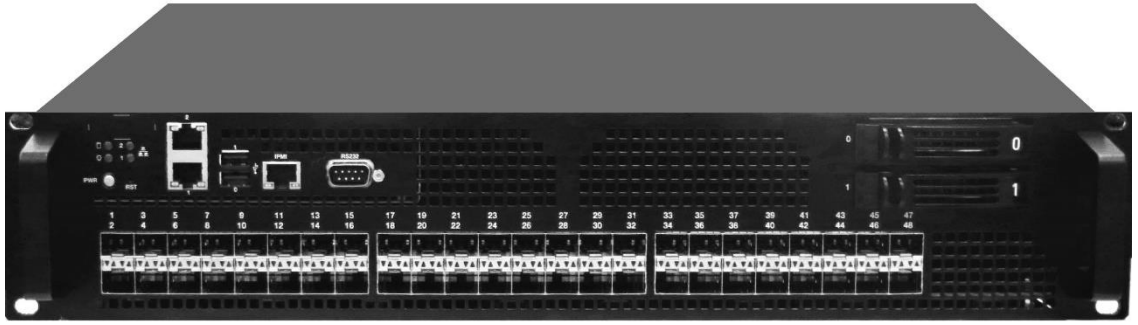


Leo

L7 DPI

form factor

1U

2U

4U

A Multilevel Analysis and Traffic Filter Device

LEO is a hardware device for IP-traffic monitoring and filtration on high bandwidth lines up to 100 Gbit/s based on:

- specified criteria,
- real-time mode,
- zero packet loss.

LEO is used for addressing a wide variety of complex network challenges. The device is capable to deploy it's feature set scaling up to IPS systems and LIS Solution.

LEO Meets Effectively Three Principal Types of Challenges

Aggregation and Balancing | Traffic Analysis | Traffic Filtering

- Makes traffic analysis in the carrier network:
  - → detects bottlenecks and the loaded protocols, specifies the traffic sources by countries, etc.;
  - → records data on a disk;
  - → determines peak periods by inbound/output traffic, etc.;
  - → conducts on-line monitoring.
- Blocks undesirable types of traffic.
- Forwards inbound traffic to other network interfaces for further analysis.

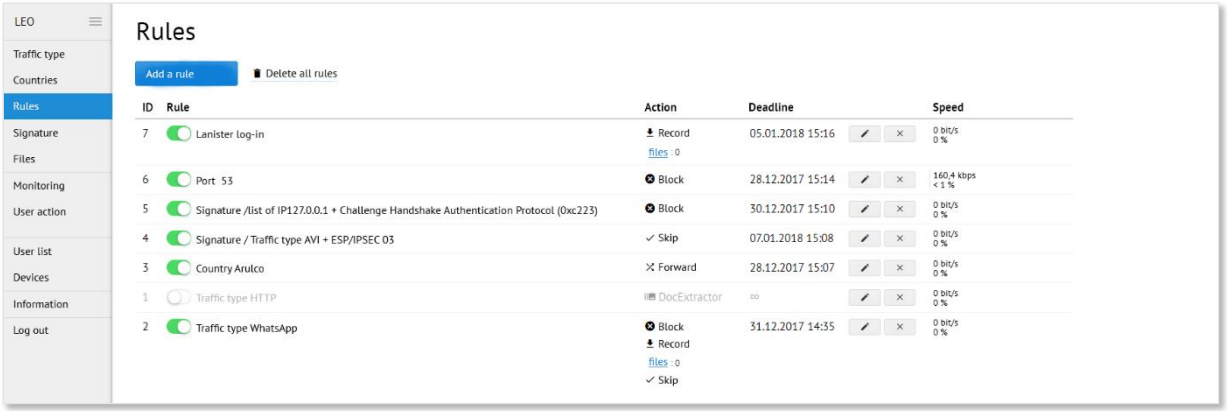
⚠ *To work correctly LEO should receive all the packages with content traffic and control heading data.*

⚠ *Up to 64 GbE ports each of which can independently enable receiving /RX/ and transferring /TX/ data.*

LEO – a Versatile Network Filter

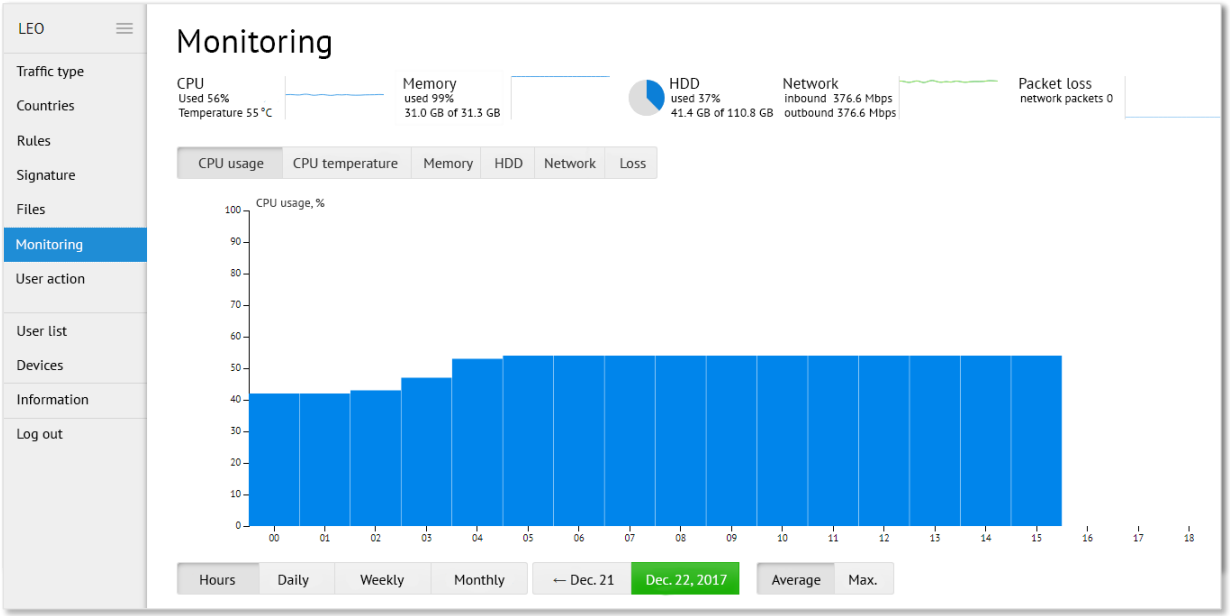
matching / rules

filter criteria	appliance type
	geolocation
	signature
	regular expressions
	IP-address, IP-IP, subnet /IP + Mask/
	port, port span
	subnet, subnet-subnet
	URL
	login on the authorization server
	IMSI



actions

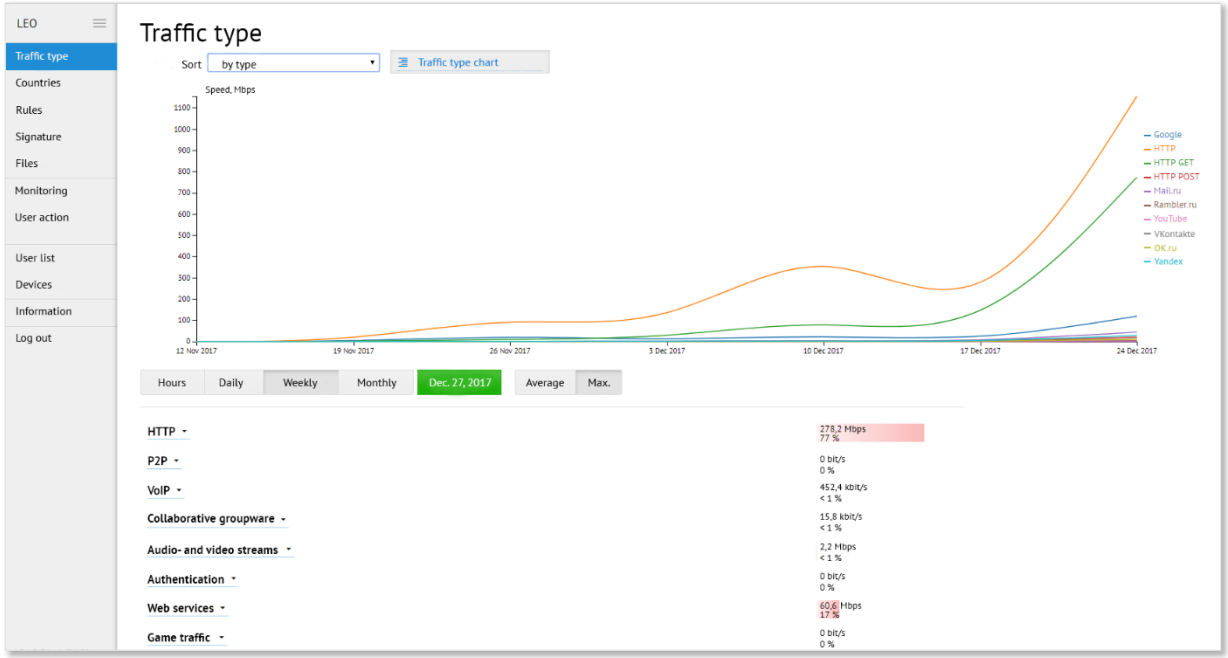
block	the Block Action is used when you install LEO inline to filter the unsolicited types of traffic off
record	Record Action provides a traffic recording of certain types for further analysis
forward	Forward Action can copy and/or select a part of a traffic flow and send it to the free network interface
	for example, to bypass filtering or sending data to the monitoring device
DocExtractor	DocExtractor Action can extract and export documents from the data stream
Traffic Shaping	a channel bandwidth limitation
	allows to control the traffic going out an interface, matching the traffic flow to the speed of the interface



LEO. Integrated Classifier for Identifying 180 Types of Applications

application classifier

HTTP	HTTP, HTTP ActiveSync, HTTP GET, HTTP POST, HTTP Proxy
P2P	Aimini, AppleJuice, BitTorrent, Direct Download Link, DirectConnect, Edonkey, FileTopia, Gnutella, iMESH, Kazaa/Fasttrack, OFF, OpenFT, PANDO, Soulseek, StealthNet, Thunder, WinMX
messengers / VoIP	Cisco skinny, FaceTime and iMessages, H.323, IAX, MGCP, RTCP, RTP, SIP, Skype, TeamSpeak, Truphone, Viber, Oscar, WathsApp, IRC, Jabber, meebo, MMS, MSN, OSCAR, Popo, QQ
collaborative groupware business applications	CitrixOnline/GoToMeeting, Lotus Notes, WebEx
audio- and video streams	Adobe Flash, Apple iTunes, AVI, Feidian, Grooveshark, Icecast, Last.fm, MPEG, Netflix, OGG, QuickTime, RealMedia, RTSP, RuTube, Spotify, WebM, Windowsmedia, YouTube
authentication	Kerberos, LDAP, RADIUS, XDMCP
web services	Google, Google Maps, Mail.ru, Rambler.ru, Yahoo!, Yandex
game services / game traffic	Armagetron, Battlefield, Crossfire, Dofus, Fiesta, Florensia, GTP, GuildWars, Halflife2, MapleStory, Quake, Steam, WARCRAFT 3, World of Kung Fu, World of Warcraft, XBOX
streaming video software	PPLive, PPStream, QQLive, SHOUTCast, SopCast, TVAnts, TVUplayer, VeohTV, Zattoo
corporate services	Kontiki, SAP, Vmware



unrecognized	TCP unknown, UDP unknown, Unidentified
cloud storage services	Apple iCloud, Dropbox, Ubuntu One
mail	Gmail, IMAP, POP3, SkyFile Rudics, SkyFile post-paid, SkyFile pre-paid , SMTP
service protocols	BGP, DCE/RPC, DHCP, DHCPv6, DNS, EGP, GRE, i23v5, ICMP, ICMPv6, IGMP, IP in IP, IPP, LLMNR, MDNS, MOVE, NETBIOS, NetFlow, NOE, NTP, OSPF, PPTP, RemoteScan, SCTP, sFlow, SNMP, Socrates, SSDP, STUN, Syslog, UPnP, VRRP

social networks	facebook, Tuenti, Twitter, VKontakte, OK.ru
DBMS	MSSQL, MySQL, Oracle, PostgreSQL, TDS
remote access	Citrix, PcAnywhere, RDP, TeamViewer, TELNET, VNC
files	AFP, FTP, NFS, Rsync, SMB, TFTP, Usenet, Windows Update
encrypted protocols	CiscoVPN, Cobra, HTTP Connect (SSL over HTTP), IPSEC, OpenVPN SSH, SSL, SSL without a certificate, Tor

the classifier could be scaled to meet specific customer requirements

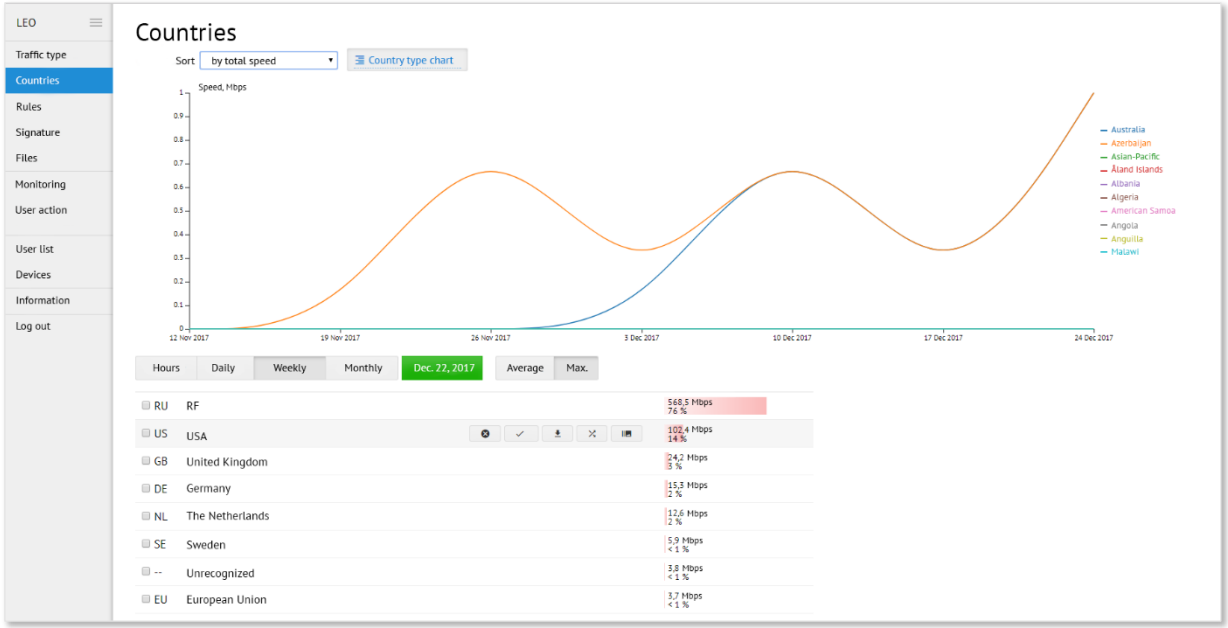
LEO. Country Classifier. Monitoring and Statistics

country classifier

integrated country classifier based on geolocation database

inbound traffic classifier by country

output traffic classifier by country



monitoring and statistics

real time monitoring

long-term statistics accumulating and aggregating

statistics by traffic types/countries

user actions history log

management of access rights