



INTERNATIONAL TELECOMMUNICATION UNION

**TELECOMMUNICATION
DEVELOPMENT BUREAU**

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TITLE: Measuring National Cybersecurity Readiness

Measuring National Cybersecurity Readiness

World Telecommunication/ICT Indicators Meeting
Geneva, Switzerland

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Robert Shaw

<robert.shaw@itu.int>

Head, ICT Applications and Cybersecurity Division

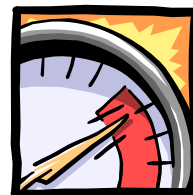
www.itu.int/ITU-D/cyb

Policies and Strategies Department

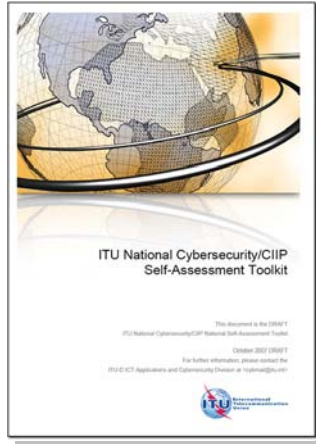
ITU Telecommunication Development Sector (ITU-D)

Setting the Context

- In 21st century, growing dependency on information and communications technologies (ICTs) that span the globe;
- Rapid growth in ICTs and dependencies led to shift in perception of cybersecurity threats in mid-1990s;
- Growing linkage of cybersecurity and critical information infrastructure protection (CIIP);
- Number of countries began assessment of threats, vulnerabilities and explored mechanisms to redress them;
- But most countries have not formulated or implemented a national strategy for cybersecurity or Critical Information Infrastructure Protection (CIIP) programme;
- Growing awareness of need to address at national policy level
 - But how do we measure where countries are?



Related ITU Development Sector (ITU-D) Activities Overview



- ITU Development Sector Study Group Question 22/1 Recommended **Best Practices** for Achieving Cybersecurity
- **Framework** for National Cybersecurity/Critical Information Infrastructure Protection (CIIIP) Efforts
- ITU National Cybersecurity/CIIIP Self-Assessment Toolkit



Specific ITU Initiatives

- ITU supports the **Framework** and national implementation efforts through
 - Reference Material & Training Resources
 - <http://www.itu.int/ITU-D/cyb/cybersecurity/>
 - ITU National Cybersecurity/CIIP Self-Assessment Toolkit
 - www.itu.int/ITU-D/cyb/cybersecurity/projects/readiness.html
 - Regional Events on Frameworks for Cybersecurity and CIIP
 - <http://www.itu.int/ITU-D/cyb/events/>

ITU Regional Events on Frameworks for Cybersecurity/CIIP

- 2007
 - Hanoi, Vietnam
 - Buenos Aires, Argentina
 - Praia, Cape Verde
- 2008
 - Oman/Qatar
 - Indonesia
 - LAC
 - Bulgaria
 - Africa

Experiences to Date

- A number of countries have expressed interest in having a **national cybersecurity readiness index**
 - Tool to raise political awareness for necessity of developing a national policy
 - Provides comparative metric where an economy is in implementing a national framework
 - Where are we in this process?

Challenges for Indicators Experts

- How to construct an index against **Framework** elements?
- Some of these are very difficult to measure:
 - National Strategy
 - Government - Industry Collaboration
 - Deterring Cybercrime
 - National Incident Management Capabilities
 - Culture of Cybersecurity

Relevant Activities for Such an Index?

- OECD Scoping Study for Measurement Of Trust in the Online Environment
 - <http://www.oecd.org/dataoecd/26/15/35792806.pdf>
- Korea Information Security Agency Activities
 - Development of National Information Security Index
- National Legislative compliance with Substantive & Procedural Articles of Budapest *Convention on Cybercrime* (2001)
- CERT CSIRT Work on Incident Management Capability Metrics
 - <http://www.cert.org/csirts/metrics.html>
- Forum for Incident Response and Security Teams (FIRST) CSIRT Recognition Requirements?
- European Network and Information Security Agency (ENISA)
 - Collection of Data on Security Incidents and Consumer Confidence at http://www.enisa.europa.eu/pages/data_collection/

International Telecommunication Union

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