

Intrusion Prevention System

Intrusion detection and prevention system

The intrusion detection and prevention system is only available in the **Enterprise edition of SafeUTM** for users with an active subscription to updates.

Intrusion prevention system, Application control rules, and **Traffic shaping** do not handle traffic between local networks and branch networks.

The intrusion prevention system (IDS/IPS, Intrusion detection system / Intrusion prevention system) is designed to detect, log and prevent malicious attacks on the server, integrated services (mail, website, etc.), and local network protected by an internet gateway.

Traffic blocking rules include blocking the activity of Trojans, spyware, botnets, p2p clients and **torrent trackers**, viruses, **TOR** network (used to bypass filtering rules), anonymizers, etc.

You can configure the service in **Traffic Rules -> IPS**.

By moving the switch (to the left of the section name) to the left or to the right you can turn on/off the intrusion prevention service respectively.

IPS Working

Log Rules Exceptions Settings

Database update about 12 hours ago

Status Updates are not required

Check database updates

+ Add

Subnet ↑	Operations
10.0.0.0/8	
172.16.0.0/12	
192.168.0.0/16	

In order to add a rule, click on **Add** and add local networks serviced by UTM in the field **Subnet**. As a rule, these are networks of local UTM interfaces, as well as networks of your enterprise's local

network's remote segments routed to them.

Under no circumstances should you specify networks belonging to external UTM network interfaces and external networks. The networks specified here participate in the rules of the intrusion prevention service as local ones characterizing traffic to/from local networks. Local inter-segment traffic is not excluded from the system checks.

When using the intrusion prevention system, **it is not recommended** to use internal DNS servers for the network computers, as the system analyzes DNS queries passing through it and thus determines infected devices. In the case of using an internal AD domain, it is recommended to specify the SafeUTM DNS server on computers as the only DNS server, and specify the Forward zone for the local domain in DNS server settings.

Log

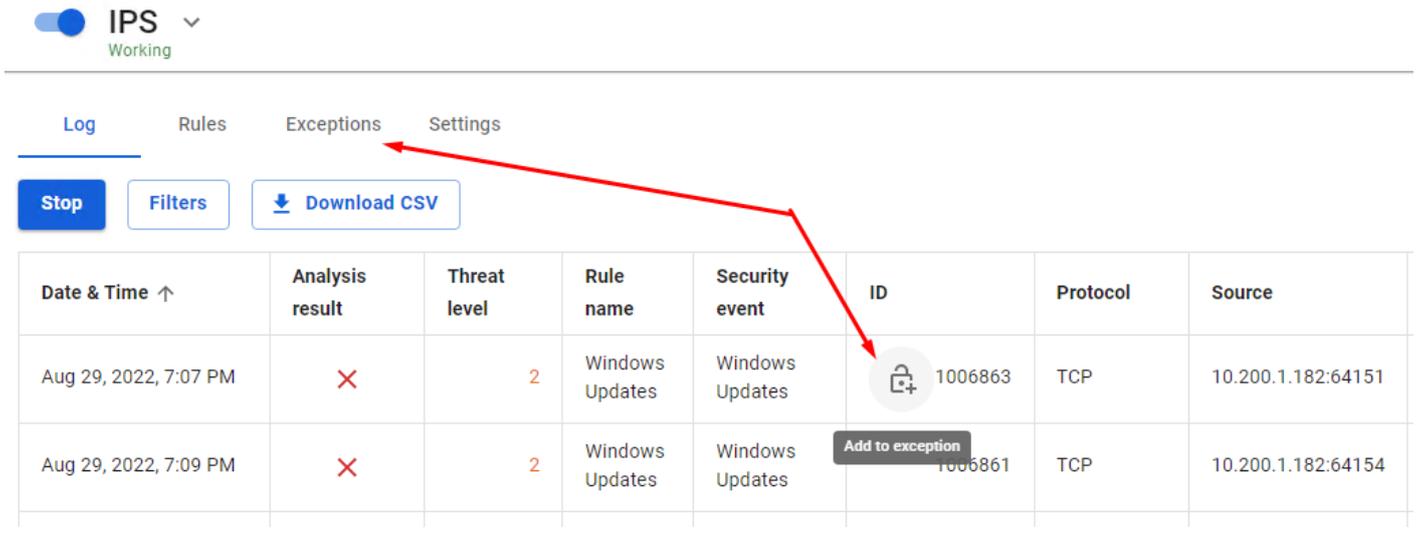
In the **Log** subsection, you can view the intrusion prevention system warning logs.

IPS Working 🔔 2 ⚙️ 🗑️

Aug 30, 2022, 3:08 AM	✗	2	Windows Updates	Windows Updates	1006889	TCP	10.200.1.182:64457	Dwight Schrute	10.200.1.103:8080		
Aug 30, 2022, 3:53 AM	✗	2	Windows Updates	Windows Updates	1006903	TCP	10.200.1.182:64486	Dwight Schrute	10.200.1.103:8080		
Aug 30, 2022, 4:11 AM	✗	2	Windows Updates	Windows Updates	1006889	TCP	10.200.1.182:64496		10.200.1.103:8080		
Aug 30, 2022, 4:13 AM	✗	3	Windows Telemetry	Windows Telemetry	🔒 1004616	TCP	10.200.1.182:64499	Dwight Schrute	10.200.1.103:8080		
Aug 30, 2022, 5:08 AM	✗	2	Windows Updates	Windows Updates	1006903	TCP	10.200.1.182:64535	Dwight Schrute	10.200.1.103:8080		
Aug 30, 2022, 5:14 AM	✗	2	Windows Updates	Windows Updates	1006889	TCP	10.200.1.182:64540		10.200.1.103:8080		
Aug 30, 2022, 6:16 AM	✗	2	Windows Updates	Windows Updates	1006889	TCP	10.200.1.182:64578	Dwight Schrute	10.200.1.103:8080		

- **Analysis Result** field displays the system's action, Blocked — the package is blocked, any other information in the field means Allowed, informing.
- In the field **Threat level** the following values can be displayed:
 - 1 - critical
 - 2 - dangerous
 - 3 - warning
 - 4 - not recognized
 - 255 - not classified

When you hover over the ID column in the line with the rule, the **Add to exception** button (+) will appear, clicking on which the signature will be added to the exclusions:



The screenshot shows the IPS interface with the 'Exceptions' tab selected. A red arrow points from the 'Add to exception' button (a lock icon with a plus sign) to the ID column of a log entry. The log entry details are as follows:

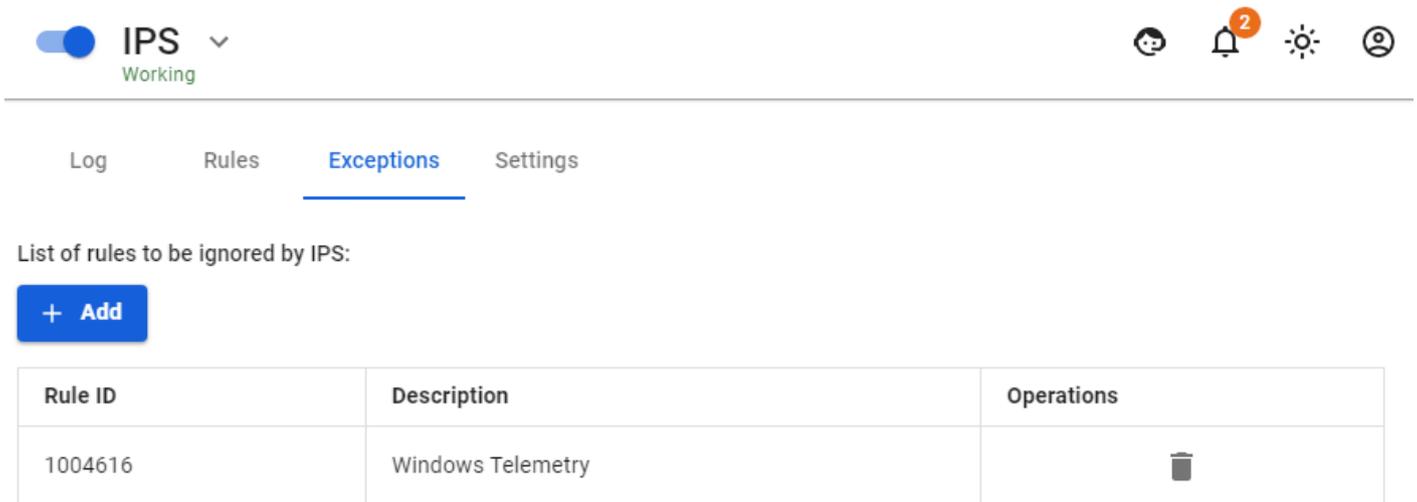
Date & Time ↑	Analysis result	Threat level	Rule name	Security event	ID	Protocol	Source
Aug 29, 2022, 7:07 PM	✗	2	Windows Updates	Windows Updates	1006863	TCP	10.200.1.182:64151
Aug 29, 2022, 7:09 PM	✗	2	Windows Updates	Windows Updates	1006861	TCP	10.200.1.182:64154

Rules

In the **Rules** tab, groups of rules of the intrusion prevention system are available to view and be enabled/disabled. When enabling/disabling a group of rules, the settings are applied instantly without the need to restart the service.

Exceptions

You can disable certain rules of the intrusion prevention system in case of false positives and for other reasons.



The screenshot shows the IPS interface with the 'Exceptions' tab selected. The 'List of rules to be ignored by IPS:' section contains the following table:

Rule ID	Description	Operations
1004616	Windows Telemetry	

In the **Exceptions** tab, you can add the rule ID (its number, see log analysis example below).

Attention! Over time the rules IDs may change when databases are updated.

Log Analysis Example

In the **Rules** tab, you can open the found group and find the triggered rules in it using its ID.

You can analyze the IP address with which a suspicious connection was attempted via **whois**.

Technical Requirements

The intrusion prevention system requires significant computing resources to operate. Multicore (4 or more cores) processors are preferred. The minimum amount of RAM to use the system is 8Gb.

After turning on the system it is advisable to control that your processor power is sufficient to inspect traffic passing through the gateway.

Revision #5

Created 25 August 2022 20:13:54 by Val Redman

Updated 13 October 2022 15:06:20 by Val Redman