

VLE Service Issue

On Thursday 2nd of February at approximately 10am LIS monitoring systems picked up a higher than normal load on the Blackboard system and some services on there were restarted to reduce this load. At 3pm the UHI Helpdesk began to receive reports of poor performance on the Blackboard system. A high priority call was logged and the technicians responsible for that service were asked to investigate.

Upon review a large number of disk errors were identified and the problem was escalated to LIS management as the technicians believed that there high risk that the system was about to fail which would have lead to the loss of any data written since the last backup from the morning of the 2nd. It was agreed that the service needed to be closed to ensure that no data was lost and that recovery actions could be carried out. An announcement was placed on Blackboard and a general announcement sent out via the UHI Helpdesk.

A number of recover options were identified and it was decided to simultaneously carry out three separate actions to safeguard against errors in the data. The priority as always is to restore the service as quickly as possible but ensuring that the solution was robust when back in service.

The quickest option was to replicate the data on the failing disk to a new one and simultaneously start a restore the last backup onto a new hardware set (second option) using an existing virtual server. Overnight on the 2nd LIS staff reallocated hardware to provide a suitable new server for Blackboard, this server was built overnight and a data synchronisation started.

Due to the large amount of data in the system, with over four million files the copy, the data took in more than 48 hours to complete and finished on the afternoon of the 4th of February. However this copy was found to contain a large number of corrupt files and was unusable.

The restore to the new hardware, however worked well and with the additional data from the 2nd was also copied over to this new system. The system was available internally and via Citrix at 23.45pm There was some additional work to enable the system to be seen from outside UHI and all the work was completed by midnight on the 4th.

Technicians worked throughout the weekend to ensure that the system was available for Monday morning and had the system working by 00.38am on Sunday morning.

There have been previous issues (leading to 9 losses of service) with the VLE earlier in the academic year. These were due to a different fault which was resolved in January. There have been four network issues which have led to the VLE being unavailable for access, though there was not an issue with the VLE itself, again the root cause of those network disruptions has already been addressed. These failures are being documented separately.

We do appreciate that the loss of a key service such as Blackboard for such an extended period is extremely frustrating for all of the users of that system. LIS will be carrying out a review of this problem to identify any aspects of the work that could have been carried out more effectively.

A new provision has been made for an enhanced support and hosting for the Blackboard service, with Blackboard based in the Netherlands and this will be in place for August this year.