

Bonded ADSL

Schools and Education Brief



Increase Your School's Broadband Speed ADSL Bonding by

There is no need to wait for the NBN. High speed Internet is available right now at your school for your students, admin staff and teachers.

Teaching and learning success in this digital age is becoming more dependent on fast, reliable and responsive broadband.

As a teacher in today's classrooms, are you relying more on access to technology to help you educate your students? Are your students using the Internet more each day to research their projects, participate in online, real time discussion sessions or to simply find out about how something works? Is the speed and reliability of your school's Internet service letting you down and is more of a burden than a quality, educational tool? If you answered 'yes' to any of these questions, you are not alone.

A recent survey[^] found that 99% of teachers in the survey agree with the notion that "the Internet enables students to access a wider range of resources than would otherwise be available. This is not a great surprise really. It is a great tool for students, teachers and administration staff alike.



In our discussions with schools over the last few years, we too are seeing an sharp increase in Internet usage. Again, this is probably not news to you; every business is relying on the World Wide Web to a greater degree to manage their business. The challenge is that many schools have not had cost effective options available to support the ever growing demand on their Internet connection. You may well be still relying on a single service to connect to the Internet – most likely ADSL. The NBN is still many years away from wide coverage. Up to 6-20 years in some cases. So how do you deal with an increase in Internet usage when the options for faster Internet speed are limited - or very expensive? Have you often thought why can't we just join together

another connection like the one we have? There is a solution.

Imagine being able to offer your students access to online services three, four or even five times faster than what they have today. Imagine teaching your class and being able to have fast and reliable access to Wikipedia. Or being able to show YouTube videos that don't pause or stop part way through. Or being able to give your students access to world-wide research material at their fingertips; quickly and reliably. Or simply being able to turn on an online video and *know* that it will play from start to finish - non-stop. In schools with a single ADSL connection to the Internet, a lot of these things are simply not possible - and if they are, having it work quickly and effectively is very rare.

Fusion Broadband has a cost effective, reliable and scalable option that is simple, easy to install and is available right now; why wait for the NBN? Our solution alleviates frustration due to slow Internet connection speeds. Fusion Broadband is a unique service that simply bonds multiple ADSL connections together to give you a faster and more reliable connection. It's a simple way to progressively increase your campus/school broadband connection's capacity and throughput with a very fast implementation time and little or no downtime. The bonded connection combines the bandwidth capacity of your existing ADSL connection to any number of new ADSL connections and effectively and efficiently multiplies your Internet speed - all for far less cost than any alternatives available today.

Think of it like lanes on a freeway. If you need to move more traffic, you just add more lanes!

The Fusion Broadband Advantage:

Availability

Fusion Broadband Bonding is available now.
No need to wait for the NBN for high speed Internet.
Installation is quick and seamless and can be completed in only a matter of days from ordering.

Affordable

High speed Internet access for a fraction of the cost.
No Capital Expenditure required.

Flexible

Add extra lines as required to cater for your growing school
Seamlessly combine any number of ISPs that you choose.
Choose several ISPs to ensure uninterrupted service should one ISP dropout.

Satisfied Teachers

Giving your teachers the tools and access to services increases teacher satisfaction and ultimately, student's productivity.

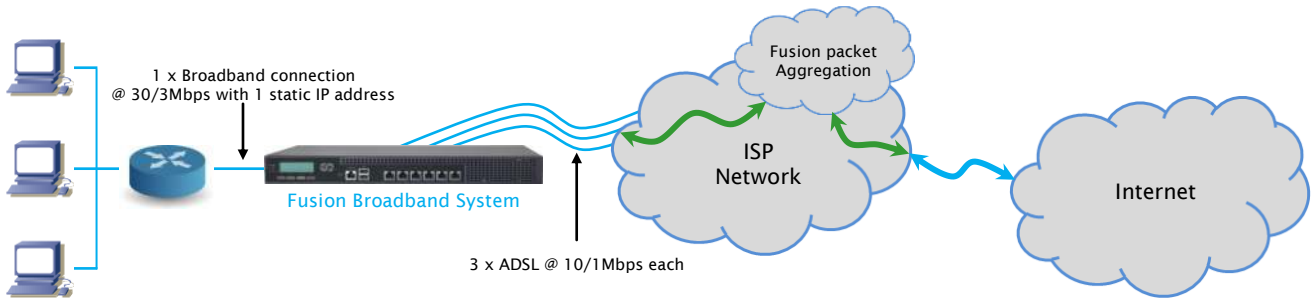
[^] Pew Research Centre Article Nov 1, 2012

How does Fusion Broadband work?

Broadband bonding combines two or more broadband connections into a single connection to achieve faster download and upload speeds. All with increased reliability through less dependency on one single connection.

Fundamentally, it works by installing the Fusion Broadband Bonding system in your office. We have systems that cater for up to five connections with upgrades for up to 20 connections and throughput over 100Mbps.

How does it work? With a single broadband connection, when a file is sent, it is broken up and sent out in small packets of information. One after the other each packet is sent over the line. With the Fusion Broadband Bonding Service groups of these packets are sent out on different lines simultaneously. So with 4 bonded connections each connection is effectively only dealing with a quarter of the file. This is what gives you a faster connection.



In addition to bonding multiple connections together, we also apply data compression to all data that passes through the bonding system, giving even more speed in both directions on all compressible data types.

How does Fusion compare?

We have a broad range of schools that use the Fusion Bonding service across the country. Many of the schools adopting our service have moved from a single ADSL Service and have noticed marked improvements in their Internet speed and stability. Access to ADSL services varies from town to town and ADSL speeds vary significantly depending on how far from the exchange your school is located. Here are some examples of how our customers have benefitted from the Fusion Broadband system.

School	Pre & Post Fusion Services		Speed in Mbps			Approximate Monthly Cost
			Direction	Upload	Download	
Dubbo - NSW	Pre:	1 x ADSL 2+	Before	0.78	5.5	\$580
	Post:	3 x ADSL 2+	After	2.46	36.9	
Lilydale - Victoria	Pre:	1 x ADSL 2+	Before	0.7	5.5	\$750
	Post:	3 x ADSL 1 & 1 x ADSL 2+	After	2.5	18.77	
Croydon - Victoria	Pre:	1 x ADSL 2+	Before	0.71	5.17	\$750
	Post:	4 x ADSL 2+	After	3.2	18.7	
Warwick - Queensland	Pre:	1 x ADSL 2+	Before	0.77	10	\$750
	Post:	4 x ADSL 2+	After	4.2	36	

The speeds above are based non-compressible data. For highly compressible data, speeds of up to 4 times this rate can be achieved. A test run at a school in Croydon, Victoria (listed above) with compression turned on achieved an upload speed of 19.2Mbps!

Who is Fusion Broadband?

Fusion Broadband was established in 2009 through the need for faster broadband for small to medium businesses throughout Australia. Our goal is to provide schools and businesses with an easy, affordable, broadband service that is ISP independent and provides customers ultimately what they need; high speed data connections with more reliability and stability. Our solutions can be provisioned as an add on service to existing broadband connections supplied through any ISP.

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