WP 20.3 SeSI: Security of (Virtual) e-Science Infrastructure

Cees de Laat
Matthijs Koot, Leon Gommans, Guido van ‘t Noordeinde

WP 20.11 SARNET: Security Autonomous Response with programmable NETworks

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overhead production

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WP 20.3

- 3 PhD’s
    - Bridging VL-e – COMMIT security research
    - Privacy and integrity is a hard problem -> mathematical foundation
    - Led to Ethical Committee for Information Sciences (ECIS)
    - Security of data in complex operating systems
    - Big impact on Health Record policy
    - Startup delivering solutions for distributed control on sensitive data.
    - KLM Science officer
    - IETF/IRTF AAA work
    - How to create trust across domains
WP 20.11: Context & Goal

Security Autonomous Response NETwork Research

Ameneh Deljoo (PhD):
Why create SARNET Alliances?
Model autonomous SARNET behaviors to identify risk and benefits for SARNET stakeholders

Till Oct 1: Stojan Trajanovski (PD)
From Dec 8: Gleb Polevoy (PD):
Determine best defense scenario against cyberattacks deploying SARNET functions (1) based on security state and KPI information (2).

Ralph Koning (PhD)
Ben de Graaff (SP):
1. Design functionalities needed to operate a SARNET using SDN/NFV
2. Deliver security state and KPI information (e.g. cost)
Ambition to put capabilities into fieldlab

Re-enforcing ICT preconditions:
Each envisaged site has similar elements
WP 20.11

- Started August 2015, will continue till 2019
- Already 6 publications (1 journal), 12 presentations and 2 proof of concepts at SuperComputing Conferences
  See delaat.net/sarnet
- Affiliated with California Pacific Research Platform and Lawrence Berkeley National Laboratory
- Oct 2016: 100 Gb/s connection KLM – SURFSARA - UvA
- Nov 2016: dark fiber Science Park – VU CAMPUS
CHANGE!