



The
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Corporate Information &
Computing Services

Customer Service Review

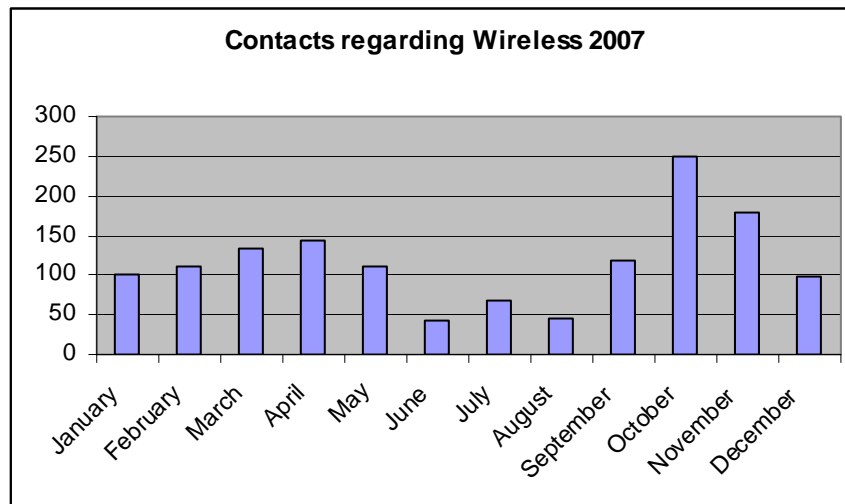
The Wireless Network

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Introduction

This service review was undertaken as part of a rolling programme of service reviews. Also a number of sources indicated that there were issues with the University's wireless service. The Student Survey 2007 indicated a rising need for extending the wireless network – up to 23% from 18%. This could correlate to the number of students now using their own laptops, up to 67% from 61% in 2006. These requests for extending the network were higher in postgrads – 33% of Taught post-grads and 42% of Research Post Grads wanted an extended wireless network.

The table below shows contacts to the helpdesk each month in 2007 regarding the wireless network.



On average there were 117 contacts regarding the wireless service per month in 2007. There was a rise in October and November reflecting the start of a new academic year.



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Usage

Daily wireless usage peaks at around 200 users campus wide, roughly 1.4 per base station. In the past 12 months, 1172 different users have used the wireless network.

User Feedback

A group was drawn together to include technical and customer service staff from CiCS in order to gather appropriate feedback. To establish what difficulties users were having with the wireless network we designed a questionnaire to send out to all staff and students via email, with a link to the online survey.

User Analysis

In total the questionnaire was filled in by 1598 people. This good number of responses shows a significant interest in this service.

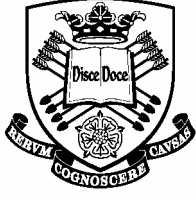
Type	Number	Percentage of population – Population numbers in brackets
Staff	426	7% (5773)
Undergraduates	759	4% (18290)
Taught Post-Grads	187	5% (3504)
Research Post-Grads	206	10% (2120)
Other	20	N/A

The relatively high percentage of research post-grads, in comparison to the other groups, who have filled in the questionnaire again indicates this is a particular issue for them.

Below is a table comparing user numbers with those filling in University student survey

Type	Actual percentage of total	Percentage filling in Students Survey 2007	Percentage filling in wireless questionnaire
Undergraduates	76%	77.5%	66%
Taught Post-Grads	15%	13.5%	16%
Research Post- Grads	9%	11%	18%

This shows again a higher interest in the wireless survey from research post-graduates.



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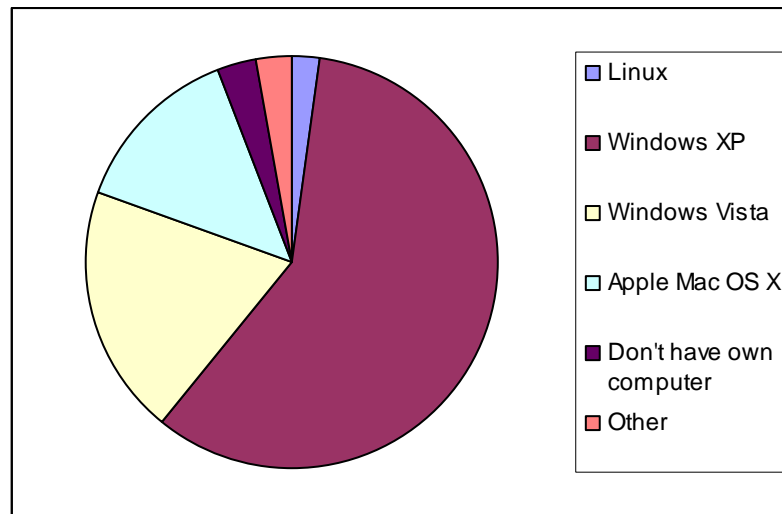
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Key Findings (see Appendix 1 for full results)

Respondent Information

83.5% of respondents had a laptop that was 3 years old or less (40.3% had a laptop that was under 1 year old). The pie chart below shows the spread of operating systems.



It demonstrates the growing population using Vista.

Connection Problems

81.1% of respondents had tried to connect to the wireless network and 62.3% of those had difficulty connecting.

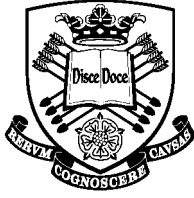
38% of people who tried never managed to connect. The majority of those who had problems did not get them resolved.

Problems included being unable to understand instructions (15.6%), find any instructions (13.7%) and not getting a signal (41.2%)

Of the 18.9% who hadn't tried to connect to the wireless network 30% didn't need to and 26.6% didn't know it existed.

Networks

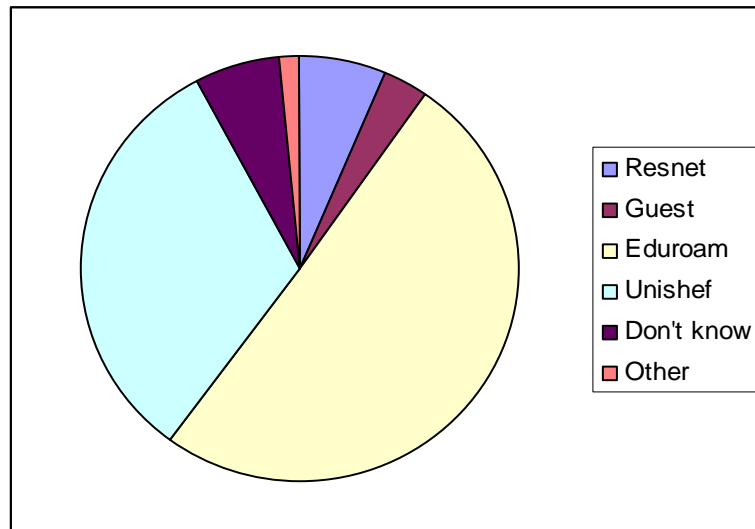
The pie chart over the page shows the networks connected to.



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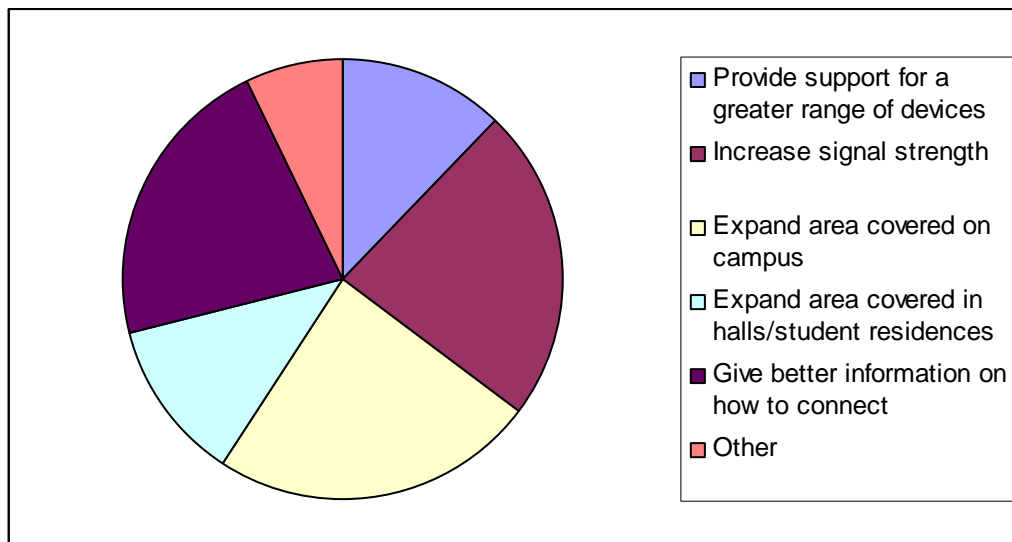


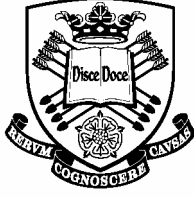
Unishef and Eduroam share the majority of connections. In the comments it was clear that respondents did not understand the difference between the networks and which network they should use.

Details were given of specific areas where problems occurred (see appendix 2 for all comments). These included the Arts Tower and student residences.

Improvements

The pie chart below shows the response to the question 'How can we improve the wireless network for you?'





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There is a significant call for support to access the network via mobile devices as well as a request to expand the network both on campus and at residences. Connection information is also highlighted as an issue.

Communication

We asked respondents how they wanted to be updated and informed about the wireless network. 71.9% highlighted the website, 34% wanted a leaflet and 28.3% wanted to utilise CiCS Helpdesk. In the comments it was noted that information on connection on the website couldn't be viewed if you couldn't connect.

Research post-grads (see Appendix 3)

As a higher proportion of research post-grads responded to the questionnaire it is worth examining their responses separately.

Research post-grads had a higher proportion of laptops that were 1-3 years old rather than less than 1 year (53.9% 1-3 year rather than 43.2% general responses). 64.6% were on Windows XP.

87.3% had tried to connect to the wireless network, 65.9% had problems and 37% didn't manage to connect. This is reasonably similar to the general population although slightly more had tried to connect (81.1% of general population).

More Research post-grads connected to Unishef than any other network (53.9%) and they highlighted signal strength as their main issue for improvement.

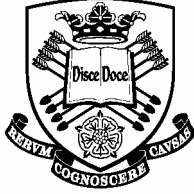
Discussion

Networks

The main reason for having a number of different networks is security. Wireless is not as secure a service as wired computer connections.

Eduroam is a national educational service used at many universities. It is more secure than other services but, due to this, is more complicated to set up. It also doesn't allow much support for mobile devices.

As a back-up and an addition to this the University provides Unishef. This is less secure, easier to set up and can be accessed by more mobile devices. As it is less secure it only allows access to parts of the internal network unless users sign up to VPN. Users did not seem to be aware of this.



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Resnet is the services for residences. Due to it's reduced security the intention is to move to a wired service for all residences.

Guest is a service for guests of the University.

Connection

Connection to the wireless service can be complicated and requires use of the RATS/VPN password. People are not clear where to access this.

A connection client, such as Odyssey, can be used to simplify connection. Odyssey provides simpler connection that is more secure. It could be particularly useful for PDAs or other mobiles devices.

Coverage

At the moment CiCS aims to provide coverage for teaching and social spaces. Wireless is not intended to cover staff working space as staff are encouraged to used a wired connection. Departments themselves can request wireless coverage for specific areas. This has a charge.

Some buildings, therefore, have wireless access in some areas and not others such as the Arts Tower. All new builds are having the cabling installed for wireless access points (although decisions have not yet been made about wireless coverage in these buildings). Residences are moving to a wired connection.

One problem may be people trying to access a wireless connection in an area where it is not provided. Either they will get a weak or no signal.

A decision needs to be made whether wireless access across campus is something that should expand as it isn't as secure as a wired service. It would be a high cost and have an effect on funding other CiCS services. However, comments suggest that full wireless coverage is expected as a service.

Service Fluctuations

Wireless connections can be affected by walls, closed doors or even people standing in the way. As such it is not as reliable as a wired connection. This issue has not been communicated to users.

Communication

It is clear that communication about the wireless services needs to be improved. We need to improve awareness of the service and communicate clearly which networks are available and where. Also information needs to be given about security and wireless fluctuations.



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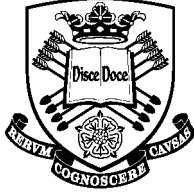
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Connecting to the wireless services needs to be supported and clearer information given.

Communication about the coverage is vital and must be specific i.e. we can not say we have wireless in the Arts Tower (without specifying where) if it is not complete coverage.



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Recommendations

Technical

- Review signal location requests
- Review specific location comments in questionnaire
- Review information on wireless connection screen
- Move from wireless to wired in all residences
- All refurbished lecture theatres get fitted with wireless moving forward.
- Review the potential use of Odyssey

Customer Service/Communication

- Review paper documentation and website information on the wireless network including stating clearly where it is and where it is not available
- Review the connection information for different operating systems
- Produce connection guidance for mobile devices
- Review information on printing from a wireless connection
- Review where and how information is made available (i.e. consider putting on induction CD, training, podcast/vodcast, wireless clinics)
- Review signage for the wireless network in conjunction with Voice and Data.
- Provide clear information about where to obtain your RATS password
- Have any new documentation/information reviewed by users to ensure it is clear
- Document, review and communicate our strategic plan for the development of the wireless service including spread across campus, usage recommendations and resourcing.