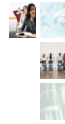




# JANET Update

Jeremy Sharp – Head of Strategic Technologies  
Tim Kidd – Head of Operations

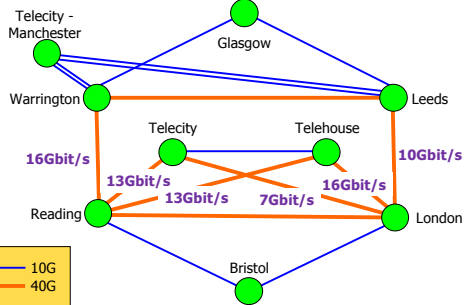


# Operational Themes

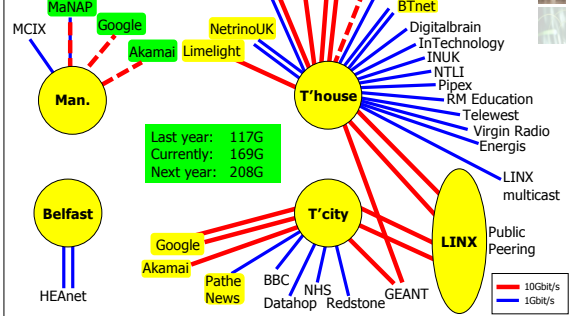
- JANET Core
- Service Changes
- Framework Agreements
- One of those weeks...



# JANET Core.



# Peering



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## Service Changes

- **JANET txt**
  - Price per text reduced further.
  - Further volume discounts available.
  - Scheduling function free from May.
  - Support for fax and voice broadcast messaging.
  - SIF agent 2Q2010.
  - Accredited to ISO27001.


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## Service Changes

- **JANET txt**
- **Video conferencing**
  - New equipment deployed March '09:
    - greater capacity
    - high definition support
  - Recording feature launched July '09.
  - Web streaming service launched October '09.
  - Desktop vc feature launched November '09.



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## Service Changes

- **JANET txt**
- **Video conferencing**
- **DNSBL**
  - Lists extended:
    - Spamhaus Zen
    - MAPS RBL+
    - SURBLs
    - URIBLs
  - ≈400 organisations using the system.
  - Savings around £5M p.a.

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## Service Changes

- **JANET txt**
- **Video conferencing**
- **DNSBL**
- **Web Filtering**
  - Automatic resilience failover.
  - Different rules by time of day.
  - Multiple admin users.
  - Audit trail for local changes.

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## Framework Agreements



**Videoconferencing**


- Equipment
- Maintenance
- Training

- >£6M purchases
- JANET(UK) plus 30 organisations.

- >£9M purchases
- JANET(UK) plus 15 organisations.

**Supply and maintenance of**

- Cisco
- Juniper
- Alcatel



**Routers**

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## Telco Framework

- Launched on Monday.
- Potential buyers:
  - JANET(UK)
  - Regional Network Operators
  - Regional Broadband Consortia (local authority education)
  - Purchasing Consortia (universities and colleges)
  - JANET Connected organisations
- Potential products:
  - Dark fibre
  - Leased circuits
  - Wide area ethernet
  - ...

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## Telco Framework

- Open to regional and national suppliers.
- Hope to achieve:
  - Easier purchase mechanism
  - Cheaper supply (asking telcos for ideas – no commission charges)
- Expect contracts to be signed in July 2010.

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## One of those weeks...

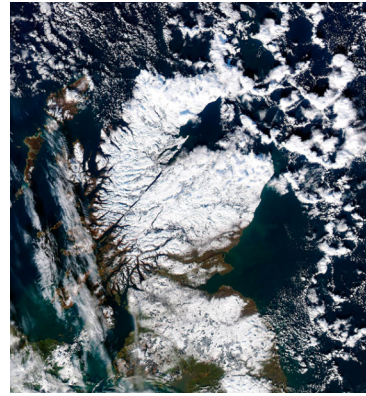
**Date: February 2010**  
**Location: Scotland**



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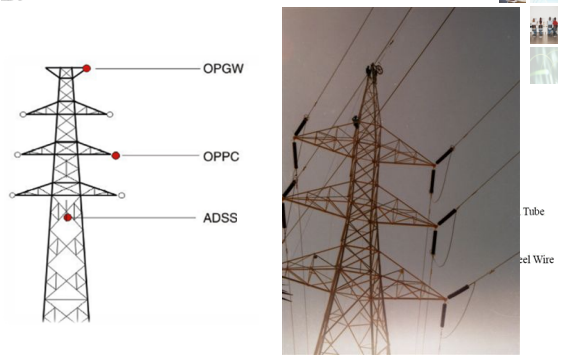
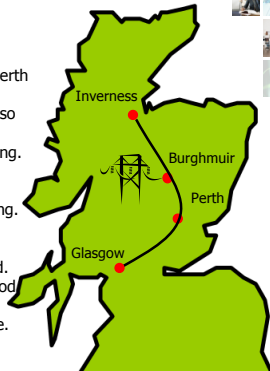
24 Feb: 10:55 loss of connectivity.  
 13:08 break located near Perth  
 ...on A91.  
 18:36 traffic light in place, so  
 work starts.  
 23:52 engineers start splicing.

25 Feb: 04:13 splicing completed...  
 circuit still not working.  
 05:00 weather changes...



24 Feb: 10:55 loss of connectivity.  
 13:08 break located near Perth  
 ...on A91.  
 18:36 traffic light in place, so  
 work starts.  
 23:52 engineers start splicing.

25 Feb: 04:13 splicing completed...  
 circuit still not working.  
 05:00 weather changes...  
 08:21 faulty optic card,  
 engineers dispatched.  
 12:15 card replaced, no good  
 2<sup>nd</sup> fault located.  
 15:36 fault is on pylon fibre.



25 Feb: 00:00 more snow...  
11,000 homes lose power.

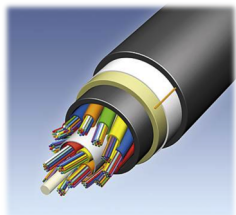
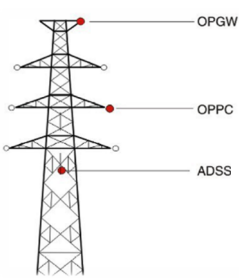
26 Feb: 10:00 weather too bad to get  
engineers to site by road.  
so, helicopter alternative...  
12:03 engineers up a pylon  
in the snow and wind.  
18:00 bad light stops work.

27 Feb: 08:00 engineers back on site.  
18:00 fibre repaired...  
link still not working...  
19:00 3<sup>rd</sup> break found,  
power engineers need to  
make area safe.



28 Feb: 08:00 weather too bad even for  
the helicopter...

1 Mar: 08:10 collapsed pylon located.  
3 feet snow fall!

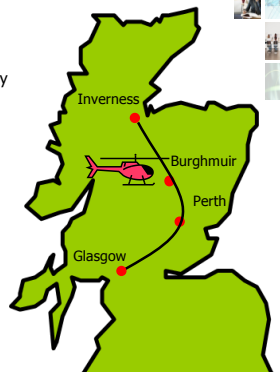


• All-Dielectric Self-Supporting Aerial (ADSS).

2 Mar: 17:31 repair team in by  
helicopter, temporary  
repair underway...

3 Mar: 08:00 work recommences.  
14:01 link restored.

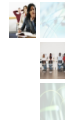
Seven days to repair in some of the  
worst weather we've had in a long  
time.





# JANET Development

Jeremy Sharp

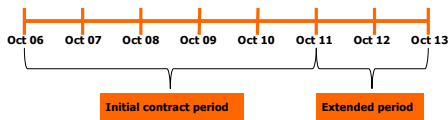


# Themes

- SuperJANET5 Extension
- JANET6
- Mobile / Wireless
- JANET videoconferencing
- Shared data centre services



# SJ5 Backbone timeline

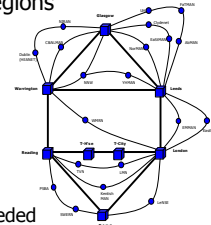


- Fitness-for-purpose reviewed and OK (subject to upgrades)
- Contract with Verizon is being extended



# SJ5 contract extension

- Secure continuation of network 'as is'
- Upgrade capability of transmission infrastructure to LMN & NNW regions
- On a call-off basis:
  - Upgrade capability of core transmission infrastructure
  - Add additional wavelengths as needed to core
  - Upgrade capability of regional transmission infrastructure
  - Add additional wavelengths as needed to regional infrastructure

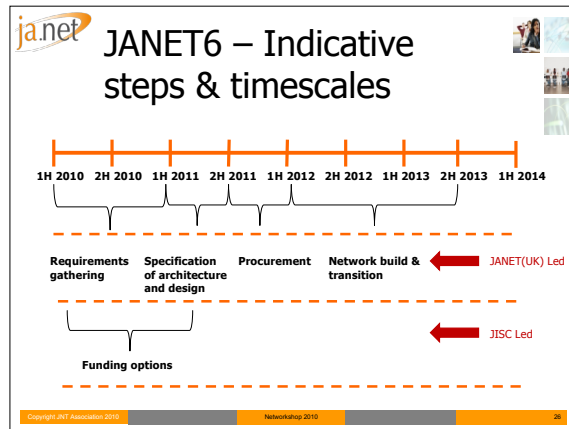


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## Predicted bandwidth upgrades

	AY 10/11	AY 11/12	AY 12/13
<b>extra links needed:</b>	2 x 10G	8 x 40G 25 x 10G	6 x 40G 2 x 10G
<b>TOTAL Additional Capacity PA</b>	20 G	570 G	260 G

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- ## JANET6 – first steps
- JISC Led - Funding Options Group**
- Consider range of funding options
  - Report to JIR committee in Feb 2011
- JANET(UK) Led – Requirements gathering**
- Study areas
  - Seek requirements against a strawman
  - Workshops
- End result**
- Approval of outline business case leading to procurement
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- ## JANET6 – initial themes
- Network capacity and dynamic allocation of capacity
  - End-to-End delivery and network reliability – security of infrastructure and power
  - A growing user base and working with other public sector networks
  - Security model
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## Mobile Broadband

- Market research: Nov '09 – Jan '10



3G user experience is poor and market is saturated: little room for a JANET service?



WiMAX infrastructure has failed to develop; superseded by LTE



'JANET on the move' service? Wi-Fi on public transport vehicles

## Videoconferencing review

- Market research & studies: Sept '09 to Dec '09



- Marketing: promote benefits of VC
- Interworking: to popular non-standard conferencing applications
- Richer range of collaborative features
- Coherent service presentation
- Efficiency savings
  - Explore different service model



## Shared data centre services

- JANET(UK) working with HEFCE to create a strategy
- Engagement with HE and commercial sector
- Brokerage model being proposed
  - Single entity to act as a "intelligent customer"
  - Coordinate the needs of the education and research sector
  - Present the needs to the market: procure & deliver timely, high quality and cost effective services.

## Questions