



Changes to Service Provision 2013

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Janet in the East Midlands Briefing Day – 25/04/13

Roadmap

- Core network changes.
- Edge site connection changes.
- Monitoring.

- Highlighting:
 - What will be the effect on my service provision?
 - Will this work interrupt my service?
 - If so when and how?

Core network changes

- Migration from SJ5 to Janet6
- Replacement of Ciena 2200 & 4300 devices with Ciena 4200 devices
- Replacement of secondary PoP routers
- Upgrade of leased 1Gb/s links with 10Gb/s links
- Removal of “eastern loop”

Core network changes

- Migration from SJ5 to Janet6
 - Bandwidth increase
 - SJ5: each RNEP has 10Gb/s to Janet core
 - Janet6: each RNEP starts with 2 x 10Gb/s to Janet core
 - RNEP location change
 - SJ5 RNEP at Nottingham Trent University (Clifton) relocating as
 - Janet 6 RNEP at University of Leicester
- SJ5 to Janet6 work planned
 - Saturday 18th May
 - Replace KMC RNEP router with a higher performance unit in preparation for Janet6
 - Janet service not affected
 - Outage to EMMAN Commercial Pipe only between 07:00 and 08:30
 - Friday 12th July
 - KMC RNEP router switches from SJ5 to Janet6.
 - No service disruption
 - Work scheduled between 07:45 and 08:30

Core network changes - 2

- SJ5 to Janet6 work planned
 - Saturday 13th July
 - Shut NTU Clifton RNEP Router
 - Bring UoL RNEP router into service on Janet6
 - Connect Leicester PoP router via new RNEP
 - Re-engineer all circuits terminating at Clifton RNEP to now terminate at the UoL RNEP
 - No service disruption to sites other than those fed from University of Leicester.
 - Service disruption to the following sites between 07:30 and 08:45:
 - NIACE
 - National Space Centre
 - Regent College
 - South Leicester College
 - University of Leicester
 - Wyggeston & QE1 College

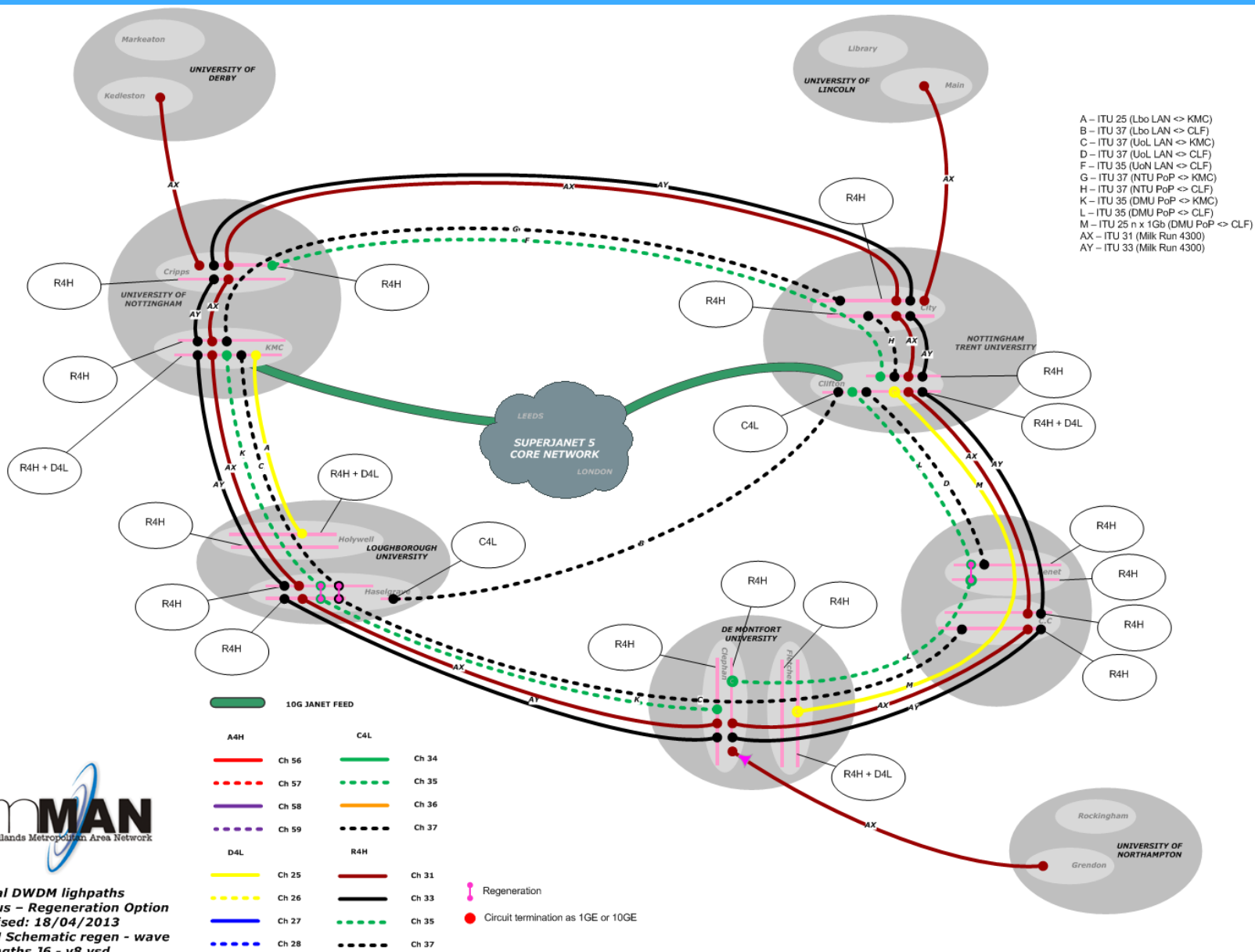
Core network changes - 3

- Replace all n x 1GE channels with 10GE channels
- Upgrade all leased 1Gb/s circuits to 10Gb/s
- Decommission the PoPs at Boston and Grantham
- Simplify dual site PoP connectivity via arc topology

- During the work above:
 - PoP routers will lose resilience
 - Service provision will not be affected
 - “Service-announce” messages will notify of any changes.

Core network changes - 3

- Replace all n x 1GE channels with 10GE channels



- A - ITU 25 (Lbo LAN <-> KMC)
- B - ITU 37 (Lbo LAN <-> CLF)
- C - ITU 37 (UoL LAN <-> KMC)
- D - ITU 37 (UoL LAN <-> CLF)
- F - ITU 35 (UoN LAN <-> CLF)
- G - ITU 37 (NTU PoP <-> KMC)
- H - ITU 37 (NTU PoP <-> CLF)
- K - ITU 35 (DMU PoP <-> KMC)
- L - ITU 35 (DMU PoP <-> CLF)
- M - ITU 25 n x 1Gb (DMU PoP <-> CLF)
- AX - ITU 31 (Milk Run 4300)
- AY - ITU 33 (Milk Run 4300)



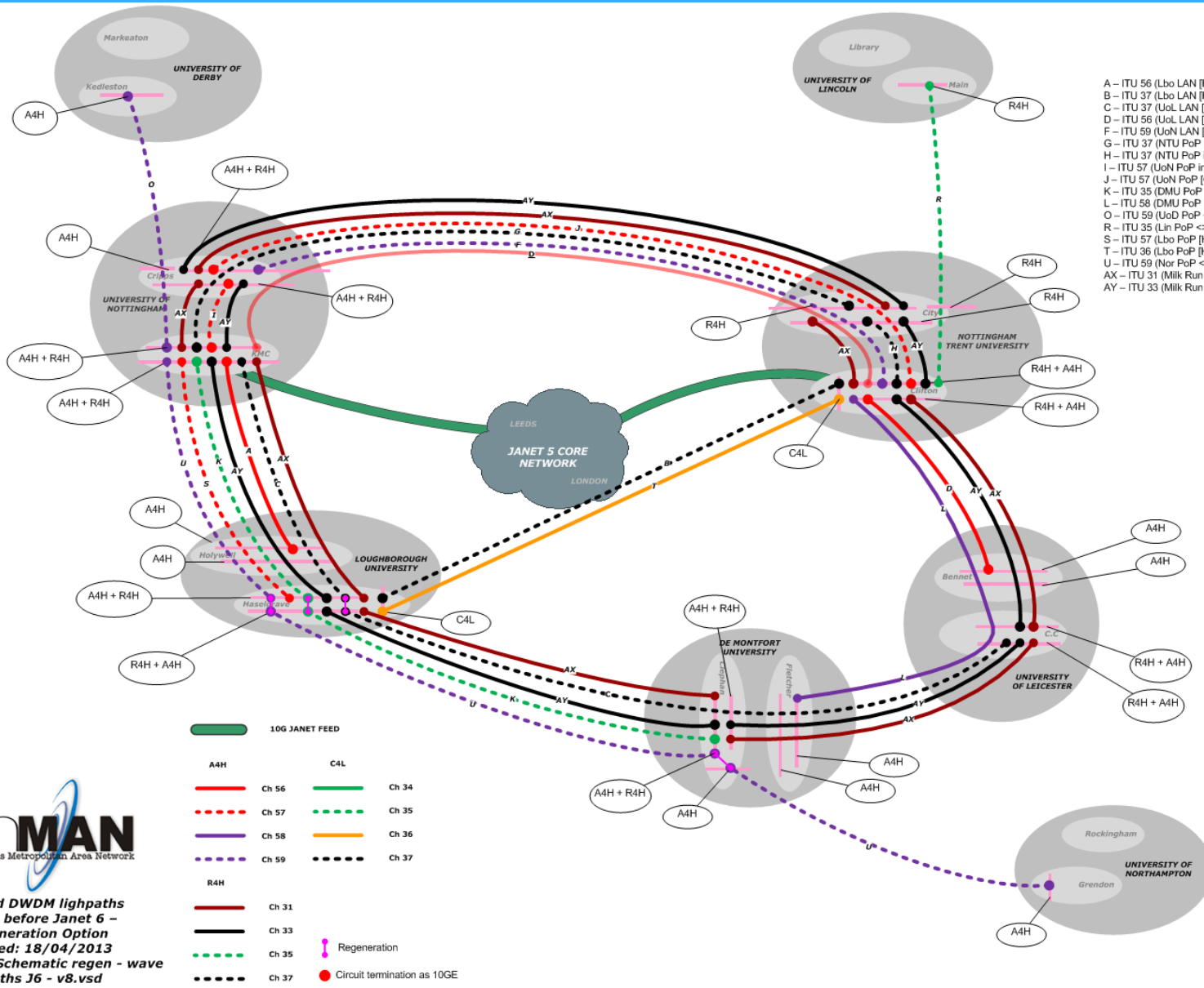
Initial DWDM lighpaths
Initial Status - Regeneration Option
Revised: 18/04/2013
File:EMMAN Schematic regen - wave lengths J6 - v8.vsd

10G JANET FEED			
A4H	C4L		
Ch 56	Ch 34	Regeneration	
Ch 57	Ch 35	Circuit termination as 1GE or 10GE	
Ch 58	Ch 36		
Ch 59	Ch 37		
D4L	R4H		
Ch 25	Ch 31		
Ch 26	Ch 33		
Ch 27	Ch 35		
Ch 28	Ch 37		



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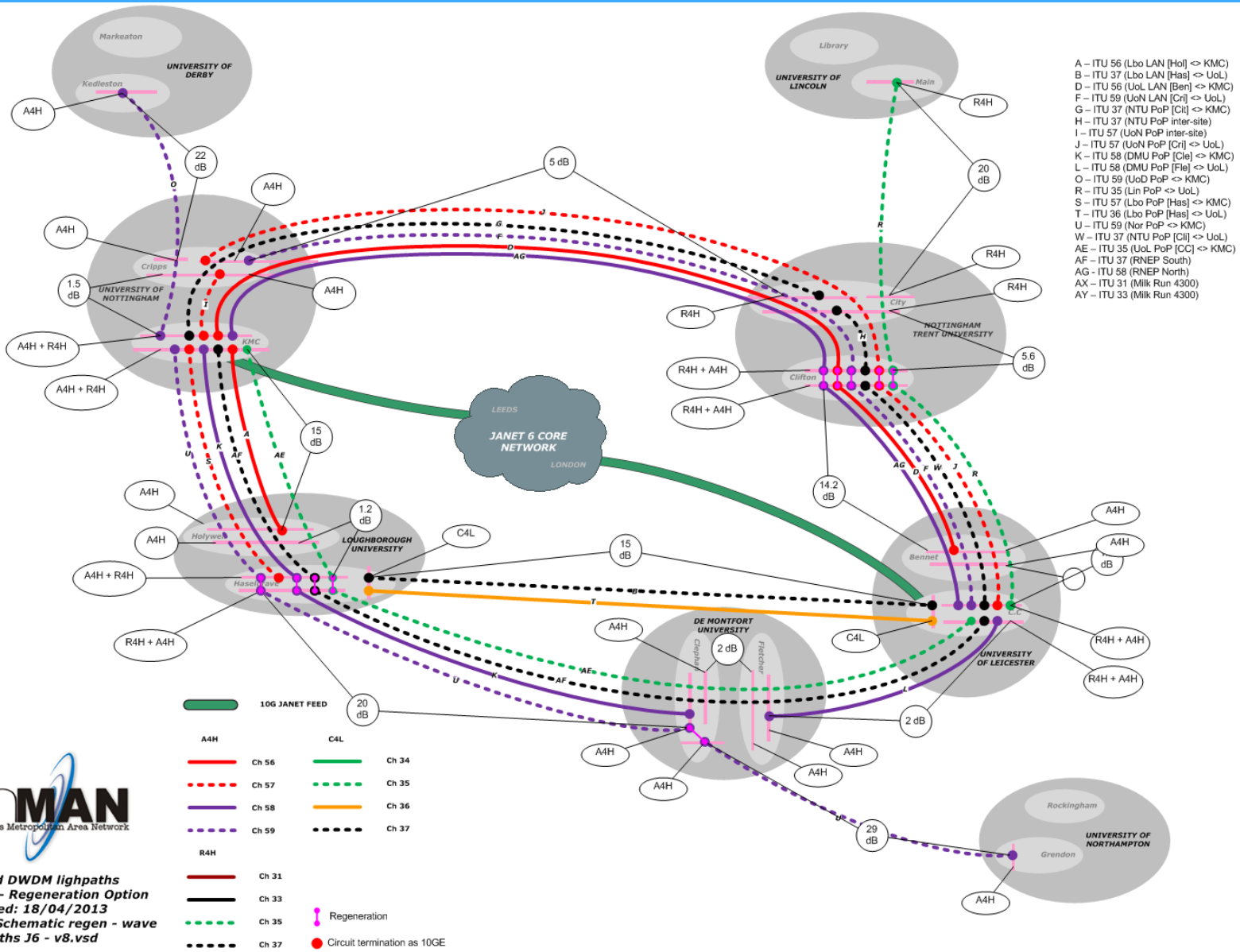
**Planned DWDM lighpaths
Status before Janet 6 -
Regeneration Option
Revised: 18/04/2013
File:EMMAN Schematic regen - wave
lengths J6 - v8.vsd**



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Planned DWDM lighpaths
 End Status - Regeneration Option
 Revised: 18/04/2013
 File:EMMAN Schematic regen - wave
 lengths J6 - v8.vsd



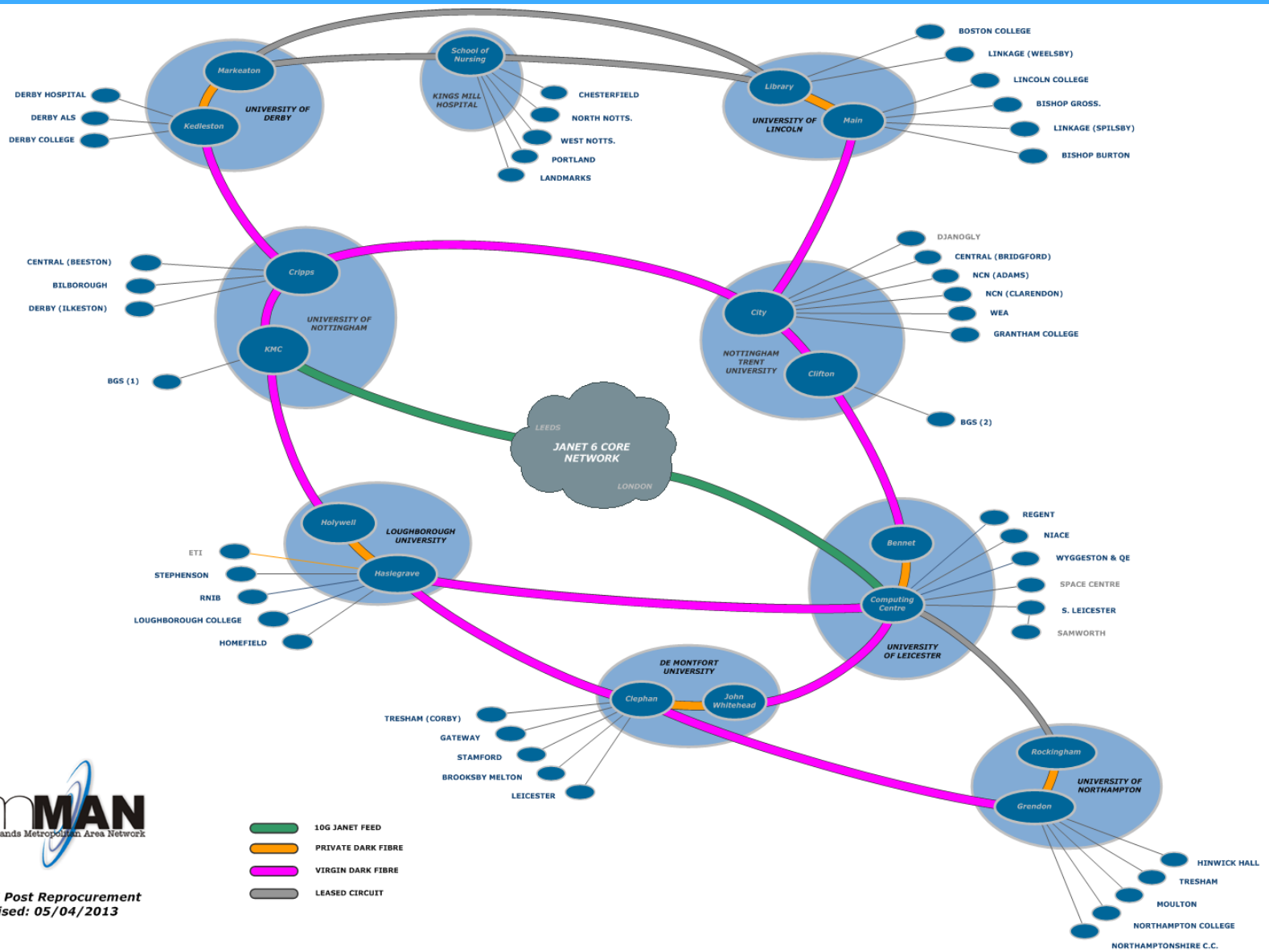
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Core network changes - 3

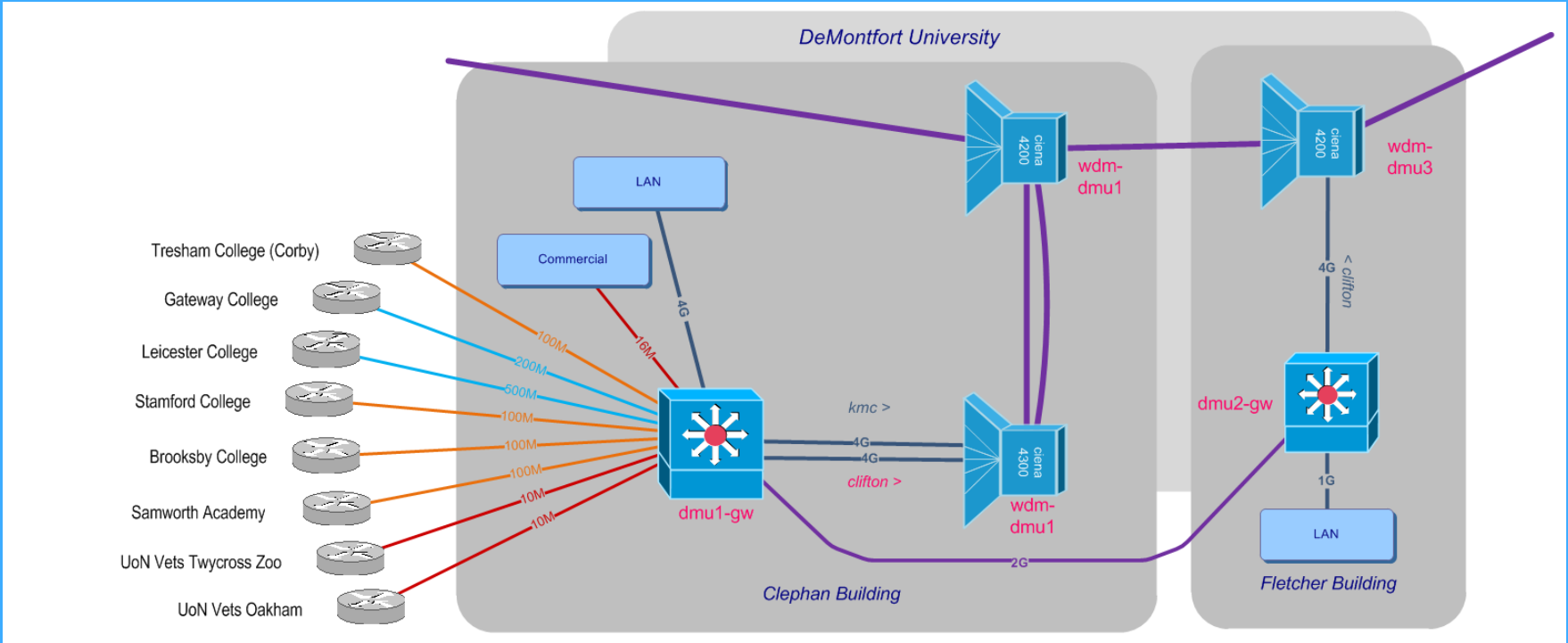
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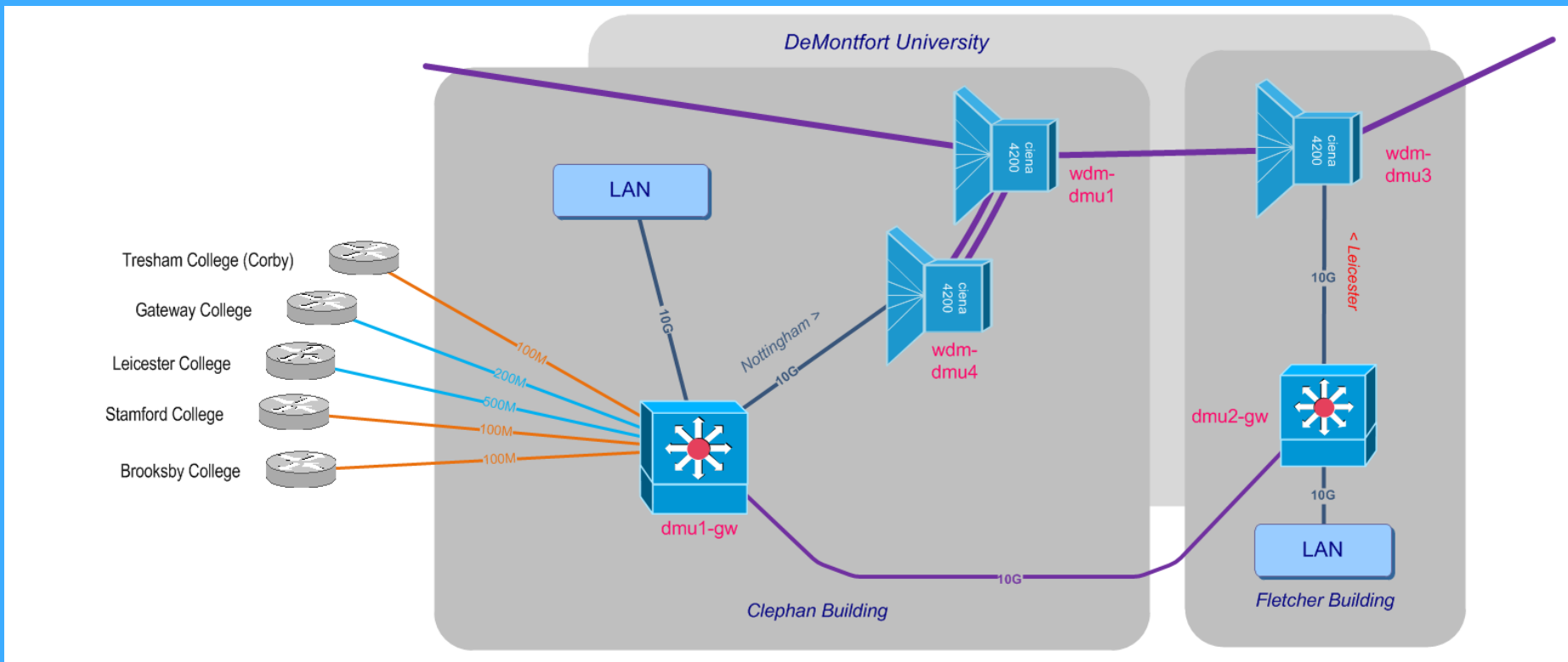


EMMAN Post Reciprocity
Revised: 05/04/2013

Core network changes - 3

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Edge site connection changes - 1

- Circuit re-procurement covered elsewhere
- Circuit installation
 - Site survey
 - Site access required for cabling
 - Site access required for termination equipment and testing
- Service cut-over
 - All routers at edge sites have recently been upgraded to match throughput with new circuit provision
 - Outage of service of between 1 to 5 minutes whilst cutting over service and testing.

Edge site connection changes - 2

- If the existing circuit is VM and requires no changes then there will be no disruption at all. These sites are:
 - Derby City Adult Learning
 - Landmarks
 - NIACE (Leicester)
 - North Nottinghamshire College
 - Portland College
 - Central College Nottingham (West Bridgford)
 - New College Stamford
 - Stephenson College
 - WEA (Nottingham)

Edge site connection changes - 3

- Some sites have been prioritised due to risks associated with the existing provision.
- These sites are:
 - Bishop Burton College (Riseholme)
 - Loughborough College
 - Northampton College
 - Regent College

Monitoring

- Monitoring the East Midlands Network via the existing Solarwinds system will continue after the change of operational responsibility until replaced by a new system.

Broad Brush Schedule for 2013

- Backbone change affecting EMMAN Commercial Service
 - Saturday May 18th – Equipment delivery dependent
- Backbone change affecting Leicester PoP sites (Janet6)
 - Saturday July 13th 07:30 to 08:45
- Backbone changes non-service affecting
 - May 20th to August 9th
- Edge site carrier surveys / installations
 - May 20th to September 21st (start estimated)
- Service cut over
 - Prioritised sites: as soon as possible after the circuit is handed over
 - Standard contract provision: September 22nd to November 30th



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