ServiceView records usage, capacity and availability data for all IT services. KPI performance is monitored and reported. Scheduled and unscheduled outages are recorded and communicated.

**Service Reporting**

ServiceView models data centre dependencies and failover strategies for each service. The impact of a data centre or multiple data centre outages can be predicted. A restoration plan is automatically generated.

**DR Planning**

Staff and other costs are assigned to each service. By using the relationship between services, costs of underpinning services are escalated to give the true service cost. Total organisation spend is calculated itemising every dollar.

**Cost Breakdown**

ServiceView can take feeds from other monitoring solutions or perform the monitoring itself. A server side browser simulates real client interaction with online services, and records screenshots at each step.

**Service Monitoring**
SERVICEVIEW OVERVIEW

For each IT service, ServiceView records or calculates:

- Service description and supported hours.
- Business, technical and budget owners.
- Which staff work on the service, how much time they spend, and what role they perform.
- Other stakeholders needing to be informed of service events.
- Usage, capacity and other metrics.
- KPI targets and achievements against objectives.
- Service dependencies on underpinning services.
- Planned and unplanned events affecting the service.
- Data centre dependencies, failover capabilities and strategies.
- Client perspective service monitoring with response time and availability.
- Service availability over a period with and without including planned outages.
- Costs incurred to run each service, staff and other costs.
- Total organisation spend breakdown.
SERVICEVIEW OVERVIEW

Section for each service
SERVICEVIEW OVERVIEW

Section for each service

Business & Technical Owners

Service Description
SERVICE VIEW OVERVIEW

Section for each service

Service Availability & Outages

2013 Availability: 92.48%
Not including scheduled work: 99.96%

<table>
<thead>
<tr>
<th>Date</th>
<th>Outage</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Jan</td>
<td>1 hours</td>
<td>Disk crash</td>
</tr>
<tr>
<td>11 Mar</td>
<td>11.2 days</td>
<td>Staging Blackboard service - fresh install of this Blackboard environment</td>
</tr>
<tr>
<td>25 Mar</td>
<td>23 mins</td>
<td>Outage of learn.uq.edu.au</td>
</tr>
<tr>
<td>3 Apr</td>
<td>8 hours</td>
<td>Learn.uq unavailable for hardware upgrade</td>
</tr>
<tr>
<td>10 Apr</td>
<td>4 mins</td>
<td>Learn.uq.edu.au was briefly unavailable</td>
</tr>
<tr>
<td>27 Apr</td>
<td>30 mins</td>
<td>Lecture Recordings Unavailable Saturday 7AM for 30 mins</td>
</tr>
<tr>
<td>13 May</td>
<td>2 mins</td>
<td>LDAP Service</td>
</tr>
</tbody>
</table>
SECTION FOR EACH SERVICE

Usage, capacity & availability reports
SERVICE VIEW OVERVIEW

Section for each service
SERVICE VIEW OVERVIEW

Section for each service

Calendar of events affecting service.
**ServiceView Overview**

Section for each service

<table>
<thead>
<tr>
<th>Service</th>
<th>Equipment</th>
<th>Purpose</th>
<th>Data Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blackboard Database Servers (Infrastructure)</td>
<td>behive.sooe.uq.edu.au</td>
<td>DB Server</td>
<td>DC3</td>
</tr>
<tr>
<td></td>
<td>mozart.sooe.uq.edu.au</td>
<td>DB Server</td>
<td>GPNDCC1</td>
</tr>
<tr>
<td>Blackboard File Servers (Infrastructure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>kettle.soee.uq.edu.au</td>
<td>NFS Cluster Node</td>
<td>GPNDCC2</td>
</tr>
<tr>
<td></td>
<td>snare.soee.uq.edu.au</td>
<td>NFS Cluster Node</td>
<td>DC3</td>
</tr>
<tr>
<td>Blackboard Application Servers (Infrastructure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bogros.soee.uq.edu.au</td>
<td>Web Server</td>
<td>DC3</td>
</tr>
<tr>
<td></td>
<td>banjo.soee.uq.edu.au</td>
<td>Web Server</td>
<td>GPNDCC1</td>
</tr>
<tr>
<td></td>
<td>cellio.soee.uq.edu.au</td>
<td>Web Server</td>
<td>GPNDCC1</td>
</tr>
<tr>
<td></td>
<td>flute.soee.uq.edu.au</td>
<td>Web Server</td>
<td>DC3</td>
</tr>
</tbody>
</table>
**SERVICEVIEW OVERVIEW**

Section for each service

Staff and other stakeholders

<table>
<thead>
<tr>
<th>Name</th>
<th>Team</th>
<th>Role</th>
<th>Service</th>
<th>Email</th>
<th>Mobile</th>
<th>Phone</th>
<th>FTE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Smith</td>
<td>Teaching and Learning</td>
<td>Administration</td>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td><a href="mailto:johnsmith@email.com">johnsmith@email.com</a></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Jane Doe</td>
<td>Support</td>
<td>Support</td>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td><a href="mailto:janedoe@email.com">janedoe@email.com</a></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Mike Brown</td>
<td>Applications &amp; Identity</td>
<td>Application</td>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td><a href="mailto:mikebrown@email.com">mikebrown@email.com</a></td>
<td></td>
<td></td>
<td>90%</td>
</tr>
<tr>
<td>Sarah Lee</td>
<td>Teaching and Learning</td>
<td>Team Management</td>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td><a href="mailto:sarahlee@email.com">sarahlee@email.com</a></td>
<td></td>
<td></td>
<td>80%</td>
</tr>
<tr>
<td>David Smith</td>
<td>Applications &amp; Identity</td>
<td>Application</td>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td><a href="mailto:davidsmith@email.com">davidsmith@email.com</a></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>Emily Jones</td>
<td>Applications &amp; Identity</td>
<td>Application</td>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td><a href="mailto:emilyjones@email.com">emilyjones@email.com</a></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
</tbody>
</table>
## Service Overview

Section for each service

### Cost Breakdown to Run this Service

**Blackboard (eLearning & Collaboration) Cost Breakdown - 01 Jan 2013 to 31 Dec 2013**

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Administration</td>
</tr>
<tr>
<td><strong>Finance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Project Management</td>
</tr>
<tr>
<td><strong>Organisation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>People</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>Targets (KPI)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>Disaster Recovery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>Service Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>Setup</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>100%</td>
<td>Support</td>
</tr>
<tr>
<td><strong>Finance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications &amp; Identity Systems</td>
<td>90%</td>
<td>Application Administration</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and Learning Support</td>
<td>80%</td>
<td>Team Management</td>
</tr>
<tr>
<td><strong>Human Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications &amp; Identity Systems</td>
<td>50%</td>
<td>Application Administration</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications &amp; Identity Systems</td>
<td>50%</td>
<td>Application Administration</td>
</tr>
<tr>
<td><strong>Applications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications &amp; Identity Systems</td>
<td>20%</td>
<td>Team Management</td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications &amp; Identity Systems</td>
<td>15%</td>
<td>Team Management</td>
</tr>
<tr>
<td><strong>License Payment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blackboard License Payment</td>
<td>Amount $</td>
<td>100% allocation to service</td>
</tr>
</tbody>
</table>

**Total Cost:** $1,234,567
SERVICEVIEW OVERVIEW

Section for each service

Underpinning services needed by this service
SERVICEVIEW OVERVIEW

Each user has a personal profile

Name and team
Contact details and preferences
Services relevant to this user
Services user is working on
Services meeting their KPI objectives
SERVICEVIEW OVERVIEW

Personalised calendar showing events affecting users services
SERVICEVIEW OVERVIEW

Personalised view of services being monitored
SERVICE REPORTING

Number of students logging onto Blackboard
SERVICE REPORTING

Number of students logging onto Blackboard

- Semester 1
- Semester 2

Results Released

Graph showing number of logins on all Blackboard production servers (logins) from Feb 2012 to Dec 2012.
"SAMPLE PERL AGENT"

#!/usr/bin/perl
use LWP::Simple;
use CGI;
$sql = "SELECT count(*) as value FROM client WHERE client_status_cd IN ('active')";
# Connect to database
$date = "$day-$month-$year";
$value = $row->{value};
$url = 'http://serviceview.its.uq.edu.au/record.php
   ?service=' . CGI::escape($service) .
   '&metric=' . CGI::escape($metric) .
   '&date=' . CGI::escape($date) .
   '&secret=NoYB' .
   '&value=' . $value;
$result = get($url);
if ($result !~ /SUCCESS/) {
    print "Cannot post to ServiceView: ".$result;
}
KPI REPORTING

- Set KPI or Targets for each service, for instance 99% uptime
- Daily and monthly reports against KPI objectives.
- Daily Emails with KPI results.
## KPI REPORTING

30 Day Target / KPI Reports in portal

<table>
<thead>
<tr>
<th>Service / Target</th>
<th>May 20</th>
<th>May 21</th>
<th>May 22</th>
<th>May 23</th>
<th>May 24</th>
<th>May 25</th>
<th>May 26</th>
<th>May 27</th>
<th>May 28</th>
<th>May 29</th>
<th>May 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auran (Applications)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SI-net (Applications)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>UniPi (Applications)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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</tr>
<tr>
<td>Blackboard (eLearning &amp; Collaboration)</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Exchange Mail and Calendering (Email &amp; M)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Broadhop (networks)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Pizza Network CMDIS (Networks)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>WebCNS (Networks)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>LDAP (Underpinning technologies)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Shibboleth LDAP (Underpinning technology)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>WebPfISM Delegated Administration (Under)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>CMS (Web Services)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>myUQ (Web Services)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
# KPI Reporting

## Daily Emails

<table>
<thead>
<tr>
<th>Service / Target</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fri May 24</td>
</tr>
<tr>
<td></td>
<td>Sat May 25</td>
</tr>
<tr>
<td></td>
<td>Sun May 26</td>
</tr>
<tr>
<td></td>
<td>Mon May 27</td>
</tr>
<tr>
<td></td>
<td>Tue May 28</td>
</tr>
<tr>
<td></td>
<td>Wed May 29</td>
</tr>
<tr>
<td></td>
<td>Thu May 30</td>
</tr>
</tbody>
</table>

### LDAP Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### IDP Up-time 99%
100% 100% 100% 100% 100% 97.88% 97.61%

### 2013 Semester 1 Blackboard Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Summer Semester Blackboard Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### my.UQ Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Broadchip Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Websites Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Websites Updates Business Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### CMS Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Pizza Business hours 98%
100% 100% 100% 100% 100% 100% 100%

### UniFi Business hours 99%
100% 100% 100% 100% 100% 100% 100%

### WebPIM Business hours 99%
100% 100% 100% 100% 100% 100% 100%

### Airon Business hours up-time 99%
100% 100% 100% 100% 100% 100% 100%

### StNet Up-time 99%
58.91% 97.81% 96.73% 99% 95.31% 100% 99%

### WebDNS Business up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Exchange Up-time 99%
100% 100% 100% 100% 100% 100% 100%

### Sharepoint Business Up-time 99%
100% 100% 100% 100% 100% 100% 100%

---

**UQ ITS Service Desk Hours:**
- **Monday to Friday:** 8am to 6pm (AEST)
- **Saturday:** 8am to 12pm (AEST)

**Email:** itsupportdesk@qut.edu.au
**Website:** www.its.qut.edu.au
SERVICE DEPENDENCIES

Graphical representation of service dependencies
SERVICE DEPENDENCIES

Record service that are required for this service to run.

Red line means required for service delivery
Some services are only required for some features. Yellow line means required for some features but not dependent on.
SERVICE DEPENDENCIES

Services required for updates are also recorded.
SERVICE STATUS REPORTING
THE IMPACT OF OUTAGES

Turning the dependency relationship around we are able to see which services are dependent on other services, and therefore which are affected when a service is down.

Services requiring LDAP.
**SERVICE STATUS**

Scheduled and unscheduled outages are recorded.

<table>
<thead>
<tr>
<th>Service Events</th>
<th>When</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Services - Academic</td>
<td>12 Jun 2013 12:00 pm</td>
<td>0 hours</td>
</tr>
<tr>
<td>Active Directory Domain Controllers</td>
<td>6 Jun 2013 5:00 pm</td>
<td>2 hours</td>
</tr>
<tr>
<td>Active Directory Domain Controllers</td>
<td>4 Jun 2013 5:00 pm</td>
<td>2 hours</td>
</tr>
<tr>
<td>Network Projects</td>
<td>2 Jun 2013 9:00 am</td>
<td>1 hour</td>
</tr>
<tr>
<td>Unifi</td>
<td>31 May 2013 8:10 pm</td>
<td>19 min</td>
</tr>
<tr>
<td>Data Centre</td>
<td>31 May 2013 8:00 pm</td>
<td>1 hour</td>
</tr>
<tr>
<td>Unifi</td>
<td>30 May 2013 8:00 pm</td>
<td>1 hour</td>
</tr>
<tr>
<td>UQAPS Citrix</td>
<td>31 May 2013 8:00 pm</td>
<td>1 hour</td>
</tr>
<tr>
<td>FujiPacs</td>
<td>26 May 2013 8:00 pm</td>
<td>1 hour</td>
</tr>
<tr>
<td>LANdesk</td>
<td>24 May 2013 7:30 am</td>
<td>3 hours</td>
</tr>
<tr>
<td>TRIM</td>
<td>24 May 2013 7:30 am</td>
<td>1 hour</td>
</tr>
<tr>
<td>Data Centre</td>
<td>24 May 2013 7:30 am</td>
<td>0 min</td>
</tr>
<tr>
<td>SQL Database Cluster Hosting</td>
<td>23 May 2013 8:00 pm</td>
<td>33 min</td>
</tr>
</tbody>
</table>
SERVICE STATUS
The CMDB works out which services are impacted.
SERVICE STATUS

Emails are sent to stakeholders informing them of the outage.

---

Service Notice

Dear Stakeholder,

The LANDesk service will be undergoing scheduled maintenance.

Scheduled start: Thursday, 23 May 2013 19:00
Scheduled end: Thursday, 23 May 2013 22:00

Such changes will include:
1. The addition of a 'My Dashboard' within the 'ITS' short-cut group;
2. The addition of a 'My Group Dashboard' within the 'ITS' short-cut group;
3. The removal of several redundant queries within the 'Queries and Reports' short-cut group; AND
4. Renaming several queries within the 'Queries and Reports' short-cut group.

There is no expected impact on service delivery.

More information can be found at the following address: http://www.its.uq.edu.au/?incident_id=14407

Regards,

ITS Service Desk

UQ ITS Service Desk Phone numbers
Internal: x56000
Local: (07) 336 56000
Australia wide: 1300 730 002

UQ ITS Service Desk Hours:
8am to 6pm (AEST) Monday to Friday,
8am to 12pm (AEST) Saturday.
Email: itsupportdesk@uq.edu.au
Website: www.its.uq.edu.au
SERVICE STATUS REPORTING

Automatic feed to Service Status website

Service Event Details & Updates

Service Event Subscribers

Service Event Summary

Service Availability LEDs

ServiceView
SERVICE AVAILABILITY REPORTING

By combining outages and outage impacts, service availabilities can be calculated for each service.

2013 Availability: 99.77%
Not including scheduled work: 99.99%

<table>
<thead>
<tr>
<th>Date</th>
<th>Outage</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Mar</td>
<td>23 mins</td>
<td>Outage of learn.uq.edu.au</td>
</tr>
<tr>
<td>3 Apr</td>
<td>8 hours</td>
<td>Learn.UQ unavailable for hardware upgrade</td>
</tr>
<tr>
<td>18 Apr</td>
<td>4 mins</td>
<td>learn.uq.edu.au was briefly unavailable</td>
</tr>
<tr>
<td>13 May</td>
<td>2 mins</td>
<td>LDAP Service</td>
</tr>
</tbody>
</table>

Blackboard (eLearning & Collaboration)

Business owner: Simon Collyer (Teaching and Learning Support)
Technical owner: Roy Duncan (Applications & Identity Systems)
Supported: 24x7

Blackboard is the e-learning system used by UQ to provide online learning and assessment to students. It is accessible via the web and also by mobile device.

Blackboard is a tool that facilitates communication and online learning between students and course co-ordinators. It can also provides online assessment items, including online tests or electronic submission of assignments, as well as access to lecture theatre recordings.
DR PLANNING
DR PLANNING

Using the service dependency data we are able to plan for data centre outages.
Each service using the data center has fail over capabilities details recorded.

In this example the blackboard database servers normally run in DC3 but can fail over to GPNDC2, and also the reverse failover is possible. The failover is automatic but may take up to 30 minutes.
DR PLANNING

Services are prioritised in service recovery order

<table>
<thead>
<tr>
<th>Select</th>
<th>Service Name</th>
<th>priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Exchange Mail and Calendaring (Email &amp; Messaging)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SI-net (Applications)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Blackboard (Learning &amp; Collaboration)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Auron (Applications)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Active Directory (Underpinning technologies)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PABX (Voice Network)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Websites - Unix (Web Services)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>CMS (Web Services)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>myUQ (Web Services)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Sharepoint (Web Services)</td>
<td>2</td>
</tr>
</tbody>
</table>
DR PLANNING

Disaster scenarios are entered, involving outages of one or more DCs

<table>
<thead>
<tr>
<th>Scenario Name</th>
<th>Affected Data Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP North DC Outage</td>
<td>GPDC1, GPDC2</td>
</tr>
<tr>
<td>Herston Outage</td>
<td>CORDC</td>
</tr>
<tr>
<td>PAXX Machine Room Outage</td>
<td>PAXX-MCH1E</td>
</tr>
<tr>
<td>Prentice &amp; GP North Outage</td>
<td>DC1, DC2, DC3, GPDC1, GPDC2</td>
</tr>
<tr>
<td>Prentice All DC Outage</td>
<td>DC1, DC2, DC3</td>
</tr>
<tr>
<td>Prentice DC1 Outage</td>
<td>DC1</td>
</tr>
<tr>
<td>Prentice DC2 &amp; DC3 Outage</td>
<td>DC2, DC3</td>
</tr>
<tr>
<td>StLucas Campus</td>
<td>DC1, DC2, DC3, GPDC1, GPDC2, TA202, TA203</td>
</tr>
<tr>
<td>Therapies Annex Outage</td>
<td>TA202, TA203</td>
</tr>
</tbody>
</table>
DR PLANNING

Generated documents show what services are affected for each disaster scenario.

Service Restoration Plan

Prentice All DC Outage

- Outage of DC1 (DC1 Building 42 - St Lucia Campus)
- Outage of DC2 (Data Center 2 in Prentice)
- Outage of DC3 (DC3 Building 42 - St Lucia Campus)

Services Running in Affected Data Centers

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Failover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adobe Connect (eLearning &amp; Collaboration)</td>
<td>Manually to CCRDC</td>
</tr>
<tr>
<td>Auroion Application Servers (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Auroion Database Servers (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Backup (Storage &amp; Backup)</td>
<td>Manually to GPNDG2</td>
</tr>
<tr>
<td>Blackboard Application Servers (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Blackboard Database Servers (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Blackboard File Servers (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Broadhop Servers (Infrastructure)</td>
<td>No failover possible.</td>
</tr>
<tr>
<td>Bulk Messaging (Email &amp; Messaging)</td>
<td>No failover possible.</td>
</tr>
<tr>
<td>Citrix Servers - Xenapp (Infrastructure)</td>
<td>Automatically to GPNDG1</td>
</tr>
<tr>
<td>DHCP (Networks)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>DNS (Networks)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Echo360 Servers (eLearning &amp; Collaboration)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>ESX Cluster (Infrastructure)</td>
<td>Manually to GPNDG2</td>
</tr>
<tr>
<td>Exchange Servers Client Access (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
<tr>
<td>Exchange Servers Edge Transport (Infrastructure)</td>
<td>Automatically to GPNDG2</td>
</tr>
</tbody>
</table>
Service restorations plans are generated using the service dependency database.

PDF is emailed to stakeholders weekly.
MONITORING
SERVICE MONITORING

Each service can be monitored
SERVICE MONITORING

Select monitoring test and enter parameters.
SERVICE VIEW OVERVIEW
Last 24 hours

Up time during period

Total Uptime: 100%
Uptime not including scheduled outages: 100%
Down for scheduled maintenance: 6 seconds (0%)
Down for unscheduled maintenance: 0 seconds (0%)
Total downtime: 0 seconds (0%)
CLIENT PERSPECTIVE MONITORING
Simulates end user actions to test the service

[Image of a screenshot of a website

Step 1: Opening page: https://learn.uq.edu.au
- load started
- load finished in 0.499 secs
- Checking for Learn.UQ success
- Entering username: uq9999999 and password

Step 2: Clicking on Login button
- load started
- load finished in 1.592 secs

Step 3: Checking for Blackboard Learn success
- load started
- load finished in 0.53 secs

Step 4: Checking for Tools success
- load started
- load finished in 1.8 secs

Step 5: load started
- load finished in 0.783 secs

Step 6: Checking for No Course Announcements have been posted in the last 7 days success
- load started
- load finished in 0.511 secs

Step 7: Checking for Text item success
- load started
- load finished in 0.094 secs

Step 8: Checking for This file was successfully accessed success
- load started
- load finished in 0.205 secs

Step 9: Checking for To log into Blackboard use your UQ username success
- test complete

Staff and students: To log into Blackboard use your UQ username/student ID and password. If you don't know your password contact the ITS Helpdesk on 70 336 56908 or 1300 739 062 (Australia Wide), or by email: it@pgrf@ts.uq.edu.au
CLIENT PERSPECTIVE MONITORING
Simulates end user actions to test the service

Step 1:
Opening page: https://learn.uq.edu.au
load started
load finished in 0.52 sec
Checking for Learn.UQ success.
Entering username: s9999999 and password

Step 2:
Clicking on Login button
load started
load finished in 1.595 sec

Step 3:
Checking for Blackboard Learn success.
load started
load finished in 0.466 sec

Step 4:
Checking for Tools success.
load started
load finished in 1.932 sec

Step 5:
load started
load finished in 0.878 sec

Step 6:
Checking for No Course Announcements have been posted in the last 7 days success.
load started
load finished in 0.45 sec

Step 7:
Checking for Text item success.
load started
load finished in 0.1 sec

Step 8:
Checking for This file was successfully accessed success.
load started
load finished in 0.206 sec

Step 9:
Checking for To log into Blackboard use your UQ username success.
test complete
CLIENT PERSPECTIVE MONITORING
Simulates end user actions to test the service

Step 1:
- Opening page: https://learn.uq.edu.au
- Load started
- Load finished in 0.92 secs
- Checking for Learn.UQ success
- Entering username: 99999999 and password

Step 2:
- Clicking on Login button
- Load started
- Load finished in 1.595 secs

Step 3:
- Checking for Blackboard Learn success
- Load started
- Load finished in 0.466 secs

Step 4:
- Checking for Tools success
- Load started
- Load finished in 1.932 secs

Step 5:
- Load started
- Load finished in 0.878 secs

Step 6:
- Checking for No Course Announcements have been posted in the last 7 days success
- Load started
- Load finished in 0.45 secs

Step 7:
- Checking for Text item success
- Load started
- Load finished in 0.1 secs

Step 8:
- Checking for This file was successfully accessed success
- Load started
- Load finished in 0.205 secs

Step 9:
- Checking for To log into Blackboard use your IQ username success
- Test complete
CLIENT PERSPECTIVE MONITORING

Simulates end user actions to test the service

Step 1.
Opening page: https://learn.uq.edu.au
load started
load finished in 0.51 secs
Checking for Learn.UQ success.
Entering usernames: si9999999 and password

Step 2.
Clicking on Login button
load started
load finished in 1.64 secs

Step 3.
Checking for Blackboard Learn success.
load started
load finished in 0.536 secs

Step 4.
Checking for Tools success.
load started
load finished in 1.758 secs

Step 5.
load started
load finished in 0.819 secs

Step 6.
Checking for No Course Announcements have been posted in the last 7 days success.
load started
load finished in 0.423 secs

Step 7.
Checking for Text Item success.
load started
load finished in 0.087 secs

Step 8.
Checking for This file was successfully accessed success.
load started
load finished in 0.206 secs

Step 9.
Checking for To log into Blackboard use your UQ username success.
test complete
CLIENT PERSPECTIVE MONITORING
Simulates end user actions to test the service
SERVICEVIEW OVERVIEW

Last 7 days

Total Uptime: 99.82%
Uptime not including scheduled outages: 99.82%
Down for scheduled maintenance: 0 seconds (0%)
Down for unscheduled maintenance: 17 minutes, 58 seconds (0.18%)
Total downtime: 17 minutes, 58 seconds (0.18%)

Availability And Response Time
CLIENT PERSPECTIVE MONITORING
Simulates end user actions to test the service
CLIENT PERSPECTIVE MONITORING
Simulates end user actions to test the service

**ERR**

**Step 1.**
Opening page: https://learn.uq.edu.au
load started
load finished in 1.453 secs
Checking for Learn.UQ success.
Enter username: <username> and password

**Step 2.**
Clicking on Login button
load started
load finished in 9.012 secs

**Step 3.**
Checking for Blackboard Learn success.
load started
load finished in 13.68 secs

**Step 4.**
Checking for Tools success.
load started
load finished in 32.1 secs

**Step 5.**
load started
load finished in 0.056 secs

**Step 6.**
Checking for No Course Announcements have been posted in the last 7 days failure.

**Step 7.**
Checking for Text Item failure.
load started
load finished in 1.919 secs

**Step 8.**
Checking for This file was successfully accessed success.
load started
load finished in 0.556 secs

**Step 9.**
Checking for To log into Blackboard use your UQ username success.
test complete
SERVICEVIEW OVERVIEW

90 day monitoring

Up time not including scheduled outages
Scheduled Maintenance

Maintenance Information page

The Learn.uq.edu.au system is currently unavailable for important system maintenance. We apologise for the inconvenience. Maintenance will take up most of the day (3rd April, 2013) -
SERVICE UP TIME

Total Uptime: 99.36%

- Uptime not including scheduled outages: 99.74%
- Down for scheduled maintenance: 8 hours, 4 minutes (0.37%)
- Down for unscheduled maintenance: 5 hours, 42 minutes (0.26%)
- Total downtime: 13 hours, 46 minutes (0.64%)
OUTAGE ALERTING

SMS or email when service is down
SERVICE COSTING
The people who work on each service is recorded as well as the percentage of time they spend working on each service.
CHARGES

• Costs such as licenses are associated with each service.
• Charges can be one off or repeating.
## SERVICE COSTS

- Combining staff costs and other costs allows a total service cost to be calculated.

### ServiceView

**Blackboard (eLearning & Collaboration) Cost Breakdown - 01 Jan 2013 to 31 Dec 2013**

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td>100%</td>
<td>Simon Teaching and Learning Support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adam Applications &amp; Identity Systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roy Applications &amp; Identity Systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Andrew Enterprise Applications Support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chris Applications &amp; Identity Systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blackboard License Payment</td>
</tr>
</tbody>
</table>

**Total Service Cost: $123,456**
TOTAL SERVICE COST BREAKDOWN

Costs of underpinning services escalated

100% of database costs pushed onto Blackboard overall costs
TOTAL SERVICE COST BREAKDOWN

Costs of underpinning services escalated

<table>
<thead>
<tr>
<th>Blackboard Costs Breakdown</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard (eLearning &amp; Collaboration)</td>
<td>100%</td>
</tr>
<tr>
<td>Blackboard Application Servers (Infrastructure)</td>
<td>100%</td>
</tr>
<tr>
<td>Blackboard File Servers (Infrastructure)</td>
<td>100%</td>
</tr>
<tr>
<td>Storage Arrays (Storage &amp; Backup)</td>
<td>21.5%</td>
</tr>
<tr>
<td>Storage Network (Storage &amp; Backup)</td>
<td>21.5%</td>
</tr>
<tr>
<td>Backup (Storage &amp; Backup)</td>
<td>30%</td>
</tr>
<tr>
<td>Blackboard Database Servers (Infrastructure)</td>
<td>100%</td>
</tr>
</tbody>
</table>
QUESTIONS?