ITU Annual Regional Workshop
Theme Strengthening Capacities in Internet Governance
National Cybersecurity Management - A Collaborative Approach

28th August 2018

By:
Joseph Nzano
DEPUTY HEAD OF NATIONAL KE-CIRT/CC & CYBERSECURITY
CONTENT

1) Introduction: Kenya’s ICT Profile
2) National Cybersecurity Framework
3) National Cyber Threat Landscape
4) Collaboration: A Whole-of-Society Approach
INTRODUCTION
Kenya’s ICT Profile
## Introduction: Kenya’s ICT Profile

<table>
<thead>
<tr>
<th>Indicator</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>48M</td>
</tr>
<tr>
<td>Land Mass</td>
<td>580,367km²</td>
</tr>
<tr>
<td>Mobile Subscriptions</td>
<td>42.8M</td>
</tr>
<tr>
<td>Mobile Penetration</td>
<td>94.3%</td>
</tr>
<tr>
<td>Internet Users</td>
<td>33.4M</td>
</tr>
<tr>
<td>Internet Penetration</td>
<td>-</td>
</tr>
<tr>
<td>Value of Mobile Commerce (Monthly)</td>
<td>~$4B</td>
</tr>
<tr>
<td>P2P Mobile Money Transfer (Monthly)</td>
<td>~$2B</td>
</tr>
<tr>
<td>Contribution to GDP</td>
<td>~10%</td>
</tr>
</tbody>
</table>
NATIONAL CYBERSECURITY FRAMEWORK
Policy + Governance + Operations
National Cybersecurity: Policy Framework

- **VISION 2030**
- National [Security + ICT] Policies
- National Cyber Security Strategy
- Computer Misuse & Cybercrimes Act 2018 & Kenya Information & Communications Act

**NATIONAL CYBERSECURITY CENTRE (NCC)**

**Law Enforcement**
National Cybersecurity: Governance Framework

NATIONAL SECURITY COUNCIL (NSC)
[Chaired by the President]

National Computer & Cyber Crimes Coordination Committee (NC4)
[Chaired by Cabinet Secretary, Interior+ICT]

National KE-CIRT/CC
[Multi-agency Collaboration]

CA + Law Enforcement + Legal + Financial
National Cybersecurity: Operational Framework

NATIONAL KE-CIRT/CC
[CA + Law Enforcement]
Multi-agency Collaboration Framework

National KE-CIRT/CC Cybersecurity Committee (NKCC)
[multi-agency + multi-stakeholder]

e-Govt. Sector CIRT

Financial Sector CIRT

Critical Info. Infrastructure

Telcom Sector CIRT

Academia Sector CIRT

International Partners
National KE-CIRT/CC: Vision & Mandate

VISION
Provision of comprehensive cybersecurity services to protect the Nation’s cyberspace in order to promote access to and use of Information and Communication services in Kenya

MISSION
Responding to cybersecurity incidences in a timely fashion and building a national culture of cybersecurity

LAW
Kenya Information & Communications Act + Computer Misuse & Cyber Crime Act 2018
National KE-CIRT/CC: Overview

SERVICES
- Reactive Service
- Proactive Services
- Digital Forensics
- Training

TRAINING
- CIRT Management
- CEH/ECSA/CIH
- CFE
- CISSP

COLLABORATION
- ITU FIRST
  - G7 24/7 Network
- AU
- ATU
- COMESA
- EACO
- NCIP
- EAC
- National CERTs

USA- Kenya Activities
- Program on Cyber Security Studies (PCSS)
- Workshops
  - Regional/Local
  - Managing CIRTS Training
  - National & Sector CIRTS
- Nairobi Technology Leadership Program (NTLP)
  - USTTI
- Meridian Process
NATIONAL CYBER THREAT LANDSCAPE
[Statistics + Attack Vectors]
National Cyber Threat Landscape

NATIONAL CYBER THREATS & ADVISORIES

- Malware
- Systems Misconfiguration
- Botnet
- Impersonation
- Fraud
- Web App Attacks

Quarter 1
Quarter 2
Quarter 3

Dec 2022
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023

148
187
48
96
100
28
99
95
96

NATIONAL CYBER THREAT LANDSCAPE
National Cyber Threat Landscape

Cyber Threat Attack Vectors

- Online Fraud/Abuse: 40%
- Malware attacks: 22%
- System Misconfiguration: 21%
- Botnet/DDOS: 5%
- Online Impersonation: 5%
- Web application attacks: 7%
- Other: 12%

Communications Authority of Kenya
“But we cannot confront cyber crime on our own.

Borders and boundaries pose no obstacles for hackers. But they continue to pose obstacles for global law enforcement, with conflicting laws, different priorities, and diverse criminal justice systems. **With each passing day, the need for a collective approach - for true collaboration and timely information sharing - becomes more pressing.**”

Robert S. Mueller, III
FBI Director
2012 RSA Conference