



nic.br

Núcleo de Informação
e Coordenação do
Ponto BR

egi.br

Comitê Gestor da
Internet no Brasil

registro.br cert.br cetic.br ceptro.br ceweb.br ix.br

Program for a Safer Internet in Brazil

Gilberto Zorello / Flávio Kenji Yanai

GFCE Triple-I workshop at Day Zero of LACIGF in Bogota, Colombia

23/12/03

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Our Agenda

Program for a Safer Internet

About NIC.br

Program for a Safer Internet

The TOP Project

Security Notifications, MANRS and TOP Statistics

Implementation remarks



About **NIC.br**



The Brazilian Network Information Center, NIC.br, is a non-profit civil entity that since 2005 has been assigned with the administrative and operational functions related to the .br domain

In addition to providing and maintaining the domain names registration activity, NIC.br invests in actions and projects that bring a series of benefits to improve the Internet infrastructure in Brazil, with revenue collected exclusively through the provision of domain names registration

Some of our efforts are focused on many sectors of Brazilian society, disseminating knowledge about best practices to be adopted in networks and related areas. In some cases, we strengthen relationships with private, governmental, and nonprofit entities to encourage the adoption of best practices to be adopted in Internet services

Program for a Safer Internet Objectives

Act in support of the Internet technical Community in Brazil

Reduction of Denial of Service attacks (CERT.br)

**Improvement of the Network Routing Security
(MANRS – Internet Society initiative)**

Spread DNS security best practices (KINDNS & TOP)

**Disseminate best security practices for configuring websites and e-mail
services (TOP)**

Encourage the implementation of IPv6 in final users and Internet services (TOP)



PROGRAMA
**INTERNET
+SEGURA**

Program for a Safer Internet

TOP - Project

Developed by **NIC.br** to disseminate the best security practices in Brazil for user connection to Internet, web sites and e-mail services



<https://top.nic.br>

Uses the open-source code provided by the Dutch implementation of Internet.nl with a web interface in Portuguese to attend Brazilian users in local language

The project is part of the **Program for a Safer Internet** in Brazil, which works with ISPs and incumbent operators to disseminate the best security practices that they should implement on their respective networks.

The operation started in Dec/21

Access: <https://top.nic.br>

Program for a Safer Internet

Plan of Actions performed by NIC.br

Several internal teams of NIC.br participate in the Program (CERT.br, CEPTRO.br, Registro.br, IX.br, Systems)

Technical materials and good practices created

Awareness in the technical community by lectures, courses and training

Direct interaction with network operators by bilateral meetings to explain how to implement the best practices recommended in each situation

KPIs to monitor the effectiveness of actions



Program for a Safer Internet

Statistics of Notifications of IP Addresses



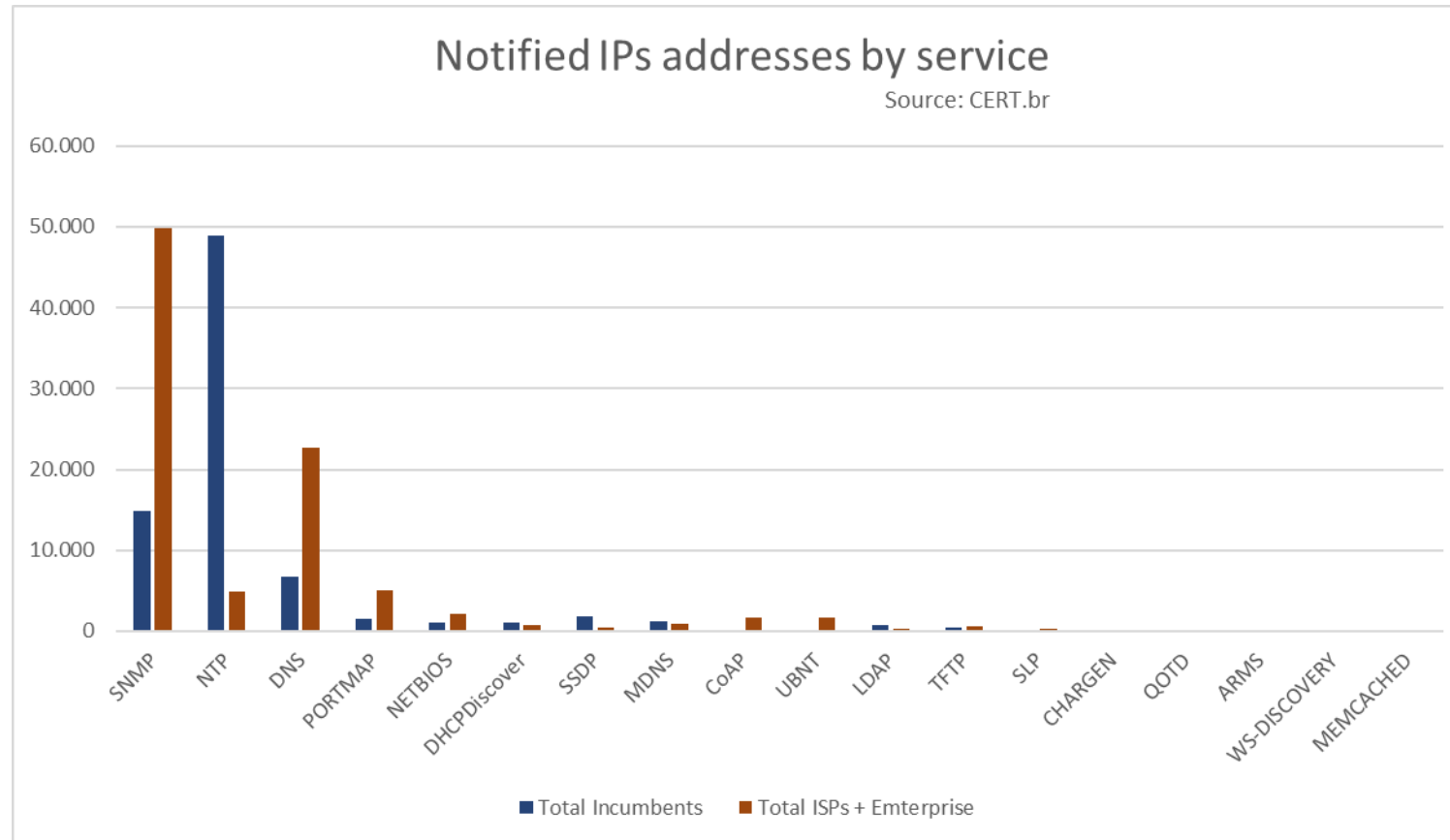
Quantity of IP addresses notified with misconfigured services



76% reduction in misconfigured IP addresses since the beginning of the Program

Program for a Safer Internet

IP Addresses notified monthly by service



Nov/23

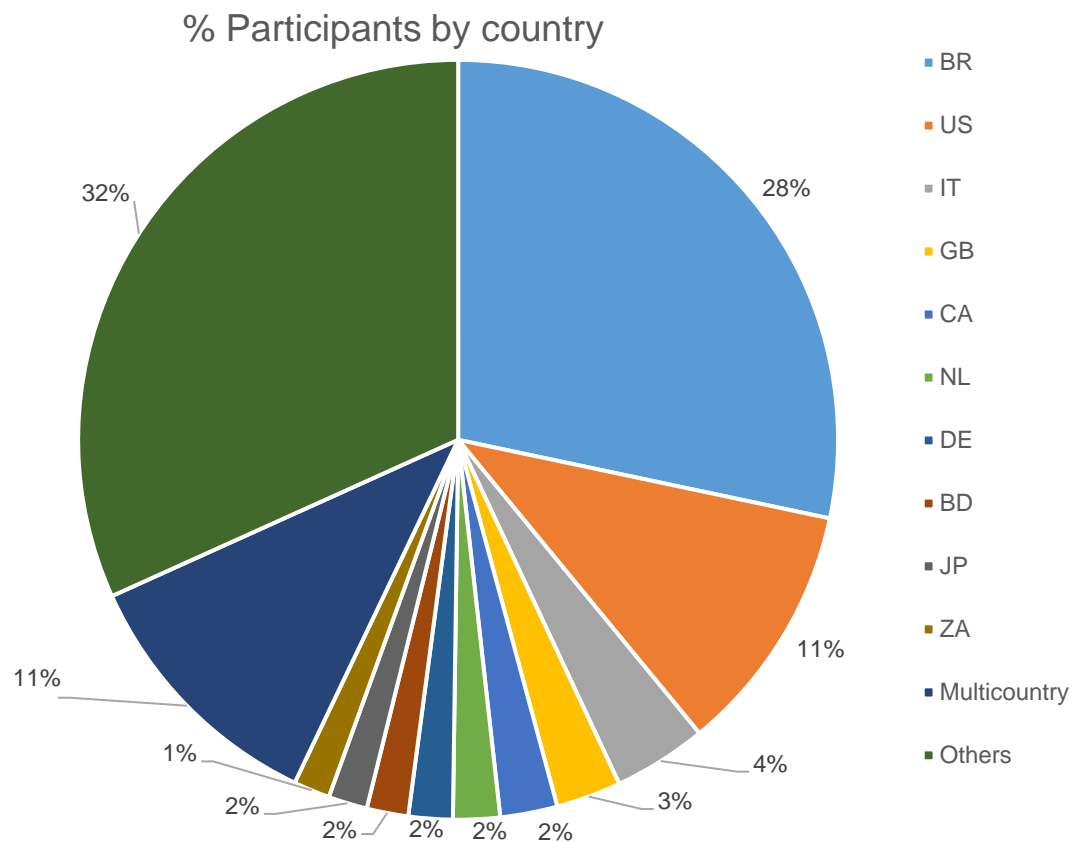
Top offenders: **ISPs + enterprise** → **SNMP enabled e DNS recursive open**
Incumbents → **NTP misconfigured**

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Statistics of MANRS Participants by Country



Distribution by country of providers participating of the MANRS initiative



Total of MANRS participants: 904

Participants in Brazil: 256 (Nov/23)



206 (2022)

174 (2021)

140 (2020)

Source: <https://www.manrs.org/netops/participants/> Access nov/23

Program for a Safer Internet

TOP Test - IPv6 DNSSEC - Recursive and User Network



KINDNS

Action 1 – Shared Private Resolver

Total Measurements
Completed - IPv6 DNSSEC

160.688

Recursive DNS Server tested
with Validated DNSSEC

104.316

% Recursive DNS Server
tested with Validated DNSSEC

65%

Unique AS tested

5.948

User tested with IPv6

101.034

% User tested with IPv6

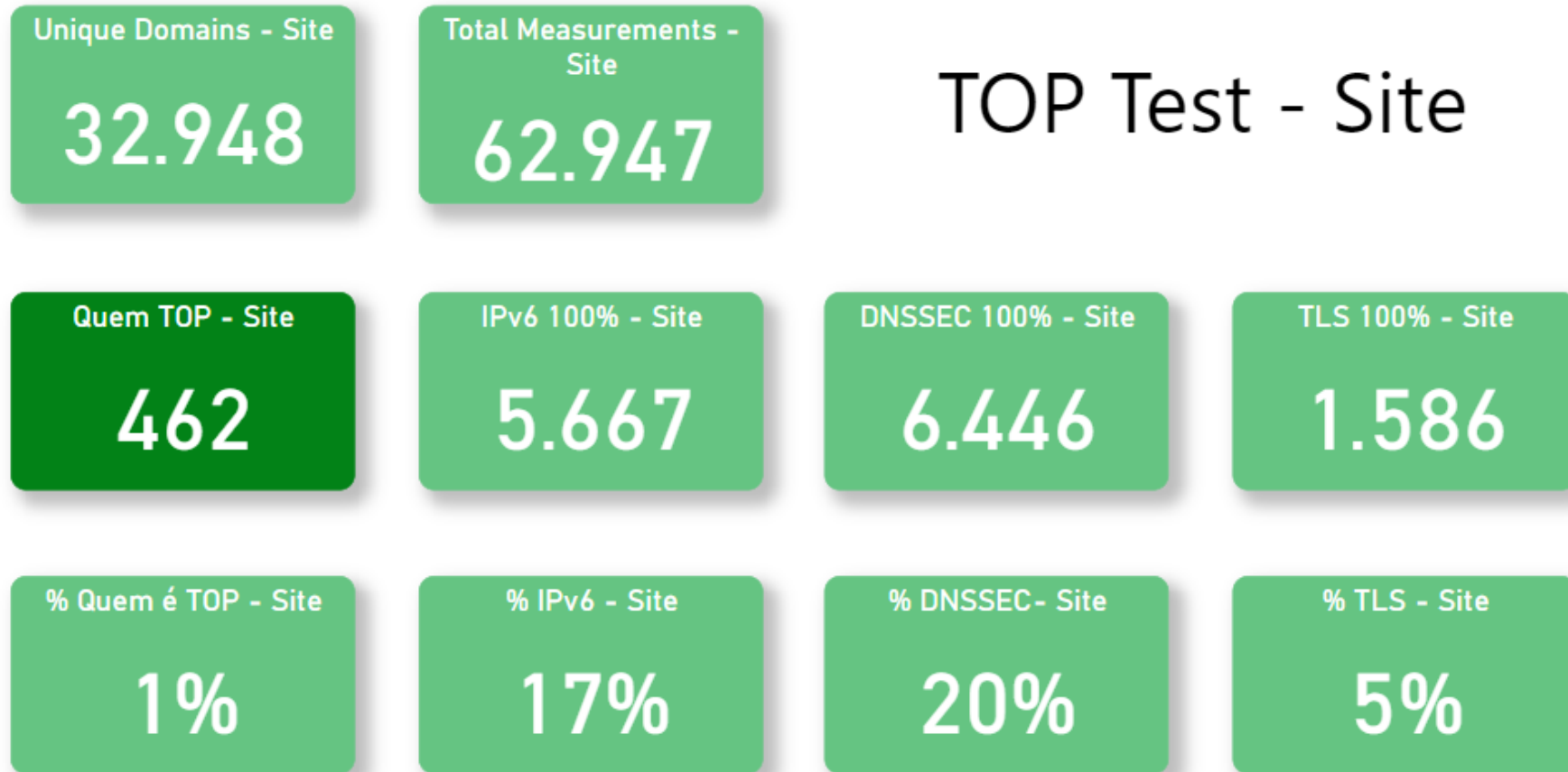
63%



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Program for a Safer Internet



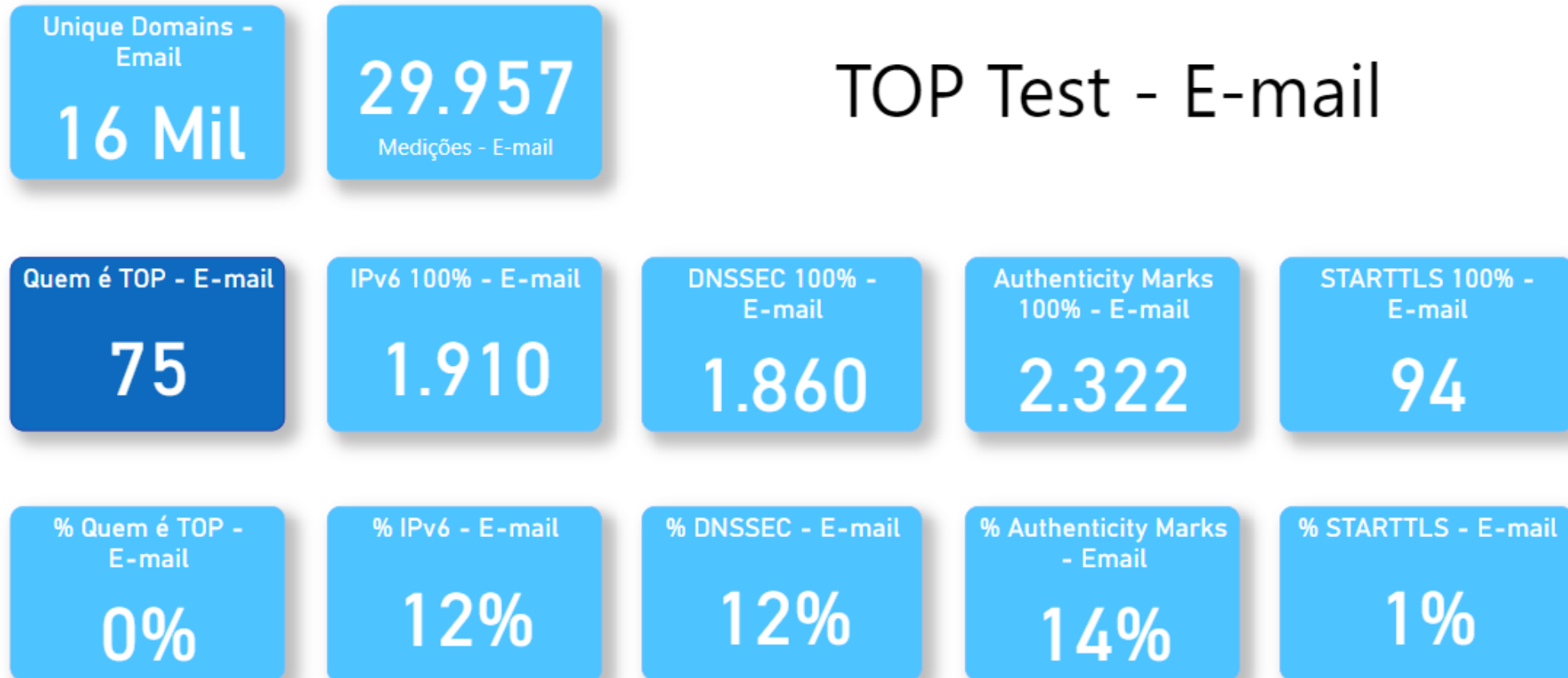
TOP Test - Site



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Program for a Safer Internet



TOP Test - E-mail



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TOP – Associations of Brazilian ISPs and Academia



A CONECTIVIDADE AO SEU ALCANCE



TOP – Teste os Padrões

Implementation remarks

Delivered in Dec/21, currently runs 1.4 v. of Internet.nl

The 1.7.1 v. of Internet.nl is implemented and in validation

The 1.8.1 version will be implemented in 1stH 2024

The best practices recommended by the tool are recommendations from NIC.br to the technical community in Brazil

The tool is being disseminated together with the **Program for a Safer Internet** at technical events and for specific sectors such as government, academia and Internet operators



<https://top.nic.br>

TOP – Teste os Padrões Implementation remarks

The accounting area of Brazil's legislature carried out tests of the websites and e-mail services used by the government

The TOP tool provides important indication of the implementation status of recommended best practices and provides a baseline for operators to implement them in their networks

Brazil has continental dimensions and it is a challenge to keep up with the evolution of the use of standards



Thank you

<https://top.nic.br>

@ gzorello@nic.br

@ yanai@nic.br

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