janet

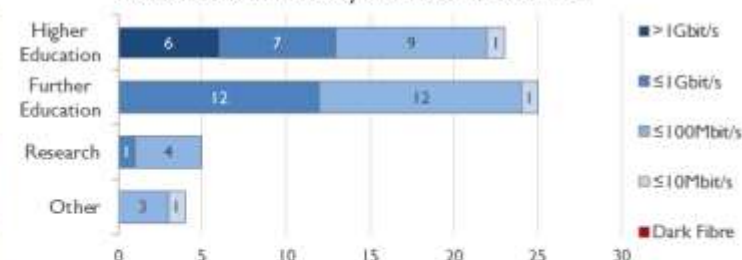Wales Service Report

September 2016

Jisc

Service Reliability

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

Average Availability - HE & FE — Wales ····· JANET

Connections in Wales by Contractual Bandwidth

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

Average Availability of HE & FE Services in Wales

Sep 2016	Equivalent Unavailability in Minutes per Service	12 Months Rolling	Equivalent Unavailability in Minutes per Service
100%	0	>99.99%	6

Mean Time to Repair	Average Faults per Service per Year
28m	0.30
Based on 60 faults over the last 24 months	

Average Availability of HE & FE Services in Janet

Sep 2016	Equivalent Unavailability in Minutes per Service	12 Months Rolling	Equivalent Unavailability in Minutes per Service
99.95%	22	99.95%	264

Mean Time to Repair	Average Faults per Service per Year
5h 39m	0.67
Based on 1199 faults over the last 24 months	

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

Wales Service Outages - Last 12 Months

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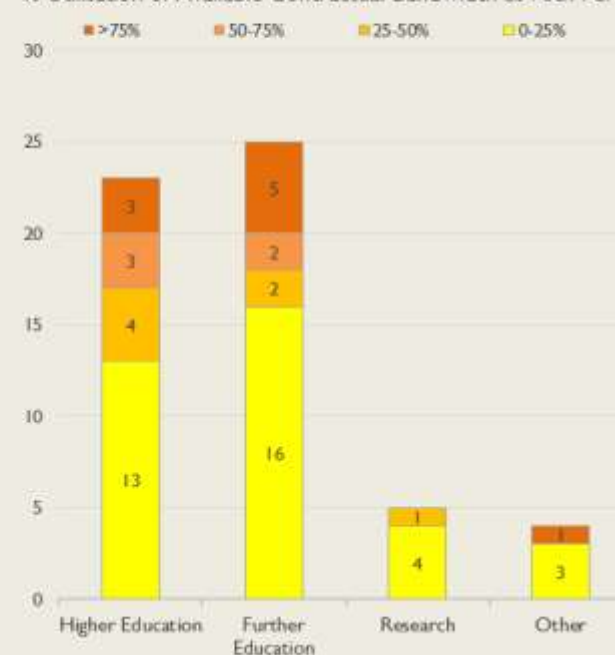- ■ Services failing SLA

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

HE & FE Traffic - Wales

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

Percentages show year on year comparison

Wales HE & FE Traffic Against Janet HE & FE Traffic

■ Wales HE & FE Traffic   ■ Janet HE & FE Traffic   —— % of Janet HE & FE Traffic from Wales

% Utilisation of Available Contractual Bandwidth at 90th Percentile

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

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	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	12 Month Rolling Availability
Aberystwyth University, Llandinam Building	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Aberystwyth University, Visualisation Centre	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Bangor University, Archimedes Centre						100%	100%	100%	100%	100%	100%	100%	<12 Months
Bangor University, Deiniol Road	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Bridgend College, Bridgend Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Bridgend College, Maesteg Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Bridgend College, Pencoed Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Bridgend College, Queens Road Campus				100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Cardiff Metropolitan University, Llandaff Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cardiff Metropolitan University, Cyncoed Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cardiff University, Trevithick Building	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cardiff University, St Davids Hall											100%	100%	<12 Months
Cardiff University, COMSC				100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Cardiff University, Cathays Park	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Cambria, Deeside [1]	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Cambria, Yale	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Cambria, Deeside [2]						100%	100%	100%	100%	100%	100%	100%	<12 Months
Coleg Cambria, Llysfasi	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Cambria, Northop	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Ceredigion, Aberystwyth Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Ceredigion, Cardigan Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Elidyr	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Gwent, Crosskeys Campus						100%	100%	100%	100%	100%	100%	100%	<12 Months
Coleg Gwent, Usk	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Service	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	12 Month Rolling Availability
Coleg Gwent, City of Newport Campus					100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Coleg Gwent, Blaenau Gwent Learning Zone	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Gwent, Link 2							100%	100%	100%	100%	100%	100%	<12 Months
Coleg Sir Gar *	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100% *
Coleg Sir Gar, Gelli Aur Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Coleg Sir Gar, Job's Well Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Coleg Sir Gar, Ammanford Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Coleg Y Cymoedd, Ystrad Mynach Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Coleg Y Cymoedd, Aberdare Campus							100%	100%	100%	100%	100%	100%	<12 Months
Coleg Y Cymoedd, Rhondda Campus							100%	100%	100%	100%	100%	100%	<12 Months
Coleg Y Cymoedd, Nantgarw Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Glyndwr University, Hawarden Business Park							100%	100%	100%	100%	100%	100%	<12 Months
Glyndwr University, Wrexham, Edward Llwyd Building	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Glyndwr University, St Asaph		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Glyndwr University, Wrexham, Computer Centre	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gower College Swansea, Tycoch Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gower College Swansea, Gorseinon Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Grwp Llandrillo Menai, Rhos on Sea										100%	100%	100%	<12 Months
Grwp Llandrillo Menai, Coleg Menai	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Grwp Llandrillo Menai, Coleg Llandrillo	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
High Performance Computing Wales, Sunnyside House							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Dylan Thomas Centre								100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Newport Road							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Dylan Thomas Centre - Singleton Park							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Port Talbot								100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, University of South Wales - Newport							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Cardiff Bay								100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Singleton Park							100%	100%	100%	100%	100%	100%	<12 Months

Service	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	12 Month Rolling Availability
High Performance Computing Wales, The Quay Brunel Way							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, James Street							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Deiniol Road							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Cardiff								100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Park Place							100%	100%	100%	100%	100%	100%	<12 Months
High Performance Computing Wales, Bridgend								100%	100%	100%	100%	100%	<12 Months
Merthyr Tydfil College Limited, Crownford House										100%	100%	100%	<12 Months
Merthyr Tydfil College Limited, Redhouse		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Merthyr Tydfil College Limited, Bio Mass Boiler Building		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Merthyr Tydfil College Limited	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Neath Port Talbot College, Newtown Campus	100%	100%	100%	100%	100%	**99.84%**	100%	100%	100%	100%	100%	100%	**99.99%**
Neath Port Talbot College, Brecon Beacons Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Neath Port Talbot College, Neath Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Neath Port Talbot College, Llandrindod Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Pembrokeshire College	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Pembrokeshire College, MITEC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Royal Welsh College of Music and Drama	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
St David's Catholic College	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Swansea University, Bay Campus				100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Swansea University, Blaenavon Data Centre							100%	100%	100%	100%	100%	100%	<12 Months
Swansea University, ROPC		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Swansea University, College of Human and Health Sciences	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Swansea University, Baglan Technium		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Swansea University, Information Services and Systems				100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
Swansea University, Library and Information centre	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
The Cambian Group, Mencap National College - Pengwern	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
The Cardiff and Vale College, The Parade							100%	100%	100%	100%	100%	100%	<12 Months
The Cardiff and Vale College, Barry Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
The Cardiff and Vale College, House of Sport		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months

Service	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	12 Month Rolling Availability
The Cardiff and Vale College, The Friary		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
The Cardiff and Vale College, Curran Road		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
The Cardiff and Vale College, ICAT		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
The Cardiff and Vale College, Canal Parade	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
The Cardiff and Vale College, Eastern Business Park				100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
The Cardiff and Vale College, Dumballs Road 2		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
The Cardiff and Vale College, CCTC		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
The Open University, Cardiff	100%	100%	99.55%	100%	99.73%	100%	100%	100%	100%	100%	100%	100%	99.94%
University of South Wales, Newport City Campus		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<12 Months
University of South Wales, Caerleon Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of South Wales, The Business Loft	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of South Wales, Cardiff Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of South Wales, Treforest Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of Wales Prifysgol Cymru	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of Wales Trinity Saint David, Carmarthen Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of Wales Trinity Saint David, Lampeter Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
University of Wales Trinity Saint David, Swansea Campus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Y Coleg Cymraeg Cenedlaethol, Cardiff Office	100%	100%	99.65%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.97%
Y Coleg Cymraeg Cenedlaethol, Head Office	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

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
Coleg Sir Gar, Graig Campus	19/09/2016 11:56	19/09/2016 12:20	00:00	00:24	Customer Maintenance	Local web filter and firewall issues
University of Wales Trinity Saint David, Swansea Campus	30/09/2016 19:15	30/09/2016 20:24	00:00	01:09	Customer Environment	Power failure at site
Coleg Elidyr	14/09/2016 13:32	14/09/2016 16:36	00:00	03:04	Customer Maintenance	Site power and server maintenance
Glyndwr University, Wrexham, Edward Llwyd Building	05/09/2016 08:40	05/09/2016 09:00	00:00	00:20	Customer Maintenance	Power maintenance

Link Utilisation of Contractual Bandwidth

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 contractual bandwidth, and only the highest of the to/from readings for the month is used.

Connection	Current Bandwidth	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Aberystwyth University, Llandinam Building	2Gbit/s	858%	923%	807%	886%	924%	869%	893%	909%	329%	22%		
Aberystwyth University, Visualisation Centre	2Gbit/s	81%	82%	72%	82%	86%	79%	81%	81%	26%			41%
Bangor University, Deiniol Road	2Gbit/s	74%	75%	71%	77%	84%	77%	83%	79%	32%	16%	16%	73%
Bridgend College, Bridgend Campus	1Gbit/s	6%	8%	3%	7%	8%	7%	9%	10%	9%	1%	1%	8%
Cardiff Metropolitan University, Cyncoed Campus	1Gbit/s	39%	44%	35%	42%	47%	41%	42%	34%	11%	5%	6%	35%
Cardiff Metropolitan University, Llandaff Campus	1Gbit/s	25%	29%	13%	23%	29%	24%	25%	18%	11%	11%	11%	15%
Cardiff University, Cathays Park	10Gbit/s	13%	13%	9%	12%	14%	13%	14%	14%	10%	11%	11%	12%
Cardiff University, Trevithick Building	10Gbit/s	23%	24%	20%	24%	26%	24%	23%	24%	11%	5%	6%	21%
Coleg Cambria, Deeside [1]	1Gbit/s	18%	19%	17%	22%	22%	23%	20%	22%	17%	3%	3%	21%
Coleg Cambria, Northop	1Gbit/s	34%	43%	28%	50%	48%	42%	41%	78%	3%	<0.5%	<0.5%	3%
Coleg Cambria, Yale	1Gbit/s	22%	25%	19%	26%	24%	27%	24%	24%	16%	2%	2%	23%
Coleg Ceredigion, Aberystwyth Campus	100Mbit/s	60%	21%	15%	22%	18%	81%	21%	25%	82%	4%	9%	18%
Coleg Ceredigion, Cardigan Campus	100Mbit/s	45%	23%	18%	23%	80%	25%	26%	33%	23%	4%	28%	28%
Coleg Elidyr	100Mbit/s	14%	15%	14%	14%	15%	15%	13%	14%	17%	16%	8%	15%
Coleg Gwent, Blaenau Gwent Learning Zone, Link 1	1Gbit/s	29%	34%	24%	32%	31%	33%	32%	34%	15%	4%	4%	29%
Coleg Sir Gar, Graig Campus	100Mbit/s	148%	181%	164%	203%	195%	190%	190%	186%	148%	26%	36%	192%
Coleg Sir Gar, Pibwrlwyd Campus	100Mbit/s	14%	14%	12%	16%	34%	17%	17%	14%	9%	8%	5%	9%
Coleg Y Cymoedd, Nantgarw Campus	100Mbit/s	113%	155%	102%	166%	164%	161%	145%	158%	136%	18%	14%	148%
Coleg Y Cymoedd, Ystrad Mynach Campus	1Gbit/s	6%	9%	6%	9%	9%	10%	9%	10%	9%	2%	1%	7%
Glyndwr University, Wrexham, Computer Centre	1Gbit/s	35%	36%	35%	36%	38%	29%	22%	18%	9%	12%	14%	14%
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%	<0.5%	<0.5%
Gower College Swansea, Gorseinon Campus	100Mbit/s	90%	96%	30%	90%	92%	92%	84%	82%	45%	4%	5%	77%
Gower College Swansea, Tycoch Campus	100Mbit/s	32%	35%	22%	40%	35%	33%	31%	31%	21%	13%	14%	63%
Grwp Llandrillo Menai, Coleg Llandrillo	1Gbit/s	28%	31%	24%	29%	28%	28%	27%	29%	21%	6%	5%	23%
Grwp Llandrillo Menai, Coleg Menai	1Gbit/s	6%	7%	6%	9%	11%	12%	14%	15%	9%	1%	1%	19%
Merthyr Tydfil College Limited	100Mbit/s	58%	72%	40%	71%	74%	71%	69%	82%	39%	10%	10%	94%

Connection	Current Bandwidth	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Neath Port Talbot College, Neath Campus	1Gbit/s	8%	9%	8%	11%	11%	11%	12%	12%	9%	2%	2%	10%
Neath Port Talbot College, Newtown Campus	1Gbit/s	7%	9%	4%	5%	5%	5%		6%	5%	1%	1%	4%
Pembrokeshire College	1Gbit/s	9%	11%	9%	11%	11%	12%	13%	13%	11%	2%	2%	12%
Pembrokeshire College, MITEC	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%
Royal Welsh College of Music and Drama	100Mbit/s	28%	26%	15%	27%	30%	24%	19%	28%	24%	12%	10%	34%
St David's Catholic College	100Mbit/s	67%	77%	50%	85%	81%	84%	74%	58%	26%	3%	6%	92%
Swansea University, College of Human and Health Sciences	10Mbit/s	24%	24%	14%	46%	29%	41%	54%	50%	45%	41%	30%	59%
Swansea University, Library and Information centre	2Gbit/s	86%	186%	162%	92%	89%	85%	92%	92%	65%	27%	29%	56%
The Cambian Group, Mencap National College - Pengwern	10Mbit/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%
The Cardiff and Vale College, Barry Campus	100Mbit/s	43%	48%	34%	52%	51%	59%	54%	59%	42%	16%	14%	56%
The Cardiff and Vale College, Canal Parade	1Gbit/s	61%	59%	5%	4%	4%	4%	5%	9%	6%	3%	3%	14%
The Open University, Cardiff	100Mbit/s	7%	8%	7%	8%	9%	9%	10%	9%	10%	9%	9%	10%
University of South Wales, Caerleon Campus	1Gbit/s	4%	5%	3%	3%	3%	3%	3%	3%	2%	1%	1%	1%
University of South Wales, Cardiff Campus	1Gbit/s	13%	14%	12%	15%	15%	14%	15%	17%	13%	15%	17%	15%
University of South Wales, The Business Loft	100Mbit/s	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
University of South Wales, Treforest Campus	100Mbit/s	396%	392%	186%	358%	398%	329%	342%	281%	167%	153%	161%	224%
University of Wales Prifysgol Cymru	100Mbit/s	9%	4%	5%	6%	6%	4%	3%	4%	8%	3%	3%	3%
University of Wales Trinity Saint David, Carmarthen Campus	100Mbit/s	231%	221%	177%	234%	248%	224%	216%	211%	91%	54%	39%	127%
University of Wales Trinity Saint David, Lampeter Campus	100Mbit/s	231%	215%	180%	214%	225%	243%	200%	217%	119%	87%	44%	123%
University of Wales Trinity Saint David, Swansea Campus	300Mbit/s	53%	57%	42%	56%	59%	60%	53%	51%	32%	27%	21%	45%
Y Coleg Cymraeg Cenedlaethol, Cardiff Office	100Mbit/s	1%	1%	<0.5%	1%	1%	1%	<0.5%	<0.5%	1%	<0.5%	<0.5%	<0.5%
Y Coleg Cymraeg Cenedlaethol, Head Office	100Mbit/s	3%	3%	3%	3%	2%	4%	3%	3%	3%	2%	2%	2%