AARC Authentication and Authorisation for Research and Collaboration

Testing Incident Response Channels and Communications End Points

whilst not overloading the target audience

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WISE Community meeting, Abingdon

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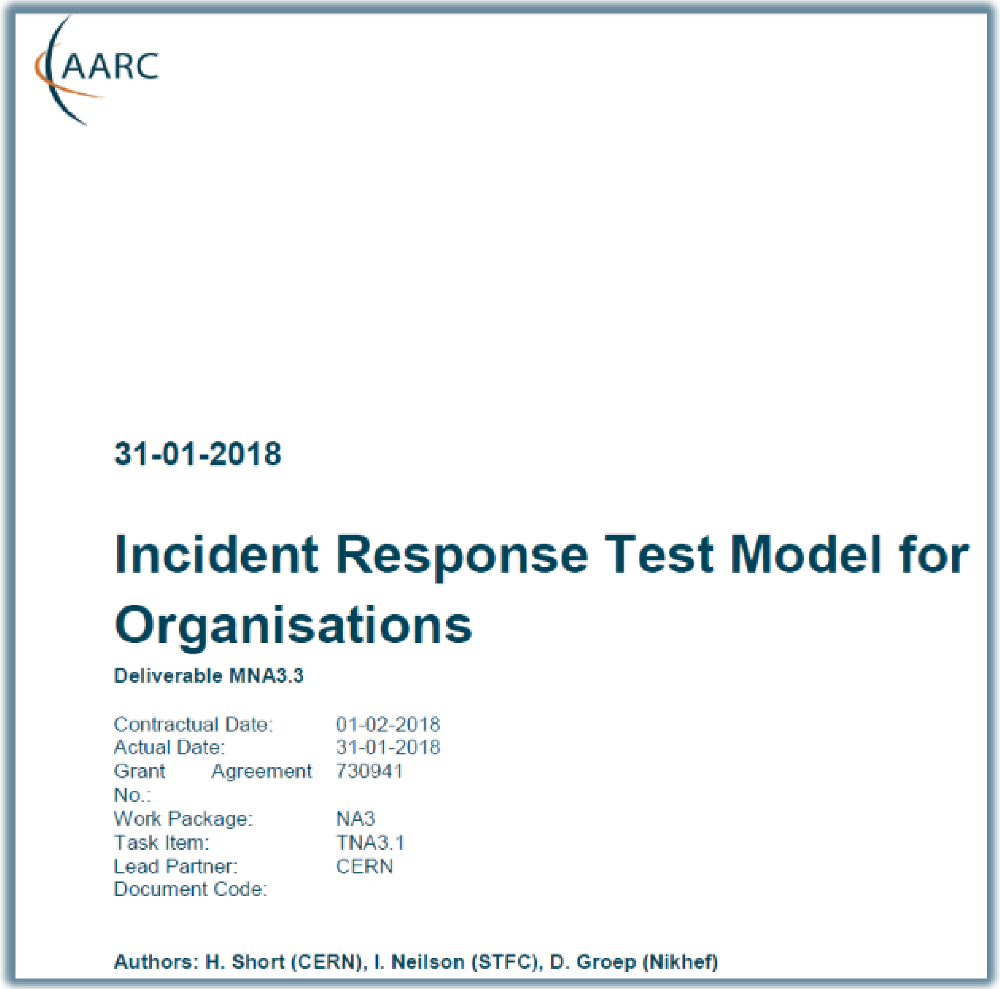
Distributed Incident Response and Readiness Challenges

Sirtfi version 1 is gaining traction

- provides - self-asserted - security contacts
- point-to-point communications
- interaction not usually visible at the 'global' level

we need to now go 'beyond *Sirtfi*'

- incidents are not usually bi-lateral
- may spread through federated identity systems
- and outside to relying parties or entire Infrastructure



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Incident Response Test Model for Organisations

Deliverable MNA3.3

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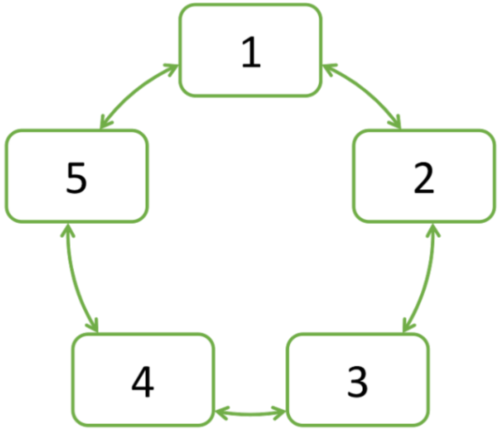
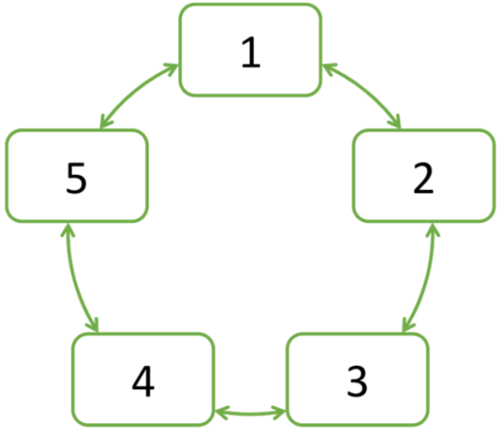
Beyond Sirtfi: streamlining the response process

trust relationships: allow information to flow rapidly to all that need to know

Infrastructure sharing model: PRACE, XSEDE, …

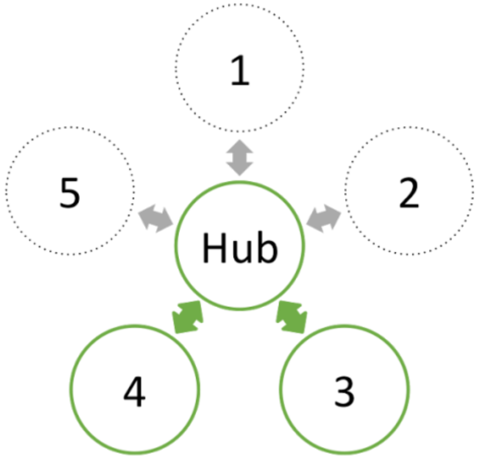


During Incident Response
Information shared between all participants

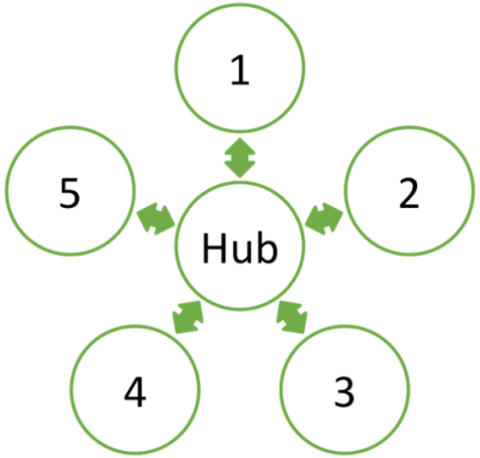


Post-Incident-Report Sharing
Information shared between all participants

Infrastructure sharing model: EGI, WLCG, …



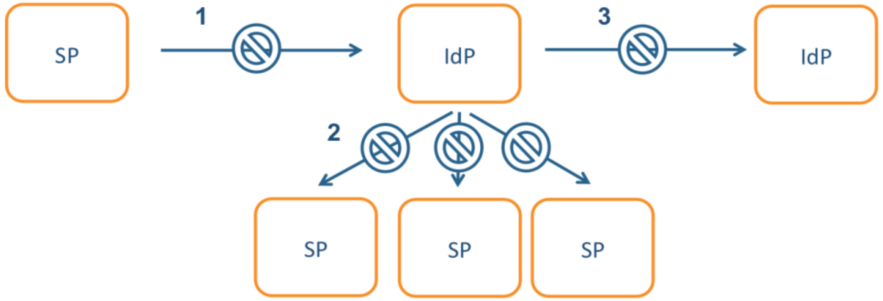
During Incident Response
Information shared between affected participants



Post-Incident-Report Sharing
Information shared between all participants

graphics: Hannah Short, AARC ‘DNA3.1’ incident response models

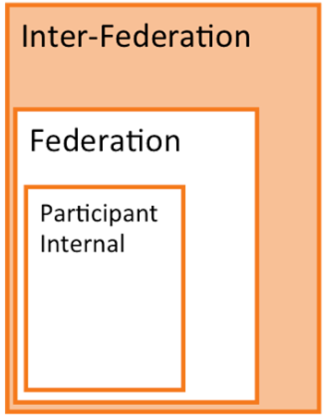
Incident response process evolution in federations



Incident Response Communication, communication blocks

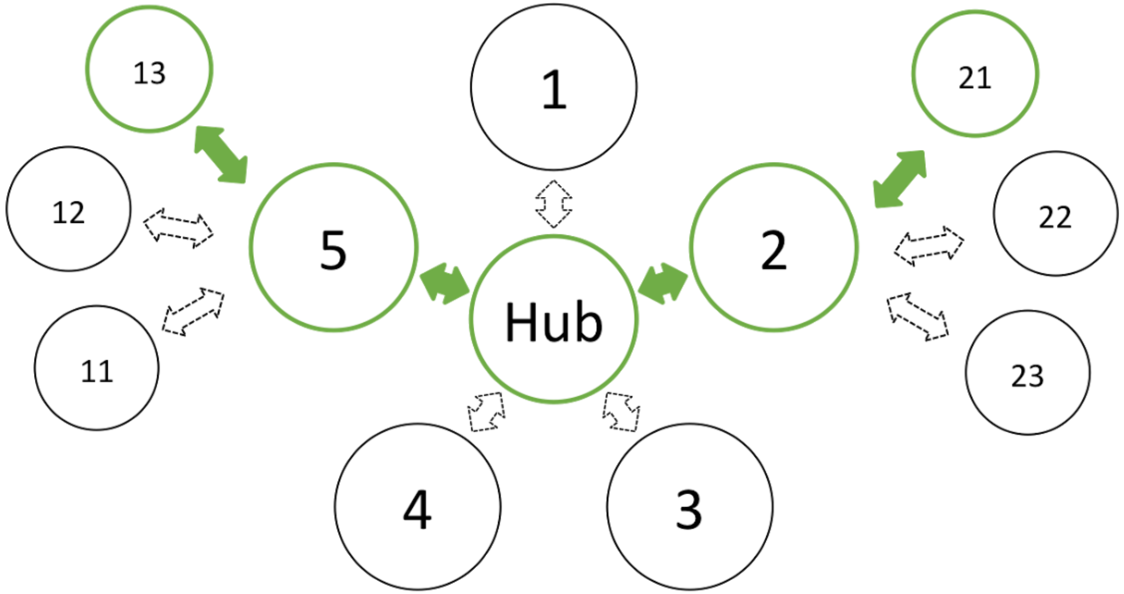
Challenges

- IdP appears ‘outside’ the service’s security mandate
- Lack of contact, or lack of trust, in IdP, which is an ‘unknown party’
- IdP fails to inform other affected SPs, for fear of leaking data or reputation
- No established channels of communication



Proposed solutions

- Stronger role for federation operators, as they are known to both SPs and IdPs
- Add hub capability centrally (@ eduGAIN)



Inter-Federation Incident Response Communication

graphics: Hannah Short, AARC ‘DNA3.1’ incident response models

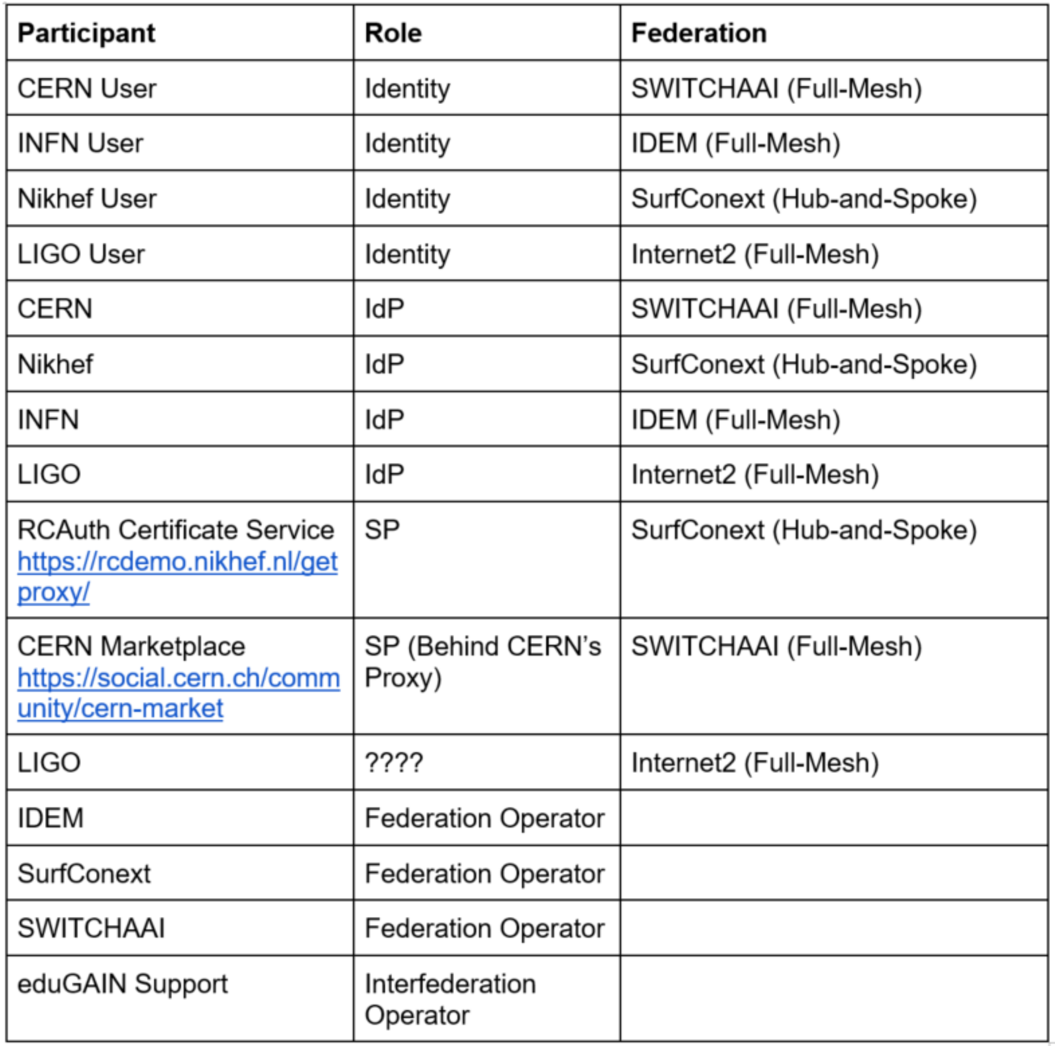
Would this model work? You have to test!

Incident Response Test Model for Organisations

simulated incident to evaluate the model

- Many participants
- Participants from multiple (existing) infrastructures
- Leverages (and overlaps with) existing groups

Test with these participants was run by Hannah as 'AARC' – *phase 1 ran last week*



Participant	Role	Federation
CERN User	Identity	SWITCHAAI (Full-Mesh)
INFN User	Identity	IDEM (Full-Mesh)
Nikhef User	Identity	SurfConext (Hub-and-Spoke)
LIGO User	Identity	Internet2 (Full-Mesh)
CERN	IdP	SWITCHAAI (Full-Mesh)
Nikhef	IdP	SurfConext (Hub-and-Spoke)
INFN	IdP	IDEM (Full-Mesh)
LIGO	IdP	Internet2 (Full-Mesh)
RCAuth Certificate Service https://rcdemo.nikhef.nl/getproxy/	SP	SurfConext (Hub-and-Spoke)
CERN Marketplace https://social.cern.ch/community/cern-market	SP (Behind CERN's Proxy)	SWITCHAAI (Full-Mesh)
LIGO	????	Internet2 (Full-Mesh)
IDEM	Federation Operator	
SurfConext	Federation Operator	
SWITCHAAI	Federation Operator	
eduGAIN Support	Interfederation Operator	

Who runs the test?

- Test with these participants was run ‘by AARC’

Logical candidates that could all run the test … and ‘legitimately’ claim an interest

- eduGAIN
- GEANT.org
- EOSC-HUB ops, or EGI CSIRT
- IGTF
- each of the e-Infrastructures XSEDE, EGI, EUDAT, PRACE, OSG, HPCI, …
- every research infra with an interest: WLCG, LSAAI, BBMRI, ELIXIR, …
- any institution (or person) with access to https://mds.edugain.org/

so in a short while, all the email in the world will be on Sirtfi Incident Response tests??

Frequency of challenges and tests - examples

Trusted Introducer and TF-CSIRT

- 2-3 Reaction Tests per year
- supported by web click infrastructure, but requires (team) authentication

SURFcert challenges

- annual response challenges, just reply to email to a (traceable) ticket

IGTF RAT Communications Challenges

- every 1-2 years
- in parallel with continuous operational monitoring

yet we already listed 14 entities that have a real interest in running tests, 5000+ entities can claim the same

How to coordinate – discussion items!

Designate a lead 'management' organization for each element?

so that each 'target' does not get hit by many competing and concurrent challenges?

- e.g. eduGAIN to run communications challenges against Sirtfi email addresses
- the e-Infrastructures to test responsiveness of SPs and RPs
  with each RP/SP/Site having a primary e-Infra as its home?
  or can we jointly (EOSC-HUB) run these challenges per continent?
- coordination must be global

Communications challenges also build 'confidence' and trust – an important social aspect

- unless you run the test yourself, or get full insight in the results of a challenge,
  you may not be growing more trust in the entities tested
- so to get that 'warm and fuzzy feeling of trust',
  results (responsiveness measurement data) should be shared
  but that sharing needs to be confidential as well – limit to WISE SCI checked infrastructures?

Thank you

Any Questions?

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AARC

https://aarc-project.eu

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