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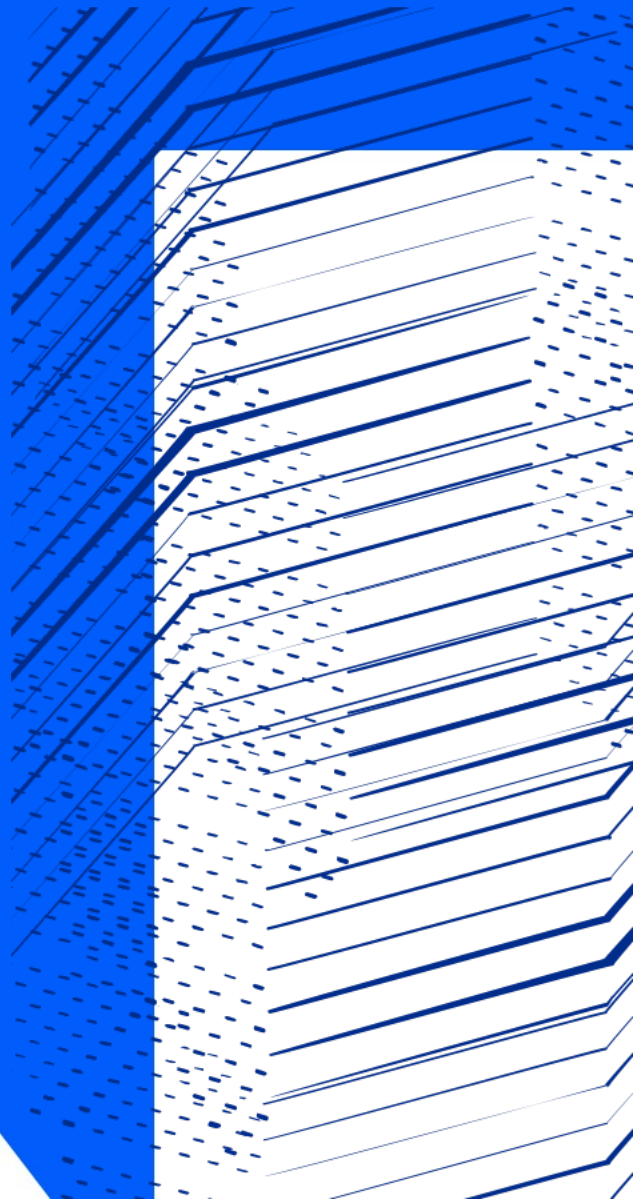


GridPP Security

David Crooks
david.crooks@stfc.ac.uk

GridPP 46, September 2021, Ambleside

Overview

1 Landscape

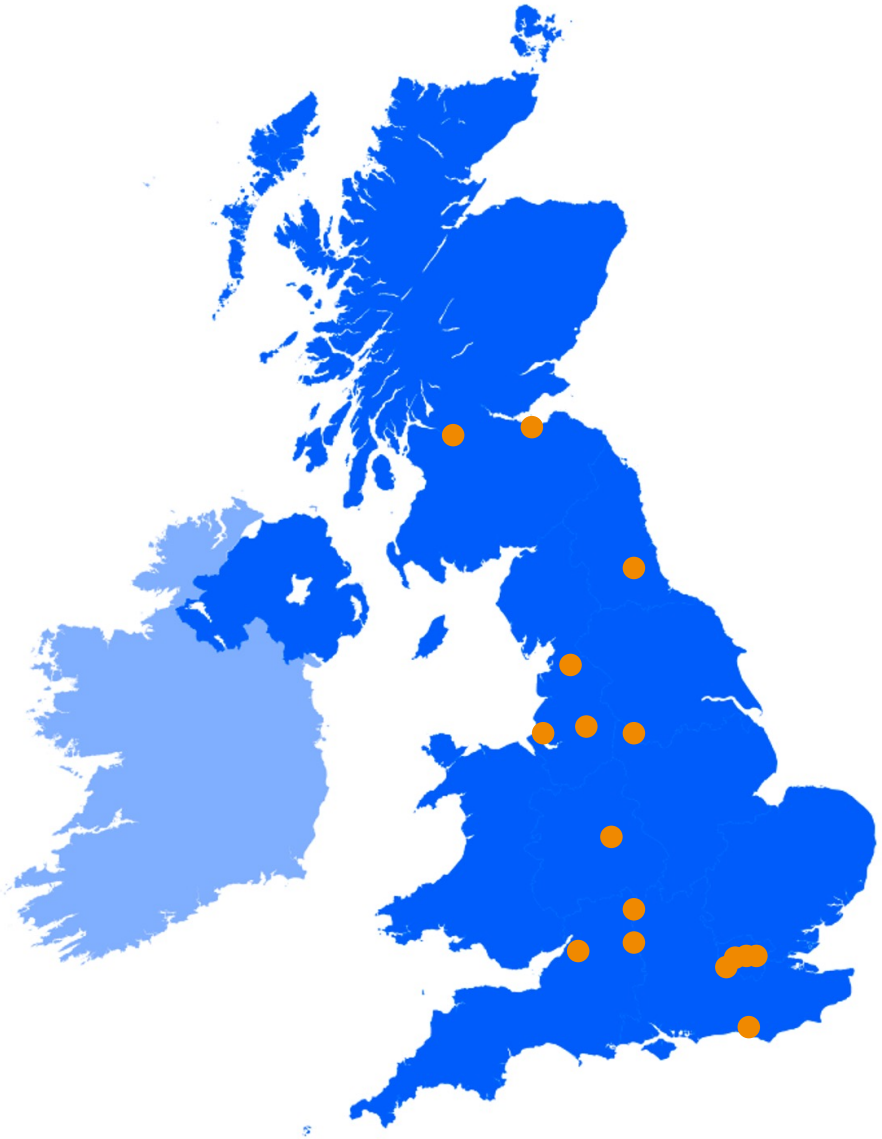
2 SVG update

3 Security team/CSIRT update

4 Distributed Research Trust and Security

5 STFC SOC Project

6 The next 6-12 months



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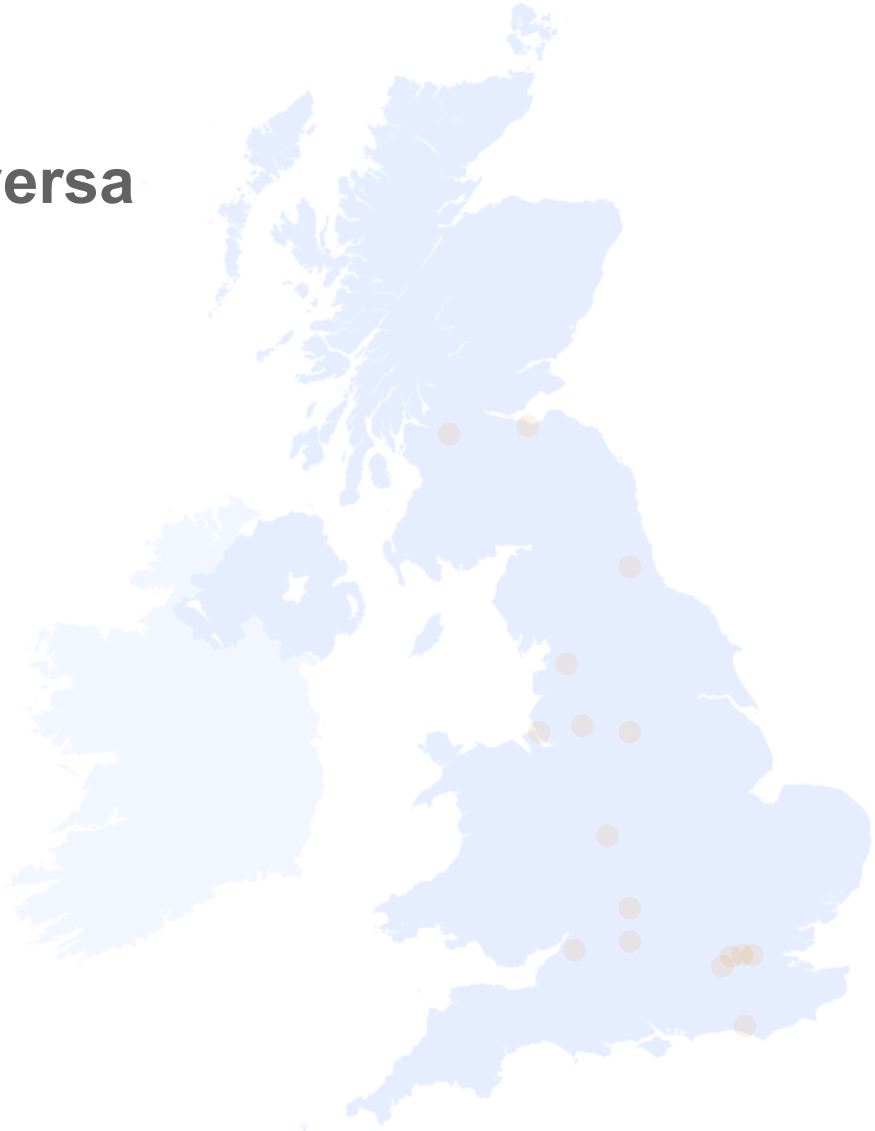
Landscape

Landscape

- **Institutional security is grid security and vice versa**



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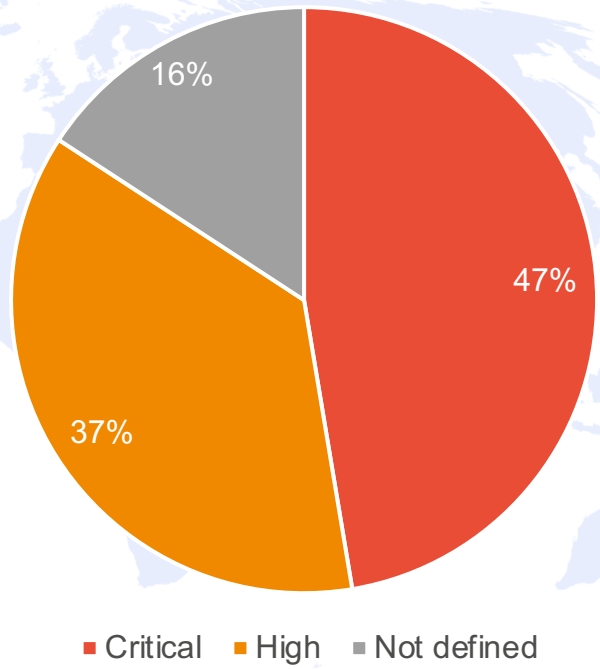
SVG update

SVG: Vulnerability issue handling

- Since Oct 2020
  - 33 Tickets created
  - 19 advisories issued to sites
  - **9 Critical**
  - 7 High
  - 3 not defined
    - 1 which will NOT be made public
- Some have multiple updates
- **NB**: for advisories due to become public in August, this has been delayed until September due to holiday season



SVG Evolution: Deployment Experts Group

- Build set of experts in different software to accurately assess the risks of vulnerabilities in our increasaingly heterogeneous software environment
- Getting DEG going hasn't taken place
  - hope to do this soon
- Thanks to all who have offered your help
  - Vital part of ongoing assessments
    - Accuracy

SVG Evolution: EOSC

- SVG will handle vulnerabilities in EGI ACE scope rather than EOSC
  - EGI, the EGI UMD/CMD, and software used by EGI
  - Update of previous plans more focussed on EOSC
  - Scope will depend on DEG participation
- For EOSC – likely to be mainly best practice
  - Collaboration with a WISE working group
  - Some EOSC services may be included
- More info in coming weeks when finalized
- Abstract submitted for EGI conference
  - *"The EGI Software Vulnerability Group (SVG) - what we do and how we are evolving."*

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Security Team/ CSIRT update

IRIS/GridPP Security Team update

- No incidents impacting GridPP since Oct 2020
- New procedure gathering specific site updates for all advisory broadcasts
  - Staying in touch with sites
  - Tracking changes in infrastructure
- Updated backup duty accordingly
  - Maintaining an internal dashboard of these reports
  - New weekly handover meeting
    - Following IRTF example

EGI CSIRT SSC

- Planned for this year
- Same format of activity over working week
- Designed to be global challenge
- Timescales will be announced in advance
  - Recommend sites start reviewing incident response procedures this month
  - Carrying out a review at RAL
  - Happy to discuss!

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Distributed Research Trust and Security

Distributed Research Trust and Security

- Within STFC, in Scientific Computing and Particle Physics, we have decades of experience in distributed security
  - Information security management
  - Trust, policy and assurance
  - Identity management
  - Operational security
- **Distributed Research Trust and Security**
  - **DRTS**
- Members of this team coordinate all security and identity management activity in GridPP and IRIS

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DRTS

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Distributed Research Trust and Security

- Ian Collier
- David Crooks (lead)
- Linda Cornwall
- Tom Dack
- Will Furnell
- Jens Jensen
- Dave Kelsey
- John Kewley
- Ian Neilson

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DR TS

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Distributed Research Trust and Security

- This team provides a centre of excellence in distributed research security
  - Important for collaboration in UK-wide activities
- Aim to support existing and new Digital Research Infrastructure in STFC and UKRI
- Ultimate goal to help steer development of DRI program

- *drts@stfc.ac.uk*

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STFC SOC Project

STFC SOC project

- Priority security project at STFC
- Add capability to monitor **all** traffic entering and exiting RAL campus, correlated with threat intelligence
- High visibility, ambitious project
- Multiple goals
  - Primarily of security of STFC itself
  - Future goal: multi-site version to also cover Daresbury, Boulby, Chilbolton and UK ATC
  - Take a leading role in our community in the deployment of this capability

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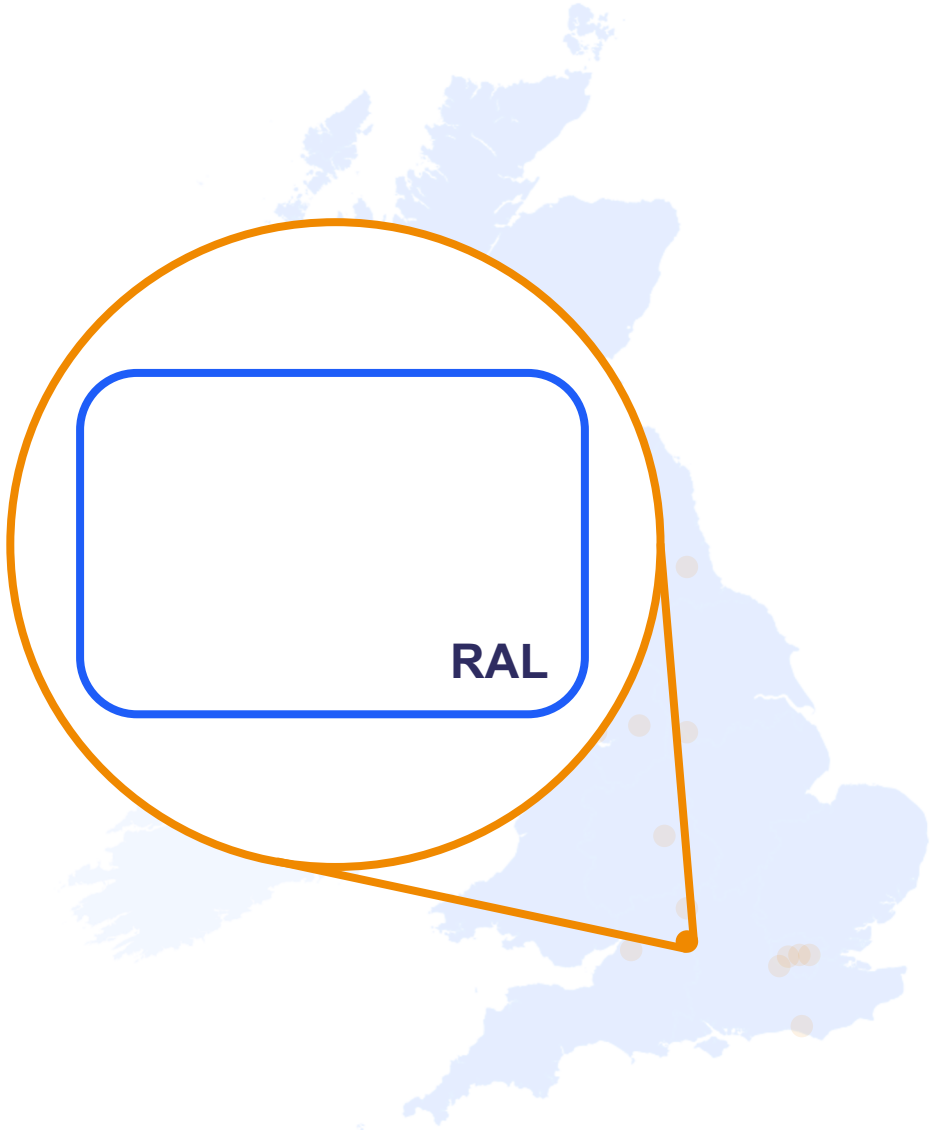

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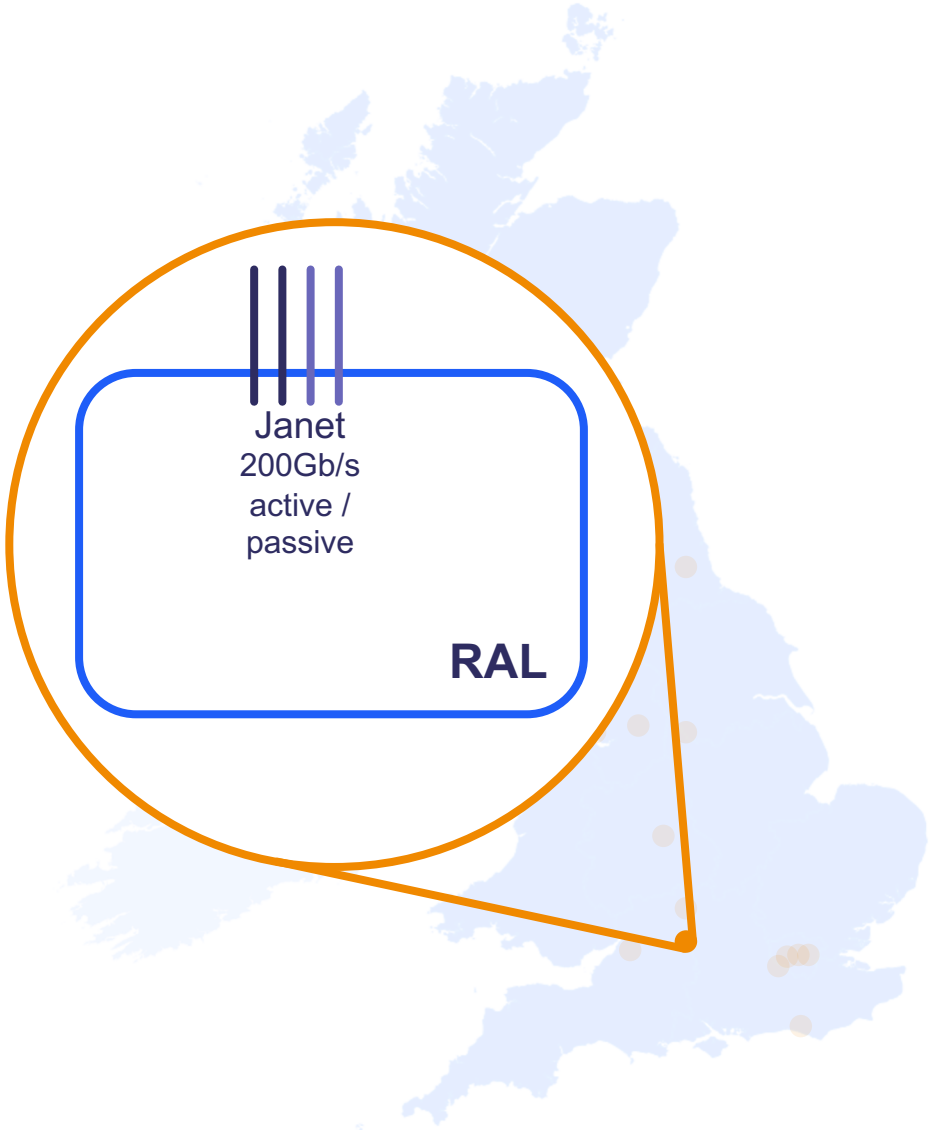

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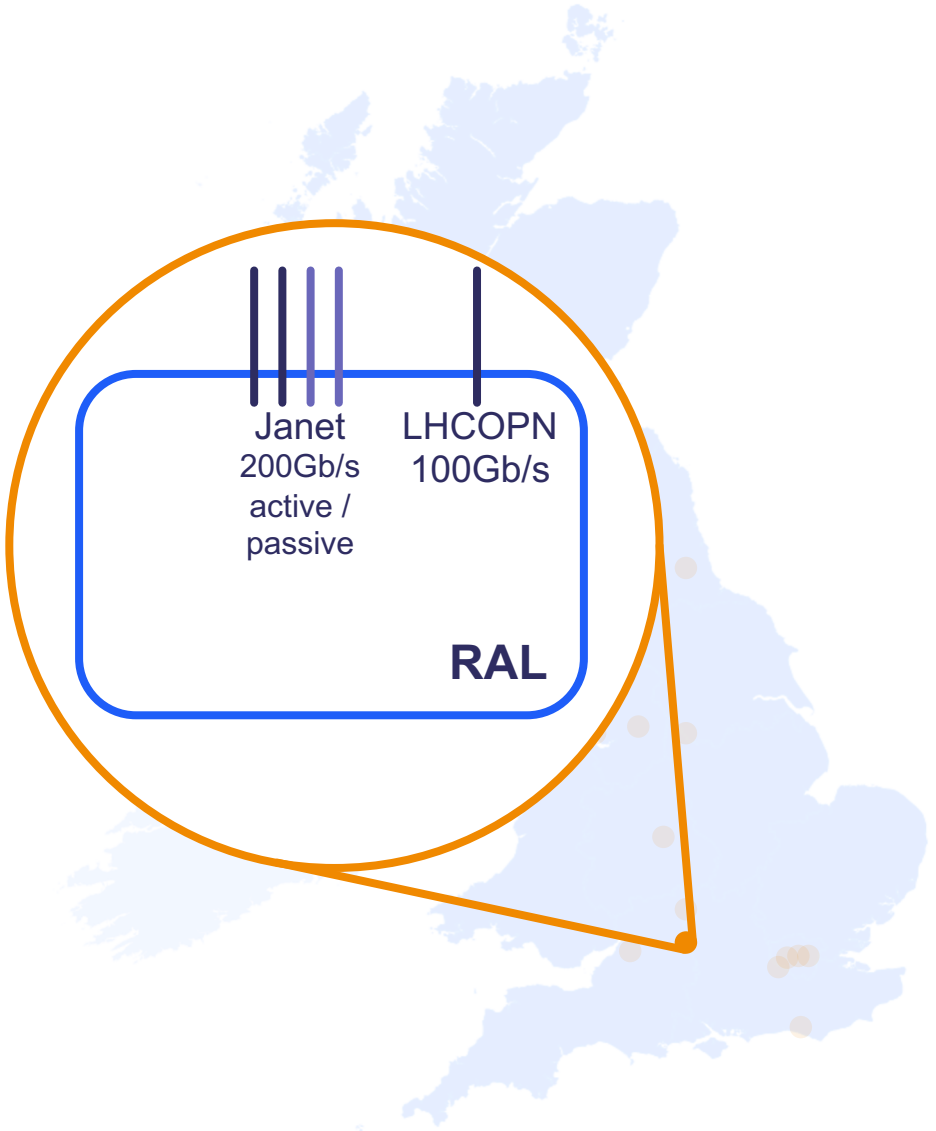

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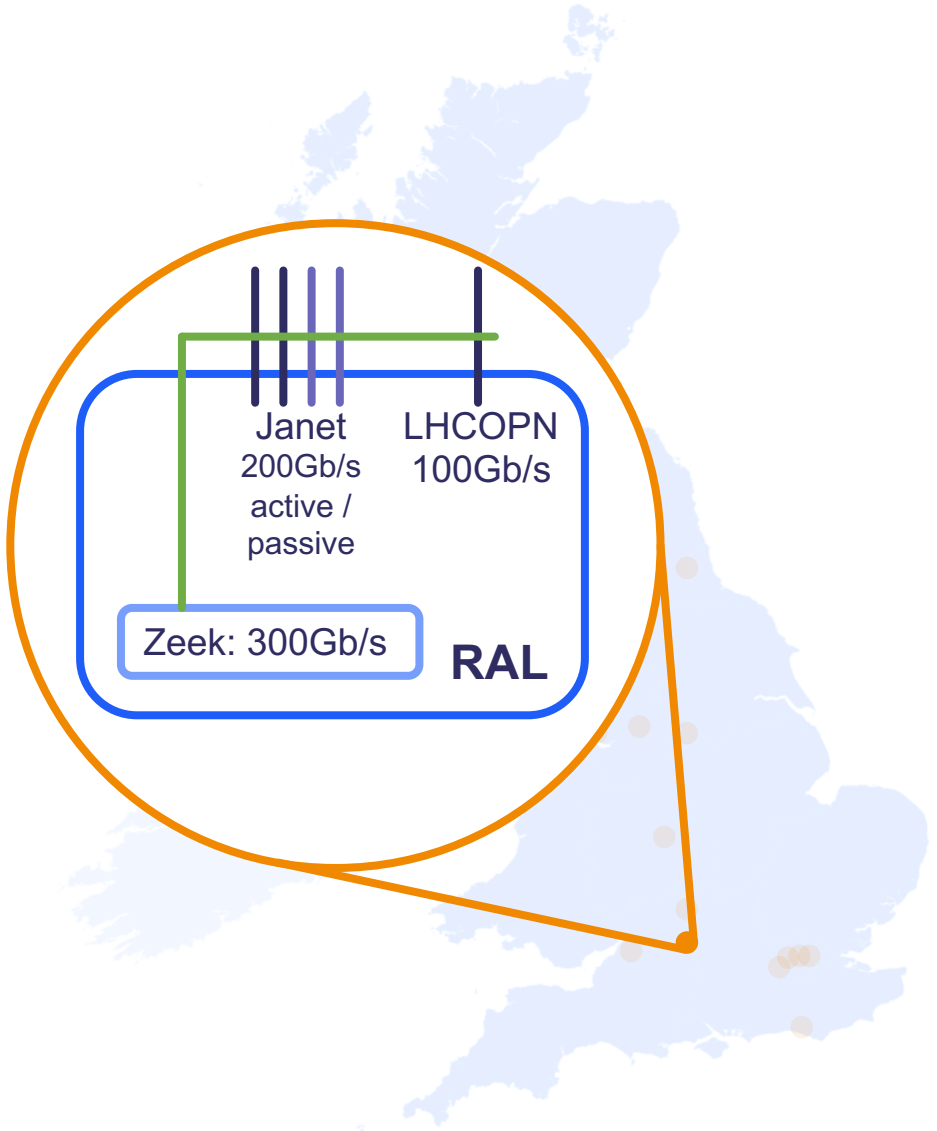

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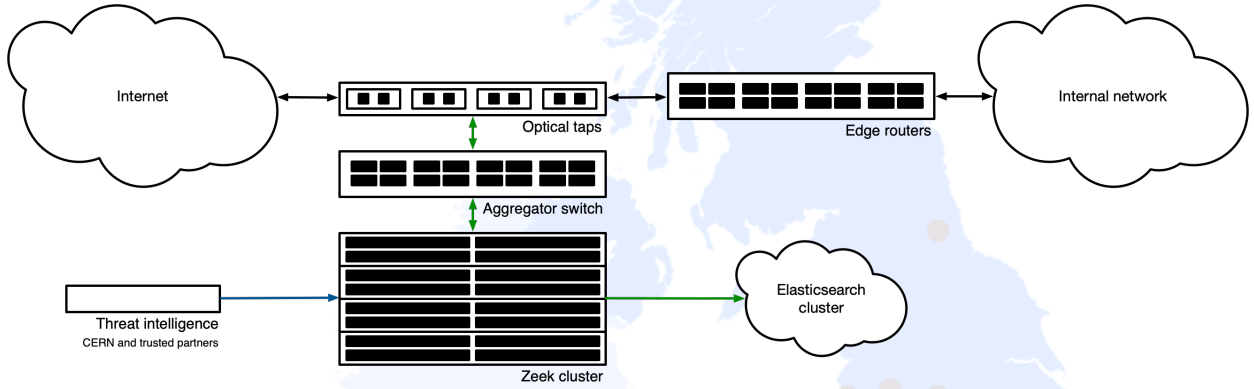

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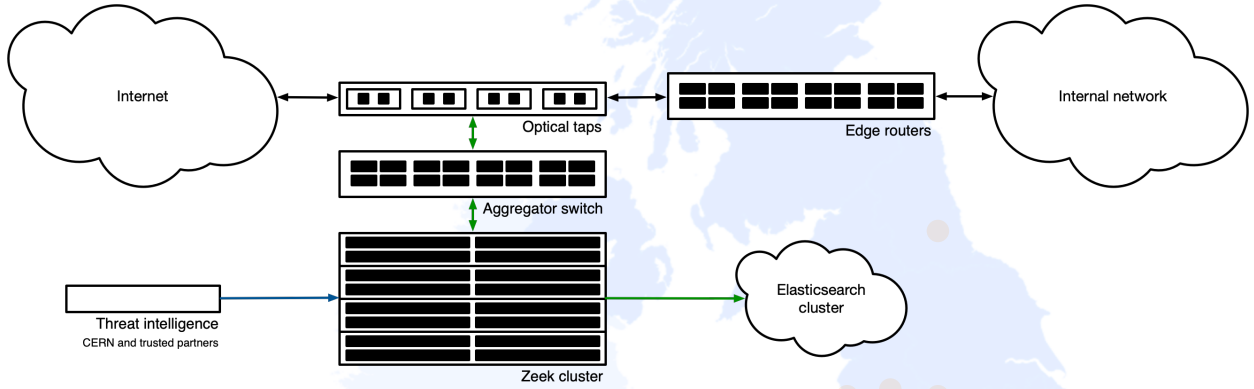
STFC SOC project: GridPP/IRIS

- Project uses Tier1 Worker Nodes
- Provide ratified specification suitable to monitor throughputs up to multiple 100Gb/s links
- Understand what would be appropriate for GridPP/IRIS sites
  - In consultation with central security teams, build proposal to deploy technology at all sites appropriate to circumstances
    - Including staffing



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The next 6-12 months

Next 6 months

1. Access central threat intelligence by all GridPP/IRIS sites
2. Central logging review at all sites
   - Anticipate that many / all will have this in place
3. Then understand what it would take to install SOC technology at sites appropriate to circumstances

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Next 6 months

4. Understand where to locate SOCs – edge of institution is optimal
   - Security of institutions is security of GridPP/IRIS sites and vice versa
   - Talk to central teams – please send them my way!

Photo by FLY:D on Unsplash

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Next 12 months

- Host **Distributed Security Forum**
- Invitations to
  - All central teams in GridPP and IRIS
  - IRIS Security Team
  - Jisc / Janet CSIRT
  - EGI CSIRT
  - WLCG Security Officer
- Matters of common interest
- Forward planning

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Summary

- Our sector faces an acute threat
- We have the tools and processes to protect ourselves
- **And importantly** help protect our institutions and community
- We must work together

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Questions?


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