (whether from a Library or IT Services perspective) is definitely towards externally hosted or true SaaS systems. The UWL experience shows that an LMS migration project is best regarded as a change management or business process review project that will surface all the legacy data and other issues that have been circumvented or ignored in the past (in much the same way that discovery systems highlighted metadata issues in OPACs) rather than a pure technical implementation.

Such projects are therefore best phased carefully to allow time and energy to be devoted on ensuring key priority functions are working efficiently and effectively without false expectations of leveraging significant initial staff or financial savings being raised with senior management. As always, getting internal stakeholders on board as early as possible can help avoid (but not avoid completely) tricky technical issues at a later stage.

Ultimately this kind of project is a natural evolution towards a full-scale rethink of the library systems environment at UWL in a few year’s time when the fun will begin again with a full-blown tender, who knows as part of some regional consortium or cooperative like the original BCLMP all those years ago!

*Ooh, I just know that  
Something good is going to happen  
I don't know when  
But just saying it could even make it happen[[1]](#footnote-1)*

1. Extract of lyrics from ‘Cloudbusting’, written by Kate Bush. **Published by**  Sony/ATV Music Publishing LLC.  
    [↑](#footnote-ref-1)