

Wireless Connectivity - Frequently asked Questions

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1. What distance does wireless signal stretch?

The wireless signal coverage is conventionally "Line of sight" however the wireless Signal will penetrate through walls , ceilings and others material objects. Each time the RF Signal does a penetration; this weakens the signal and reduces the distance it can travel. Materials that impede the signal are tin and other metals, window tint, trees and high moisture content objects.

As a guide

802.11b Max Distance @ 11 Mbps: 180metres

Max Distance @ 5.5 Mbps: 300metres

802.11g Max Distance @ 54 Mbps: 50metres

Max Distance @ 18 Mbps: 150metres

2. Will eBeam work through wireless?

No – This is only available through a wired connection.

3. Can we work outside in a field?

Yes , if your notebook is able to receive a signal.

4. Will the wireless network totally replace the existing network?

No.

5. How will students connect to the wireless network?

Students who have a wireless enabled notebook can connect to the network via the **DETPORTAL** SSID (Service Set Identifier) in their wireless connection software. Open your web browser and begin accessing the internet.

You will be presented with a logon page where you will have to type in your DET UserID *{firstname.lastname}* and your password in order to access the internet. Further information is available at <http://www.hunter.tafensw.edu.au/services/online/Pages/default.aspx> or from your campus library.

6. Are the wireless devices 54mb or 108mb?

Wireless enabled 802.11g devices are capable of 54mb, however this is dependent on the signal strength. Some will connect at 48mb or 24 mb.

Wireless enabled 802.11a devices are capable of 108mb in turbo mode, however this is dependent on the signal strength. As the signal strength reduces so does the speed (mb per second).

Most modern wireless enabled devices are 802.11abg enabled and will select the most appropriate speed to connect with.

7. Will students require ergonomic chairs and furniture?

This should be evaluated on an individual needs basis in conjunction with the Disabilities Unit.

8. How secure is the wireless network?

The network has a high degree of security and utilises the latest in encryption and authentication mechanisms. It uses IEEE 802.1x authentication with dynamic WEP keys and supports several EAP types.

9. How will students, bringing in their own devices, impact on the wireless network?

The wireless network utilises a system called "quality of service". This system monitors the bandwidth and maintains an equal share for every connected user.

10. What happens if a student brings an assignment to class on their own laptop and their HDD fails?

This is not a fault of the Wireless network. This is a Notebook/hardware problem and should be dealt with as such.

11. How many laptops can connect to each access point?

The max is 56 although this figure is based on ideal conditions.

Realistically 20 notebooks can be connected concurrently.

12. Can we have 3 access points in a room to speed up the connection?

The number of access points does not mean greater speed as the network "quality of service" system will ensure each user receives an equal amount of bandwidth speed.

13. Will printing be available?

Not at this time.

14. Will the wireless network affect VOIP or the speed of the network?

No, because the network "quality of service" system will ensure each users' application receives an equal amount of bandwidth speed.

15. Will the wireless network run on the existing network?

The wireless network connects to the existing network.

16. Are the access points movable?

No. Access points are positioned to maximise coverage and minimise interference with other access points.

17. Will diagrams be available showing the range of the access points, and when will they be available?

This is a work in progress and eventually these will become available.

18. How will laptops be updated when off-site?

DET supplied laptops will need to be connected to the DET network to allow for updates to be completed.

19. Will you be able to choose the access point you are using?

Wireless connections are based on the strongest signal connecting first. You may, however, utilise your wireless connections window associated with your wireless software to select and connect to another access point. For example connecting to your work access point and connecting to your home access point.

20. Can I set up my own wireless network?

No. The only wireless devices that are to connect to the TAFENSW – Hunter Institute network will be supported by Regional IT Services and DET. This is due to the well documented insecurities in wireless infrastructure and the detrimental effect of unplanned wireless deployment on the Institute networks.

21. How do I know if the wireless network is available?

If you are unable to connect to a wireless access point, you can use the utilities supplied with your wireless-enabled notebook to determine if the network is visible. Although the wireless network is stable, access can be affected by other devices, e.g. cordless phones, microwave ovens, wireless cameras etc.

22. Who pays for the access point in shared rooms?

Where wireless access is required to cover learning spaces used by a number of different faculty users, then procurement of necessary infrastructure will be negotiated between campus, faculty and RITS management.