(Ne)Sigurnost hrvatskog Internet prostora

OWASP

The Open Web Application Security Project

O meni

OWASP
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- Marko Stanec
- Obrada računalnih incidenata
- Provjera ranjivosti
- Razvoj alata (Python/Django)

CARNet
HRVATSKA AKADEMSKA I ISTRAŽIVAČKA MREŽA
CROATIAN ACADEMIC AND RESEARCH NETWORK
Nacionalni CERT

NCERT Do’s & Don’ts

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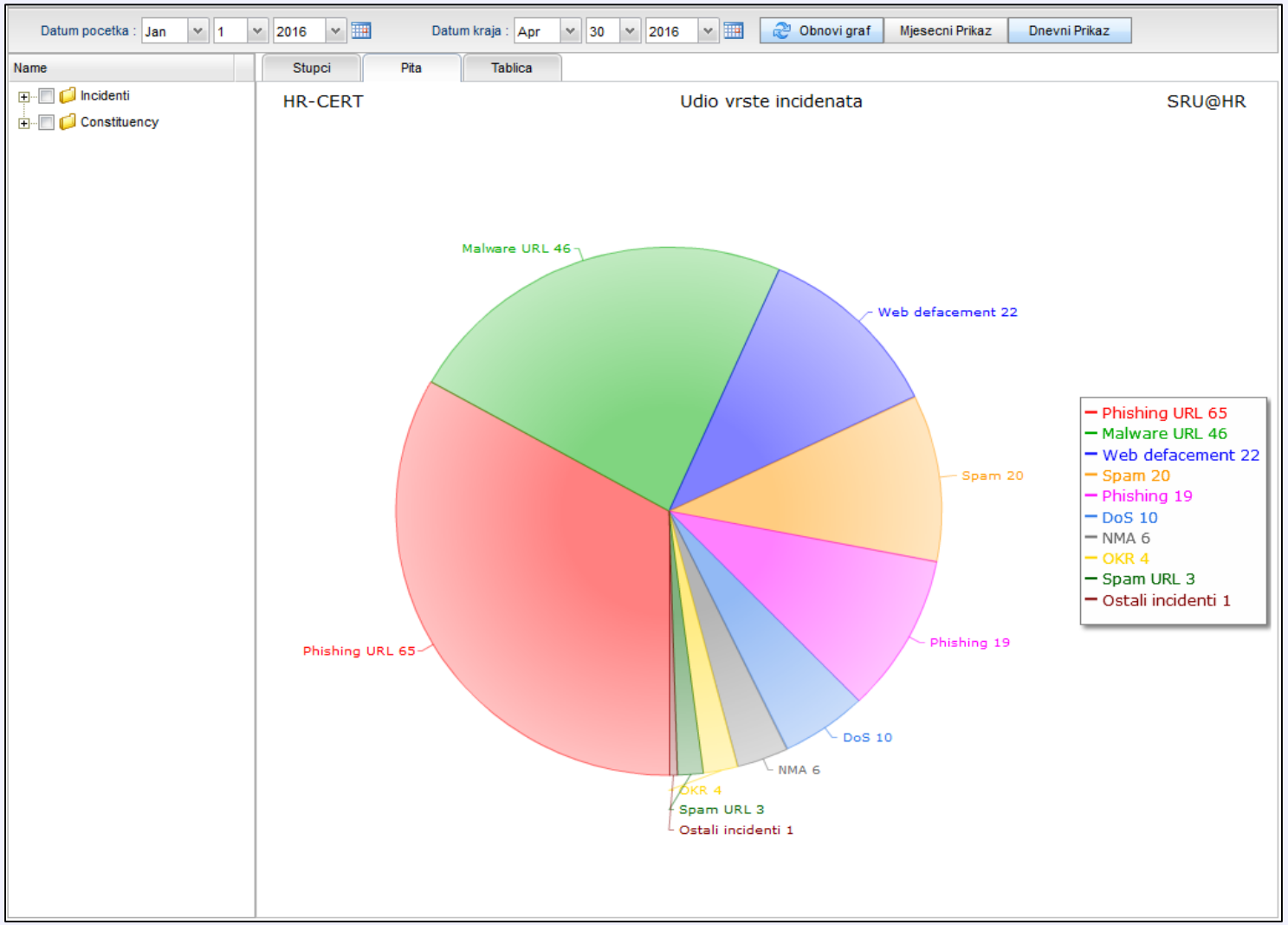
- ✓ Uklanjanje malicioznog sadržaja s Interneta
- ✓ Obrada incidenata na Internetu, ako se jedna od strana u incidentu nalazi u RH, osim tijela državne uprave (ZSIS CERT)
- ✓ Diseminacija informacija (vijesti, preporuke, dokumenti, brošure, alati)
- ✓ Forenzika, analiza malvera, mrežnog prometa, logova...

- ✗ operativno rješavanje problema i briga o sigurnosti pojedinih sustava
- ✗ kažnjavanje problematičnih korisnika
- ✗ arbitraža u sporovima
- ✗ pokretanje krivičnih prijava

SRU@HR – vrste incidenata



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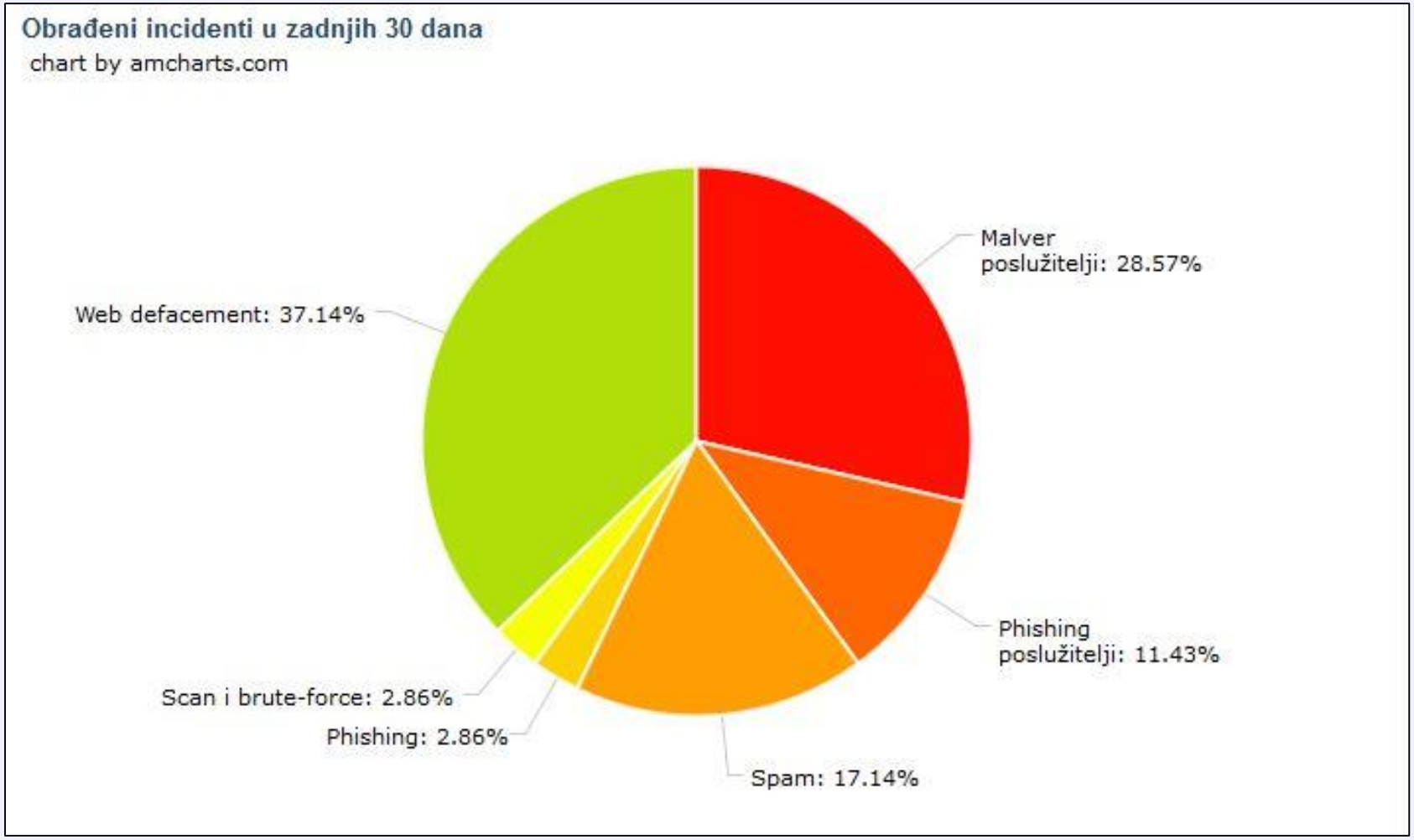

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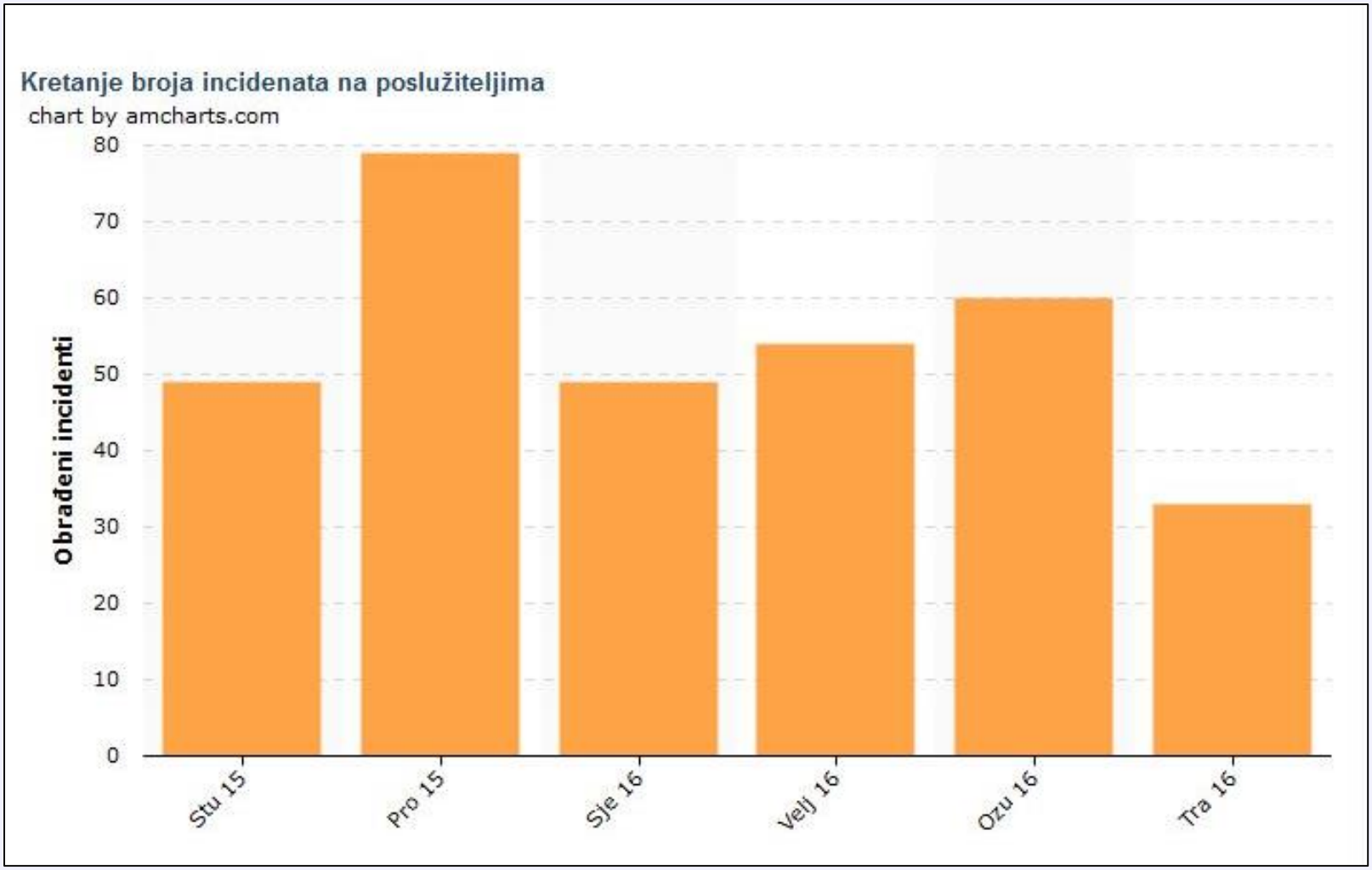

URL Monitor

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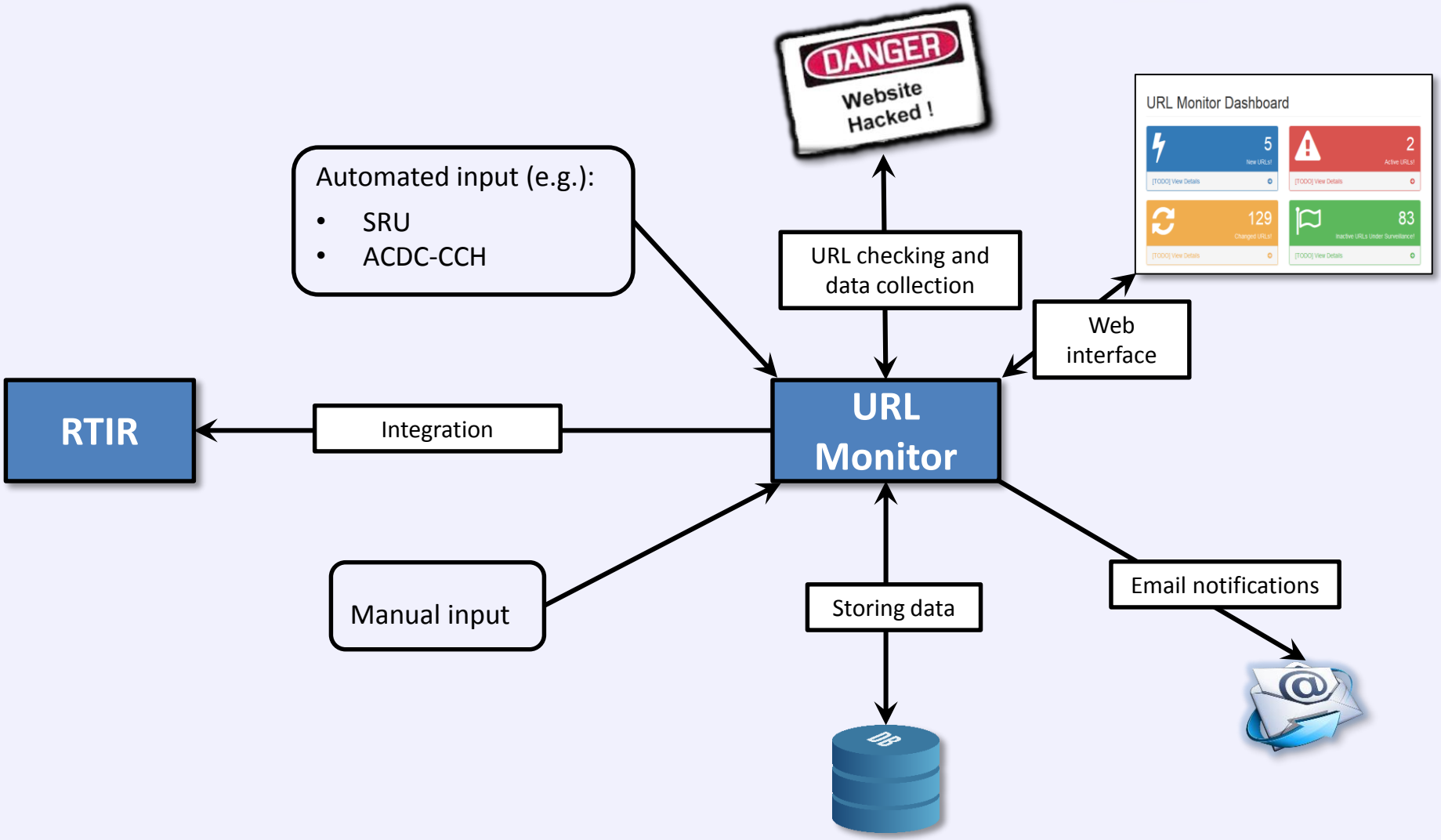

URL Monitor Dashboard

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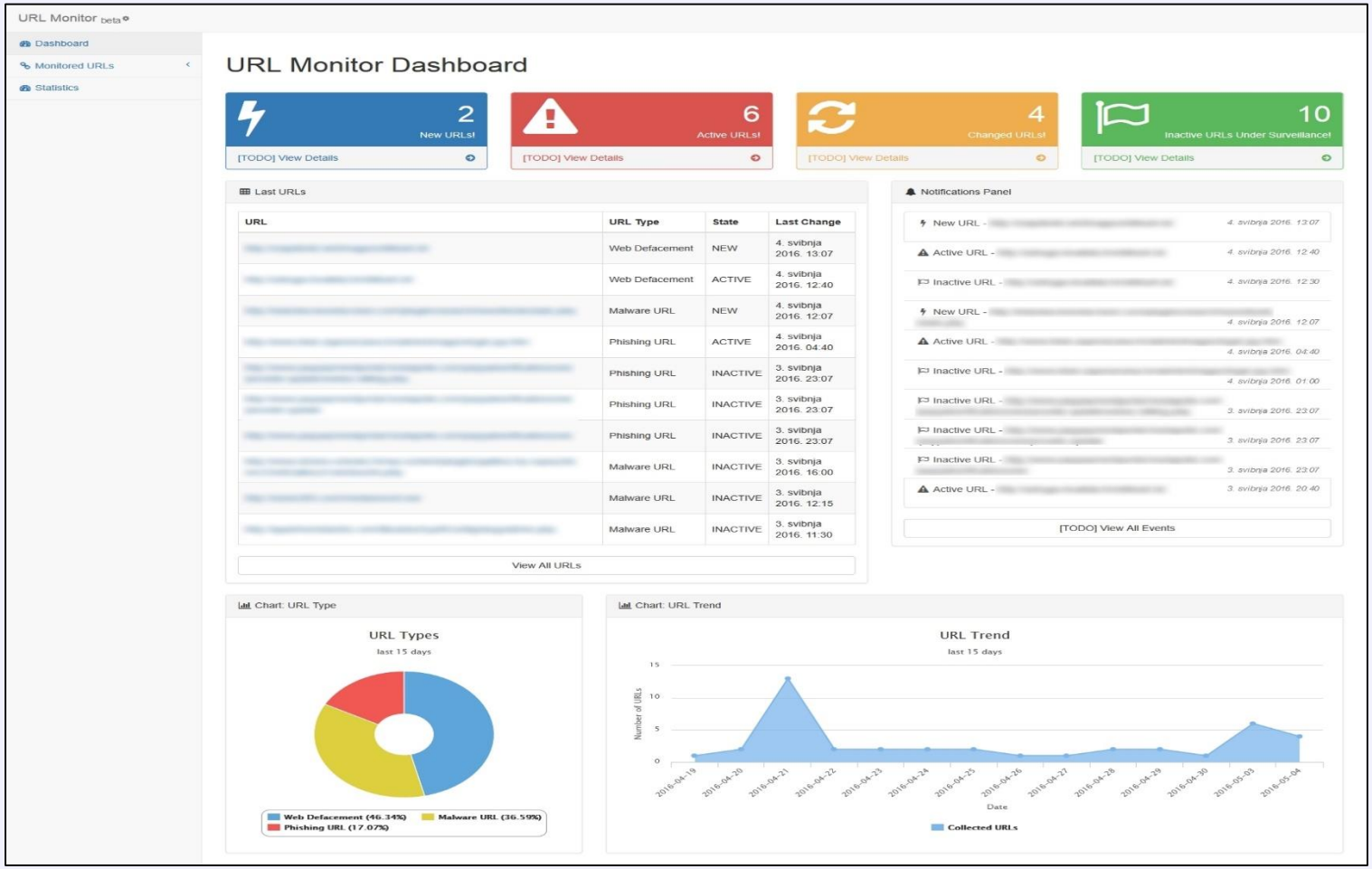

URL details

URL Details

INACTIVE

URL:

IP Address:

URL Type:

Phishing URL

Domain:

Source:

SRU

DNS Data:

Frequency:

60

Redirect URL:

Country Code:

FR

Customer:

Monitor Type:

MD5 Hash

Save Changes

URL log

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URL Log

Show 10 entries

Search:

State	Status Code	Screenshot	MD5 Hash	File Type	File	Last change	Actions
changed	200		7aeb47b912a8099048eef1239e74ff73	text/html		11/05/2016 - 00:40	
inactive	Unreachable					10/05/2016 - 20:45	
active	200		7aeb47b912a8099048eef1239e74ff73	text/html		04/05/2016 - 20:40	
inactive	Unreachable					04/05/2016 - 17:30	
active	200		7aeb47b912a8099048eef1239e74ff73	text/html		04/05/2016 - 04:40	
inactive	Unreachable					04/05/2016 - 01:00	
active	200		7aeb47b912a8099048eef1239e74ff73	text/html		03/05/2016 - 08:07	

Showing 1 to 7 of 7 entries

‹ Previous 1 Next ›

Web defacements

Phishing sites

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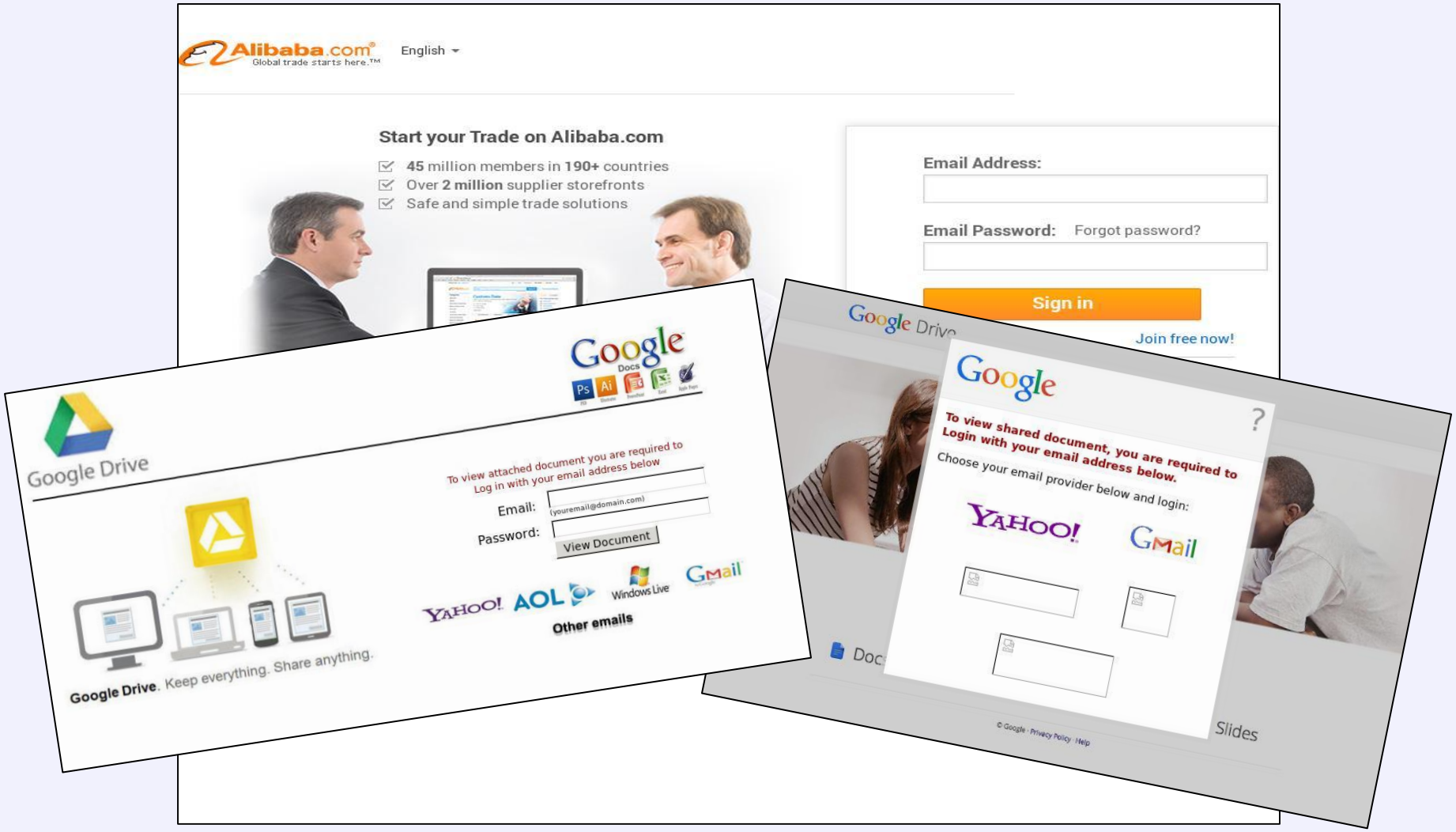
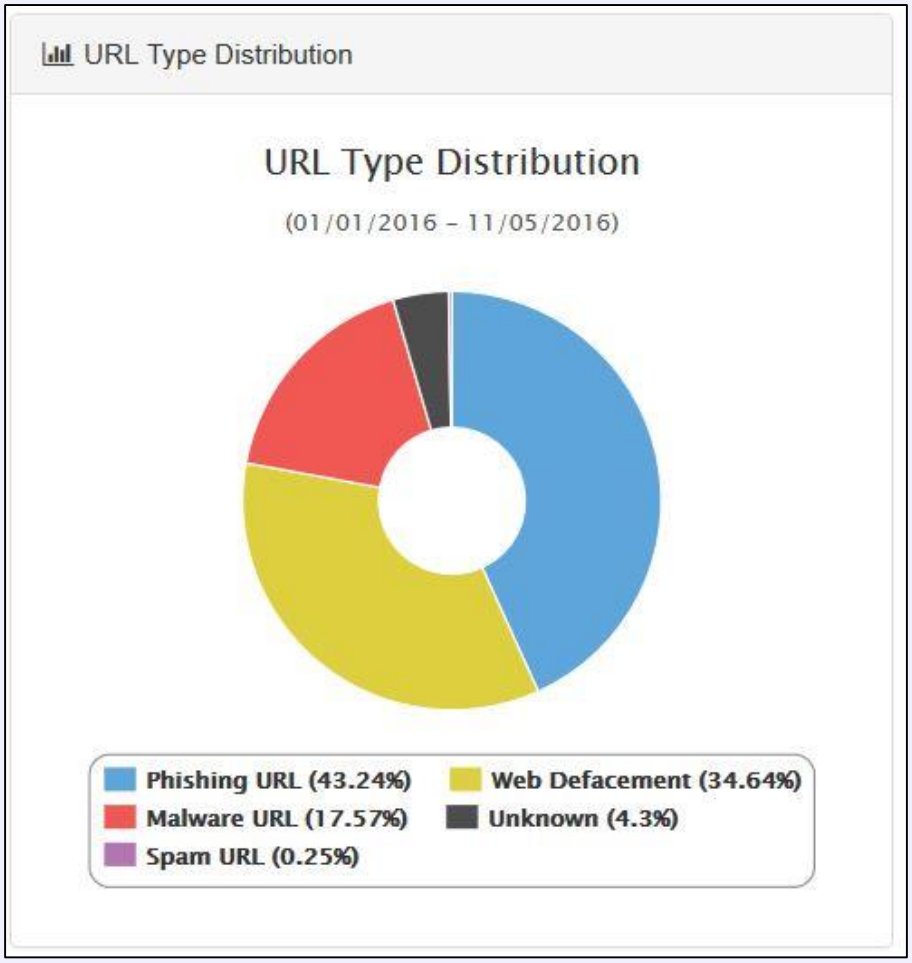


URL distribution



URL trend

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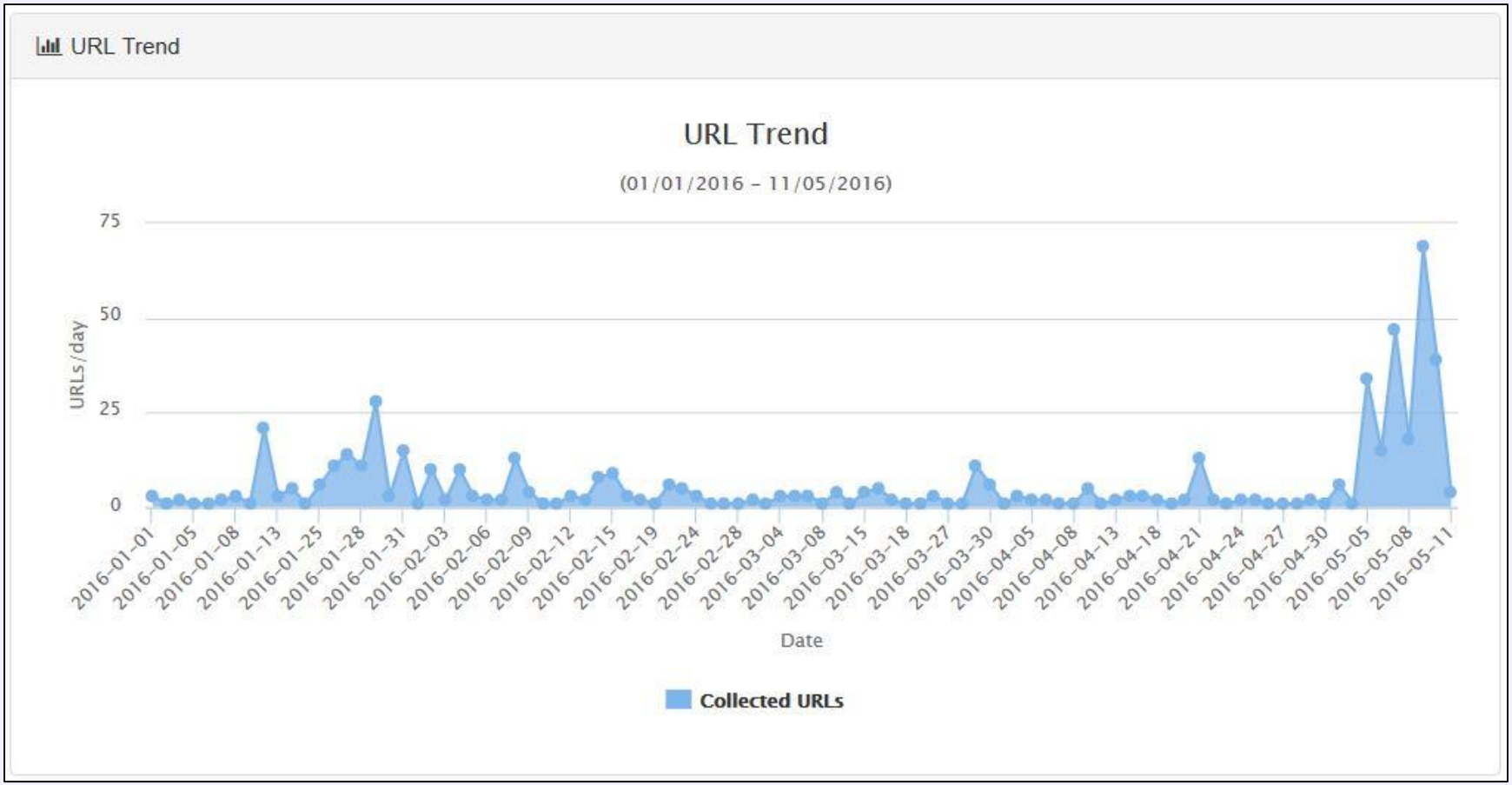

Obilježja akademskih/obrazovnih mreža

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- Služi za učenje, podučavanje i istraživanje
- Otvorenost – slabo postavljene sigurnosne mjere
- Veliki broj korisnika – učenici, studenti, nastavno osoblje, vanjski suradnici…
- Napredna računalno-komunikacijska tehnologija
- Veliki kapaciteti linkova

Napadi na akademske mreže

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- Mreže obrazovnih i akademskih zajednica jedne od najzanimljivijih meta napada
- Prema raznim istraživanjima pri samom vrhu prema broju napada na internetu
- Najčešće nisu krajnji cilj
- Izvođenje daljnjih napada

Trendovi napada na internetu

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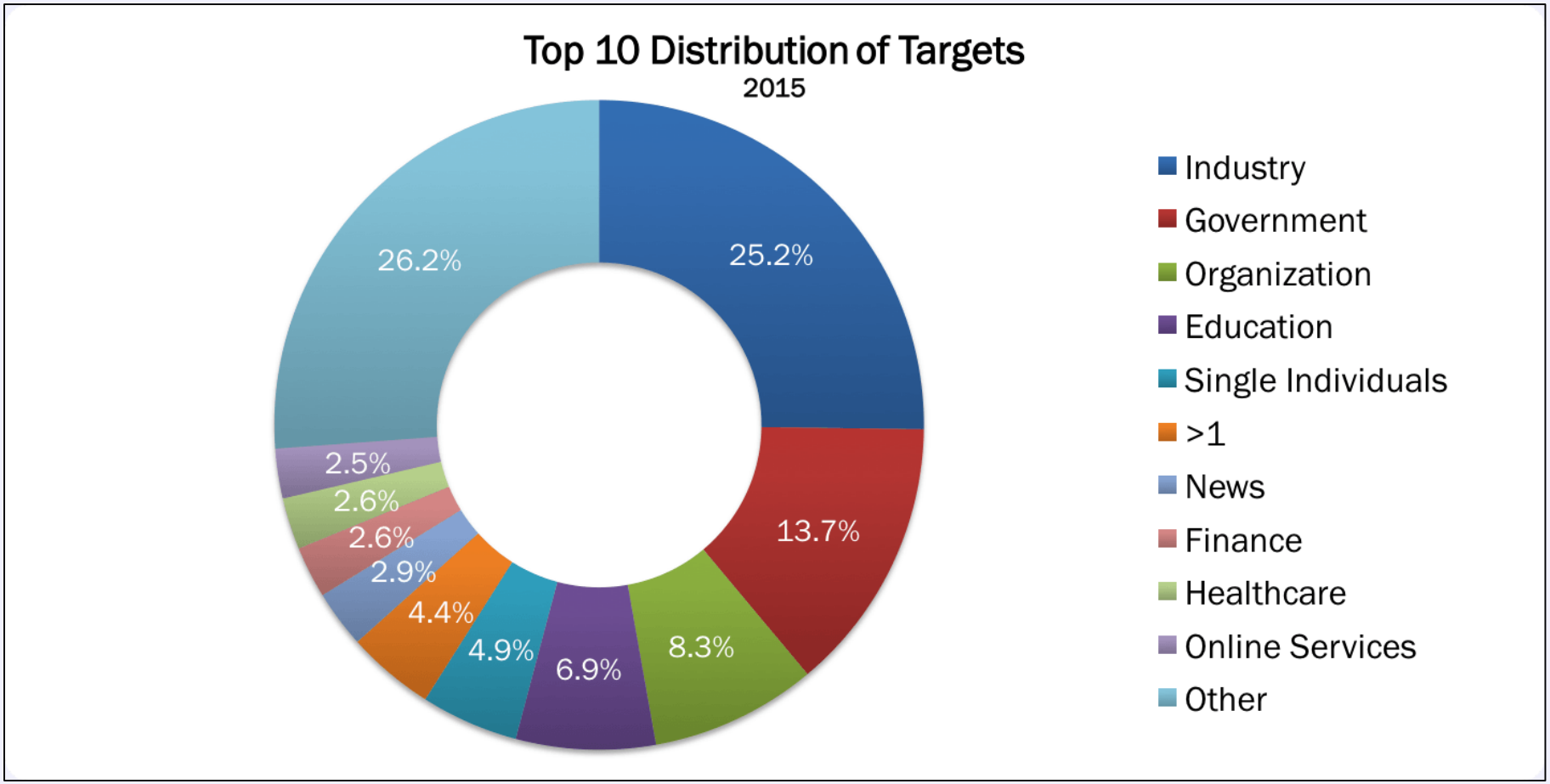

(Izvor: www.hackmageddon.com)

SPORt

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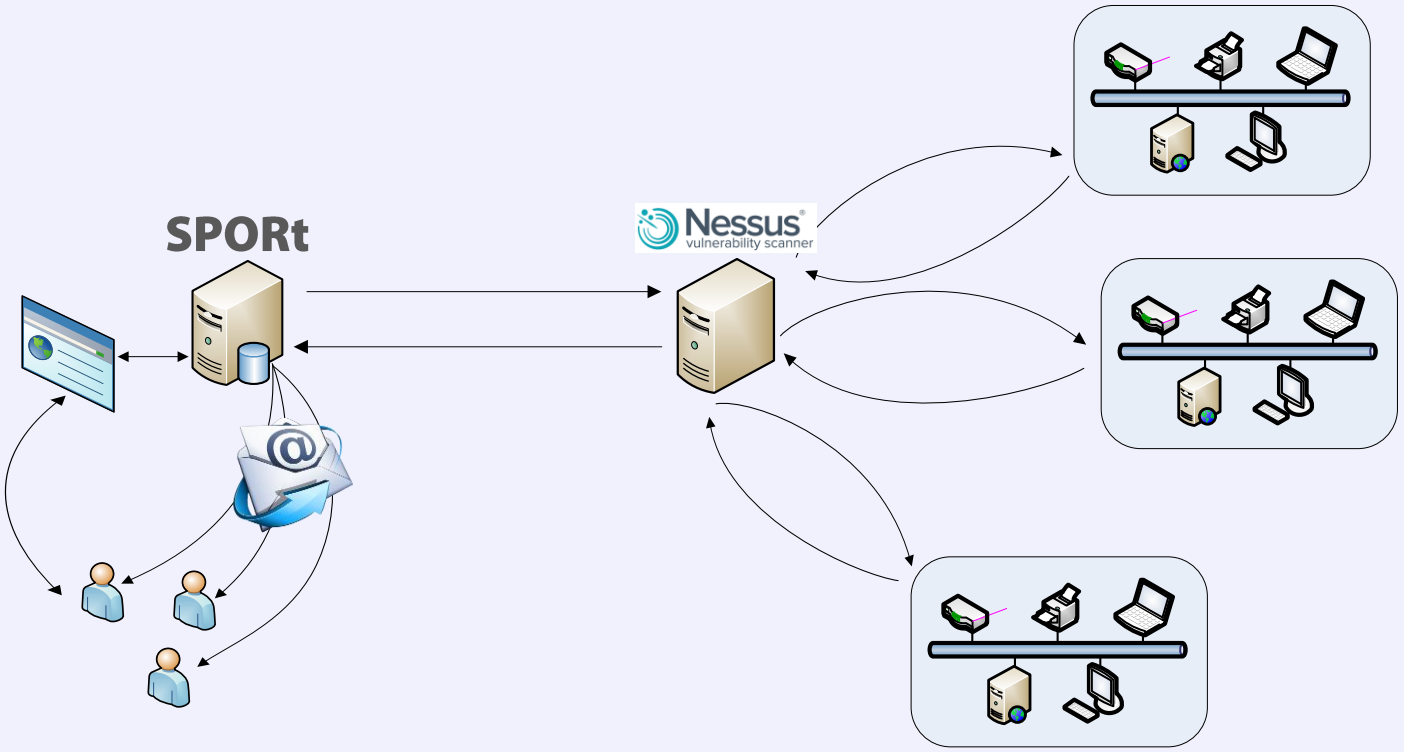
SPORt



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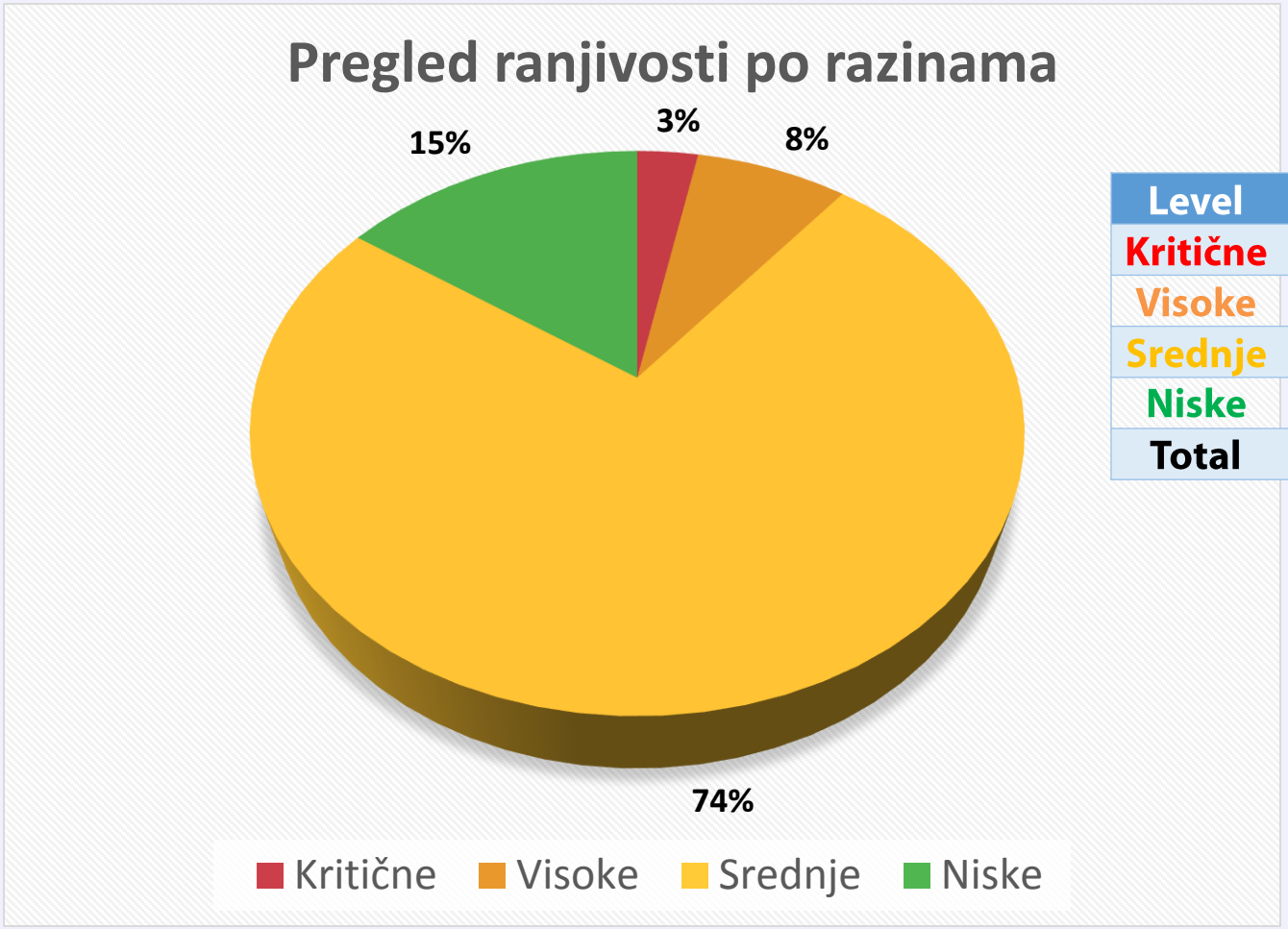

Level	Number	Percentage
Kritične	706	3%
Visoke	1760	8%
Srednje	17007	74%
Niske	3509	15%
Total	**22982**	100%

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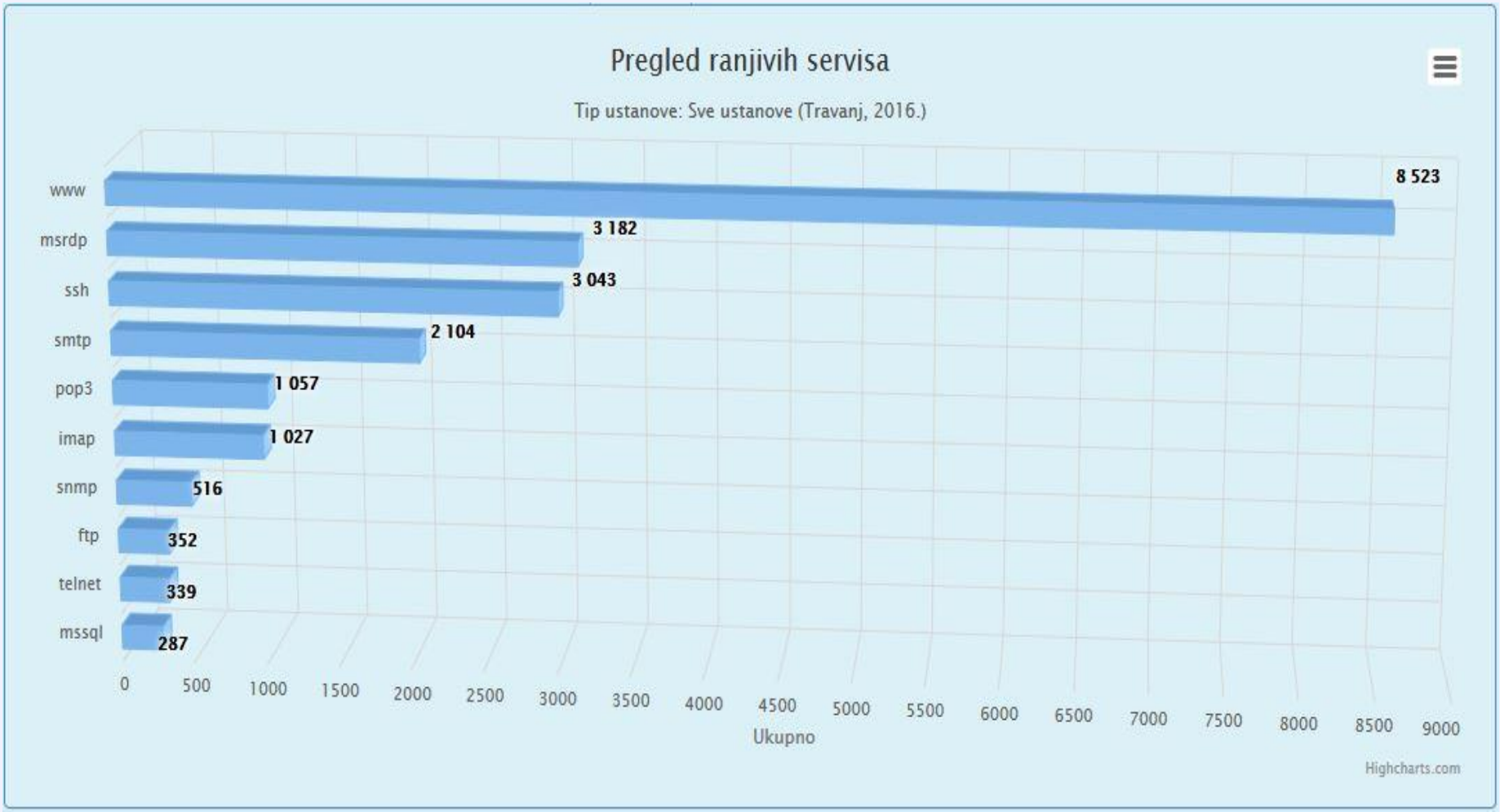
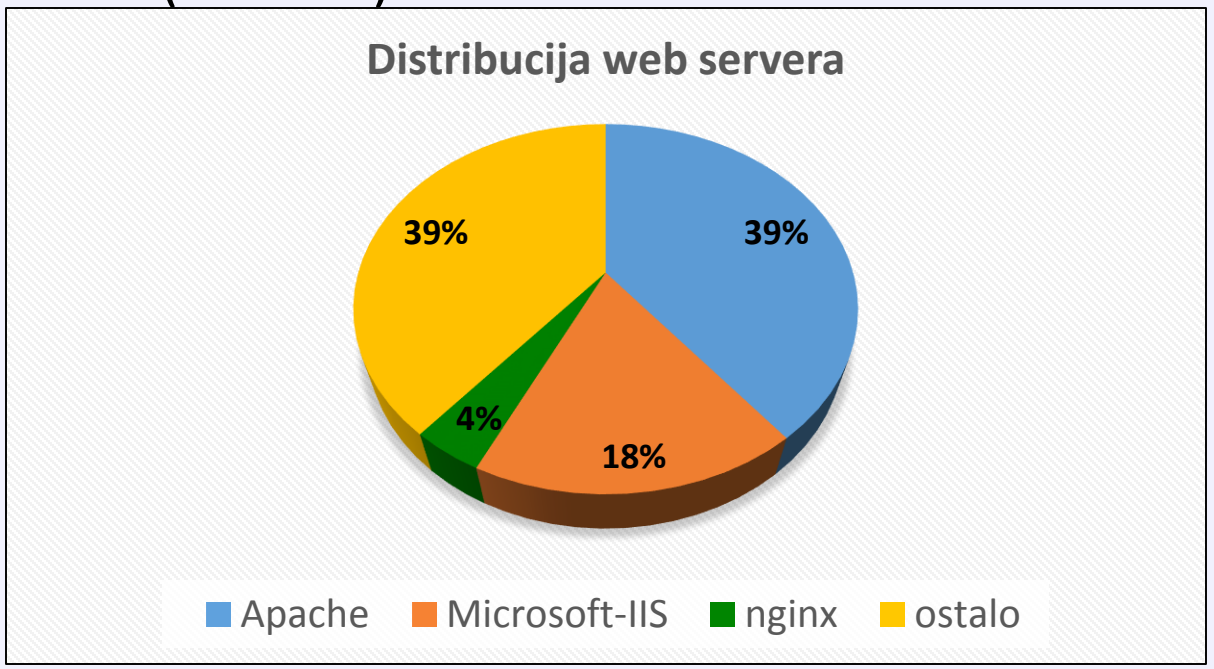


- 5456 javno dostupnih adresa
- 1817 detektirano kao web server
  - 716 Apache
  - 321 Microsoft-IIS (5.0 - 10)
  - 71 nginx



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- Ranjivosti kritične razine:
  - OS sa isteklom podrškom (Windows/Unix)
  - Nepodržani i zastarjeli programski paketi

- Ranjivosti visoke razine:
  - Ranjivi servisi i programski paketi (Apache, PHP, OpenSSL, RDP…)
  - msrdp Remote Code Execution

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- Ranjivosti srednje razine:
  - korištenje SSL v2/v3 protokola
  - msrdp MITM ranjivosti
  - Problemi sa SSL certifikatima (self-signed/expired)
  - DNS server spoofed request amplification DDoS

- Ranjivosti niske razine:
  - Korištenje slabih kriptografskih algoritama
  - Clear Text Authentication (FTP, SMTP, POP3)

„Brand name” ranjivosti

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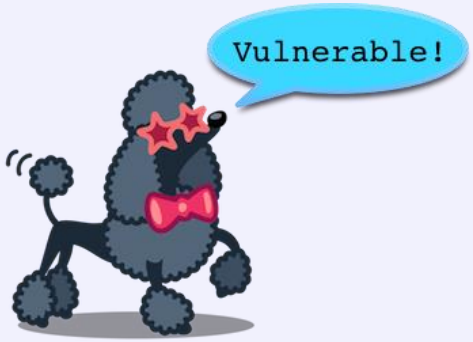
- Shellshock
- Logjam
- BEAST
- Heartbleed
- DROWN
- GHOST
- Bar Mitzvah
- POODLE
- FREAK



Umjesto zaključka

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„The only truly secure system is one that is powered off, cast in a block of concrete and sealed in a lead-lined room with armed guards - and even then I have my doubts."

- Eugene H. Spafford

Hvala na pažnji!