



# IT Services Performance Report

## January – December 2006

Prepared by: UCD IT Services  
Date: February 2007

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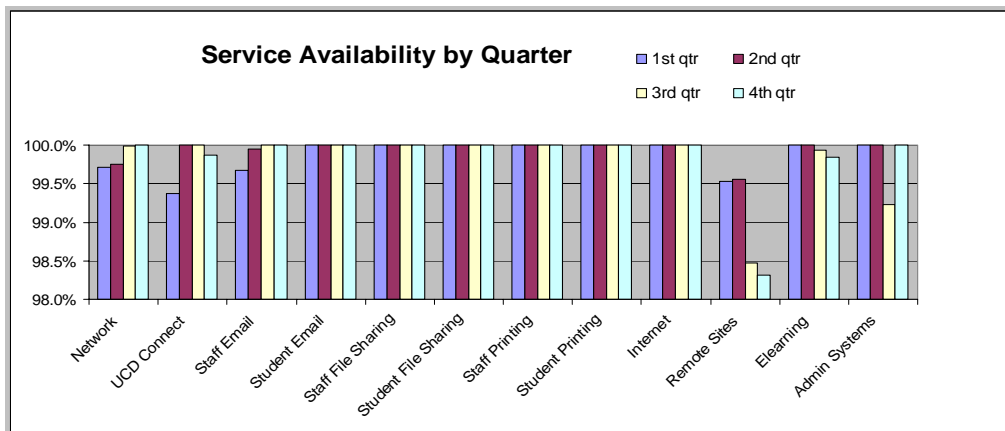
## Background

In December 2003 UCD commenced the implementation of a 5 year plan for IT infrastructure and services. The Computing Services Board requested that a series of measures be put in place to monitor IT performance and service availability, in order to provide feedback on the value of this investment and to quantify the improvements in levels of service. The first full year of statistics was published last year in January 2004. This report is our third full year and contains 2006 results and key comparisons with 2004 and 2005.

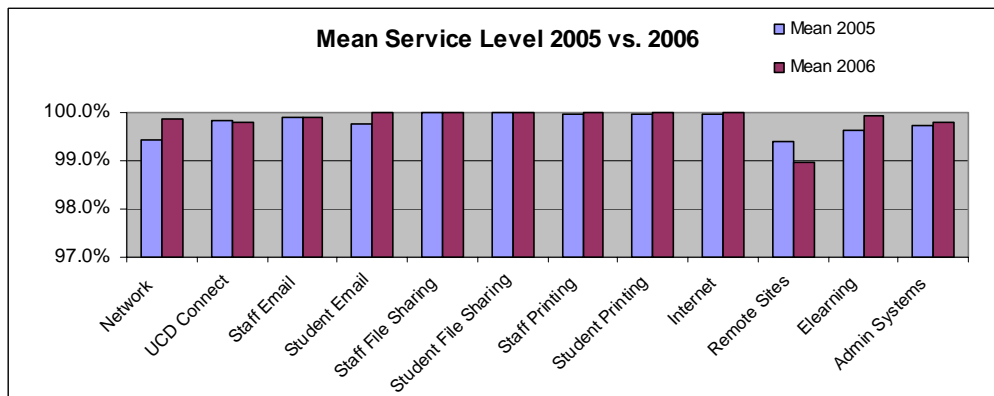
The IT plan set targets for availability of services to be achieved over the period of investment. These targets are based on standard industry measures of IT services i.e. “uptime” of any given service within its operational window. A set of 12 distinct IT services are measured on a weekly basis. Any failure in a service is logged and the time interval to full recovery is recorded. The “% availability” of the service is then calculated based on a 12 hour daily window ( 9am to 9pm ), over a 5 day working week.

## Service Availability Measures

The graph below shows the quarterly statistics for each service for 2006, with the average availability level. The target for service availability is 99.5%. During 2006, three of our services breached this target level – Connect in the 1<sup>st</sup> quarter, Remote Sites in the 3<sup>rd</sup> and 4<sup>th</sup> quarter and Admin Systems in the 3<sup>rd</sup> quarter.



The graph below shows the comparison between 2005 and 2006 over the full year.

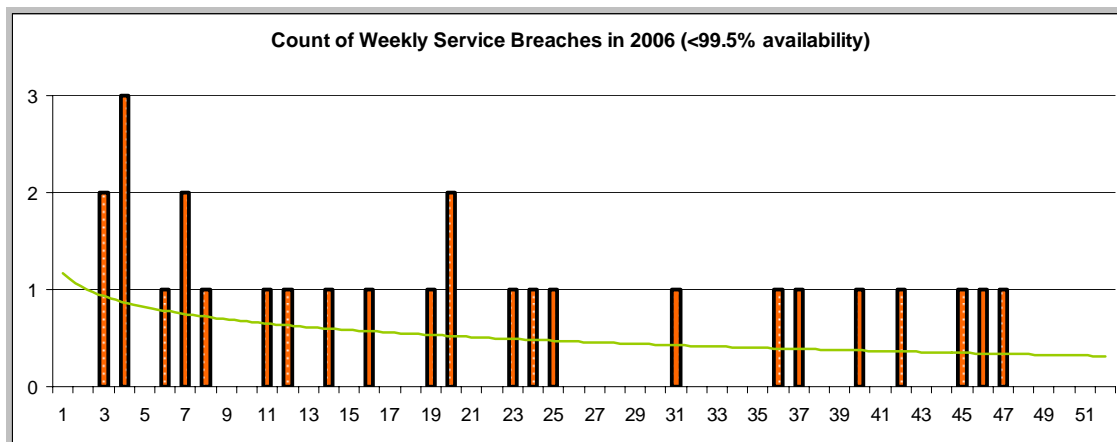


## Frequency of Service Interruption

In addition to the mean and quarterly availability measures, a count of service breaches on a weekly basis by service is also recorded i.e. any service which breached 99.5% availability in a given week contributed to the count.

This measure is used as an indicator of the frequency of interruption to services.

*The total number of weekly service breaches for 2006 was 27, an average of 0.5 per week.*



The comparison with 2005 shows a **decrease in incidents of 20%** ( from 37 breaches in 2005). The total duration of outages **decreased by 30%** from **4519** mins in 2005 to **3178** mins in 2006.

The Remote Sites outages were high this year accounting for 60% of the total outage time. It is planned to install secondary links on these sites in the coming year. The Connect portal had issues in the 1<sup>st</sup> Qtr – these have been resolved by the application vendor.

## Yearly Comparison 2004, 2005, 2006

Service	2006	2006	2005	2005	2004	2004	Three Year Average	
	Number of Breaches (count)	Total Duration (minutes)	Number of Breaches (count)	Total Duration (minutes)	Number of Breaches	Total Duration (minutes)	Number of Breaches (count)	Total Duration (minutes)
Network	6	256	7	1075	9	1203	7	844
UCD Connect	5	362	4	332	7	255	5	316
Staff Email	2	173	2	208	3	403	2	261
Student Email	0	0	1	420	1	30	1	150
Staff Files	0	0	0	0	5	226	2	75
Student Files	0	0	1	20	2	65	1	28
Staff Printing	0	0	1	80	2	40	1	40
Student Printing	0	0	0	45	0	0	0	15
Internet	0	0	1	40	3	320	1	120
Remote Sites	12	1928	7	1104	8	520	9	1184
Elearning	1	99	5	674	0	0	2	258
Admin Systems	1	360	5	521	3	278	3	386
<b>TOTALS</b>	<b>27</b>	<b>3178</b>	<b>34</b>	<b>4519</b>	<b>43</b>	<b>3339</b>	<b>35</b>	<b>3679</b>

## Overall Service Trends 2006

<b>General</b>	<b>20% reduction</b> in service breaches in 2006 versus 2005.  <b>30% reduction</b> in total service downtime in 2006 versus 2005.
<b>Network:</b>	<b>Service level met for all quarters.</b>  Substantial reduction in downtime – 256 mins (2006) versus 1075 mins (2005)  Two monthly service breaches (<99.5%) – but service level remained above 99%
<b>UCD Connect:</b>	<b>Service breached in Quarter 1</b>  Performance trend is below average in 2006. Total downtime 362mins.  Two monthly service breaches ( Months 1 & 2 ) accounted for 295 mins ( Caused by vendor application issue which has now been resolved. )
<b>eLearning:</b>	<b>Service level met for all quarters.</b> No monthly breaches.  Performance significantly improved on 2005.  1 x weekly breach (week 46 ) accounted for 55 mins
<b>Staff eMail:</b>	<b>Service level met for all quarters.</b>  Performance improved each year ( 2004 through 2006)  Total downtime 173 mins in 2006
<b>Student eMail:</b>	<b>Service level met for all quarters.</b> No outages for the year.
<b>Internet:</b>	<b>Service level met for all quarters.</b> No outages for the year
<b>Remote:</b>	<b>Significant issues with remote sites.</b> Two quarterly breaches (Q3 & Q4).  Total 1928mins downtime, accounting for 61% of all downtime & 44% of breaches.
<b>File Shares</b>	<b>Service level met for all quarters.</b> No outages for the year (staff & student).

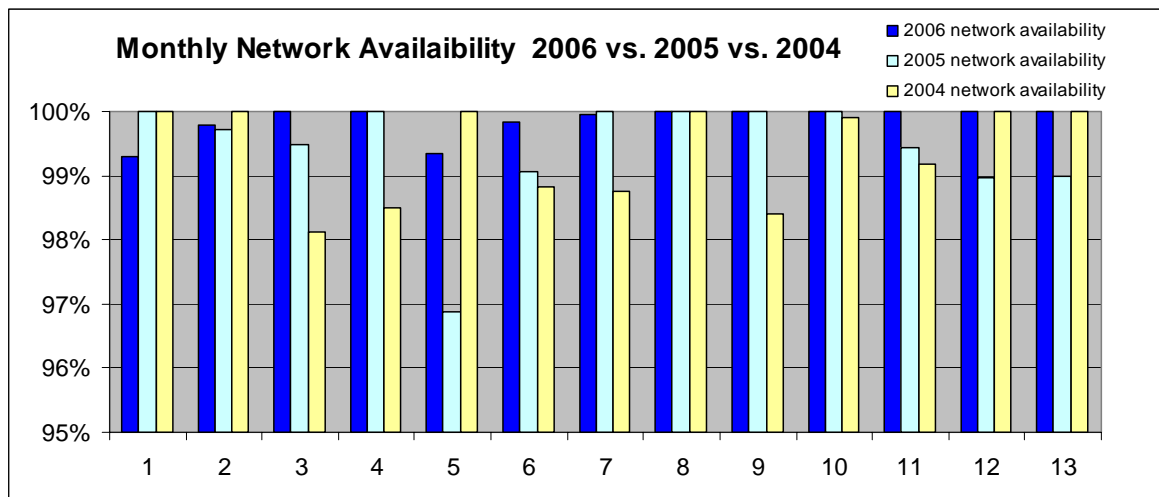
## Network Availability

Network availability is one of the most significant factors in overall service performance. Over the past three years the level of network downtime has been reduced by a factor of five.

Total Annual Network Downtime:    1203 minutes in 2004  
    1075 minutes in 2005  
    **256 minutes in 2006**

The annual availability level for 2006 was **99.86%**

The graph below shows the monthly availability comparison for 2006, 2005 and 2004.

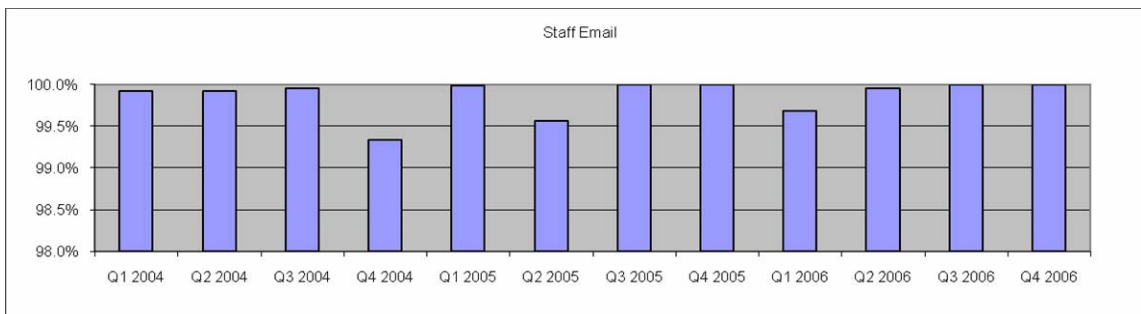
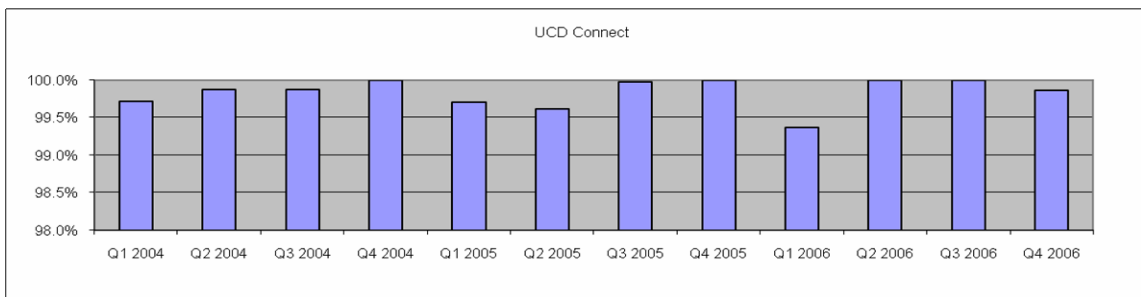
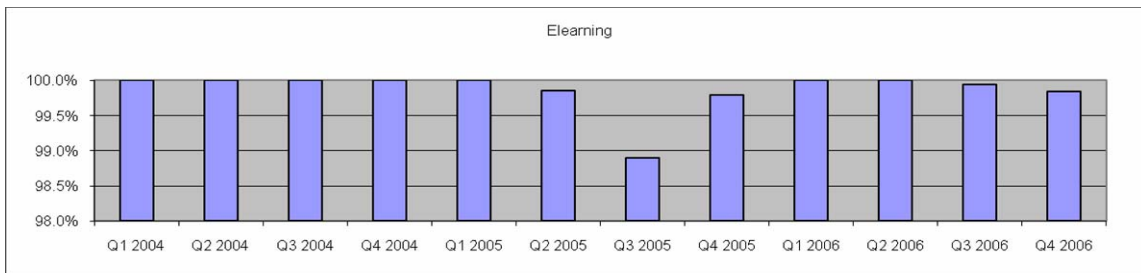
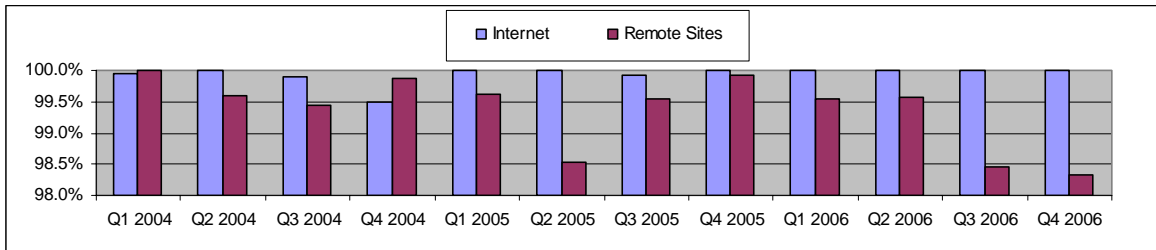
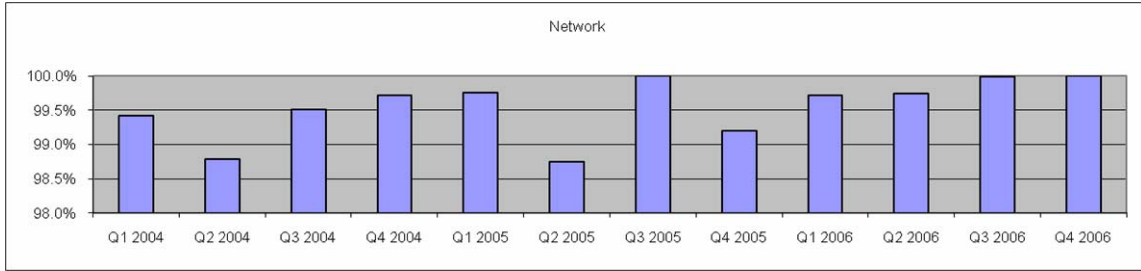


## Individual Service Availability

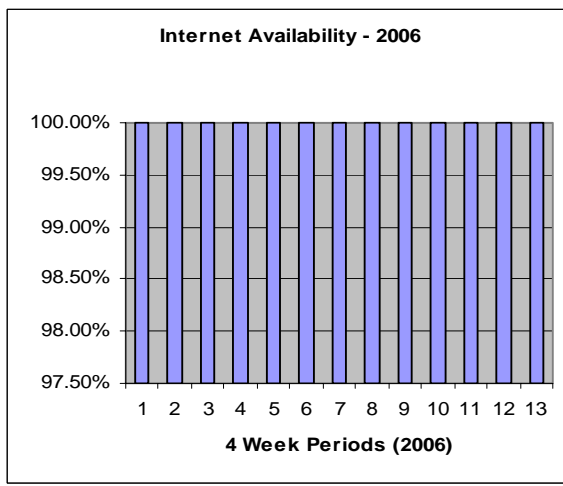
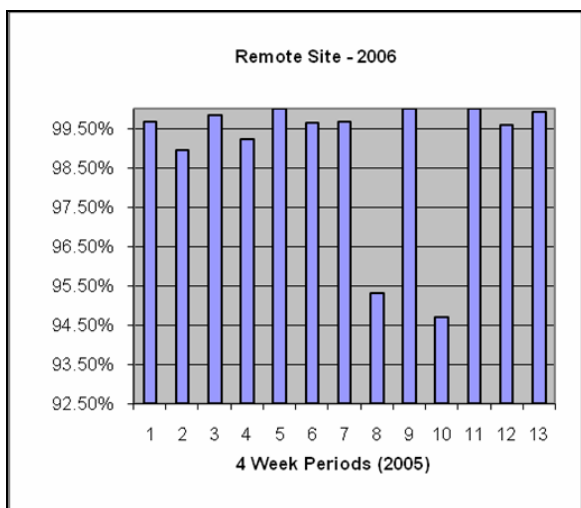
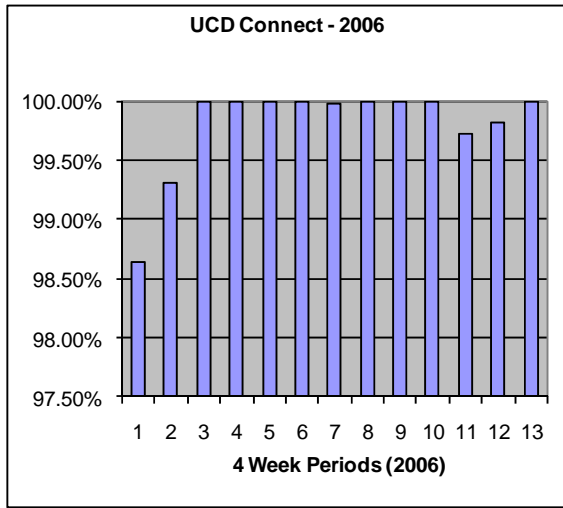
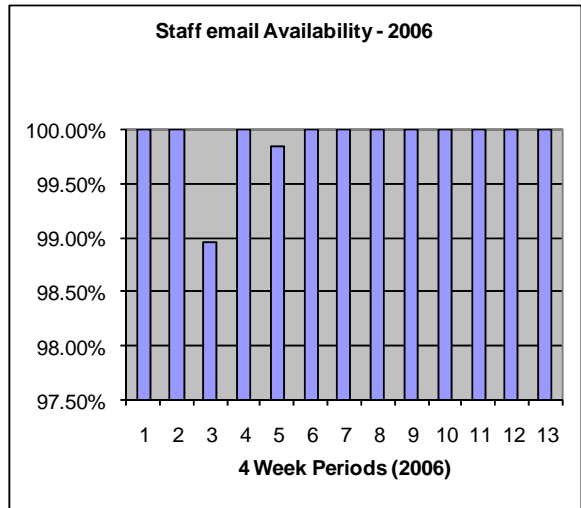
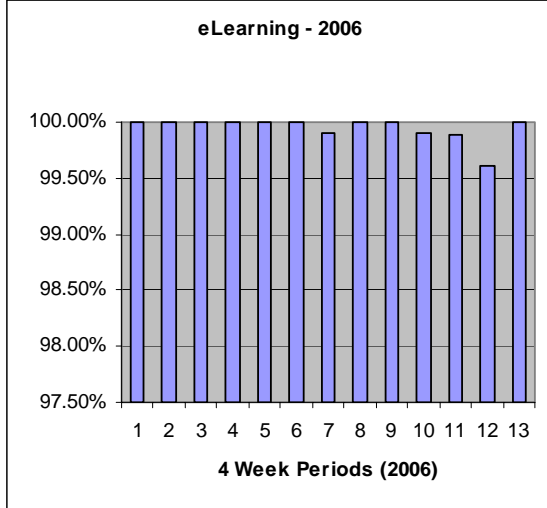
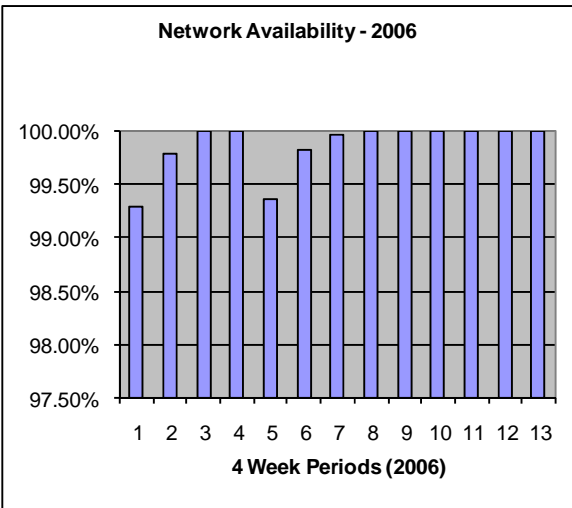
Detailed history for 2006 together with quarterly comparisons over the three year period 2004 to 2006 are provided on the following pages. The investment in IT Infrastructure has clearly led to continuing improvements in network availability and in the consistency of key services – eMail, Internet, eLearning and UCD Connect.

The next stages of the architecture programme will target the wide area network and should have significant impact on remote site availability through the implementation of fibre MAN connections in 2007.

## Individual Service Availability 2004 - 2006



Individual Service Availability 2006





Individual Service Availability 2006 (Cont)

