

Expert Meeting on

CYBERLAWS AND REGULATIONS FOR ENHANCING E-COMMERCE:
INCLUDING CASE STUDIES AND LESSONS LEARNED

25-27 March 2015

Cyber Security Challenges & Capacity Building

By

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The views reflected are those of the author and do not necessarily reflect the views of UNCTAD



**Cybersecurity Challenges &
Capacity Building
March 2015**

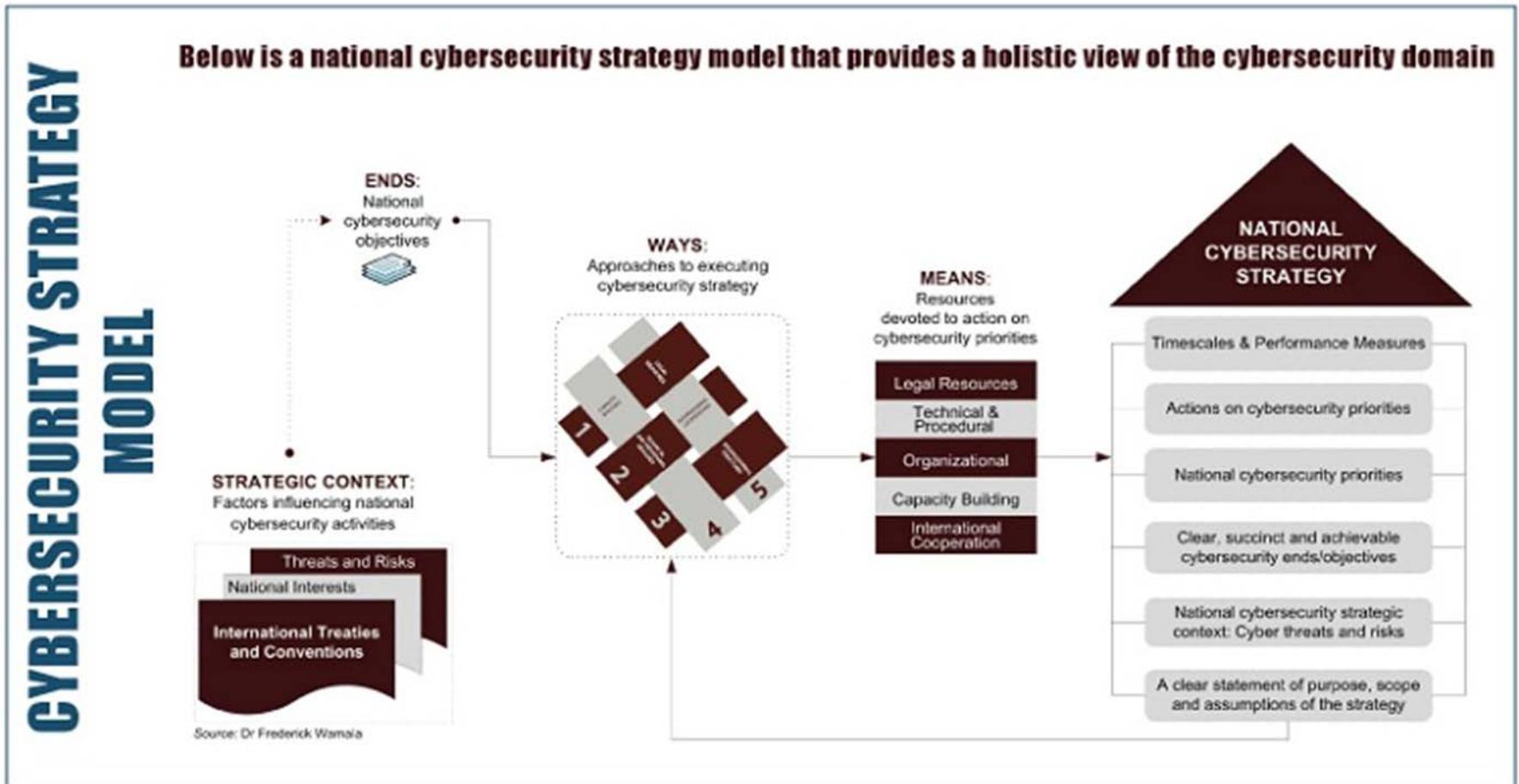


Cybersecurity Challenges

Challenge 1: International Cooperation

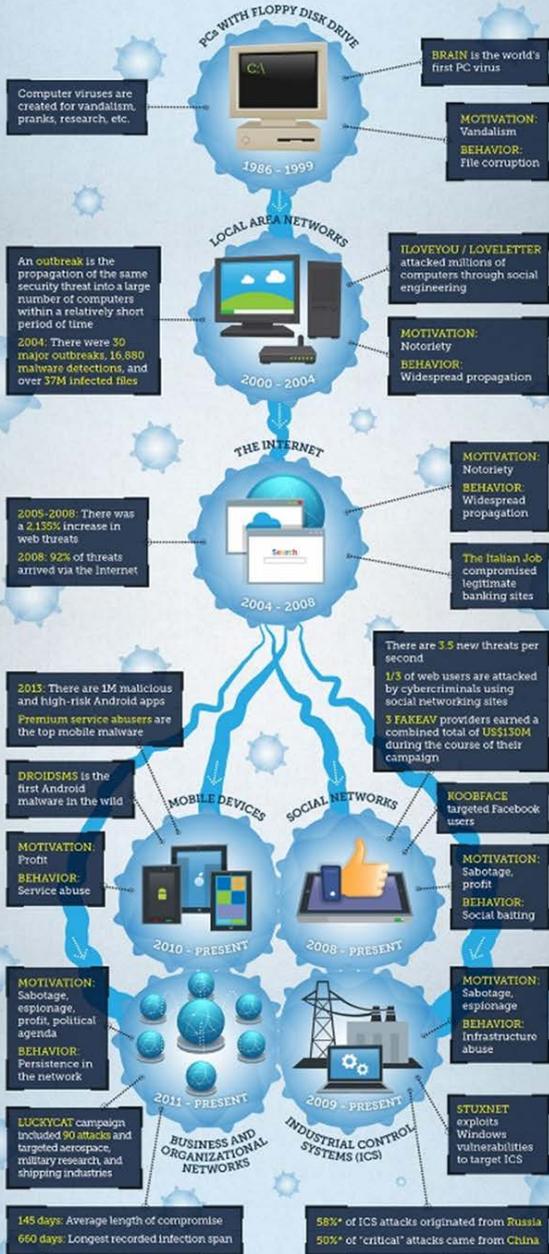


Challenge 2: Critical Information Infrastructure Protection (CIIP)



THREATS & TECHNOLOGY: HOW ATTACKS ADAPT

As with technology and popular means of communication, cybercriminal attacks and schemes continue to evolve over the years.

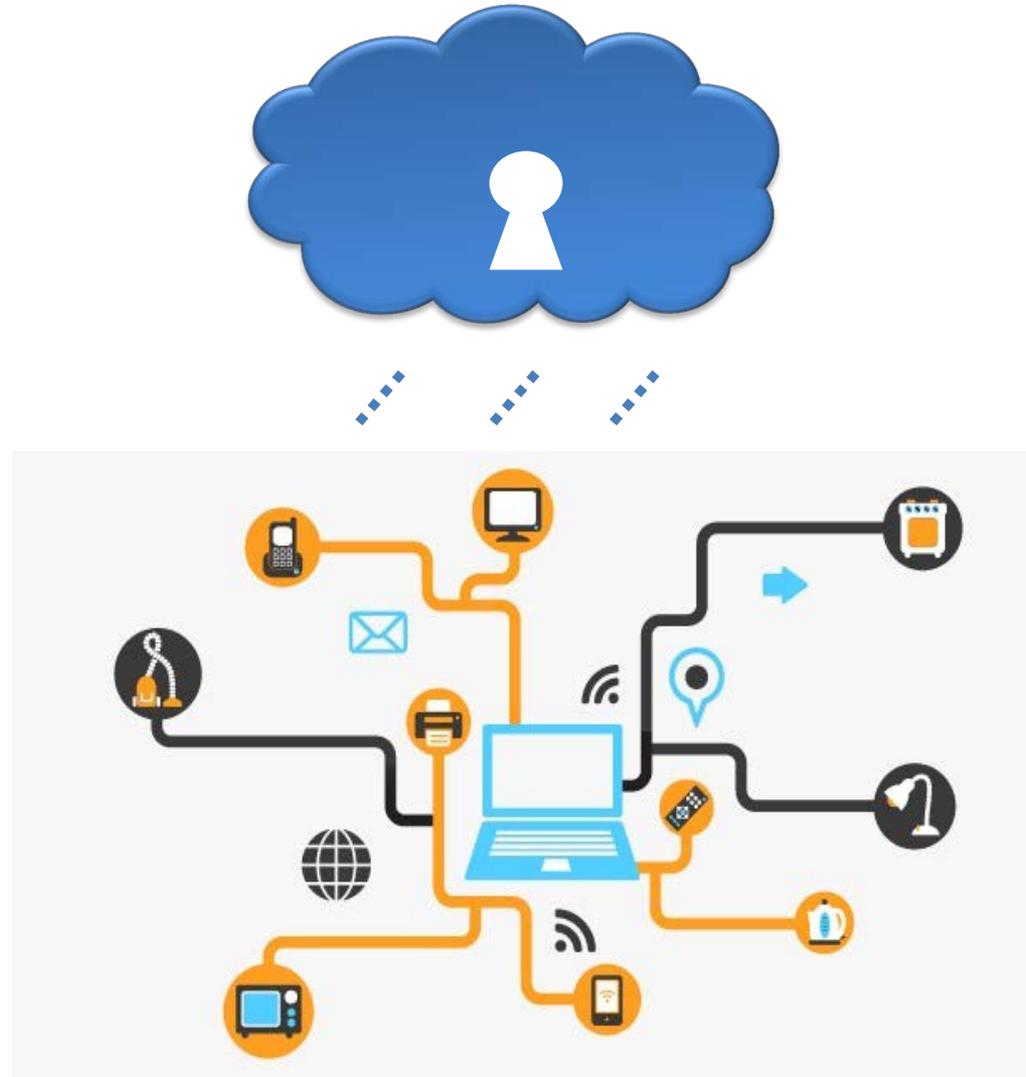


Committed to Connecting the World

Challenge 3: Attacks are evolving and Malware is becoming increasingly complex

Source: Trend Micro

Challenge 4: M2M technology, IoT and Cloud computing



Challenge 5: Secure digital identification



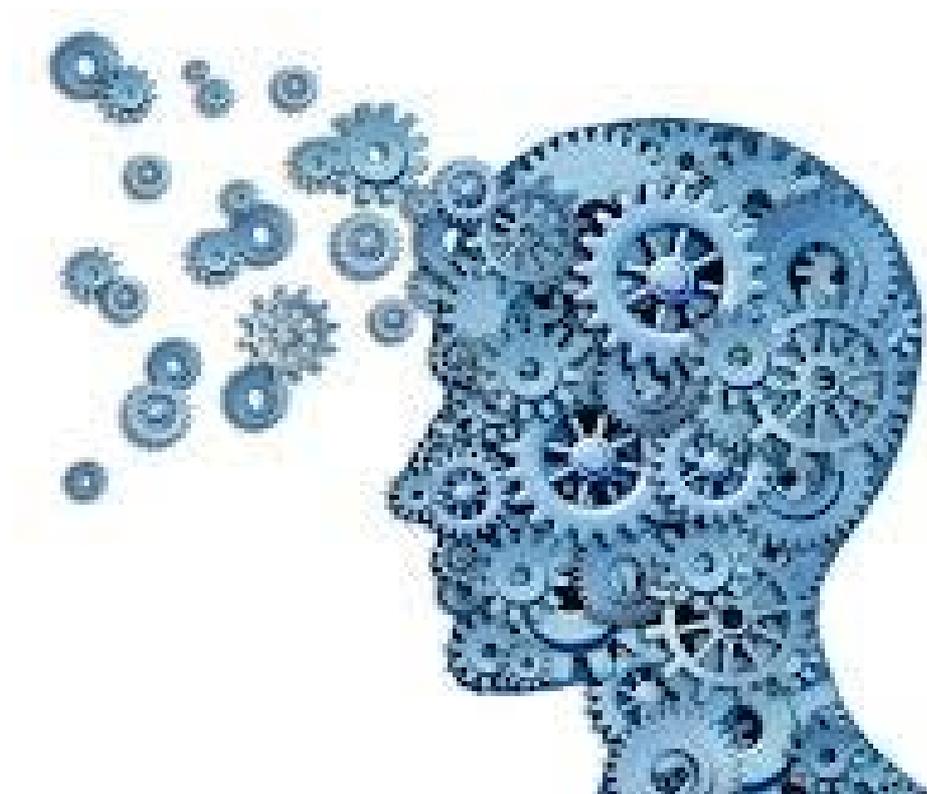
Challenge 6: Development of common standards



Challenge 7: Child Online Protection (COP)



Challenge 8: Increasing awareness





Recommendations

Strengthen
Cooperation

Information and
best practice
sharing

Public-Private
Partnerships

Develop
National
Capabilities

Measuring
Cybersecurity

Elaboration of
Standards

Protection of
vulnerable
groups



101 National CIRTs Worldwide

ITU's National CIRT Programme

NATIONAL CIRT | CAPACITY BUILDING



- Assessments conducted for **61** countries
25 of them in Africa. In progress in Ethiopia and Republic of Congo
- Implementation completed for **9** countries
7 of them in Africa
- Implementation in progress for **6** countries
Burundi and Gambia among others
- **9** cyber drills conducted with participation of over **90** countries
Last Cyberdrill was for Africa in September 2014, in Livingstone, Zambia

ITU's National CIRT Programme

NATIONAL CIRT Capacity Building

Assessment

- Assess existing capability of/need for national cybersecurity mechanisms
- On-site assessment through meetings, training, interview sessions and site visits
- Form recommendations for plan of action (institutional, organizational and technical requirements)

Implementation

- Implement based on the identified needs and organizational structures of the country
- Assist with planning, implementation, and operation of the CIRT.
- Continued collaboration with the newly established CIRT for additional support
- Capacity Building and trainings on the operational and technical details

Cyberdrill

- Exercises organized at both regional and international levels
- Help enhance the communication and response capabilities of the participating CIRTs
- Improve overall cybersecurity readiness in the region
- Provide opportunities for public-private cooperation

National CIRTs - Critical Success Factors

- Government Commitment
- Identify the right constituencies
- Engage the key players
- Be visible and collaborate within the country, regionally and internationally
- Have a strong technical team with right expertise



Objective

The Global Cybersecurity Index (GCI) aims to measure the level of commitment of each nation in cybersecurity in five main areas:

- **Legal Measures**
- Technical Measures
- **Organizational Measures**
- Capacity Building
- National and International Cooperation

104 countries have responded

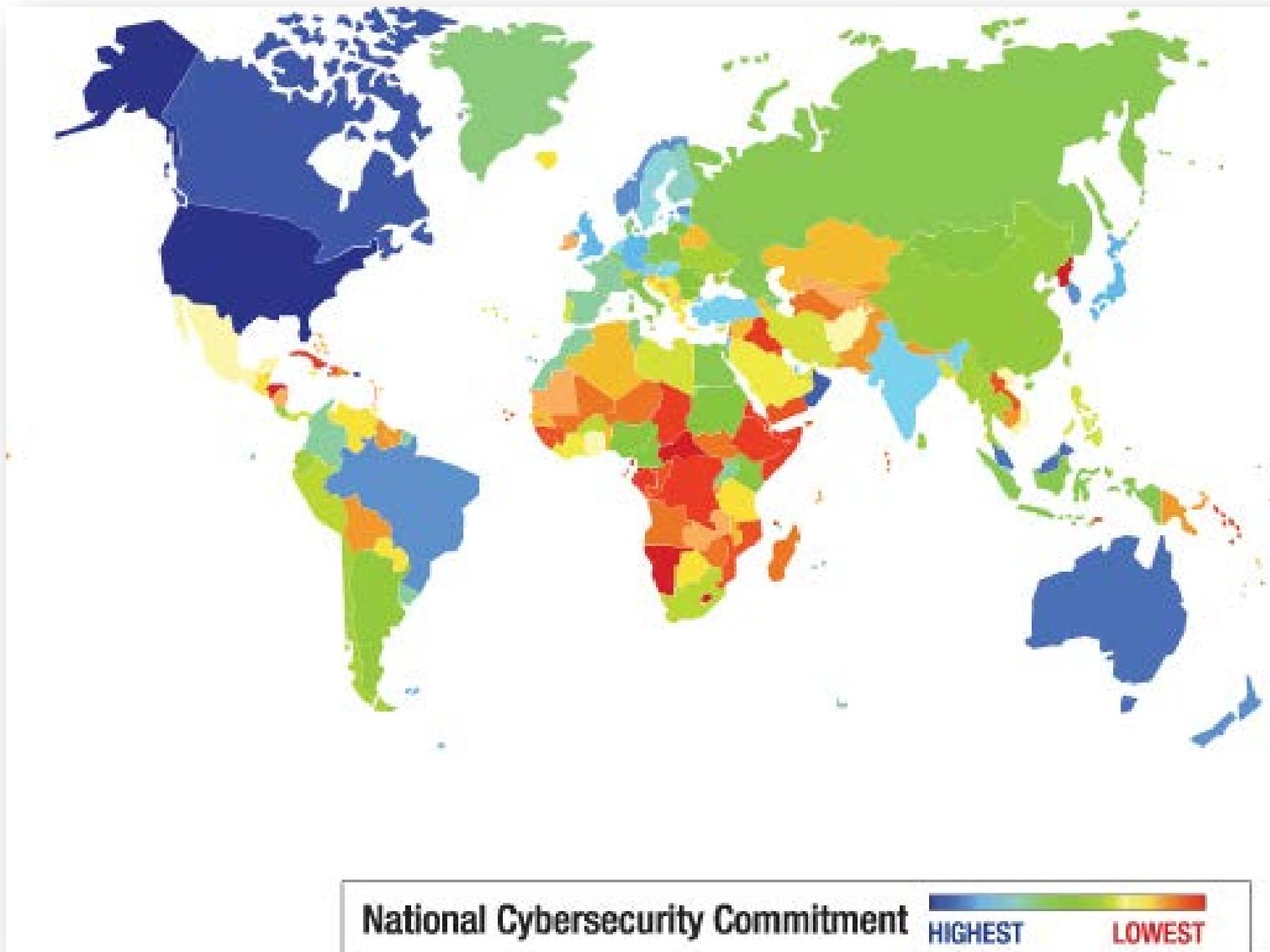
Final Global and Regional Results 2014 are on ITU Website

<http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx>

Next iteration in progress

Goals

- Promote cybersecurity strategies at a national level
- Drive implementation efforts across industries and sectors
- Integrate security into the core of technological progress
- Foster a global culture of cybersecurity



Cyberwellness Country Profiles

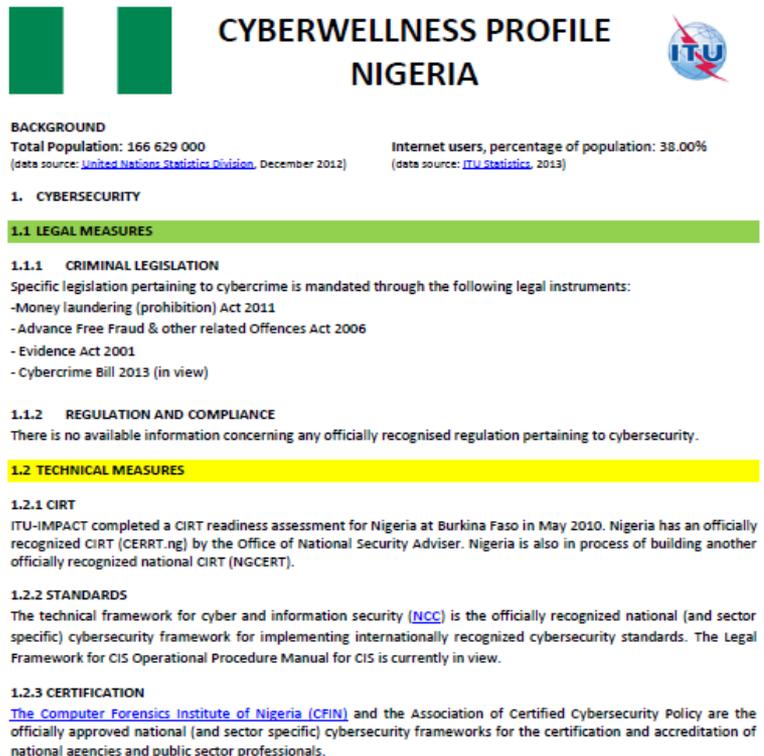
Factual information on cybersecurity achievements on each country **based on the GCA pillars**

Over 190 profiles to date

Live documents –
 Invite countries to assist us in
 maintaining updated
 information

cybersecurity@itu.int

EXAMPLE →



**CYBERWELLNESS PROFILE
 NIGERIA**

BACKGROUND
 Total Population: 166 629 000
(data source: [United Nations Statistics Division](#), December 2012)
 Internet users, percentage of population: 38.00%
(data source: [ITU Statistics](#), 2013)

1. CYBERSECURITY

1.1 LEGAL MEASURES

1.1.1 CRIMINAL LEGISLATION
 Specific legislation pertaining to cybercrime is mandated through the following legal instruments:
 -Money laundering (prohibition) Act 2011
 -Advance Free Fraud & other related Offences Act 2006
 -Evidence Act 2001
 -Cybercrime Bill 2013 (in view)

1.1.2 REGULATION AND COMPLIANCE
 There is no available information concerning any officially recognised regulation pertaining to cybersecurity.

1.2 TECHNICAL MEASURES

1.2.1 CIRT
 ITU-IMPACT completed a CIRT readiness assessment for Nigeria at Burkina Faso in May 2010. Nigeria has an officially recognized CIRT (CERRT.ng) by the Office of National Security Adviser. Nigeria is also in process of building another officially recognized national CIRT (NGCERT).

1.2.2 STANDARDS
 The technical framework for cyber and information security ([NCC](#)) is the officially recognized national (and sector specific) cybersecurity framework for implementing internationally recognized cybersecurity standards. The Legal Framework for CIS Operational Procedure Manual for CIS is currently in view.

1.2.3 CERTIFICATION
 The [Computer Forensics Institute of Nigeria \(CFIN\)](#) and the Association of Certified Cybersecurity Policy are the officially approved national (and sector specific) cybersecurity frameworks for the certification and accreditation of national agencies and public sector professionals.

Building a global partnership



INTERPOL

Capacity building initiatives, joint consultations and more.



UNODC

United Nations Office on Drugs and Crime

Best practices in cybercrime legislations, joint technical assistance to member states, information sharing



Tap on expertise of globally recognized industry players and accelerate info sharing with ITU member states



Collaboration with ABI Research – **The Global Cybersecurity Index (GCI)**



Collaboration with FIRST – To share best practices on computer incident response, engage in joint events, facilitate affiliation of national CIRTs of member states



Collaboration with Member States – Regional Cybersecurity Centres

Thank You

<http://www.itu.int/cybersecurity>

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