

The WISE Community and the WG Security in Big and Open Data

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Setting the scene

Real security on the internet can only be realised within a broader context of trust and respect. Collaboration is the key to successful information security.

The WISE community was born at a workshop in Oct. 2015, jointly organised by the GÉANT group SIG-ISM (Special Interest Group on Information Security Management) and SCI, the ‘Security for Collaboration among Infrastructures’ group of staff from several large-scale distributed computing infrastructures.

Setting the scene

WISE is a self-containing acronym for
Wise **I**nformation **S**ecurity for collaborating **E**-infrastructures

WISE now is a global trust community where security experts share information and work together, creating collaboration among different e-infrastructures.

WISE would like to provide a framework of standards, guidelines, and practices to promote the protection of critical infrastructure.

Organisational structure

WISE is governed by a steering committee and currently project-managed by staff from GÉANT.

We are working on different activities within Working Groups.

Information exchange is done via email lists, video/phone conference and/or F2F meetings at conferences or self owned workshops

Join us by subscribing to our mailing list(s)

And since we are unfunded currently, we are always looking for someone being prepared to host our events

Current Working Groups

Working Group on Updating the SCI framework (SCIV2-WG)

Chair: Dave Kelsey - STFC, Vice Chair: Adam Slagell - NCSA and XSEDE

Working Group on Security Training and Awareness (STAA-WG)

Chair: Alf Moens - SURF, Vice Chair : Jim Marsteller - PSC

Working Group on Risk Assessment WISE (RAW-WG)

Chair: Jules Wolfrat - PRACE, Vice-Chair: Urpo Kaila - CSC, EUDAT

Working Group on Security in Big and Open Data (SBOD-WG)

Chair: Alessandra Scicchitano - GÉANT

Vice-Chair: Ralph Niederberger - HBP, PRACE & EUDAT

Past, current & next events

1st WISE workshop - 20-22 October 2015, Barcelona Spain

WISE BoF at TNC16 - 14th June 2016, Prague, Czech Republic

2nd WISE workshop @XSEDE - 18th July, Miami, Florida, US

3rd WISE workshop @DI4R - 27th September, Krakow, Poland

WISE session @DI4R - 29th September, Krakow, Poland

4th WISE WS planned in Q1/2017, NIKHEF, Amsterdam, The Netherlands

Short minutes from last event (1)

3rd WISE workshop @DI4R - 27th September, Krakow, Poland

- around 30 participants with interesting discussions
- talks about WISE workgroups themselves
- Cloud Security Risks and their mitigation - Linda Cornwall - STFC
- Security in PRACE & HBP - Ralph Niederberger - Jülich/JSC
- Handling security incidents in e-infrastructures: balancing prevention and response - Daniel Kouril - CESNET
- Code Analysis/Software Assurance - Rob Quick - Indiana University
- History and Current State of Compute Canada Security - Drew Leske - Compute Canada
- Secure access to e-infrastructure in context of NREN security management practices - Maciej Miłostan - PSNC
- Enterprise security architecture - Fotis Gagadis - GEANT

Short minutes from last event (2)

Discussions on future of WISE

- review needed: anything ok? change organisation?
- are there other relevant topics
- Cloud Security, Vulnerability Handling, IPv6 security,
- Privacy (regulations), Threat Intelligence Sharing,
- Laws& Regulations in International Context
- Marketing WISE global & to research communities

Anything we want to do, we have to keep in mind

- We are not an operational security/trust body
- We don't want to compete with other activities such as
TF-CSIRT, FIRST, trust groups, ...

Short minutes from last event (3)

Working groups are set up for a specific timeframe e.g. 1 year

There should be outcomes/deliverables:

- events, - best practices, - website/wiki, - newsletter

No group „must“ exist, if there is no work to do. Just summarize results and then drop the WG.

Summarizing:

Need more information? Just contact us or check our website

www.wise-community.org

The WISE WG on Security in Big and Open Data

DI4R conference, Krakow, Poland
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WISE people take action on security (6B)
The WISE Community & the WG Security in Big and Open Data

Setting the scene

Nowadays, 'Big data' and 'Open data' are often-heard buzzwords.

Want to make your work interesting -> Work on BIG Data

Want to get financing -> Produce OPEN Data

But open data does not mean you don't need to take care of it.

There are issues we have to take into account, like

- » confidentiality,
- » integrity, and
- » availability

Some definitions

- Big data refers to large datasets.
- Public or available restricted only by a number of people, an org or a community.
- Open data refers to data available to everyone, republishable without restrictions. Those may be not always large or “big”.
- There are big datasets which have to be
 - accessible worldwide, by distinct people, or working groups only.
 - replicable for security reasons (damage) or
 - accessible with high-speed at different sites to spread download capacity ...
- A clear example of overlap between big and open data are large datasets from scientific research sources.

Some examples

Large Hadron Collider will provide data volume from all experiments by about 15 PByte/year accessible to thousands of physicists around the world.

Square Kilometre Array (SKA) will simulate a huge radio telescope (> 1000 antennas). Assumed daily data volume: 960 Peta Byte

EUDAT synchroning, exchanging, storing, sharing, replicating, and finding of research data. When in production state could be a candidate for big and open data

Human Brain Project will work on huge amounts of data for simulating the brain and real brain images

The need of data reduction

Transmitting data from storage to computation, which is not handled at all, does not make sense.

Data reduction on storage side should be done.

But sometimes, administration of data and competence/knowledge of data structure differ.

Data archives contain huge amounts of data for different communities. How can this be handled.

Applications may need access to the whole database (root privileges), but how can system administrators trust software developers from communities.

Those use cases, SBOD is looking for.

We then will ask: Is there a solution already? Can it be generalized?

The scope of SBOD-WG

- SBOD-WG focuses on security issues that arise when dealing with big and open data especially within the e-infrastructures.
- Security issues in this context concentrate on (as stated above):
 - Confidentiality regulates access to the information,
 - Integrity assures that the information is trustworthy, i.e. has not been changed without authorisation
 - Availability guarantees access to the information by authorised people at any time.
- SBOD intends to focus on high level security issues only.
- CSIRT issues are out of scope.

How do we work

- Emails are the means of communication of the working group.
- SBOD will mainly meet via teleconferences, but if needed face-to-face meetings will also be considered and organised.
- GET INVOLVED
<https://wise-community.org/security-in-big-and-open-data/>
- Subscribe to our mailing lists
sbod-wg@lists.wise-community.org

So far...

Published on the SBOD Wiki

- Case Statement
- Definition of Big and Open Data

We are working right now on identifying possible use cases.

If you have any, get in touch with the chair(s):

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Questions

