

TTU010 : Timetabling Service- Scientia Upgrade - Project Brief

Project Brief

This project will upgrade UoE environments DEV , TEST, TRN and LIVE to the latest release of Scientia Enterprise (currently v3.10) – v3.12 has been released in March 2015.

Scientia do not normally provide patches to an existing version of their software so upgrading the current environment will allow the university to take advantage of bug fixes applied since 3.10 was released. New functionality supplied in the new version will be assessed and any performance improvements measured.

Although the end of support for 3.10 has not yet been announced, upgrading to the new environment in good time will ensure that support for the current timetabling system will be guaranteed further into the future.

1. Overview

1.1 Background

The Timetabling service is delivered via a number of applications and interfaces. There are a number of applications that are delivered by our third party supplier (Scientia Ltd). Scientia release upgrades to the core applications each year. The current service is based on 3.10 and this will be replaced by a service based on 3.12

Rather than upgrade *in situ*, the project will use the upgrade plan and approach delivered by [TTU009](#), and will build a suite of [parallell environments](#) which will replace the existing 3.10 DEV,TEST, LIVE and TRN environments.

The new environments will have the additional benefit of being based on Windows 2012 and will have applied SQLserver 2014, as currently used by Scientia in their development environments.

The first stage of the project will build the new 3.12 DEV environment which the Timetabling team will test to confirm that the business wishes to proceed with the upgrade to 3.12. The project will then build the remaining environments in parallell with the corresponding existing environments which are based on Scientia 3.10 software. The project will also investigate whether some deliverables from the annual roll-forward project (SDB and webapps) can be incorporated into the upgrade and whether automation can be used to improve the efficiency of delivering these annual steps.

As the upgrade will be delivered by providing the service in a parallell environment, the following applications will be affected and all will be tested during UAT.

- SDBs
- Reporting DBs
- SDB Listeners
- Portal
- Enterprise Applications (ET, RDM, ECP)
- Hot Images
- Web Applications (Staff/Student WRB, Web Timetables, PADS, Onelan)
- SPDAs

The following applications will not be affected but will have to be repointed to the new datasources and will be included in functional testing:

- Course Timetable Browser
- Bookable Rooms
- Learn Building Block
- SSRS
- BI Suite
- MyEd channels
- PADS
- OneLan

1.2 Scope

Testing of 3.12 upgrade against business requirements

Investigation of incorporation of some annual roll-forward steps into upgrade process

For avoidance of doubt, the following items are not within the scope of this project:

- Any change to the disaster recovery or resilience solutions or service levels for the Timetabling service.
- Disaster recovery testing (carried out recently as part of TTu007)

1.3 Objectives and Deliverables

No	Description	Teams	Priority	Notes
	Stage 1 - analysis			
O1	Ensure that the upgrade is fit for purpose, checking that changes to applications or infrastructure including downstream systems are not negatively impacted.			
D1	Review the release notes for the upgrade to 3.12, and amend the existing build document as required	IS APPS	M	agreed would start in 14/15 - now achieved
D2	Carry out a standalone non production environment installation, testing the features as well as carrying out regression testing - this will be limited to Enterprise Applications, Hot Image, SDB, RDB and UoE Views	IS APPS/TTU	M	agreed would start in 14/15 - now achieved
D3	Make a recommendation whether or not to proceed or not with 3.12 in the DEV, TEST, LIVE and TRN environments	IS APPS/TTU	M	agreed would start in 14/15 - now achieved
	Stage 2 - build and acceptance			
O2	Deliver the 3.12 software			

	into each of the new environments ensuring that a consistent set of environments is left at the end of the project.			
D4	Agreed method of change control to operate for all environments during duration of this project	IS APPS/TTU	M	Aim is to restrict configuration changes in 3.10 environments to essential change only - so that these can be recorded and applied to 3.12.
D5	Create the remaining three parallel environments, with Scientia 3.12 software installed. (TEST, LIVE and TRN)	IS APPS	M	
D6	Carry out functional testing on remaining three environments and interfaces (TEST, LIVE and TRN)	IS APPS/TTU	M	
D7	Test the 3.12 RDB presents in the same way as 3.10 so that all interfaces can connect as expected.	IS APPS	M	
D8	Investigate roll-forward of SDB and automation of webapps roll-forward as part of upgrade	IS APPS	M	If incorporated will transfer budget from roll-forward project
D9	Agree load test scenarios and carry out load testing	IS APPS/TTU	M	
D10	Prepare test plan and carry out full UAT on new LIVE environment. Signoff to include incoming interfaces.	TTU	M	TTU to circulate
	Stage 3 - Delivery			
O3	Switchover from current LIVE, TEST, DEV and TRN environments to new 3.12 environments			
D11	Transfer data from current LIVE SDB into new 3.12 LIVE environment and switch production service to new 3.12 LIVE.	IS APPS	M	
D12	Transfer data from current LIVE SDB into new 3.12 TEST environment and switch test service to new 3.12 TEST.	IS APPS	M	
D13	Transfer data from current LIVE SDB into new 3.12 DEV environment and switch development service to new 3.12 DEV.	IS APPS	M	
D14	Transfer data from current LIVE SDB into new 3.12 TRN environment and switch training service to new 3.12 TRN.	IS APPS	HD	
O4	Prepare training material for any adopted new features			
D15	Training manuals and testing material (to be delivered by timetabling unit)	TTU	D	
	Stage 4 - legacy			
O5	Remove legacy servers			
D16	Decommission 3.10 LIVE, TEST, DEV and TRN environments	IS APPS	M	

1.4 Benefits

The main benefit of adopting the upgraded software is the continued support of the third party supplier Scientia. Typically when operating an older version of the software bug fixes will not be considered and any fixes will typically require an update, Scientia do not traditionally support patching and back porting of fixes.

The secondary benefits in this particular upgrade are the introduction of some new features:

- Offline Enterprise Timetabler is made available and allows the use of Enterprise tools in an offline capacity, which was previously limited to the older desktop application (Syllabus Plus Classic)
- Large scale data changes reduced, the datasync module has been improved to allow quicker refreshes of information into Enterprise Timetabler. The benefit is yet to be proved but any reduction in refresh times would be greatly beneficial to the 300 users of Enterprise.

Additional secondary benefits from the parallel-build approach:

- The new servers will be based in Windows 2012
- SQLserver will be upgraded to 2014
- As a parallel LIVE environment will be created prior to switchover to 3.12, immediate rollback of the LIVE environment will be possible. However if a rollback is required after a period of time, the benefit of the new approach will be diminished.
- The data in TEST, DEV and TRN will closely resemble that in LIVE
- Knowledge will be more practically shared amongst team members

1.5 Success Criteria

Stage 1

- Fully assess the impact of moving to 3.12 the timetabling service and make a clear recommendation about whether or not to proceed with the switch to 3.12

Stage 2

- Delivery of the 3.12 software into all of the new parallel environments ensuring a consistent configuration between environments is maintained (as agreed by change control process)
- Switchover from current LIVE, TEST, DEV and TRN environments to new 3.12 environments
- Continued successful operation of operational processes after switchover
- Delivery of the rolled-forward 16/17 SDB
- Investigation of automation of webapps roll-forward in new 3.12 environments.
- Preparation of any necessary new documentation or training materials for timetabling users
- Decommissioning of legacy environments (ie current LIVE, TEST, DEV and TRN)

Project Milestones

Target Date	Title	Stage	Complete
	3.12 assessment signoff	Plan	Yes
28-Aug-2015	Build review DEV	Build	Yes
11-Sep-2015	End of Planning	Plan	No
21-Sep-2015	Delivery of 3.12 environments	Build	No
28-Sep-2015	Complete functional testing of 3.12 TRN	Accept	No
28-Sep-2015	Complete functional testing of 3.12 TEST	Integrate	No
28-Sep-2015	Complete functional testing of 3.12 LIVE	Integrate	No
14-Oct-2015	Complete UAT signoff in 3.12 LIVE	Accept	No

Target Date	Title	Stage	Complete
19-Oct-2015	Candidate 16/17 SDB available	Deliver	No
26-Oct-2015	Deliver 3.12 LIVE production environment	Deliver	No
26-Oct-2015	Acceptance - GO/NOGO for LIVE switchover	Deliver	No
29-Oct-2015	Deliver 3.12 TEST environment	Deliver	No
02-Nov-2015	Deliver 3.12 DEV environment	Deliver	No
09-Nov-2015	Deliver 3.12 TRN environment	Deliver	No
13-Nov-2015	Deployment sign off review	Deliver	No
16-Nov-2015	Close	Close	No

2. Impact

2.1 Priority and Funding

The is a compliance project, funded from the IS Applications Core Funding, with a priority 2 status.

2.2 Impact and Dependencies

This project has the potential to interfere with other Timetabling projects. To mitigate this is has been agreed (as recommended in [TTU009](#)) to build a set of parallell timetabling servers with Scientia 3.12 software and to switch over to these from the existing servers. The justification for this is that it is impractical to carry out work with a mixed economy of environments where features being tested or developments may be impacted by different versions of the software operating across DEV, TEST and LIVE. The project will also investigate whetehr some aspects of the annual roll-forward requirements can be incorporated, allowing early delivery of these requirements.

To ensure that any essential changes applied to the 3.10 environments are carried over to the new 3.12 environments, a change control process, to last for the duration of the project, will be agreed between the project team, the production team and the timetabling team.

2.3 Out of scope

Carry over of non-essential changes to non-production environments.

Project Risks

Title	Impact	Probability	Status	Risk Owner
Change to usual build processes	High	Low	Open	Mark Lang
Delay to delivery may impact on other timetabling project or support work	Medium	Low	Open	Morna Findlay
3.12 may introduce bugs into current processes	High	Low	Open	Scott Rosie
UAT plan may fail to uncover 3.12 issues	High	Low	Open	Sabrina Niziolek
Unavailability of Business Resources	High	Low	Open	Scott Rosie
Unavailability of IS resources	Medium	Medium	Open	Morna Findlay
new procedures may be required to test 3.12 with existing interfaces	High	Low	Open	David McNicol
3.12 performance may be unacceptable	Medium	Medium	Open	David McNicol
Changes introduced to current environments may add to scope	Medium	Medium	Open	Scott Rosie
new version of RDB may not present as current version	Medium	Medium	Open	Scott Rosie

3. Organisation

3.1 Work/Task Breakdown

IS APPS Project services - QA, project and programme management (40)

IS Applications development technology - QA, deliver 3.12 servers and switchover process (80)

IS Applications development services - QA, interfaces and advise during UAT (12)

IS Applications production services - QA and advise during UAT and switchover process. Deployment checklist and handover from project to support.(10)

Timetabling Unit - UAT and QA

3.2 Resources Skills and Cost

Project services

Development Technology

Applications Management



Technology Management

Development Services - Corporate and Academic Services

Project Stakeholders

Name	Business Area	Role	Communication Plan
Scott Rosie	Timetabling Unit	Business Owner and Project Sponsor	
Sabrina Niziolek	Timetabling Unit	Business Analyst	
Morna Findlay	IS Applications Project Services	Project Manager	
David McNicol	IS Applications Development Technology	Senior Technical Architect	
Emilio Perez Lopez	IS Applications Development Technology	Technical Architect	
Mark Dobbing	IS Applications Development Technology	Technical Architect	
Franck Bergeret	IS Applications Project Services	Programme Manager	
Suran Perera	Is Applications Applications Management	Senior Support Analyst	
Heather Larnach	IS Applications Technology Management	Senior Support Analyst	
Stuart Craig	Is Applications Applications Management	Support Analyst	
Chris Cord	IS Applications Technology Management	Support Analyst	
Timetabling and room booking users	All	Users of service	
Arthur Wilson	IS Service Management	Service Owner Bookable Rooms database	Include in milestone discussions and alerts
Anne Marie Scott	IS TEL	LEARN Service owner	Include in milestone discussions and alerts
Chris McKay	IS Service Management	IDM Service Owner	
Karen Osterburg	Student Systems	Resource manager for possible test data requirements	



Name	Business Area	Role	Communication Plan
Andrew McFarlane	IS Service Management	BI Service owner	
Project Estimations			
Title	Spreadsheet	Stage	Date Completed
Estimates at initiation	 Estimates Upgrade project 1516.xls	Initiate	01-Jul-2015
plan	 TTU10-est-14-9-15.xls	Plan	14-Sep-2015

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