

# Cyber Security & Turkey

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**4<sup>th</sup> Annual Cyber Intelligence Europe, Bucharest – ROMANIA**

**29-30 September 2016**

# Cyber Security & Turkey



Overview of CERT in Turkey



Cyber Strategies



Challenges



Opportunities



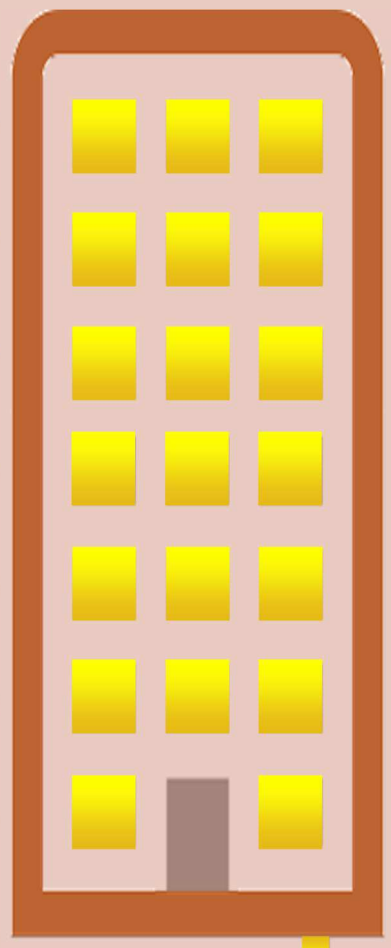
Latest Attacks



What is Next

# General Approach

## Plan, Program & Strategies



# Legislative Background

10.Oct.2012

Official Gazette #28447

**«Council of Ministers: Decision of Implementation, Management and Coordination of National Cyber Security Issues»**

11.Nov.2013

Official Gazette #28818

**«Notification of Procedures and Facts about Establishment, Tasks and Duties of Cyber Incidents Response Teams»**

19.Feb.2014

Official Gazette #28918

**Amended Legislation for Electronic Communication Law #5809 (Article 102)**

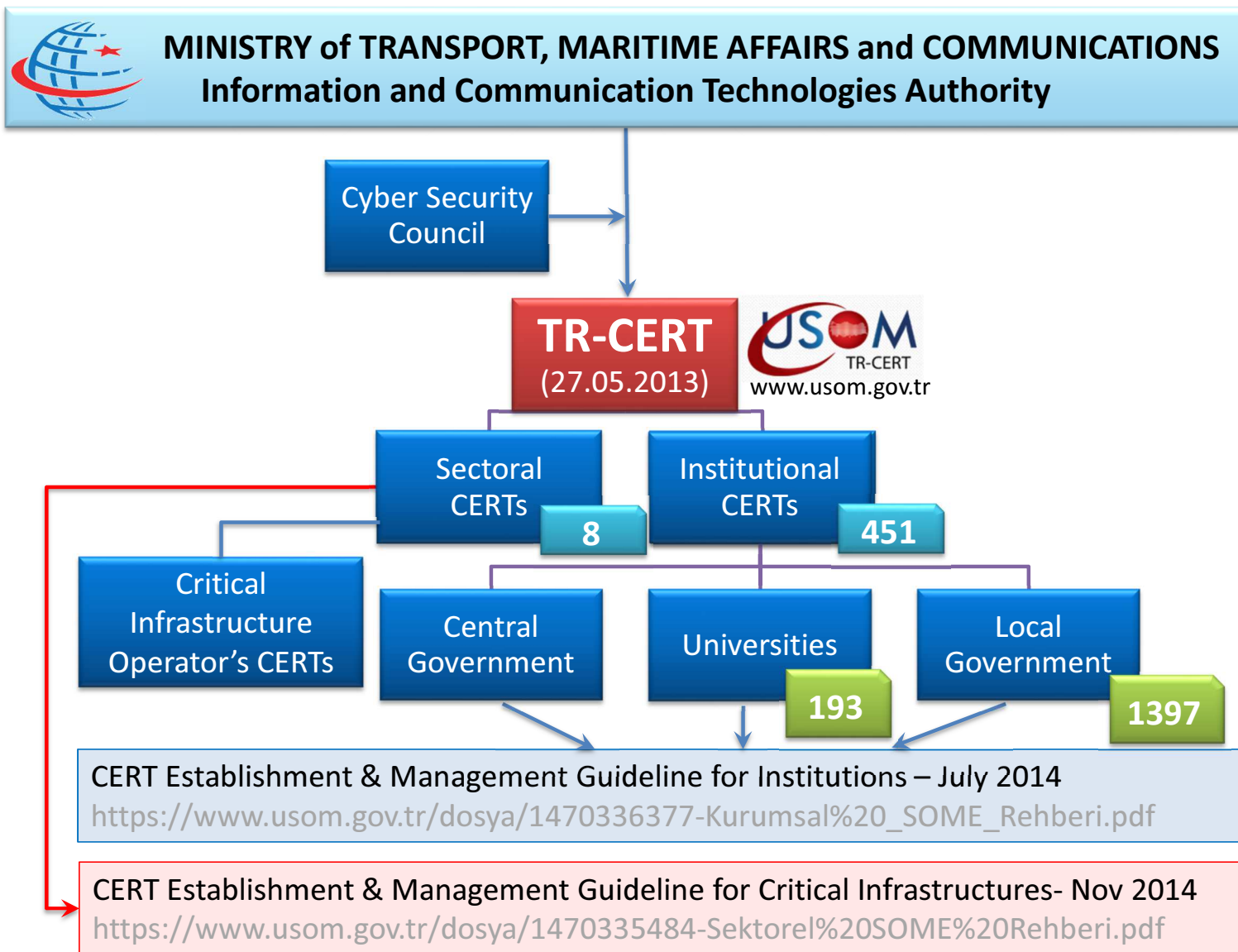
Regulations and Legislation about all Critical Infrastructures

<http://www.resmigazete.gov.tr/eskiler/2012/10/20121020-18-1.pdf>

<http://www.resmigazete.gov.tr/eskiler/2013/11/20131111-6.htm>

<http://www.resmigazete.gov.tr/eskiler/2014/02/20140219-1.htm>

# CERT Organization and Guidelines



# Cyber Security Council Members



## Cyber Security Council Members

1. Ministry of Transport, Maritime Affairs and Communications
2. Ministry of Foreign Affairs
3. Ministry of Interior
4. Ministry of National Defense
5. Undersecretariat of Public Order and Security
6. National Intelligence Organization
7. Turkish Armed Forces – General Staff
8. Information and Communication Technologies Authority
9. The Scientific and Technological Research Council of Turkey
10. The Financial Crimes Investigation Board

## 1st National Cyber Security Strategy And Action Plan (2013-2014)

[http://www.udhb.gov.tr/doc/siberg/SOME\\_2013-2014\\_EylemPlani.pdf](http://www.udhb.gov.tr/doc/siberg/SOME_2013-2014_EylemPlani.pdf)

<http://www.udhb.gov.tr/doc/siberg/ActionPlan2013-2014.pdf>

### 29 Actions in 7 Strategic Axes



Drafting Legislation (2)



Studies on Helping of Judicial Processes (1)

**TR-CERT**

Establishment of TR-CERT (1)



Strengthening the National Cyber Security Infrastructure (14)



Awareness Arising & Human Resource Capacity Development Activities on Cyber Security (6)



Development of Indigenous Technology on Cyber Security (4)



Broadening the Scope of National Security Mechanisms (1)

## 2nd National Cyber Security Strategy And Action Plan (2016-2019)

<http://www.udhb.gov.tr/doc/siberg/2016-2019guvenlik.pdf>

### 41 Actions in 5 Strategic Axes



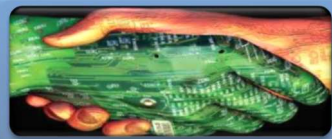
Strengthening Cyber Defense and Protecting Critical Infrastructure



Fight against Cyber Crime



Increasing Awareness and Human Resource Capacity Building



Developing Cyber Security Ecosystem



Integration of Cyber Security into National Security



## OPPORTUNITIES – NATO ALLIANCE

NATO: Cyberspace as 4th Operational Domain

- ❖ Air
- ❖ Land
- ❖ Sea
- ❖ Cyberspace

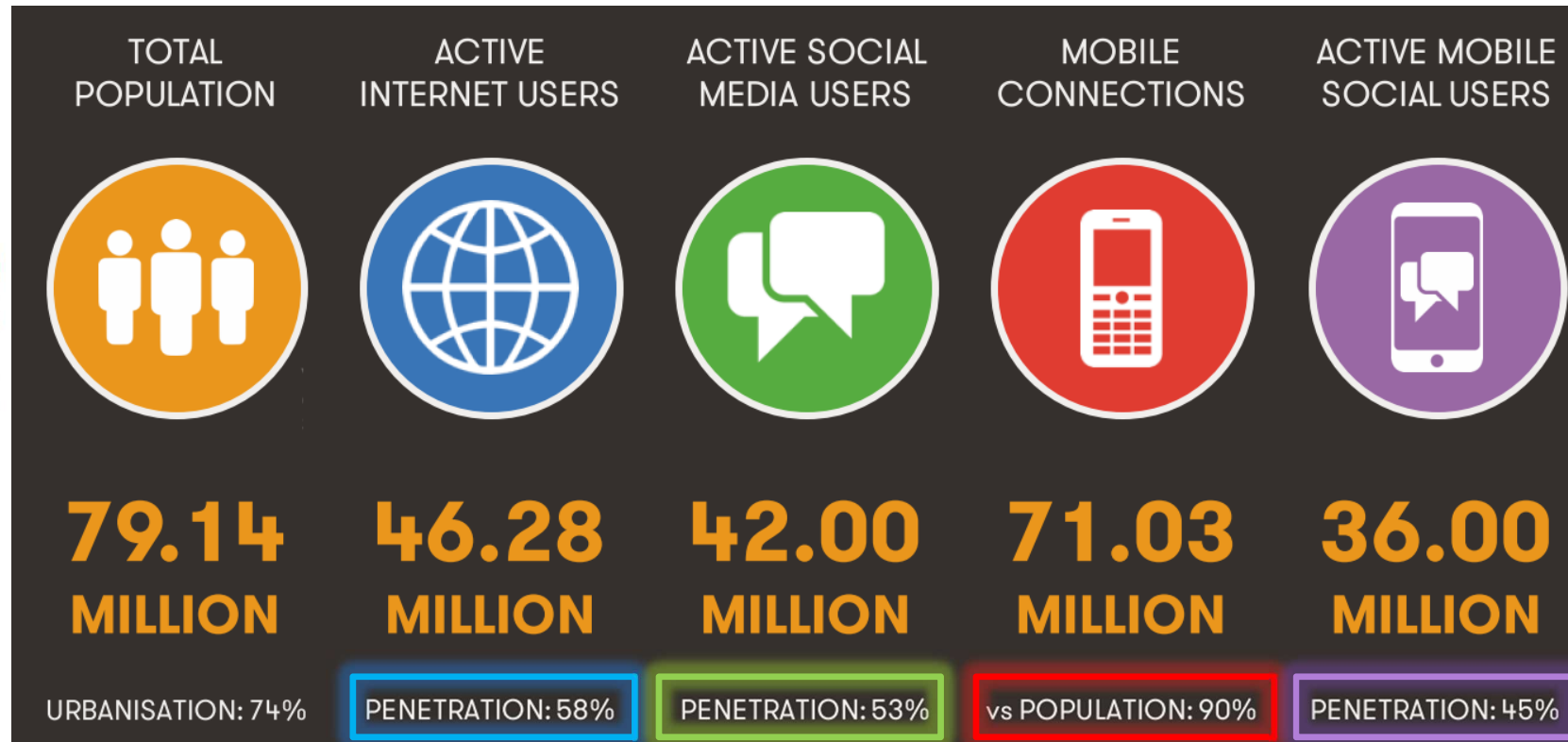


**NATO Cyber Defense Policy** against **Cyber Threats** and **Cyber Attacks**

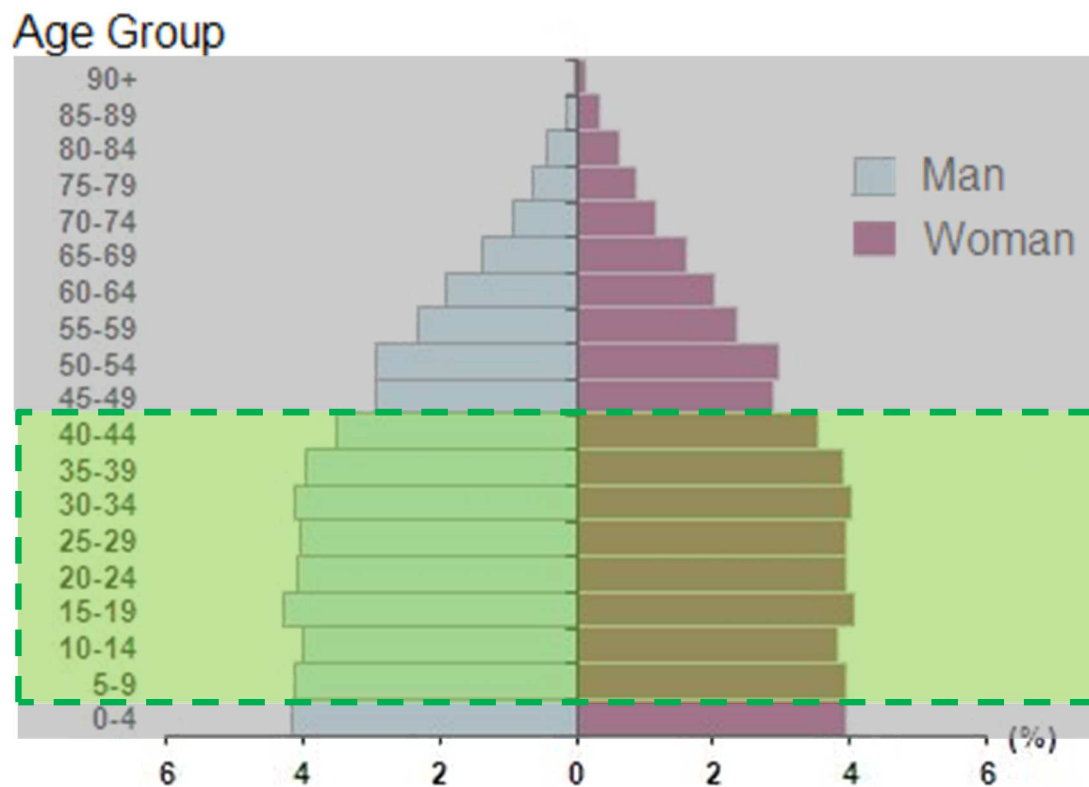
- Attend to International Cyber Practices
- Sharing best practices
- Sharing Cyber Information
- Create National Cyber Defense Capability

# NATIONAL OPPORTUNITIES

## OPPORTUNITIES – SOCIAL MEDIA and MOBILE WORLD



OPPORTUNITIES – POPULATION AGE DISTRIBUTION



TURKEY POPULATION DISTRIBUTION - 2015

## NATIONAL PLANS & STRATEGIES

- ❖ National Cyber Security Strategy And Action Plan **2013-2014**
- ❖ National Cyber Security Strategy And Action Plan **2016-2019**
- ❖ Information Society Strategy & Action Plan 2015-2018
  - ❖ Specific Strategic Axes: «Information Security and User Trust»
    - 5 Actions
      - ❖ Action 37: Cyber Security Law (Drafted)
      - ❖ Action 38: Personal Data Protection Law  
(Published: 07.March.2016 Law #: 6698)
      - ❖ Action 39: Fight with Cyber Crime Strategy and Action Plan
      - ❖ Action 40: Increase Awareness on Safe Internet Use
      - ❖ Action 41: Establishment of Specialized Courts on Cyber Crime
- ❖ 65th Government Program – 2016

## Some Activities on Cyber Security

- ❖ TUBITAK Analysis & Fight against Malwares Laboratory  
<https://zar.sge.gov.tr>
- ❖ Honeypot Systems for Cyber Attacks
- ❖ National, International and NATO «Cyber Security Practices»
- ❖ Software Security Program
- ❖ Cyber Thread Prevention Project (STOP)
- ❖ Moving public agencies web sites to national data centers
- ❖ Preparing Test Infrastructure for detecting Data Leakage Prevention
- ❖ National Training Programs
- ❖ National Cyber Security Practice Programs (since 2008)
- ❖ APT Analysis for related public agencies
- ❖ Cyber Security Summer Camps
- ❖ Graduate, Master and Doctorate Programs in Cyber Security

<http://www2.tbmm.gov.tr/d24/7/7-37802sgc.pdf>

## Some Structures on Cyber Security

### ❖ Turkish Armed Forces - Cyber Defense Command

<http://www.webtekno.com/internet/tsk-siber-savunma-komutanligi-h17>

### ❖ TUBITAK Cyber Security Institution

<http://sge.bilgem.tubitak.gov.tr/>

### ❖ STM Cyber Fusion Center

### ❖ STM Cyber Operations Center

### ❖ STM Cyber Intelligence Center

### ❖ STM Malware Analysis Laboratory

<https://www.stm.com.tr/en/products/cyber-fusion-center>



## Some Structures on Cyber Security

### ❖ SOC in Private Sector

#### ❖ Havelsan Cyber Security Operations Center (SOC)

<http://www.havelsan.com.tr/a/Main/urun/780/siber-guvenlik-operasyon-merkezi-hizmeti>



#### ❖ Labris Security Operations Center

<http://labrisnetworks.com/tr/security-operations-center-soc/>



### ❖ SOC in Public Sector

#### ❖ Ministry of Environment and Urbanism

<http://aa.com.tr/tr/bilim-teknoloji/cevre-ve-sehircilik-bakanligindan-siber-guvenlik-merkezi/543606>

## Latest Biggest Attack to Turkey on Cyber Security

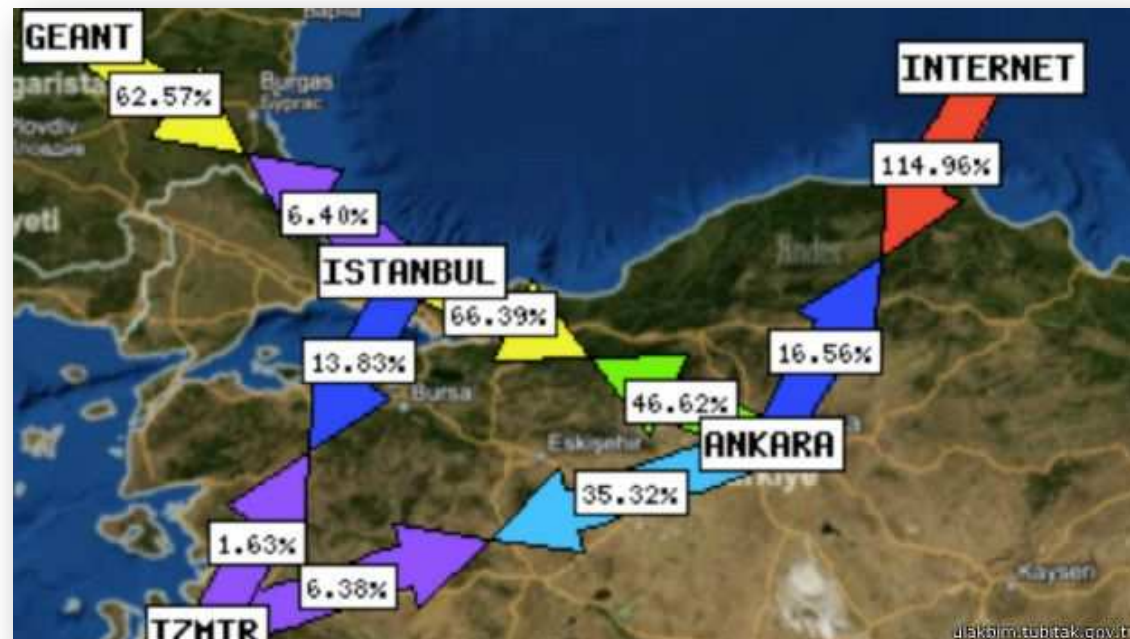
**200+ Gbps** DNS Amplification Attack to National Domain name Servers 14-24.December.2015

<https://www.nic.tr/2015-12-DDoS-Saldirisi-Kamuoyu-Duyurusu-20151221.pdf>

[http://www.bbc.com/turkce/haberler/2015/12/151224\\_siber\\_saldiri\\_arслан](http://www.bbc.com/turkce/haberler/2015/12/151224_siber_saldiri_arслан)

(2016-Q2 Verisign DDoS Report: Largest Volumetric DDoS Attack: 250+ Gbps)

<https://www.verisign.com/assets/report-ddos-trends-Q22016.pdf>





## What is Next?

### ONGOING NATIONAL PROJECTS

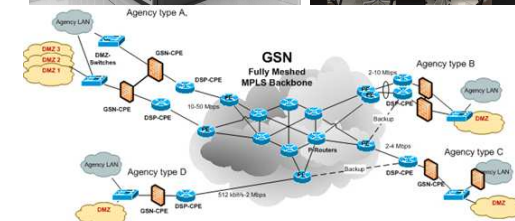
- ❖ National Government Integrated Data Center(s)

[http://www.tubitak.gov.tr/sites/default/files/62\\_2013\\_104.pdf](http://www.tubitak.gov.tr/sites/default/files/62_2013_104.pdf)



- ❖ Government Secure Network - Gov.NET

- ❖ Top Level Coordination
- ❖ Promoting National Cyber Security Solutions & .Support Private Sector
- ❖ Cyber Security National Law & Regulation
- ❖ Start Awareness from Primary School
- ❖ Continuous Promotion & Cooperation



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# THANK YOU

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