Overview

- Introduction to IRIS
- Requirements & process
- Current status
- Next steps
- Observations
IRIS Background

- eInfrastructure for Research and Innovation for STFC
- Loose collaboration of Science Activities and Provider Entities
  - Primarily driven by the physics communities supported by STFC
- Does not run infrastructure directly
  - Not a project in that sense
  - Commissions deployment of resources available to all of its science activities
- IRIS 4x4 is a capital project coordinated by IRIS
  - £4 million per year for 4 years
  - No money for operations
  - Can issue grants for equipment and grants to make things
    - Such as the trust framework
IRIS Background

Science Activities

- ALMA
- ATLAS
- CCFE
- CLF
- CMS
- CTA
- DLS
- DUNE
- eMERLIN

Provider Entities

- The Ada Lovelace Centre (ALC)
- DiRAC [HPC]
- GridPP [HTC]
- The Hartree Centre
- STFC Scientific Computing Department
- The DLS Computing Department
- CCFE computing

Science and Technology Facilities Council

WISE COMMUNITY
IRIS Background

• If we want these communities to work together, need some common elements
  • Policy and Trust Framework
  • Identity Management
  • Resource Accounting
  • Monitoring
Requirements for trust framework

- IRIS contains a range of resource providers with existing policy frameworks
  - Need to develop a framework that sits alongside these and satisfies the wider need

- Some providers are already connected within the wider federated world
  - Particularly GridPP/WLCG

- However: it does represent a new community in its own right
  - And exists within a distributed, federated infrastructure landscape

- Requirement to establish the necessary policies to allow interoperation between resource providers, services and user groups
  - And relationships to existing policy
IRIS Trust Framework

- The IRIS Trust Framework is intended to build the security policy required by IRIS
  - Start with foundational and user-facing policies
  - Roadmap for the future
- Security Incident Response
  - Clear roles and basic policy framework
Process

• Build on extensive existing experience developing policy within existing communities
  • GridPP/WLCG, UK Access Management Federation, EGI, …
  • Extend to new resource providers and user communities

• Identify key stakeholders and develop trust relationships

• Coordinated work is ongoing to deploy an IAM identity proxy for IRIS
  • See talk at mini-FIM4R at Fermilab
  • Use this as driver
  • See also talk by Andrea Ceccanti at CHEP 2018 on Token-based Authentication and Authorization for HEP
Roadmap

- AARC Policy Development Kit
  - Authentication and Authorisation for Research Collaboration
  - Recently completed EU projects
- 9 documents aimed at best practice bootstrap for infrastructures & communities deploying the AARC Blueprint Architecture
  - Federated IDPs with services/resources ‘behind’ an AAI Proxy
- Policies intended to co-exist with local policies where applicable
WISE

• Wise Information Security for Collaborating e-Infrastructures
  • https://wise-community.org/about-wise/

• Global collaborative community of security experts

• IRIS policy work takes place under aegis of WISE
  • Benefit to IRIS of considerable experience
  • Benefit to WISE and wider community of new requirements and context
## AARC Policy Development Kit

<table>
<thead>
<tr>
<th>Document</th>
<th>Who should complete the template?</th>
<th>Audience</th>
<th>Description</th>
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<tr>
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<td>All Infrastructure Participants (abides by)</td>
<td>This policy template defines the roles of actors in the Research Infrastructure and binds the policy set together</td>
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<td>This template procedure provides a step-by-step breakdown of actions to take following a security incident.</td>
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<td>This is a placeholder for the Infrastructure to determine rules for the acceptable assurance profiles of user credentials.</td>
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<td>Risk Assessment</td>
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<td>This table can be used as a starting point for identifying whether a full Data Protection Impact Assessment is required.</td>
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Draft UK IRIS AUP

• Use of a common, baseline AUP
  • Based on the WISE Baseline AUP template
    • Promotes trust in users’ behaviour across infrastructures
    • Reduce need to agree to multiple different AUPs
  • Allows for consistent presentation of necessary Privacy Notices
  • Allows for augmentation with additional local / community requirements
    • 10 immutable clauses + scope to add specific additional ones
  • Easier bootstrapping – don’t reinvent the wheel
Draft UK IRIS Privacy Notice

- Presented to user at time of registration alongside AUP
- Assumes GDPR legal basis of “legitimate interest” for processing
  - i.e. not consent – due to imbalance of power (employer – employee)
- To be taken from (final) deployment context
  - Personal data gathered / processed
  - Data retention period
  - Use of ‘common policy framework’ for processing
Draft UK IRIS Infrastructure Security Policy

• Provides high-level framework for other subordinate policies
  • Approved/adopted by infrastructure management body to give
  • “…authority for actions which may be carried out by designated individuals and organisations and places responsibilities on all participants.”
• Roles and Responsibilities of Management
• Roles and Responsibilities of Security Contact
• Physical and Network Security
  • Delegated to local/service policies, but scoped.
• Exceptions to Compliance and Sanctions
Incident response

• GridPP has distributed incident response capability through EGI CSIRT, supported by NGI UK Security Team

• Initial proposal for IRIS is to expand NGI UK Security Team to include new IRIS resource providers
  • Focus in the beginning on sharing experience and building trust
  • Understand the boundaries between incident response for IRIS, existing infrastructures, and local institutions

• Specify security contacts for resource providers
Next steps

• In progress
  • Gather feedback on drafts following presentation to IRIS Technical Working Group
  • Membership Management & Acceptable Authentication Assurance Policies

• Ongoing discussion framing policies in the context of IRIS structure

• Use scenarios & use cases to explore the mapping of policies to stakeholder responsibilities
Observations

• Using a technology deployment (such as IRIS-IAM) can be helpful in developing a policy timeline
  • And crystalising use cases

• Requirements setting is a critical component in developing policy

• Developing policy is an excellent way for a community to introspect itself
  • What are the relationships between entities and use cases?
  • What defines a ‘User’? ...

• This provides both a challenge and an opportunity

• There is a benefit to working on policies in the light of groups such as WISE
  • Enhances interoperability from the outset
Questions?
Thank you