□□□□□□□□□

- Librenms□□□□
- pfsense□□□□

Librenms□□□

Librenms□□

□□□□□

```
./validate.php
```

□□□□□□□□librenms

LibreNMS □□□

□□□

```
@if ($alert-> state == 0) i□□i @endif
@if ($alert-> state == 1) ⚠□□⚠ @endif

□□□{{ $alert->title }}
□□: {{ $alert->name }}

□□□□: {{ $alert->sysName }}
□□□□: {{ $alert->hostname }}
□□□□: {{ $alert->os }}
□□□□: {{ $alert->severity }}
□□□□: {{ $alert->timestamp }}
@if ($alert->state == 0)
□□□□: {{ $alert->elapsed }}
@endif
□□□□: {{ $alert->uptime_short }}
□□□□□□: {{ $alert->location }}
□□: {{ $alert->notes }}

@if ($alert->faults)
@foreach ($alert->faults as $key => $value)
□□: {{ $value['service_desc'] }}
□□: {{ $value['service_type'] }}
```

□□: {{ $value['service_message'] }}
□□: {{ $value['service_param'] }}
@endforeach
@Endif

□□□□□□□ (□□□□□□□)

SELECT * FROM devices WHERE (devices.device_id = ?) AND (devices.status = 0 && (devices.disabled = 0 && devices.ignore = 0)) = 1 AND TIME_TO_SEC(timediff(now(), last_polled)) > 300;

□□□□□□ (□□□□□□)

SELECT * FROM devices WHERE (devices.device_id = ?) AND devices.uptime < 300 AND (devices.disabled = 0 && devices.ignore = 0) = 1

Windows □□□□□□□□

SELECT * FROM devices,mempools WHERE (devices.device_id = ? AND devices.device_id = mempools.device_id) AND mempools.mempool_perc > 90 AND devices.os LIKE '%Windows%' AND mempools.mempool_descr REGEXP "Physical.*"

@if ($alert-> state == 0) ℹ□□ℹ @endif
@if ($alert-> state == 1) ⚠□□⚠ @endif

□□□{{ $alert->title }}

□□□□: {{ $alert->sysName }}
□□□□: {{ $alert->hostname }}
□□□□: {{ $alert->severity }}
□□□□: {{ $alert->uptime_short }}
@if ($alert->state == 0)
□□□□: {{ $alert->elapsed }}
@endif
□□□□: {{ $alert->timestamp }}
□□□□□□: {{ $alert->location }}
□□: {{ $alert->notes }}

□□□□: {{ $alert->sysName }}
@foreach ($alert->faults as $key => $value)
□□: {{ $value['mempool_descr'] }}

□□□: {{ $value['mempool_perc'] }}%
□□: {{ number_format(round(($value['mempool_total']/2**30),2,PHP_ROUND_HALF_DOWN),2) }} GB
□□□: {{ number_format(round(($value['mempool_used']/2**30),2,PHP_ROUND_HALF_DOWN),2) }} GB
□□□: {{ number_format(round(($value['mempool_free']/2**30),2,PHP_ROUND_HALF_DOWN),2) }} GB
@endforeach

Windows □□□□□□

```
SELECT * FROM devices,storage WHERE (devices.device_id = ? AND devices.device_id = storage.device_id) AND storage.storage_perc > 90 AND devices.os LIKE '%Windows%'
```

```
@if ($alert-> state == 0) ℹ□□ℹ @endif
@if ($alert-> state == 1) ⚠□□⚠ @endif

□□□{{ $alert->title }}

□□□□: {{ $alert->sysName }}
□□□□: {{ $alert->hostname }}
□□□□: {{ $alert->severity }}
□□□□: {{ $alert->uptime_short }}
@if ($alert->state == 0)
□□□□: {{ $alert->elapsed }}
@endif
□□□□: {{ $alert->timestamp }}
□□□□□□: {{ $alert->location }}
□□: {{ $alert->notes }}

□□□□: {{ $alert->sysName }}
@foreach ($alert->faults as $key => $value)
□□: {{ $value['storage_descr'] }}
□□: {{ number_format($value['storage_size']/1073741824,2) }} GB
□□□: {{ $value['storage_perc'] }}%
□□: {{ number_format($value['storage_used']/1073741824,2) }} GB
□□: {{ number_format($value['storage_free']/1073741824,2) }} GB

@endforeach
```

VMware ESXI □□□□□□□ 85%

```
SELECT * FROM devices,mempools WHERE (devices.device_id = ? AND devices.device_id = mempools.device_id) AND mempools.mempool_perc > 85 AND devices.os LIKE '%VMware%' AND mempools.mempool_descr REGEXP "Real.*"
```

```
@if ($alert-> state == 0) ℹ□□ℹ @endif
@if ($alert-> state == 1) ⚠□□⚠ @endif

□□□{{ $alert->title }}

□□□□: {{ $alert->sysName }}
□□□□: {{ $alert->hostname }}
□□□□: {{ $alert->severity }}
□□□□: {{ $alert->uptime_short }}
@if ($alert->state == 0)
□□□□: {{ $alert->elapsed }}
@endif
□□□□: {{ $alert->timestamp }}
□□□□□□: {{ $alert->location }}
□□: {{ $alert->notes }}

□□□□: {{ $alert->sysName }}
@foreach ($alert->faults as $key => $value)
□□: {{ $value['mempool_descr'] }}
□□□: {{ $value['mempool_perc'] }}%
□□: {{ number_format(round(($value['mempool_total']/2**30),2,PHP_ROUND_HALF_DOWN),2) }} GB
□□□: {{ number_format(round(($value['mempool_used']/2**30),2,PHP_ROUND_HALF_DOWN),2) }} GB
□□□: {{ number_format(round(($value['mempool_free']/2**30),2,PHP_ROUND_HALF_DOWN),2) }} GB
@endforeach
```

VMware ESXI □□□□□□

```
SELECT * FROM devices,storage WHERE (devices.device_id = ? AND devices.device_id = storage.device_id) AND storage.storage_perc > 90 AND devices.os LIKE '%VMware%'
```

```
@if ($alert-> state == 0) ℹ□□ℹ @endif
@if ($alert-> state == 1) ⚠□□⚠ @endif

□□□{{ $alert->title }}

□□□□: {{ $alert->sysName }}
```

□□□□: {{ $alert->hostname }}

□□□□: {{ $alert->severity }}

□□□□: {{ $alert->uptime_short }}

@if ($alert->state == 0)

□□□□: {{ $alert->elapsed }}

@endif

□□□□: {{ $alert->timestamp }}

□□□□□□: {{ $alert->location }}

□□: {{ $alert->notes }}

□□□□: {{ $alert->sysName }}

@foreach ($alert->faults as $key => $value)

□□: {{ $value['storage_descr'] }}

□□: {{ number_format($value['storage_size']/1073741824,2) }} GB

□□□: {{ $value['storage_perc'] }}%

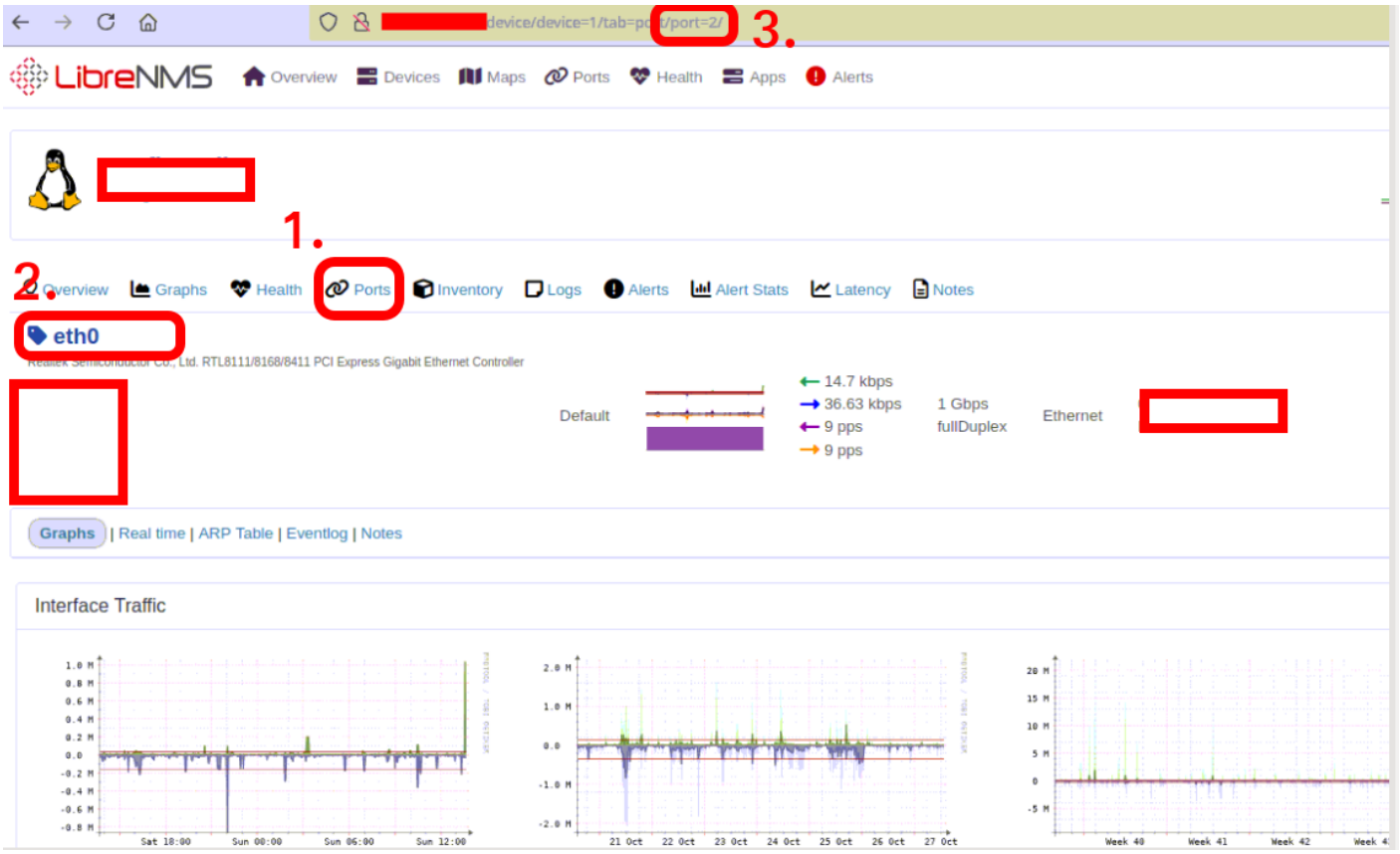
□□: {{ number_format($value['storage_used']/1073741824,2) }} GB

□□: {{ number_format($value['storage_free']/1073741824,2) }} GB

@endforeach

□□□□□□□□

□□□□□□□□Port ID□□□□□□□→□□□→□□□□□□□□□→□□□□□□□□□□Port ID□



□□□□

ports.ifInOctets_rate □□□□□□ (LibreNMS □□□□□8□)

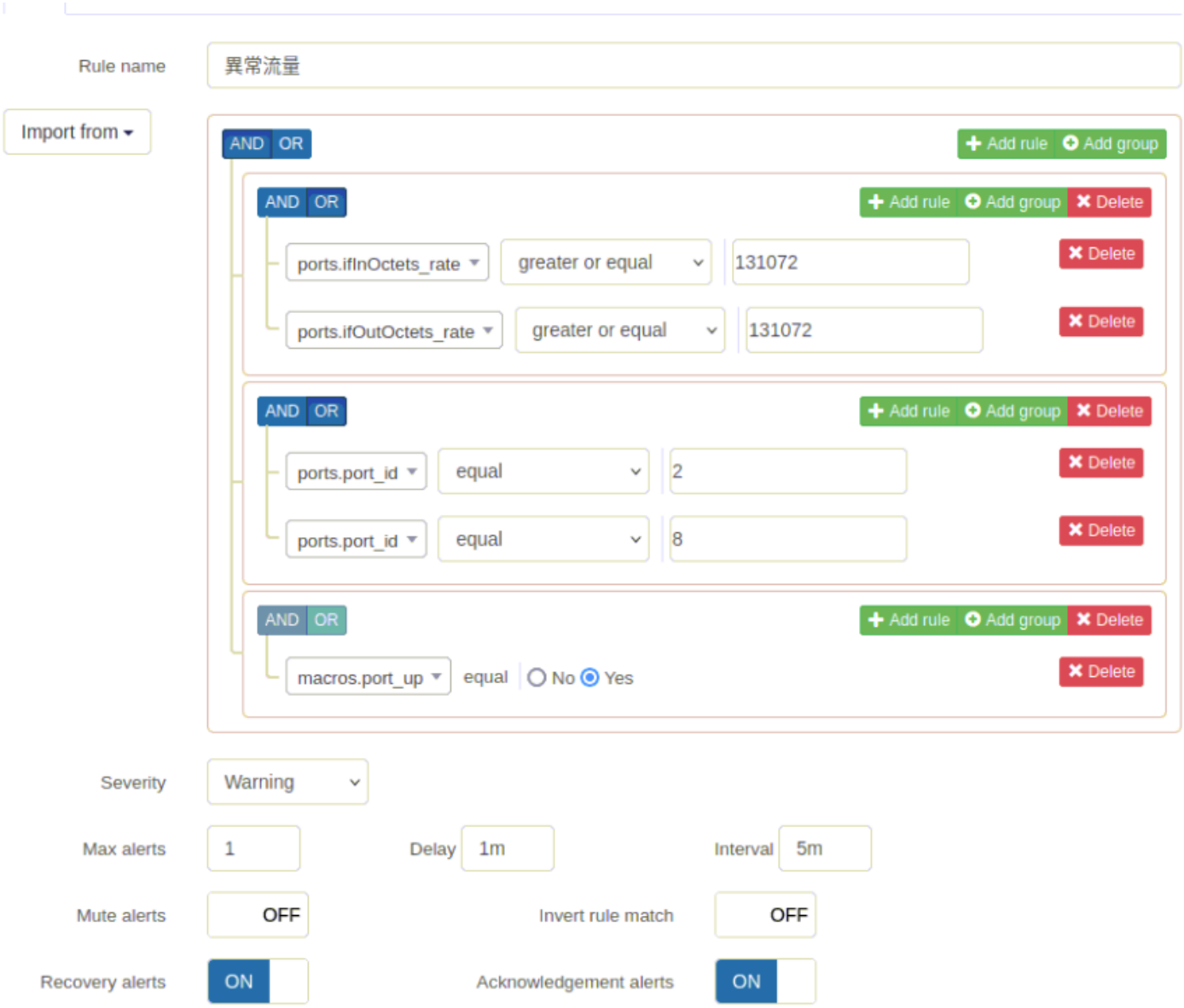
ports. ifOutOctets_rate □□□□□ (LibreNMS □□□□□8□)

□□□□□□ = X *1024* 1024 / 8

10M = 10 *1024* 1024 / 8 = 1310720

40M = 40 *1024* 1024 / 8 = 5242880

□□□□□□□□***1000□□1024**



□□□□□□□

□□□□{{ $alert->sysName }}
□□□{{ $alert->location }}
□□□{{ $alert->severity }}

@if ($alert->state == 0) □□□□{{ $alert->elapsed }} @endif
□□□{{ $alert->timestamp }}

@foreach ($alert->faults as $key => $value)
□□□□{{ $value['ifName'] }}
□□□{{ $value['ifDescr'] }}
In □□□{{ $value['ifInOctets_rate']*8/1048576 }} Mbit/s
Out □□□{{ $value['ifOutOctets_rate']*8/1048576 }} Mbit/s
In □□□{{ round(($value['ifInOctets_rate']*8/1048576),2,PHP_ROUND_HALF_DOWN) }} Mbit/s

```
Out □□□{{ round(($value['ifOutOctets_rate']*8/1048576),2,PHP_ROUND_HALF_DOWN) }} Mbit/s
In □□□□{{ $value['ifInOctets_rate'] }}
Out □□□□{{ $value['ifOutOctets_rate'] }}


@endforeach
```

□□□□

WeatherMap□□

□□php

```
suod apt insatll php-pear
```

□□WeatherMap□□

```
cd /opt/librenms/html/plugins
git clone https://github.com/librenms-plugins/Weathermap.git
```

□□□□

```
chown -R librenms:librenms Weathermap/
chmod 775 /opt/librenms/html/plugins/Weathermap/configs
```

□□:□□□□□SELinux□□□□□□□□□

```
chcon -R -t httpd_cache_t Weathermap/
```

□□□□

```
vim /etc/cron.d/librenms
```

```
*/1 * * * * librenms /opt/librenms/html/plugins/Weathermap/map-poller.php >> /dev/null 2>&1
```

□□Check_MK

```
cd /opt/
git clone https://github.com/librenms/librenms-agent.git
```

```
cd librenms-agent
```

linux	freebsd
`cp check_mk_agent /usr/bin/check_mk_agent`	`cp check_mk_agent_freebsd /usr/bin/check_mk_agent`

```
chmod +x /usr/bin/check_mk_agent
```

xinetd	systemd
`cp check_mk_xinetd /etc/xinetd.d/check_mk`	`cp check_mk@.service check_mk.socket /etc/systemd/system`

```
mkdir -p /usr/lib/check_mk_agent/plugins /usr/lib/check_mk_agent/local
```

```
cp /opt/librenms-agent/agent-local/* /usr/lib/check_mk_agent_local
```

```
chmod +x /usr/lib/check_mk_agent/local/$script
```

xinetd	systemd
`/etc/init.d/xinetd restart`	`systemctl enable check_mk.socket && systemctl start check_mk.socket`

□□□□module□unix-agent□□□□□□□□□□□□

□□□□

https://yushiryu.com/librenms-□□□□/#7_□□□□□□□□

https://hanelin.medium.com/□□□□-librenms-□□□□-weathermap-d92073d64236

Libremns□□□□

pfsense□□□

□□qemu-guest

2. Manual installation

(a) Create the following 2 files

vim /etc/rc.conf.local

qemu_guest_agent_enable="YES"

qemu_guest_agent_flags="-d -v -l /var/log/qemu-ga.log"

#virtio_console_load="YES"

vim /usr/local/etc/rc.d/qemu-agent.sh

#!/bin/sh

sleep 3

service qemu-guest-agent start

(b) install qemu-guest-agent

i. pkg install -y qemu-guest-agent

ii. chmod +x /usr/local/etc/rc.d/qemu-agent.sh

(c) Change Proxmox settins

i. Shutdown pfsense

ii. Proxmox VM → Options → QEMU Guest Agent → Enable

iii. Restart VM