

Trust as Infrastructure: The Human Side of Cyber Security

Yukako Uchida
JPCERT/CC



Introduction

- Manager, Global Coordination Division at JPCERT/CC
 - Based in Tokyo
- Joined JPCERT/CC in 2013
 - Engaged in global cyber security communities for 12+ years
- Joined FIRST Board of Directors in 2021
 - Currently in charge of membership

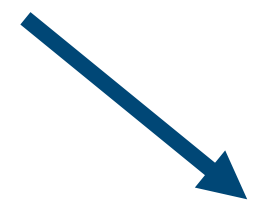


Introduction

■ CERT = Computer Emergency Response Team



■ Some CERTs identify themselves as a Coordination Center (/CC)



What is a CERT?

■ Journey of CERTs

- First started by CERT/CC in 1988
- Rapidly spread in Asia-Pacific in 90s

■ CERT Community development

- FIRST in 1990
- APCERT in 2003

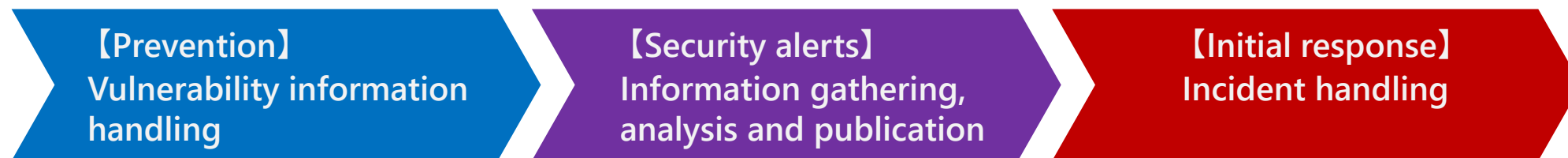


What is a CERT?

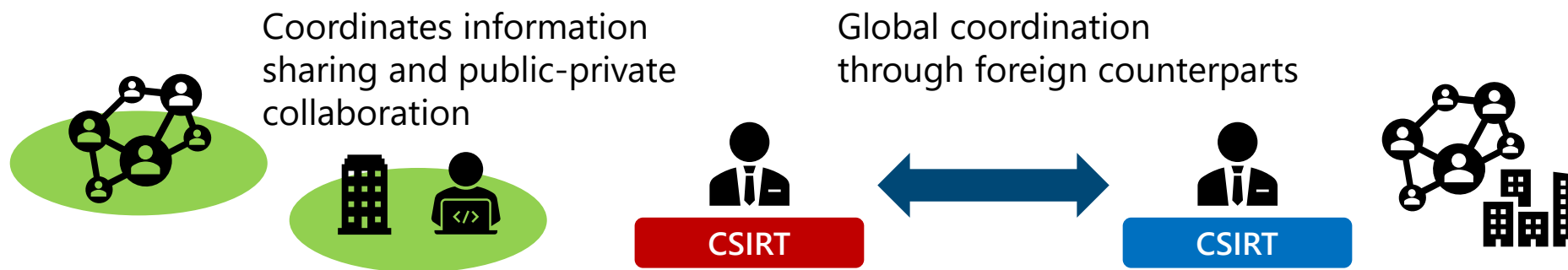
■ JPCERT/CC

Japan Computer Emergency Response Team / Coordination Center

■ "CERTs" or "CSIRTs" (incident response teams) are often compared to "firefighters"



■ "Point of Contact" for local and global coordination (Coordination Center)



What is a CERT?

■ In 2025, JPCERT/CC handled approximately 20,000 incidents

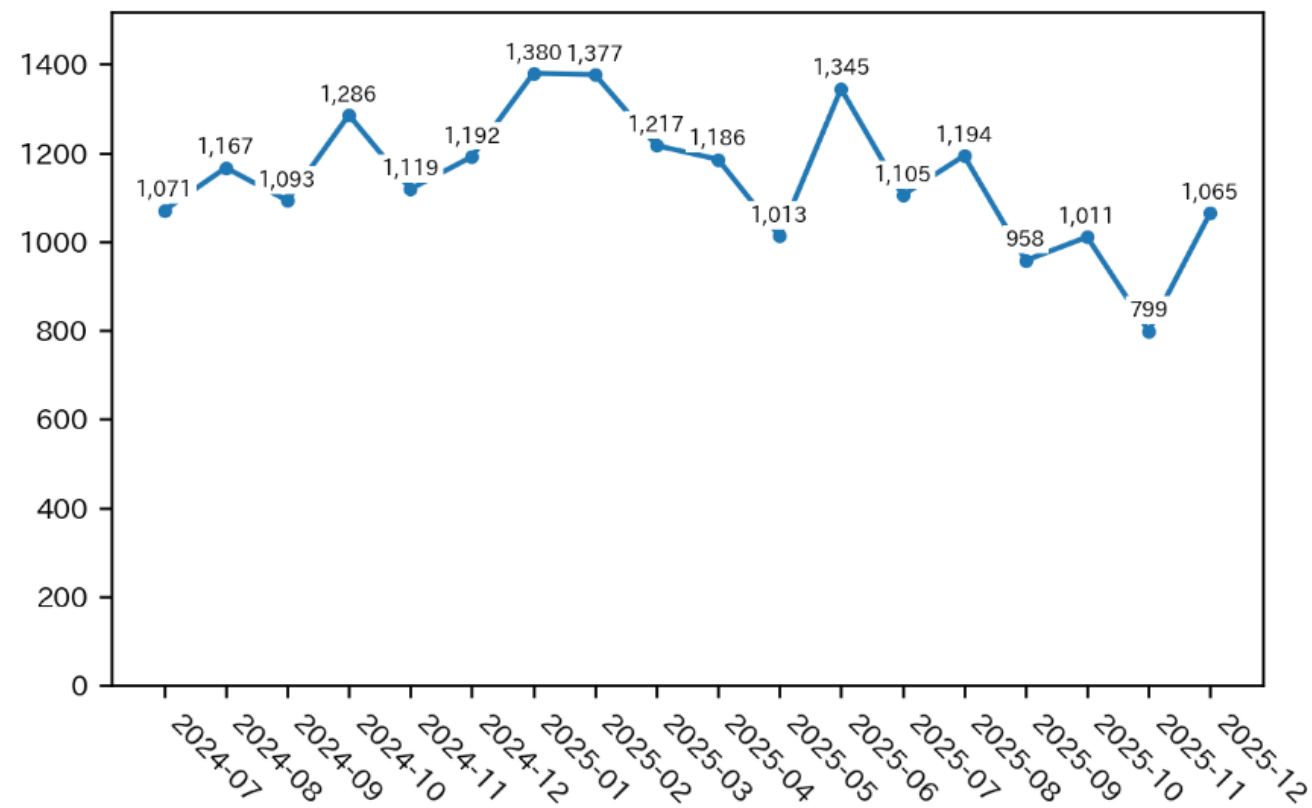


Figure 1.2 Trends in the Number of Cases Coordinated

JPCERT/CC Quarterly Report
October 1, 2025 to December 31, 2025
https://www.jpcert.or.jp/english/doc/QuarterlyReport2025Q3_en.pdf

What is a CERT?

■ JPCERT/CC's outreach in the past 20 years

Received
incident reports
from

102

economies

Sent incident
notifications to

167

economies

*Based on the number of ccTLDs interacted for incident response

What is a CERT?

■ What made this possible?

Neutral, non-governmental position

- Allows us to work flexibly and closely with industry partners

Continuous effort to develop/maintain **trust relationships**

- Dedicated staff for domestic and global external relations

JPCERT/CC's spirit:
Mobility, Independence, Fairness



What is trust? – Cyber security context

- Trust facilitates even “uncomfortable” communication
 - Helps overcoming obstacles in sharing “vulnerabilities”
- Trust is based on the expectation that the counterpart will:

Handle my information with care



Act upon my information to solve my problem



Provide valid and trustworthy information



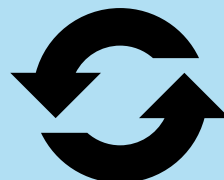
What is trust? - Challenges

■ Trust is developed by:

First-hand
experience



Repeated
process



Mutual
effort



■ Sometimes..

- We need to work beyond our immediate counterpart
- We only get to meet once a year (or even less)

How do we build trust?

- Various opportunities available at “communities”
 - Introduced by existing member
 - Meet your like-minded teams/individuals
 - Expand your network
 - Engage in joint activities
- Trust is built between people, not just organisations
 - Informal conversations and shared interests also strengthen relationships

What have I done for the last 12 years?

- Travelled to 50 cities and 35 countries
 - Meet new faces to expand outreach
 - Be a “repeated attendee” for several conferences
- Help establish relationships that makes incident response smoother



How can communities support building trust?

■ APCERT: 35 teams from 25 economies

- **Australia**
 - ACSC
 - AusCERT
- **Bangladesh**
 - bdCERT
 - BGD e-GOV CIRT
- **Bhutan**
 - BtCIRT
- **Brunei Darussalam**
 - BruCERT
- **Chinese Taipei**
 - TWCERT/CC
- **Hong Kong, China**
 - GovCERT.HK
 - HKCERT
- **India**
 - CERT-In
- **Indonesia**
 - ID-CERT
 - Id-SIRTII/CC
- **Japan**
 - JPCERT/CC
- **Lao People's Democratic Republic**
 - LaoCERT
- **Macau, China**
 - MOCERT
- **Malaysia**
 - CyberSecurity Malaysia
- **Mongolia**
 - MNCERT/CC
 - National CSIRT of Mongolia
 - Public CSIRT/CC of Mongolia
- **Myanmar**
 - mmCERT
- **New Zealand**
 - NCSC NZ
- **Pakistan**
 - PKCERT
- **People's Republic of China**
 - CCERT
 - CNCERT/CC
- **Philippines**
 - CERT-PH
- **Republic of Korea**
 - KN-CERT
 - KrCERT/CC
- **Singapore**
 - SingCERT
- **Sri Lanka**
 - Sri Lanka CERT|CC
 - TechCERT
- **Thailand**
 - ETDA
 - ThaiCERT
- **Tonga**
 - CERT Tonga
- **Vanuatu**
 - CERT VU
- **Vietnam**
 - VNCERT/CC

Created based on Member Teams listed on:
<https://www.apcert.org/about/structure/members.html>

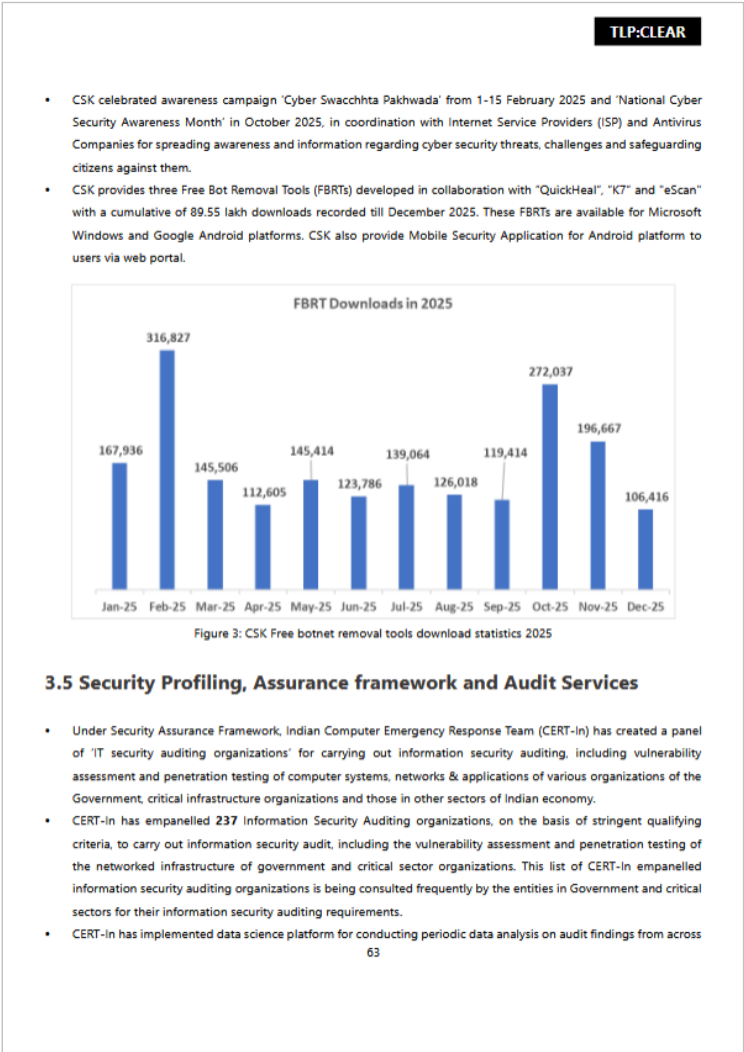
How can communities support building trust?



APCERT Annual Report 2025
https://www.apcert.org/documents/pdf/APCERT_Annual_Report_2025.pdf



BtCIRT (Bhutan)'s activity report

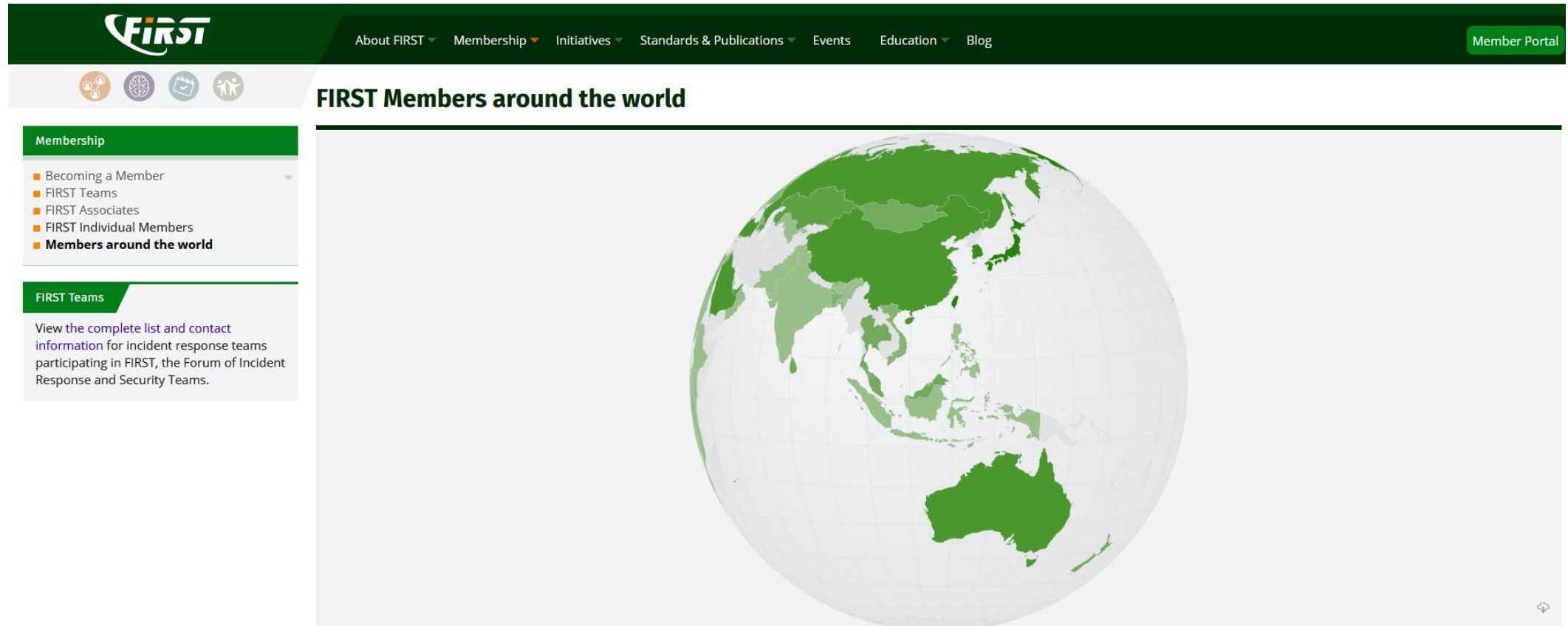


CERT-In (India)'s incident statistics

How can communities support building trust?

■ FIRST: Forum Incident Response and Security Teams

— 868 teams from 117 different countries

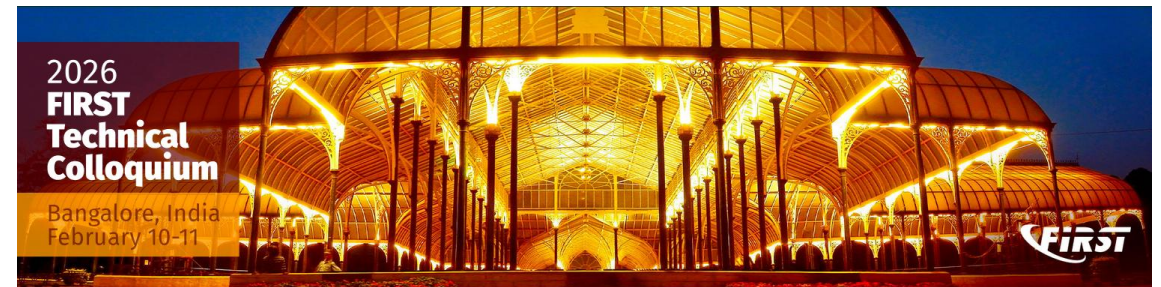


FIRST Members around the world
<https://www.first.org/members/map>

How can communities support building trust?

■ Fellowship and mentorship

■ Event opportunities

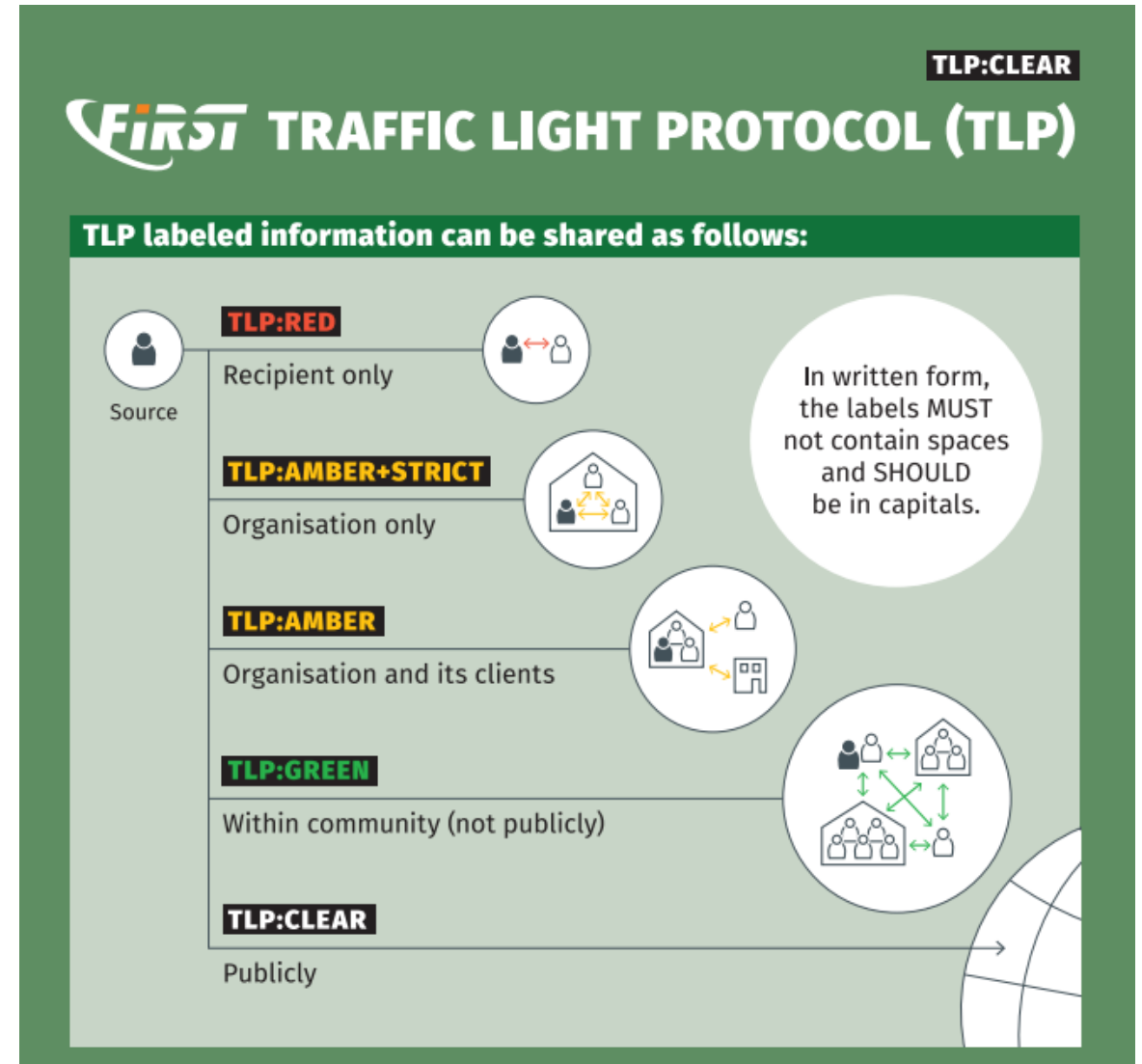


FIRST Events
<https://www.first.org/events/>

How can communities support building trust?

- Trust broker
 - Vouched member applications
 - Networking opportunities
- Tools and mechanisms to establish trust
 - Information sharing schemes
 - Portals, data feeds
 - Standards, rules
 - TLP (Traffic Light Protocol)

FIRST TLP Posters
<https://www.first.org/tlp/docs/v2/FirstTLP-PosterA4-CMYK-30m.pdf>

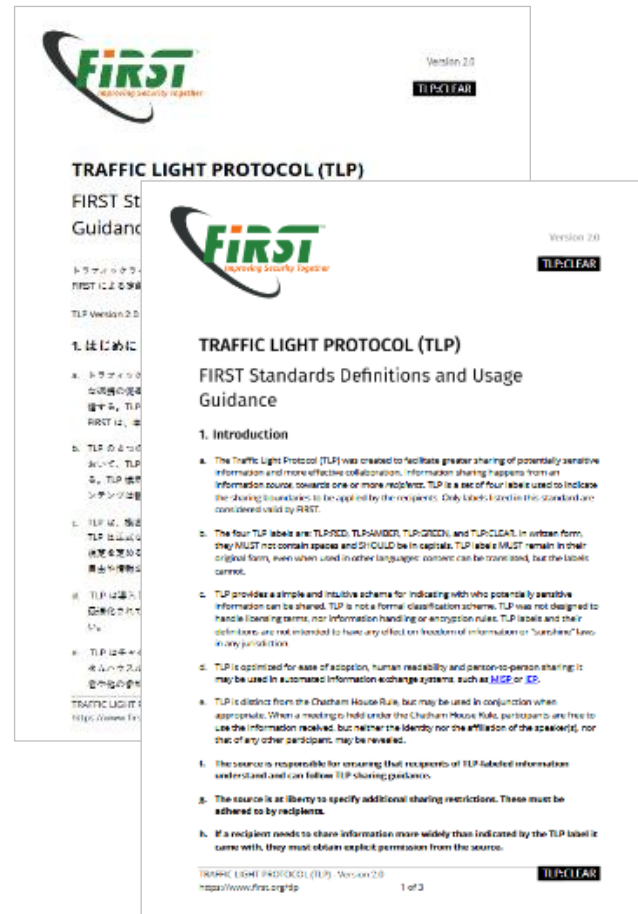


How can communities support building trust?

■ Opportunities to work in Special Interest Groups (SIGs)



FIRST CSIRT Services Framework
https://www.first.org/standards/frameworks/csirts/csirt_services_framework_v2.1



FIRST Standards Definitions and Usage Guidance — Version 2.0
<https://www.first.org/tlp/>



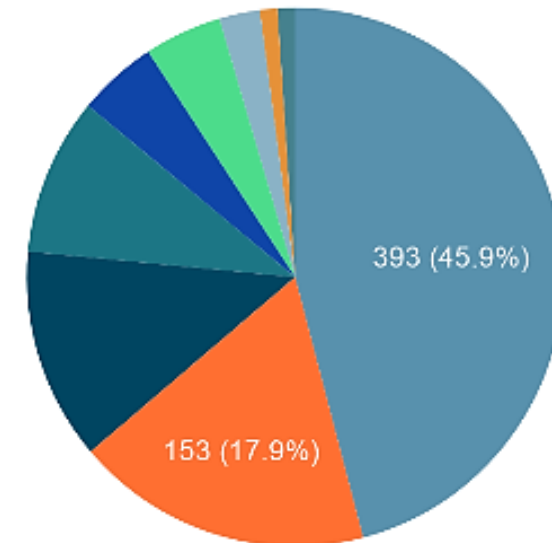
FIRST DNS Abuse Techniques Matrix
https://www.first.org/global/sigs/dns/DNS-Abuse-Techniques-Matrix_v1.3.pdf

By the way...

■ How is Asia and Pacific doing in the global community?

- The presence is becoming stronger but could do better?
- Many topics led by EU/US communities
- Asia can also be an epicentre of new topics – what's next?

Geographic distribution of FIRST membership



● Europe ● **Asia** ● North America ● South America ● Africa
● Central America ● Middle East ● **Oceania** ● The Caribbean

Created based on data provided at:
FIRST History
<https://www.first.org/about/history>

How can you contribute to build trust?

- Do engage with people next to you
 - You have travelled all the way to participate in the conference
 - Optimise your time and effort – it is worthwhile
 - Your presence is already making difference to the discussion
 - What you may consider 'normal', 'ordinary', 'nothing new' may not be the same for others

How can you contribute to build trust?

- Some tips/recommendations from my experience
 - Mind the “differences” among participants
 - Use different “personas” depending on circumstances

Culture



Punctuality



Time zones



Business
custom



Summary

- CERTs support handling cyber security incidents by coordinating with various stakeholders.
 - You are also an important part of the community
- Effective collaboration depends on trust
 - First-hand, repeated and personal experience required
- Your participation today is a first step in building trust.
 - Remember to come back, stay engaged and continue building the community

Contacts

JPCERT/CC Global Coordination Division

- Email: global-cc@jpcert.or.jp
- Tel: +81-3-6271-8901
- Web: <https://www.jpcert.or.jp/english/>

Report an incident

- Email: info@jpcert.or.jp
- Web: <https://www.jpcert.or.jp/english/ir/form.html>

