Inter-Network Cooperation

Cooperation and Coordination

community, sharing,
incident response, trust

Cooperation and coordination

- To keep the Internet working
  - we are relying on each other

- It's good to know
  - community
  - point of contact

NOGs

- Network Operations Group is an open forum
    - technology discussions
    - sharing operational best practices
    - compare experience
    - peering coordination
    - establishing personal relationships

Medium for NOGs

- Mailing-list
    - anyone can subscribe
    - traffic depends on events and topics
- In-person meeting
    - participation fee varies, and costs of transports, accommodations
    - high value

NANOG

- North American Network Operators' Group
  - evolved from the NSFNET "Regional-Techs" meetings in 1994
  - Three meetings each year

https://www.nanog.org/

- program
  - 3 days plenary
- about 500 attendees
  - from Asia and Europe as well
- and side meetings

APRICOT

- Asia and Pacific Operations Conference
  - established in 1996
  - co-located with AP* meetings
- held annually on the last week of Feb
- APRICOT2017, Vietnam
- APRICOT2018, Nepal

http://www.apricot.net/

- Program
  - 5 days workshop
  - 4 days conference and tutorial
  - 1 day APNIC member meeting
- About 700 attendees

SANOG

- South Asian Network Operators Group
  - established in 2003
- Two meetings each year
- SANOG29, 2016, Pakistan
- SANOG30, 2017, India

http://www.sanog.org/

- program
  - 5 days workshop
  - 2 days tutorial
  - 2.5 days conference
- about 250 attendees

JANOG

- Japan Network Operators' Group
  - established in 1997
- local language community - Japanese
- Two meetings each year
- JANOG40, Jul 2017, Fukushima
- JANOG41, Jan 2018, Hiroshima

https://www.janog.gr.jp/

- program
  - 1 day tutorial + BoF
  - 2 days plenary
- about 500 attendees

BoFs

- Birds of a feather(BoF) is a small meeting focused on a specific topic
  - security, peering, and so on
- usually scheduled in advance, sometimes organized on demand

Coffee breaks and social events

- To expand relationships
  - business and personal
- To start/manage a project
  - a face-to-face meeting help to step forward things

NOG operation

- Independent
  - a casual and informal meeting among network operators in the region
- Support from cross industry
  - Service Providers
  - Research and Academics
  - Vendors
  - ISOC, NSRC, APNIC, APIA

Anyone can establish a new NOG

- It's just a group and gatherings
- No hierarchy
- No formal relationship among NOGs

- The real challenge would be continuation and getting more involvements

The keys of NOG

- Good meeting contents
  - Should meet operators' needs and interests
- Involvements of local key players
  - Major network operators, technical experts
- Facilitating communications
  - Mailing list and other communication tools
  - Appropriate managements of meeting and events
- Dynamism
  - New attendees
  - A change of committee members

Other upcoming events

- Upcoming network-related education or training events
    - http://ws.edu.isoc.org/calendar/

CSIRT

- Computer Security Incident Response Team(CSIRT) provides the incident handling service for its constituency
  - may offer other related services as well

- The first CSIRT - CERT/CC was created in 1988 in response to the Morris worm incident

Computer security incident

- Any real or suspected adverse event
- examples:
  - attacks to/from your network
  - compromised host
  - account/information theft
  - spam or IT policy violation

Needs for response

- To limit the damage
- To lower the cost of recovery

- An effective response benefits for organizations
  - motivation to have a CSIRT in your organization

The incident handling service

- A single point of contact to receive incident reports
- Provides response and support to the report
- Announcement to disclose information about specific attack/incident
- Feedback to the report/request

Building your CSIRT

- mission statement
  - what/how to do
- constituency
  - for whom
- structure
  - budget, position within organization
- relationship with other CSIRTs

CSIRT types

- National CISRTs
  - a national point of contact to coordinate an incident handling, reduce the number of security incidents in that country

- ISP/xSP CSIRTs
  - provide a secure environment for their customer, and provide response to their customers for security incidents

CSIRT types

- Vendors CSIRTs
    - improve the security of their products

- Enterprise CSIRTs
    - improve the security of their corporation's infrastructure, and provide on-site response for security incidents

Point of Contact

National CSIRT

CSIRT

constituency
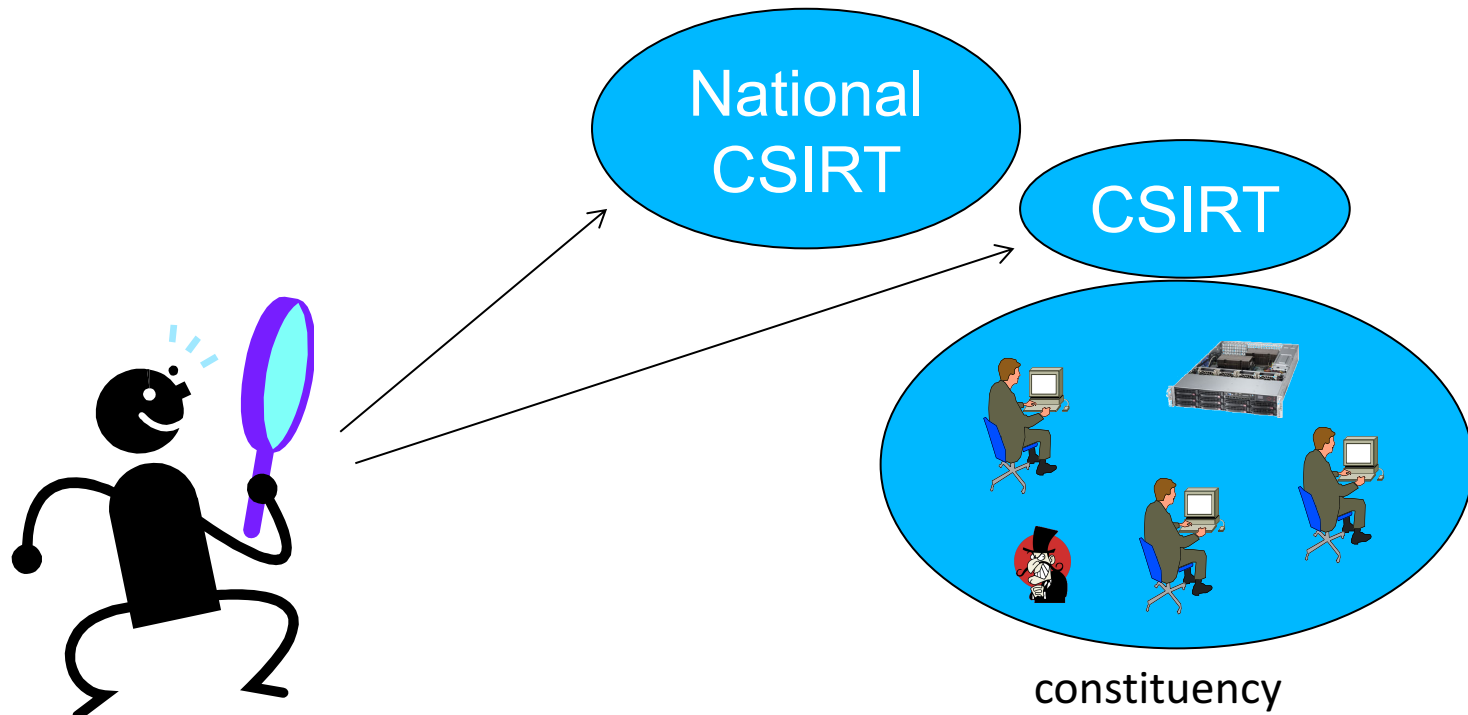
Security community

- FIRST
- forum of CSIRTs
- https://www.first.org/
- annual conference and many small events

individual based community

- NSP-SEC
  - https://puck.nether.net/mailman/listinfo/nsp-security
- OPS-TRUST
  - https://openid.ops-trust.net/about