

FastNetMon Community: open source tool for DDoS Detection



Hello, I'm Pavel

I'm a software engineer with passion in computer networks and CTO / co-founder of FastNetMon LTD, London Career path:

- Domain name registrar
- Cloud compute provider
- IXP
- Global CDN
- FastNetMon

What is FastNetMon Community?

It's a cross platform (Linux, FreeBSD, macOS) application for DDoS detection implemented using the C++ 17 language and licensed under GPLv2

What is the best way to install it?

- Ubuntu 22.10 or newer:
- Debian 12 or newer:
- Fedora 35 or newer:
- RHEL 9 or newer, EPEL:
- macOS, Homebrew:
- FreeBSD:

apt install fastnetmon apt install fastnetmon dnf install fastnetmon dnf install fastnetmon brew install fastnetmon pkg install fastnetmon

What is the best way to install the latest version?

wget https://install.fastnetmon.com/installer
sudo chmod +x installer
sudo ./installer -install_community_edition

What can FastNetMon not do?

FastNetMon cannot protect your website from attack



FastNetMon cannot protect your game console from attack



FastNetMon cannot protect your managed cloud server from attack



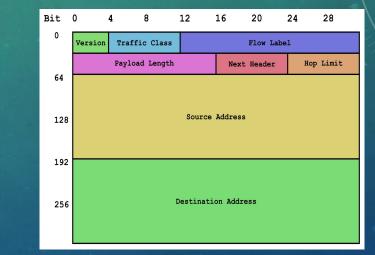
FastNetMon can protect your network from DDoS attacks

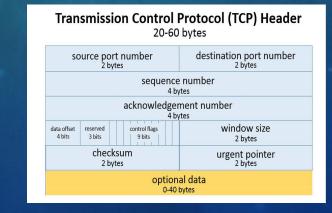


Can FastNetMon protect my network from all types of DDoS attacks?

FastNetMon can help you with L3, L4 IPv4 and IPv6 volumetric attacks

Bit	0 1 2 3 4 5 6 7	8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23 24 25 26 27	28 29 30 31
0	Version IHL (4 bits) (4 bits)	Type of Service (TOS) (8 bits)	Total Length (16 bits)	
4	(16	dentification (Fragment ID) D M Fragment offset (16 bits) F F (13 bits)		3
8	Time-To-Live (TTL) (8 bits)	s Protocol (8 bits)	ہ کے معلم کو مع (16 bits) معلم کو معلم ک	
Bytes 12	8 9 10 11 Source Address (32 bits)			
16	12 13 14 15 Destination Address (32 bits)			
20:	16 17 18 19 Options (if any, variable length, padded with 0's, 40 bytes max length)			
¥ Bit	0 1 2 3 4 5 6 7	8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23 24 25 26 27	28 29 30 31





What is the very first step to do when you suspect a DDoS attack on your network?

This is clearly not a DDoS



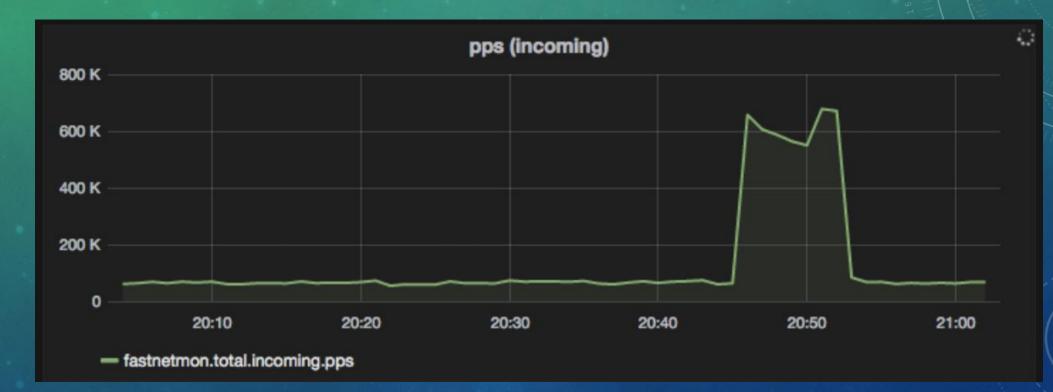
This is clearly not a DDoS too



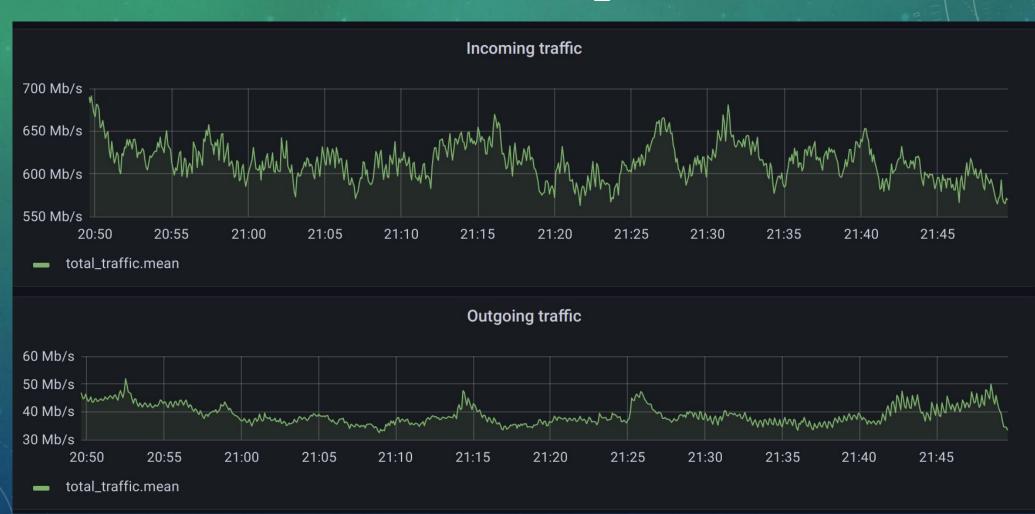
Well, even that one is not a DDoS



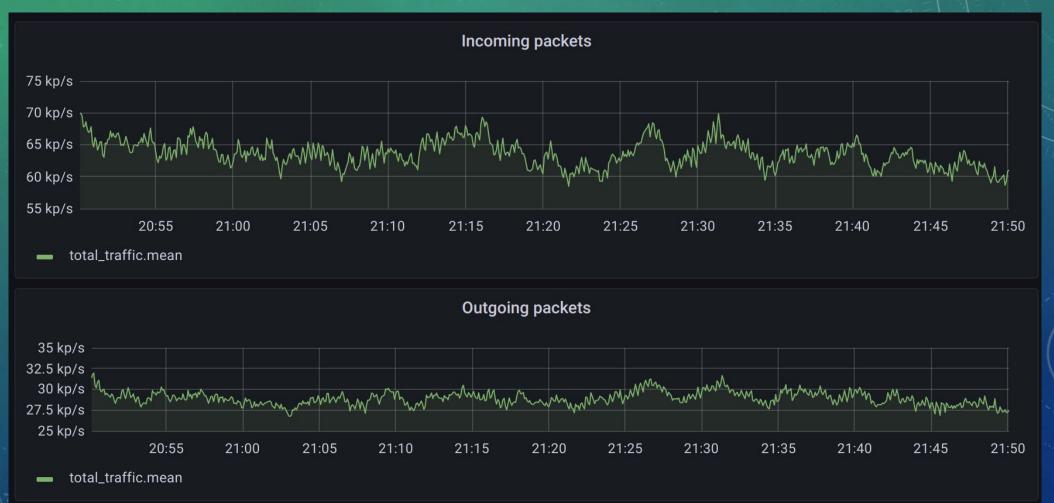
And that's clearly a DDoS



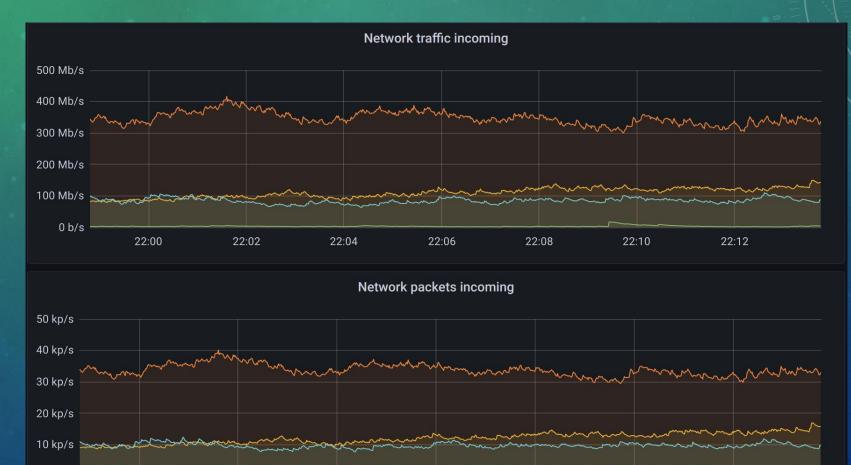
Total incoming traffic



Total outgoing traffic



Per network traffic



22:06

22:08

22:10

22:12

0 p/s

22:00

22:02

22:04

Per host traffic



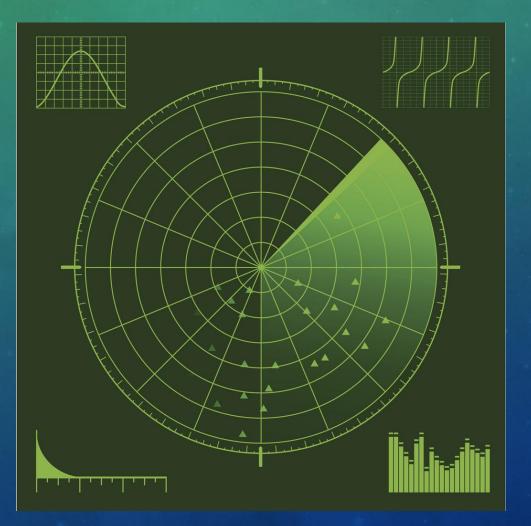
FastNetMon graphing capabilities

- InfluxDB v1 support
- Graphite support
- Grafana support: dozens of official and community contributed dashboards

Traffic Capture Backends

- Netflow v5, v9, v10 (IPFIX), jFlow, cFlow, NetStream
- sFlow v5
- SPAN/MIRROR [1GE-10GE]

What is the target of a DDoS?



Telco networks are huge



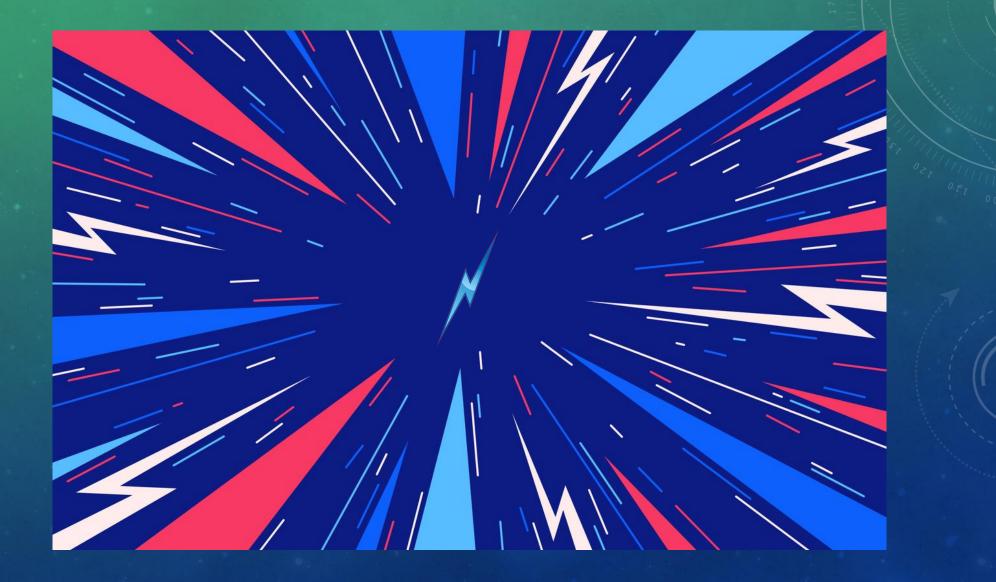
Data Center networks are complex



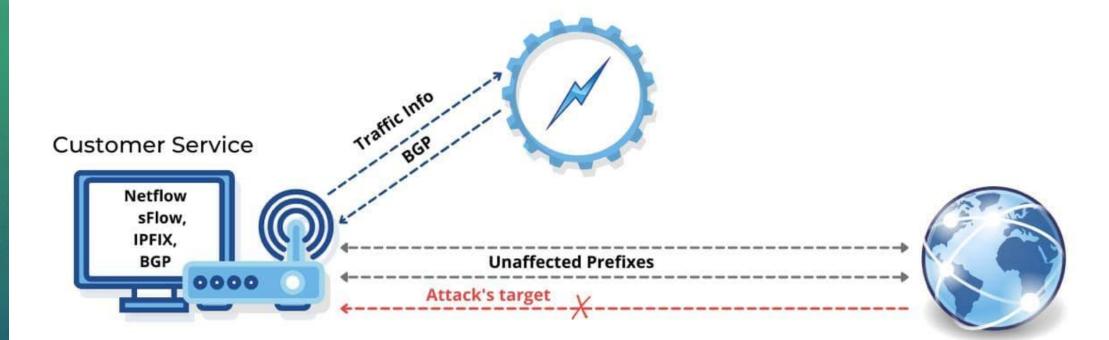
Thresholds based detection logic

- Mbit per second
 Packet per second
 Flows per second

FastNetMon detects attacks in seconds



BGP Blackhole / RTBH support via GoBGP



Community

- Site: https://fastnetmon.com/guides/
- GitHub: https://github.com/pavel-odintsov/fastnetmon
- Discord: https://discord.fastnetmon.com/
- IRC: #fastnetmon at Libera Chat
- Telegram: https://t.me/fastnetmon
- Slack: https://slack.fastnetmon.com
- LinkedIN: https://www.linkedin.com/company/fastnetmon/
- Facebook: https://www.facebook.com/fastnetmon/
- Mail list: https://groups.google.com/forum/#!forum/fastnetmon

Thank you!