janet

Wales Service Report

October 2015

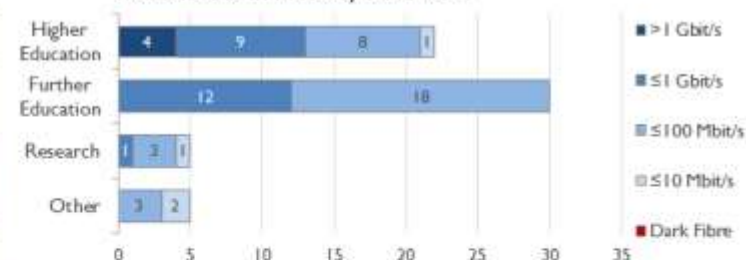## Service Reliability

The SLA sets a target minimum of 99.7% availability for each service averaged over a 12 month rolling period

Average Availability

— Wales   ····· JANET

Connections in Wales by Bandwidth

- ■ >1 Gbit/s
- ■ ≤1 Gbit/s
- ■ ≤100 Mbit/s
- ▫ ≤10 Mbit/s
- ■ Dark Fibre

Higher Education: 4, 9, 8, 1
Further Education: 12, 18
Research: 1, 3, 1
Other: 3, 2

	Average Availability of All Services in Wales			Average Availability of All Services in Janet		
Oct 2015	Equivalent Unavailability in Minutes per Service	12 Months Rolling	Equivalent Unavailability in Minutes per Service	Oct 2015	Equivalent Unavailability in Minutes per Service	12 Months Rolling	Equivalent Unavailability in Minutes per Service
100%	0	99.97%	141	99.96%	19	99.96%	209
Mean Time to Repair		Average Faults per Service per Year		Mean Time to Repair		Average Faults per Service per Year	
2h 21m		0.75		5h 28m		0.67	
Based on 90 faults over the last 24 months				Based on 1385 faults over the last 24 months			

Wales Service Outages - Last 12 Months

- ▫ Services with no outage
- ■ Services with outage
- ■ Services failing SLA

Higher Education: 20
Further Education: 27
Research: 3, 1
Other: 5

NB: Periods of scheduled and emergency maintenance are not included in reliability performance statistics
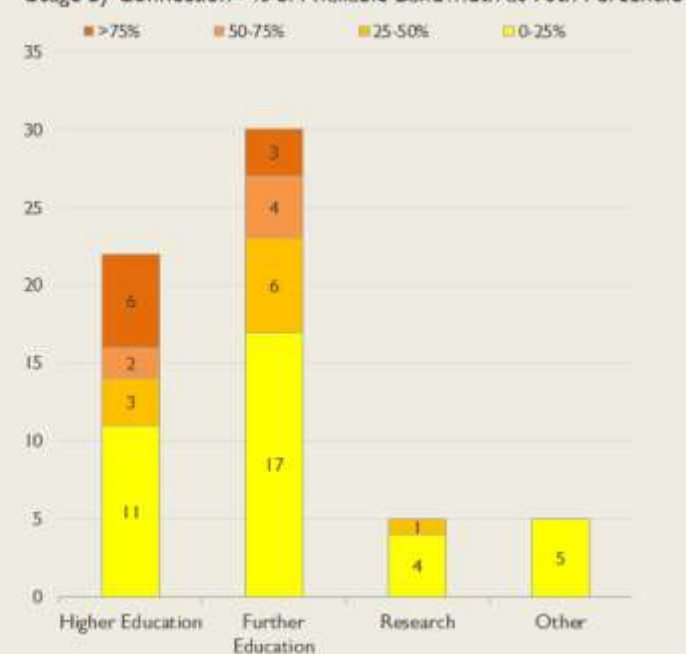
Connection Usage

Traffic usage is expressed as the sum, in gigabytes, of the volume of data carried in both directions in the month, for all links being charted

All Traffic - Wales

— Last 12 months   ····· Previous 12 months

Percentages show year on year comparison

+36% +31% +33% +36% +23% +57% +46% +41% +37% +54% +59% +47%

Usage by Connection - % of Available Bandwidth at 90th Percentile

- ■ >75%
- ■ 50-75%
- ■ 25-50%
- ▫ 0-25%

Higher Education: 11, 3, 2, 6
Further Education: 17, 6, 4, 3
Research: 4, 1
Other: 5

Wales Traffic Against Janet Traffic

- ▫ Wales Traffic
- ▫ Janet Traffic
- — % of Janet Traffic from Wales

Service Availability

The SLA target sets a minimum of 99.7% availability for each customer, averaged over a 12 month rolling period

Periods of scheduled and emergency maintenance are discounted when calculating availability of services

Monthly and annual availabilities falling below 99.7% are highlighted

* Service has resilience - where an organisation retains connectivity during an outage period by means of a second connection, the outage is not counted against its availability figures

Service	Nov 14	Dec 14	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	12 Month Rolling Availability
Aberystwyth University, Llandinam Building	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Aberystwyth University, Visualisation Centre	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Bangor University, Deiniol Road	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Bridgend College	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Cardiff Metropolitan University, Llandaff Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.95%	100%	100%	100%	>99.99%
Cardiff Metropolitan University, Cyncoed Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Cardiff University, Trevithick Building	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Cardiff University, Cathays Park	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Cambria, Yale	100%	100%	100%	100%	100%	100%	100%	99.93%	99.98%	100%	100%	100%	>99.99%
Coleg Cambria, Deeside	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Cambria, Llysfasi	100%	100%	100%	100%	100%	100%	100%	99.93%	99.98%	100%	100%	100%	>99.99%
Coleg Cambria, Northop	100%	100%	100%	100%	100%	100%	100%	99.93%	99.98%	100%	100%	100%	>99.99%
Coleg Ceredigion, Aberystwyth Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Ceredigion, Cardigan Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Elidyr	100%	100%	100%	100%	100%	99.64%	100%	100%	99.98%	100%	100%	100%	99.97%
Coleg Gwent, Blaenau Gwent Learning Zone	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Gwent, Usk	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Sir Gar*	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%*
Coleg Y Cymoedd, Ystrad Mynach Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Coleg Y Cymoedd, Nantgarw Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Glyndwr University, Wrexham, Edward Llwyd Building				100%	100%	100%	100%	100%	99.98%	100%	100%	100%	<12 Months
Glyndwr University, Wrexham, Computer Centre	100%	100%	100%	100%	100%	100%	100%	99.93%	99.98%	100%	100%	100%	>99.99%
Gower College Swansea, Gorseinon Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Gower College Swansea, Tycoch Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%

Service	Nov 14	Dec 14	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	12 Month Rolling Availability
Grwp Llandrillo-Menai, Coleg Llandrillo	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Grwp Llandrillo-Menai, Coleg Menai	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
High Performance Computing Wales	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Higher Education Funding Council for Wales	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Medical Research Council, Bridgend Data Centre*	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Merthyr Tydfil College Limited	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Mudiad Meithrin Cyf, Aberystwyth	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
National Institute of Adult Continuing Education, Dysgu Cymru, Cardiff	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Natural Environment Research Council, CEH, Bangor	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Natural Environment Research Council, British Geological Survey, Cardiff	100%	100%	100%	100%	100%	100%	100%	99.60%	99.98%	100%	100%	100%	99.97%
Natural Environment Research Council, CEH, Climate Change Solardome Facility	100%	100%	100%	100%	100%	85.84%	100%	99.86%	99.98%	100%	100%	100%	98.81%
Neath Port Talbot College, Neath Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Neath Port Talbot College, Newtown Campus	100%	100%	100%	100%	100%	98.87%	100%	100%	99.98%	100%	100%	100%	99.90%
Pembrokeshire College	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Pembrokeshire College, MITEC										100%	100%	100%	<12 Months
Royal Mencap Society, Mencap National College - Pengwern	100%	100%	100%	100%	99.01%	100%	100%	100%	99.98%	100%	100%	100%	99.92%
Royal Welsh College of Music and Drama	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
St David's Catholic College	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Swansea University, College of Human and Health Sciences	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Swansea University, Library and Information centre	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
The Cardiff and Vale College, Trowbridge	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
The Cardiff and Vale College, Colcot Road	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
The Cardiff and Vale College, Canal Parade										100%	100%		<12 Months
The Open University, Cardiff							100%	100%	99.98%	100%	100%	100%	<12 Months
University of South Wales, Caerleon Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
University of South Wales, Cardiff Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
University of South Wales, Treforest Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
University of South Wales, Newport City Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%

Service	Nov 14	Dec 14	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	12 Month Rolling Availability
University of Wales Prifysgol Cymru	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
University of Wales Trinity Saint David, Carmarthen Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
University of Wales Trinity Saint David, Lampeter Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
University of Wales Trinity Saint David, Swansea Campus	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
WEA YMCA CC Cymru, Coleg Harlech Workers' Educational Association	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
WEA YMCA CC Cymru, Coopers Yard	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Y Coleg Cymraeg Cenedlaethol, Head Office	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%
Y Coleg Cymraeg Cenedlaethol, Cardiff Office	100%	100%	100%	100%	100%	100%	100%	100%	99.98%	100%	100%	100%	>99.99%

Connection outages for current month

Maintenance outages are included in this table - only unscheduled maintenance is counted against availability.

Some of the outages reported below are on circuits which are not connected through the selected region - they appear in the table because they are part of a service whose primary connection does belong to this region.

Connection	Start Date and Time	End Date and Time	Parking hh:mm	Duration hh:mm	Fault Type	Description
The Cardiff and Vale College, Colcot Road	03/10/2015 19:37	04/10/2015 09:59	00:00	14:22	Customer Environment	Power failure
Grwp Llandrillo-Menai, Coleg Llandrillo	13/10/2015 10:57	13/10/2015 11:07	00:00	00:10	Denial of Service	DoS attack
Grwp Llandrillo-Menai, Coleg Llandrillo	13/10/2015 12:53	13/10/2015 13:11	00:00	00:18	Denial of Service	DoS attack
Grwp Llandrillo-Menai, Coleg Llandrillo	13/10/2015 15:20	13/10/2015 15:34	00:00	00:14	Denial of Service	DoS attack
University of Wales Trinity Saint David, Swansea Campus	31/10/2015 09:11	31/10/2015 11:45	00:00	02:34	Customer Scheduled Maintenance	Site maintenance

Link Utilisation

The table shows utilisation at the 90th percentile, i.e. for 90% of the samples within the period the traffic was at or below the level shown and for 10% of the samples traffic was above the level shown. The figure therefore gives a reasonable indication of the loading of the connection during the busiest periods. The measurements are shown as a percentage of the available raw bandwidth, and only the highest of the to/from readings for the month is used.

Some of the connections reported below are not connected through the selected region - they appear in the table because they are part of a service whose primary connection does belong to this region.

Connection	Current Bandwidth	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
Aberystwyth University, Llandinam Building	100Mbit/s	660%	605%	644%	708%	711%	693%	712%	247%	178%	167%	624%	858%
Aberystwyth University, Visualisation Centre	1Gbit/s	65%	58%	66%	75%	70%	74%	76%	27%	11%	9%	60%	81%
Bangor University, Deiniol Road	2Gbit/s	50%	48%	53%	63%	54%	60%	57%	25%	13%	14%	53%	74%
Bridgend College	1Gbit/s	7%	3%	7%	7%	8%	7%	6%	7%	1%	1%	4%	6%
Cardiff Metropolitan University, Cyncoed Campus	1Gbit/s	29%	28%	27%	38%	37%	19%	31%	13%	6%	6%	26%	39%
Cardiff Metropolitan University, Llandaff Campus	1Gbit/s	62%	51%	12%	20%	21%	13%	15%	9%	9%	7%	11%	25%
Cardiff University, Cathays Park	10Gbit/s	33%	50%	27%	32%	34%	33%	34%	8%	8%	8%	9%	13%
Cardiff University, Trevithick Building	10Gbit/s	58%	34%	60%	68%	67%	58%	66%	11%	4%	5%	16%	23%
Coleg Cambria, Deeside	1Gbit/s	16%	15%	18%	18%	20%	18%	17%	17%	3%	2%	15%	18%
Coleg Cambria, Llysfasi	100Mbit/s	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%
Coleg Cambria, Northop	100Mbit/s	25%	21%	29%	29%	36%	30%	36%	33%	6%	3%	52%	34%
Coleg Cambria, Yale	1Gbit/s	17%	15%	18%	19%	21%	18%	18%	17%	2%	2%	18%	22%
Coleg Ceredigion, Aberystwyth Campus	100Mbit/s	58%	24%	29%	25%	22%	80%	61%	75%	74%	55%	71%	60%
Coleg Ceredigion, Cardigan Campus	100Mbit/s	90%	17%	22%	20%	21%	86%	83%	83%	82%	81%	83%	45%
Coleg Elidyr	100Mbit/s	9%	8%	7%	10%	10%	9%	10%	12%	11%	7%	14%	14%
Coleg Gwent, Blaenau Gwent Learning Zone	1Gbit/s	28%	23%	30%	31%	34%	31%	29%	23%	3%	3%	28%	29%
Coleg Gwent, Usk	200Mbit/s												
Coleg Sir Gar, Graig Campus	100Mbit/s	74%	72%	82%	74%	85%	80%	78%	71%	22%	19%	122%	148%
Coleg Sir Gar, Pibwrlwyd Campus	100Mbit/s	10%	8%	8%	8%	11%	10%	10%	8%	12%	5%	11%	14%
Coleg Y Cymoedd, Nantgarw Campus	100Mbit/s	98%	72%	99%	97%	108%	90%	87%	86%	16%	9%	94%	113%
Coleg Y Cymoedd, Ystrad Mynach Campus	1Gbit/s	6%	4%	6%	5%	7%	5%	6%	7%	1%	1%	5%	6%
Glyndwr University, Wrexham, Computer Centre	1Gbit/s	282%	252%	269%	275%	268%	268%	222%	10%	12%	11%	26%	35%
Glyndwr University, Wrexham, Edward Llwyd Building	1Gbit/s			<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%
Gower College Swansea, Gorseinon Campus	100Mbit/s	41%	29%	41%	42%	45%	36%	34%	36%	3%	2%	72%	90%
Gower College Swansea, Tycoch Campus	100Mbit/s	68%	44%	78%	69%	66%	60%	55%	54%	11%	10%	29%	32%

Connection	Current Bandwidth	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
Grwp Llandrillo-Menai, Coleg Llandrillo	1Gbit/s	23%	21%	25%	24%	26%	24%	25%	21%	5%	4%	21%	28%
Grwp Llandrillo-Menai, Coleg Menai	1Gbit/s	4%	3%	5%	5%	6%	6%	5%	4%	1%	1%	6%	6%
High Performance Computing Wales	1Gbit/s	3%	24%	4%	15%	14%	7%	6%	1%	<0.5%	1%	2%	1%
Higher Education Funding Council for Wales	100Mbit/s	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Medical Research Council, Bridgend Data Centre, Cardiff University	100Mbit/s	1%	1%	1%	2%	2%	3%	3%	2%	4%	3%	2%	1%
Medical Research Council, Bridgend Data Centre, Updata Local Exchange	100Mbit/s	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%
Merthyr Tydfil College Limited	100Mbit/s	47%	37%	47%	50%	56%	51%	41%	38%	10%	8%	54%	58%
Mudiad Meithrin Cyf, Aberystwyth	10Mbit/s	15%	6%	11%	14%	11%	14%	6%	7%	13%	97%	96%	15%
National Institute of Adult Continuing Education, Dysgu Cymru, Cardiff	100Mbit/s	10%	13%	20%	19%	13%	16%	3%	2%	3%	2%	2%	1%
Natural Environment Research Council, British Geological Survey, Cardiff	100Mbit/s	1%	<0.5%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Natural Environment Research Council, CEH, Bangor	1Gbit/s	31%	30%	30%	31%	32%	32%	35%	40%	33%	31%	31%	30%
Natural Environment Research Council, CEH, Climate Change Solardome Facility	2Mbit/s	1%	1%	2%	2%	11%	13%	12%	13%	13%	13%	13%	12%
Neath Port Talbot College, Neath Campus	1Gbit/s	49%	44%	55%	58%	69%	73%	71%	73%	16%	13%	7%	8%
Neath Port Talbot College, Newtown Campus	500Mbit/s	9%	7%	9%	9%	8%	1%	4%	9%	2%	1%	6%	7%
Pembrokeshire College	1Gbit/s	7%	7%	8%	8%	9%	8%	7%	9%	2%	1%	8%	9%
Pembrokeshire College, MITEC	100Mbit/s										<0.5%	<0.5%	<0.5%
Royal Mencap Society, Mencap National College - Pengwern	10Mbit/s	37%	23%	<0.5%	<0.5%	<0.5%		<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%
Royal Welsh College of Music and Drama	100Mbit/s	17%	11%	16%	19%	21%	13%	20%	18%	13%	10%	20%	28%
St David's Catholic College	100Mbit/s	47%	35%	55%	55%	53%	51%	43%	28%	7%	2%	56%	67%
Swansea University, College of Human and Health Sciences	10Mbit/s	18%	79%	21%	23%	17%	24%	24%	24%	21%	22%	35%	24%
Swansea University, Library and Information centre	2Gbit/s	69%	62%	76%	81%	78%	81%	81%	67%	25%	24%	61%	86%
The Cardiff and Vale College, Canal Parade	1Gbit/s											61%	61%
The Cardiff and Vale College, Colcot Road	100Mbit/s	31%	24%	30%	31%	35%	28%	27%	21%	11%	14%	41%	43%
The Cardiff and Vale College, Trowbridge	100Mbit/s	59%	45%	61%	58%	64%	52%	48%	28%	12%	3%	5%	7%
The Open University, Cardiff	100Mbit/s							6%	7%	7%	6%	8%	7%
University of South Wales, Caerleon Campus	1Gbit/s	5%	3%	4%	5%	5%	4%	4%	2%	2%	2%	2%	4%
University of South Wales, Cardiff Campus	1Gbit/s	4%	3%	4%	4%	4%	4%	4%	2%	3%	12%	13%	13%

Connection	Current Bandwidth	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
University of South Wales, Newport City Campus	100Mbit/s	2%	<0.5%	<0.5%	<0.5%	<0.5%	1%	<0.5%	<0.5%	1%	1%	1%	1%
University of South Wales, Treforest Campus	100Mbit/s	266%	159%	261%	280%	303%	221%	227%	135%	148%	127%	169%	396%
University of Wales Prifysgol Cymru	100Mbit/s	4%	5%	5%	5%	5%	6%	4%	5%	6%	5%	7%	9%
University of Wales Trinity Saint David, Carmarthen Campus	100Mbit/s	174%	150%	174%	201%	204%	174%	186%	71%	44%	27%	169%	231%
University of Wales Trinity Saint David, Lampeter Campus	100Mbit/s	207%	129%	190%	203%	202%	254%	258%	175%	164%	141%	196%	231%
University of Wales Trinity Saint David, Swansea Campus	300Mbit/s	41%	32%	48%	47%	46%	40%	41%	22%	21%	17%	34%	53%
WEA YMCA CC Cymru, Coleg Harlech Workers' Educational Association	100Mbit/s	2%	<0.5%	1%	1%	1%	<0.5%	1%	1%	<0.5%	1%	1%	1%
WEA YMCA CC Cymru, Coopers Yard	100Mbit/s	2%	1%	2%	2%			2%	3%	3%	2%	3%	3%
Y Coleg Cymraeg Cenedlaethol, Cardiff Office	100Mbit/s	1%	<0.5%	1%	1%	1%	1%	<0.5%	1%	1%	<0.5%	1%	1%
Y Coleg Cymraeg Cenedlaethol, Head Office	100Mbit/s	2%	2%	2%	2%	2%	2%	2%	2%	2%	30%	22%	3%