

DDOS PROTECTION

Inter.link DDoS Protection



DDoS attacks have become one of the most significant threats to IT infrastructure

Increased Attack Rate: DDoS attacks have evolved significantly in terms of both volume and sophistication. The growth from a few Gbps (Gigabits per second) to multiple Tbps (Terabits per second) shows the immense scale at which these attacks are now occurring.

Difficulty in Defence: With the advent of more targeted and costly application-level attacks, defending against DDoS attacks has become more challenging than ever. Attackers are using more complex and tailored methods to exploit vulnerabilities in the targeted systems.

DDoS Protection and Mitigation Products: Solutions have been developed to counteract these threats by detecting, filtering, and blocking malicious traffic. This can be done through a combination of hardware and software products that identify unusual traffic patterns and take appropriate action to neutralize the threat.

Layer 3-4 Protection: Protection at Layer 3 and 4 focuses on the IP, protocols, and ports, effectively mitigating attacks targeting the network and transportation layers. This type of protection is often effective against volumetric attacks that aim to flood the network with excessive traffic.

Layer 3-7 Protection: Protection at Layers 3 through 7 goes beyond the basic network defence and targets application-specific payloads, such as HTTP, DNS, and more. This is more nuanced and can identify and mitigate sophisticated attacks that target specific applications or services.

How Inter.link Can Help

We use our own backbone and multiple scrubbing centers to offer protection for both small ISPs and large Enterprises.

01. Internally operated DDoS Service

This is our own, internally built and operated DDoS service, that is accessed at low latency. No GRE tunnels, and no complex network reconfigurations required.

02. Clear Billing

We don't base billing on "clean traffic" or "number of attacks" which you can't predict or influence. Instead you only pay for the features that you need.

03. Variety of Options

We offer Plus, Premium, and Enterprise tiers to fit everyone's needs. This allows you everything from a basic insurance-like option all the way to always-on Enterprise protection.

04. Carrier-grade Network

Inter.link services are delivered by a global, carrier-grade platform leveraging a highly resilient network with end-to-end automation. You get agility, performance, scale, security, programmability, five-nines reliability, and native visibility with compromise.

05. Comprehensive, Flexible Solutions

The Inter.link connectivity platform gives you access to a comprehensive array of flexible elements allowing you to create highly customizable topologies for private backbone, datacenter interconnect, hybrid and multi-cloud, IX- and third- party provider connectivity.

FEATURES	PLUS	PREMIUM	ENTERPRISE
Protection Layer	Layer 3-7	Layer 3-7	Layer 3-7
Max Attack Bandwidth	1 Tbps	2 Tbps	5 Tbps
Scrubbing Capacity	100 Gbps	250 Gbps	500 Gbps
Scrubbing Center	1 Region	2 Regions	3 Regions
Protected /24 & /48	4	10	20
Native IPv6 Support	check	check	check
Best Practise Filter	check	check	check
Attack Alerting	check	check	check
Dashboard & Portal	check	check	check
GRE Tunnel Support	-	1	2
Custom Filter	-	check	check
White- & Blacklist	-	check	check
FlowSpec Routes	⦿ paid option	⦿ paid option	⦿ paid option
Pulling of Traffic	-	-	check
Enterprise Reports	-	-	check
Adaptive Mitigation	1 hr/month free	3hr/month free	Unlimited
Setup Fee (Standard)	€1 500	€2 000	€2 500
Monthly Recurring Fee	€750	€2 100	€4 600

Benefits across all tiers

- Multiple scrubbing centres in the EU.
- Integrated dashboard with automated reports.
- Layer3 to Layer6 Protection (Layer7 only for specific plain-text protocols).
- 24/7 proactive mitigation in German and English.
- An attractive reseller/partner model.
- By creating more specifics, we can pull the traffic via AS5405.
- Up to 1 Tbps+ Clean Traffic Capacity, depending on Tier

Mitigated vectors:

- ➔ TCP SYN, SYN-ACK, PUSH, RST, and FIN Flood.
- ➔ UDP, DNS, HTTP, and ICMP Flood.
- ➔ Session and Fragmentation Attacks
- ➔ Protocol Violations, Faulty Applications

What Makes Us Different?

Mitigation Portal

The Inter.link DDoS Mitigation Portal provides a one-stop location to order and manage network services. Mitigation, Dashboards, and Reports can be managed through our portal.

- Segment customers through groups
- Assign Zones (protected objects to groups)
- Create Mitigation-Policies and re-use them with templates to be assigned to one or many Individual Zones or groups.
- Granular User-Management applicable on group-levels
- Configure notifications globally (or for each tenant/group)
- Configure reporting (group level)

Sustainability

Inter.link is committed to being a leader in environmental sustainability. This has led us to already become carbon neutral (with PAS 2060 certification) and achieve B Corporation status.

- Sustainability Policies, Processes, and Training
- Automated Measurement of Carbon Footprint
- Sustainable Supply Chain
- Renewable Electricity in Data Centers
- Accountability via Certifications

The Inter.link Platform - Mitigation Portal Overview

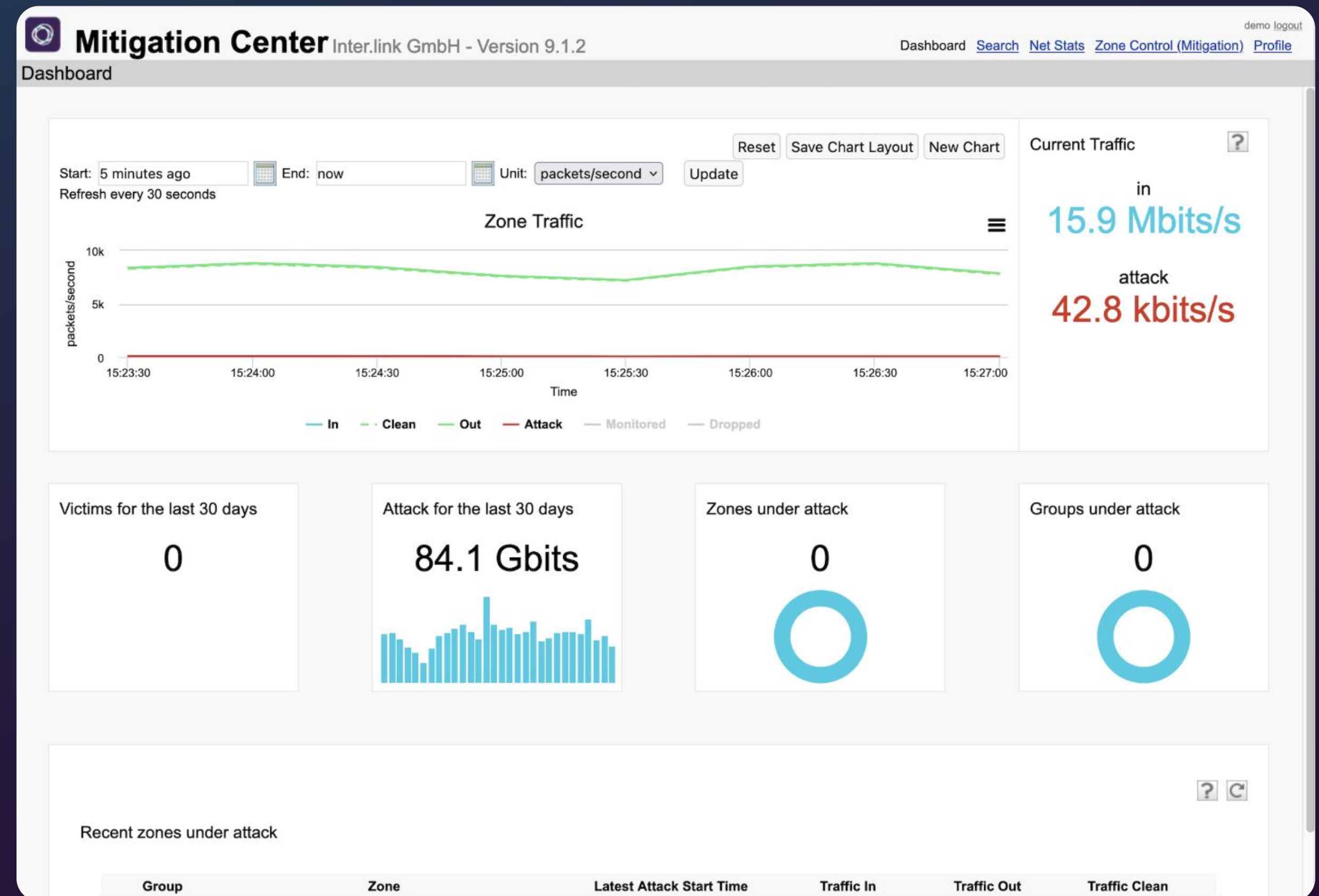
The Dashboard/Landing Page will show you:

- "Total inbound traffic" in
 - pps and
 - bandwidth
- Also for sub types of traffic like
 - In, Clean, Out, Attack, Dropped etc.
- List zones which are under attack right now and much more

Resellers, Customers and Projects are organised in Groups.

- Each group can have Sub Groups and can be nested.
- Each group has one or more Zones. Each zone has one or more Networks/Prefixes.
- The Zone is connecting Networks/Prefixes with a corresponding Policy.

→ This way we can exactly tell our platform how to perform and behave!



The Inter.link Platform - Mitigation Portal Overview

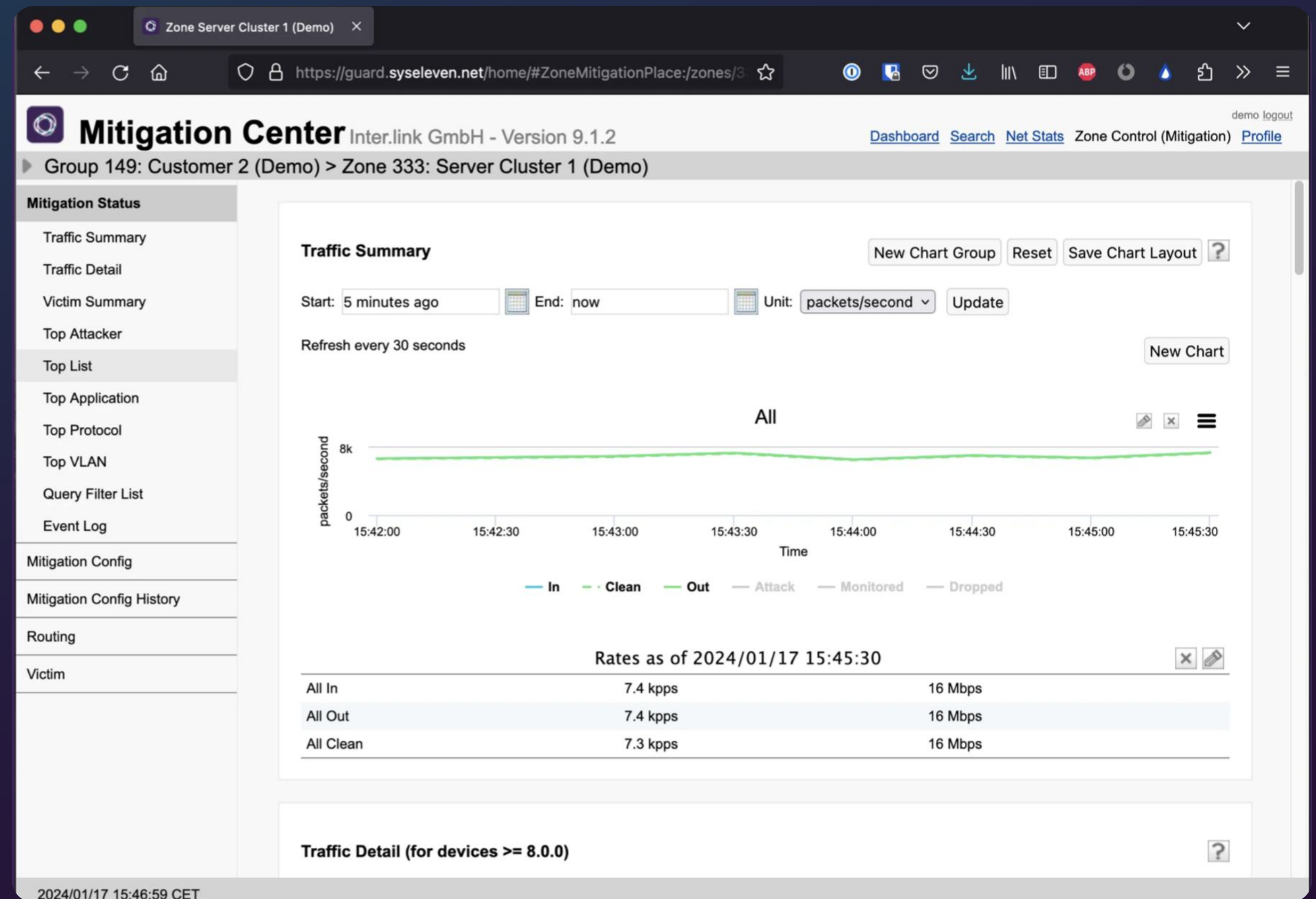
Adaptable Groups, Networks, and Zones

This Concept of Groups, Zones and Networks can be adapted to almost any structure needed for you and your customers!

Unique feature: Networks/Prefixes can overlap between zones!

→ More specifics also can be used to treat a specific /32 within another /20 completely different.

For Providers, DataCenters and Enterprises we often monitor traffic in "Aggregated Zones" for easy Management and move "frequent targets into their own Zone" for special treatment.



The Inter.link Platform - Mitigation Portal Reporting

In the portal it all comes together

It's important to create visibility for management and audit requirements. The Inter.link platform offers reporting for give an overview of what happened.

Standard reporting available for:

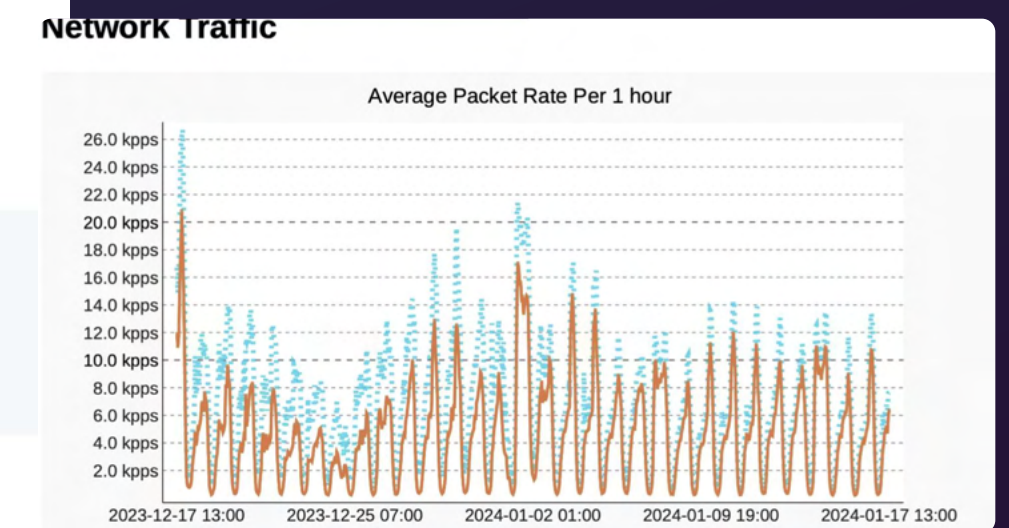
- Daily
- Weekly
- Monthly (Standard in included tiers)

Overview of:

- Total Traffic (Packets/Bits) split to
 - Total, Total Attack, Total Clean and Out
- Network Traffic Graph Overview
 - Packet Rate and Bandwidth
- Protocol distribution (TCP/UDP/ICMP/Other)
- Attack breakdown
 - Vectors most used for attacks
- Top Attacks by Packet Count
 - Top 10 of the observed attacks

Top Attacks by Packet Count

Rank	Victim Address	Attack Type	Total Attack Packets	Total Attack Bits	Start Time	End Time
1	.192	AT3 ACK FLOOD	8.8 Mppts	5.1 Gbits	2023-12-29 06:44:04 UTC	Ongoing
2	.192	AT5 RST FIN FLOOD	6.6 Mppts	3.4 Gbits	2024-01-01 07:00:32 UTC	2024-01-02 23:17:10 UTC
3	.192	AT5 RST FIN FLOOD	6.6 Mppts	3.4 Gbits	2023-12-17 05:38:42 UTC	2023-12-18 00:04:39 UTC
4	.193	AT3 ACK FLOOD	3.9 Mppts	2.2 Gbits	2024-01-05 05:09:04 UTC	2024-01-08 23:40:10 UTC
5	.192	AT5 RST FIN FLOOD	2.9 Mppts	1.5 Gbits	2023-12-29 05:40:36 UTC	
6	.192	AT5 RST FIN FLOOD	2.6 Mppts			



Traffic Overview

	Total In	Total Attack	Total Clean	Total Out
Packets	12.5 Gpkts	152.1 Mppts	12.3 Gpkts	12.5 Gpkts
Bits	24.5 Tbits	81.2 Gbits	24.4 Tbits	24.5 Tbits

Inter.link GmbH / SysEleven GmbH
 Customer 2 (Demo)
 Monthly Group Report
 2023-12-17 13:53:00 UTC to
 2024-01-17 13:53:50 UTC

Why Choose Inter.link DDoS Protection?

- **Optimised for infrastructure**
and mission critical services (like eCommerce and more)
- **Build according to your scale**
for small to large networks and enterprises
- **Easy and attractive for resellers (referral and managed)**
 - Multi-Tenancy build into our solution
 - Manage your customers
- **Easy and fast onboarding of 1000s of destinations**
- **24/7 Support for adaptive mitigation**
- **Predictable costs**
without billing based on unknown factors (minutes or amount of attacks)
 - Competition is billing based on clean traffic
 - At Inter.link billing is based on the "protected prefix size"
- **Accuracy combined with speed**
through our platform which combines flowbased analytics, filtering & redirection with purpose-build in-line distributed scrubbing centers
 - Superior "per packet" and "multi stage approach" to reach optimal mitigation results, capacity and cost-footprint (compared to competitions based on Arbor, Corero and more)