



University of Salford
A Greater Manchester University

HIGH-AVAILABILITY

Success Story



The world never stops...



The Customer

Based in Greater Manchester, Salford University – www.salford.ac.uk – has many claims to fame. It pioneered the world's first degree in pop music, has a space rocket programme and was an early developer of "sandwich degrees". It is recognised as a centre of excellence and enterprise - seeking innovative ways of extending its capabilities and closely attuned to the needs and problems of business, industry and the community.

Salford was the first university to establish Academic Enterprise as an integrated third strand of a university's activities, of equal importance to teaching and research - seeking harness the university's creative strengths to foster wealth creation and generate social well-being.

In the Teaching Quality Assessments carried out on behalf of the Higher Education Funding Council for England (HEFCE), sixteen of the university's subject areas were evaluated between 1996 and 2001. It scored an average of twenty one points from a possible twenty four points, with biological sciences and politics scoring the maximum of twenty four points and was particularly commended in the area of student support and guidance. Under the new Developmental Engagement assessment by the Quality Assurance Agency, English and History was given the highest verdict of 'confidence' as was the university's foundation degree in Community Governance.

Salford focuses on areas of high quality national and international innovative and applied research in multidisciplinary areas of study. This approach to research addresses relevant, real world problems and was acknowledged by outstanding results in the 2001 Research Assessment Exercise. The university achieved the highest possible score of 6* in the field of the Built Environment and 5* in Information Management. It also scored 5 in European Studies and Statistics & Operational Research. More than 50% of the institute's researchers work in an area rated 5 or above.

The Business Need

Running a dual Sun V880 cluster for its Banner student information system – www.sctcorp.com – the university relies on HAC's RSF-1 solution for maintaining high system availability, with automatic failover. Since the implementation 18 months ago there have been no unexpected failures or unplanned downtime. Installation was handled by the university's hardware supplier and HAC reseller Esteem – www.esteem.co.uk.

"Before we took RSF-1 we didn't really have an automatic failure solution for the hardware," says Salford University Information Systems Officer Paul Winrow. "Of course, there was a remedy – another machine".

"We regularly backed up the student information system but if the server went down, we had to invoke a manual process to bring it back on a standby box which took about thirty minutes. That meant unavailability for literally tens of thousands of existing and prospective students wanting to use our Oracle course database. It was also a drain on our admin IT resource – and not the most elegant or practical solution".



“We really couldn’t afford not to have 24 x 7 availability. RSF-1 provides that at a competitive price...”

Paul Winrow



The student information system is based on the SCT Banner solution, one of the world’s most widely used collegiate admin products – a tightly integrated suite of highly scalable, enterprise-wide applications running on a single database.

In the case of Salford University, this is Oracle – www.oracle.com. Over 800 institutions throughout the world rely on SCT’s Banner system to provide a secure, robust and reliable software solution to provide student information. “The former standby solution was workmanlike enough. It would have done the job if necessary but would have involved staff resource – and unacceptable delays in getting the system up and running again,” says Winrow.

The Solution

An opportunity for change came 18 months ago when Salford University replaced former hardware with new Sun systems – two V880s. “These were provided by Esteem, our established hardware supplier and an HAC reseller. They recommended HAC’s RSF-1 solution, and after evaluating it and a variety of competitive alternatives we decided to implement it”.

RSF-1 was originally released in 1995 and is designed to make services ‘highly available’ by switching between servers if a server or service fails. It provides multi-directional redundant ability that allows servers to constantly monitor and shadow each other. Rather than maintain a standby option idle as a failover server, RSF-1 allows operational systems to act as standby servers, ensuring that hardware investment is optimized.

In the event of server failure, RSF-1 includes both Java and Windows based system admin modules that allow the cluster to be monitored and administered in real time – showing the status of any RSF-1 instances available on the network and provide manual switchover functions.

High-Availability.Com – www.high-availability.com - designed and developed the first high availability solution for Sun Unix servers and has been leading the mission-critical market ever since with innovative products to help customers maximize their business IT and Internet functions. The company sells and supports products to customers throughout the world, ensuring critical applications and services keep running in the event of system failures.

The Benefits

“Universities now have to take a much more business-like approach to their operations and this is especially true of IT. Our student information system is accessed by literally tens of thousands of current and prospective students – and is our notice board. It is the very basis of informing and attracting students”.

“We really couldn’t afford not to have 24 hour, seven-day-a-week availability. RSF-1 provides that at a competitive price and in an easy to install, trouble-free, reliable and robust package. Implementation was handled by Esteem, and HAC, including configuration of the Banner software. It took less than a day and was handled very professionally”.

“Since RSF-1 was installed we’ve had no catastrophic failures. There have been the occasional network problems that have brought the system down but HAC’s failover always worked. There have been remarkably few glitches,” says Winrow.

“The bottom line is that we have assurance our system will always be up and running. Training and support are good and we have a high degree of confidence in failover. RSF-1’s graphical user interface is easy to use and practical. The system itself is intuitive, has good logging facilities, is easy to administer, and is reliable and robust”.

