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University of Western Sydney – Clearly Identified for the Future

Eucalypt Software Partners delivers integration component of enterprise identity management solution

Eucalypt Consulting Services designed, developed and deployed Constellar Hub interfaces within six (6) months to provide single sign-on capability and authentication for all users across the six campuses on the University of Western Sydney network. During the same period a reconcilable, role-based data warehouse for the management of staff, students and guests was built as well as the provisioning of robust, synchronous integration between Microsoft Active Directory, Callista SMS and Concept HRMS.



University of Western Sydney

The University of Western Sydney (UWS) has a reputation for academic excellence, offering undergraduate and postgraduate programs in more than 100 course areas. The University provides a learning environment that flexibly meets the needs of our student body and offer courses across a range of fields including Bachelor, Master and PhD programs.

The University has four colleges - Arts, Education and Social Sciences; Law and Business; Science Technology and Environment, and Social and Health Sciences. It is also home to the Sydney Graduate School of Management, which offers high quality management programs in Australia and overseas.

Employees: 2,500

Students: 35,000

Systems: Sun Solaris and Microsoft Windows 2003

The University of Western Sydney (UWS) is one of Australia's largest universities with over 35,000 students including more than 5,000 international students every year. UWS has six campuses located in Bankstown, Blacktown, Campbelltown, Hawkesbury, Parramatta, Penrith and Sydney CBD.

Prior to 2000, UWS had consisted of three separate entities that were run independently with each having their own Information Technology (IT) strategies. Bringing together the IT systems from these three separate organisations has been a significant exercise that has resulted in the standardisation of several technology strategies. These included Sun as the preferred enterprise-level, processor platform, Oracle as the preferred database management system and key corporate applications sourced through membership of the HES consortium and DataMirror Constellar Hub as the preferred enterprise application integration (EAI) tool.

A New Day Dawns

Following a major review of IT in 2002, an Enterprise Architecture project was established with the aim of enhancing the efficiency and effectiveness of services offered to the wider University community with such benefits as simpler access to systems, improved data quality, better reporting and shorter delivery times on new projects. The blueprint for the new architecture focused on seven (7) technology streams which included identity management, document management, content management, data accessibility, desktop, eBusiness, workgroup servers, and email and calendaring.

Identity Management

A key aspect of the Enterprise Architecture was the manner in which people's identities are managed throughout the lifecycle of their interaction with UWS including students, staff and external parties. The Identity Management technology stream was defined with responsibility for the provisioning of user accounts, the integrity of the data pertaining to people and the integration of user logon credentials across systems.

"Providing a single sign-on capability to staff and students alike was paramount. In one case, an individual had 37 different passwords across various University systems", said Michael Houlahan, Director of Information Technology at UWS.

In order to achieve these objectives, UWS needed to implement an Enterprise Directory that would allow identity information to be exposed via an open standard (LDAP) to the corporate applications and portals. Microsoft Active Directory was chosen as the central repository where identity information from other sources could be consolidated and then synchronised out to other interested systems.

UWS already owned a license of the DataMirror Constellar Hub software from Eucalypt Software Partners (ESP) which had recently added support for third-party directory servers via an LDAP connector. Given the substantial support for the existing databases and ERP systems at UWS, Constellar Hub was the obvious choice as the integration tool for the project.

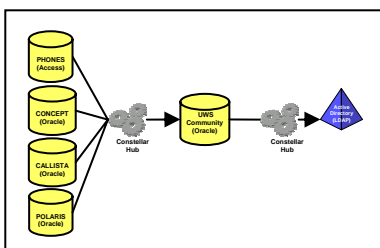
"The LDAP connector for Constellar Hub opens further opportunities for

larger organisations to tightly integrate traditional, corporate data with the new wave of Identity Management. Systems that are based on this standard.”, stated Martin Flanagan, Director of Consulting and Support at Eucalypt Software Partners.

EADS Project

The Enterprise Architecture Data Services (EADS) project was concerned with the population of directories that provide authentication and access controls for various systems at UWS using data from authoritative systems including Concept, Callista and Polaris. The project also saw the creation of a UWS Community database, housing the relevant information on all members of the UWS community in one location.

Eucalypt Software Partners was contracted to design and develop the Constellar Hub interfaces to firstly extract staff, student and guest records from the operational, corporate systems and reconcile this information into occupancy tables in the UWS Community database; and secondly to refresh the Microsoft Active Directory servers that authenticate all users on the UWS network. These interfaces are scheduled to run nightly and can also be used in a disaster recovery situation.



EADS Interface Architecture

The project commenced in July 2003 with the first version of the EADS interfaces being deployed within 6 months.



Expanding the Detail

At its inception the EADS project was originally a Proof of Concept exercise to load staff data into Microsoft Active Directory from an Oracle source system.

Once this proved successful, the loading of student data and eventually guest data was added and the UWS Community operational data store was created as a source for both identity and role-based information about staff, students and guests at the University.

Initially the scope of the project only needed a bulk-load of the source data. However, the introduction of three separate Active Directory environments, coupled with the staff directory having already been deployed in production, required that incremental updates be developed for all three environments.

It was discovered during initial investigations that Active Directory lacked the same transactional control as that found in a conventional database management system. A ‘savepoint’ recovery mechanism was established during each run allowing interfaces to re-load unsuccessful data before new data is extracted. The interfaces were then deployed within a series of workflows to provide disaster recovery and guaranteed data delivery facilities.

The increasing complexity of business requirements was easily accommodated through the use of the interface design methodology - ‘The Right Approach’ (TRA) and the rapid application development features of Constellar Hub. The first version of the interfaces went into production at the end of 2003 and handed over to UWS for maintenance, complete with documentation written using TRA.

“The partnership with Eucalypt Software Partners has proved invaluable in delivering the Data Services component of our new Enterprise Architecture. Eucalypt consultants provided the experience, resources and remote development capability to complete the project within the tight deadlines.”, said Kym Morris, Manager of Business Information Systems at UWS.

Analyse, Integrate and Deploy

Eucalypt Software Partners is a developer of methodology tools and a provider of integration solutions for the information enterprise since 1996. Eucalypt Software Partners is committed to listening to customers' integration needs and working to connect information and knowledge through experience.

Over the past four years the Eucalypt Consulting team has taken on a number of complete integration projects and from a set of base specifications has provided a complete solution built on technology from the DataMirror Integration Suite.

From a development facility located in Canberra, Eucalypt consultants can contribute development components to any part of the region at a significant cost advantage.



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