



NaWas Anti-DDoS
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<https://www.nbip.nl/nawas/>

whois ORG-SN292-RIPE

- org-name: Stichting NBIP - <https://www.nbip.nl/en/>
- Independent non-profit foundation
- Sector initiative started in 2002

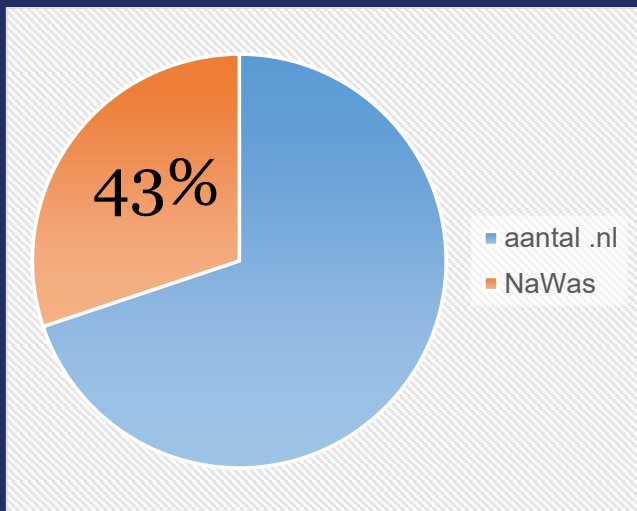
- Services for Internet Providers
 - Lawful Interception
 - Clean Networks Platform – www.cleannetworks.net
 - DDoS Scrubbing Center – NaWas
 - Mitigation
 - Reporting
 - Research and cooperation

NBIP

nationale
beheersorganisatie
internet
providers

whois ORG-SN292-RIPE

- 6,5 M .nl domains protected by NaWas (2020)
- Aprox 1,6 M websites



- In 2013 request for anti DDoS solution
- Started POC 2nd 1/2 2013
- NaWas operational 2014 AMS-ix, NL-ix
- NaWas connected to LINX in 2019
- NaWas available in 8 countries in Europe

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DDoS Reporting

- Every quarter
 - Statistics and analysis
 - Based on what we observe through NaWas
 - Visit nbip.nl/en/news for latest reports

DDoS attack statistics in the **second quarter** 2024



Number of
attacks:

419



Average number of
attacks per day:

4.6

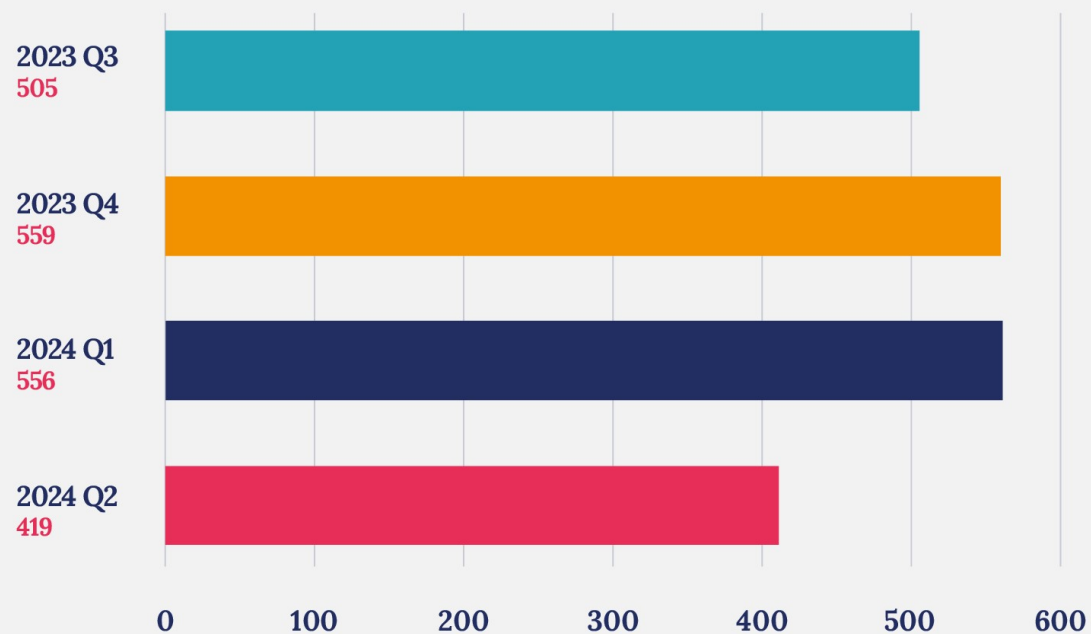


Maximum
attack size:

353 Gbps

DDoS attack statistics in the **second quarter** 2024

Number of attacks



Top 5 attacks

- 01. DNS Amplification**
- 02. Memcached Amplification**
- 03. NTP Amplification**
- 04. UDP Flood Malformed**
- 05. ACK Flood**

Trends DDoS attack statistics in the **second quarter** 2024



Number of attacks was lower compared to the first quarter of 2024



Attacks targeting network infrastructure on the rise



The number of attacks with very high packets per second (pps) rates is growing

Anti-DDoS-Coalitie

- Cooperation on knowledge sharing about DDoS attacks (2018)
 - Universities, IX's, ISP's, banks, government, law enforcement
 - National Cyber Security Centre (NCSC) facilitator



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News



New version of the DDoS Clearing House core components

30 September 2020

SIDN Labs and SURF have released a new version of the DDoS Clearing House in a Box, a system that enables network operators to automatically

[Read More >](#)



DDoS coalition is working together during the current DDoS attacks

4 September 2020

The website reflects coalition's joint efforts over the past two years. In recent weeks, dozens of companies in The Netherlands and Europe have been targeted

[Read More >](#)



NaWas
Scrubbing Center

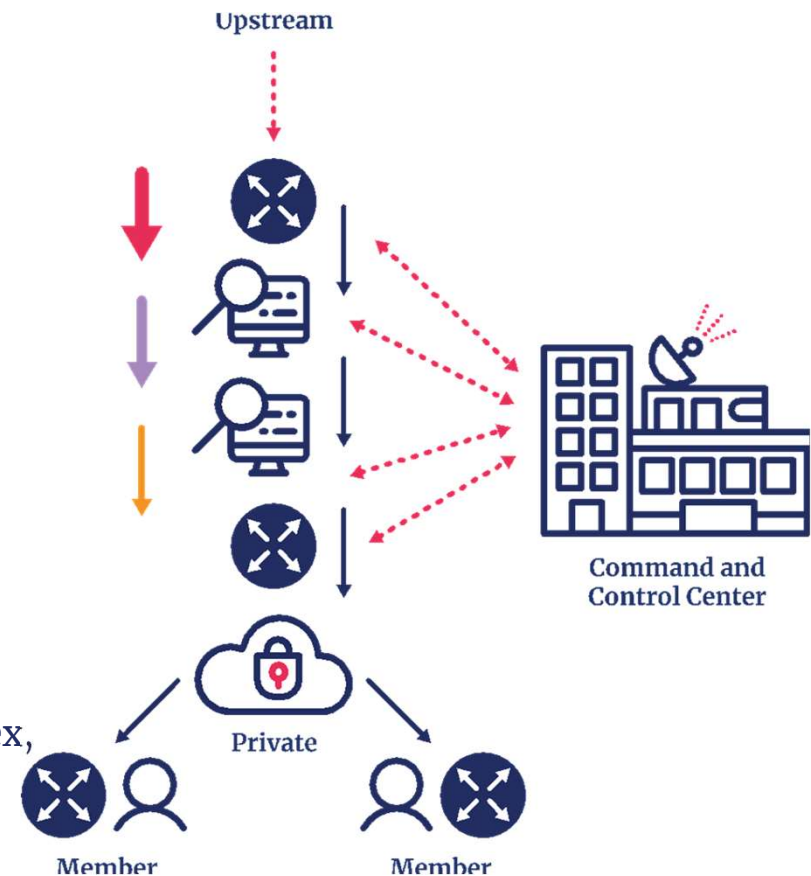
| Linie | Ziel | Abfahrt |
|-------|--------------------------|---------|
| U1 | Marschauer Str. in Innen | |
| U1 | Marschauer Str. in Innen | |

Gleis 2



NaWas

- **North: Internet**
 - Several Tier-1 Transit
 - Public peering on Internet Exchanges
 - Amsterdam as one of major hubs in Europe
- **West – East: 3-stage scrubbing**
 - Multiple vendors
 - Fail-over on multiple sites
 - Prefiltering with NaWas filters (migrating to FlowSpec)
- **South: Clean Traffic**
 - private connections
 - Only reachable through NaWas
 - PoP's via AMS-IX, NL-IX, Dcspine, Linx, Mix, Top-IX, Namex, Netix



A person is shown from the side, wearing a light-colored, textured sweater, working on a laptop. The scene is dimly lit, with a blue tint. A large, solid red circle is overlaid in the center of the image, containing the text "Research & Development" in white, serif font. The background shows the person's hands on the laptop keyboard and the laptop screen, which is partially visible on the right side.

Research &
Development

R&D NaWas

- DDoS Detection as a Service (DaaS) – future
- Web Application Firewall (WAF-dp) – future
- GRE tunneling for clean traffic delivery – future
- Clearing House (Anti-DDoS coalition) – in operation since April 2024
- DDoS Pattern Recognition – generate filter rules (Dissector) – in operation as part of Clearing House

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Together Smarter and Stronger

<https://www.nbip.nl/nawas/>

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