ZABBIX 6.0 WORKSHOP WEEK

CREATING SCHEDULED REPORTS WITH ZABBIX

01

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DEPLOYING AND CONFIGURING THE ZABBIX WEB SERVICE

DEPLOYING AND CONFIGURING SCHEDULED REPORTS

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First, let's install and configure the *zabbix-web-service* component

- This component is responsible for generating scheduled reports

- First, let's deploy the zabbix-werb-service package

```
# dnf install zabbix-web-service -y
```

- Check the Zabbix web service configuration file to configure log settings, *ListenPort*, *AllowedIP* and other parameters

```
# vi /etc/zabbix/zabbix_web_service.conf
```

DEPLOYING AND CONFIGURING SCHEDULED REPORTS

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- Check and confirm the log file location

```
### Option: LogFile
#       Log file name for LogType 'file' parameter.
#
# Mandatory: yes, if LogType is set to file, otherwise no
# Default:
# LogFile=/tmp/zabbix_web_service.log

LogFile=/var/log/zabbix/zabbix_web_service.log
```

DEPLOYING AND CONFIGURING SCHEDULED REPORTS

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- Specify the allowed IP address or DNS name of Zabbix server

```
### Option: AllowedIP
#       List of comma delimited IP addresses, optionally in CIDR notation, or DNS names
of Zabbix servers and Zabbix proxies.
#       Incoming connections will be accepted only from the hosts listed here.
#       If IPv6 support is enabled then '127.0.0.1', '::127.0.0.1', '::ffff:127.0.0.1'
are treated equally
#       and '::/0' will allow any IPv4 or IPv6 address.
#       '0.0.0.0/0' can be used to allow any IPv4 address.
#       Example: AllowedIP=127.0.0.1,192.168.1.0/24,::1,2001:db8::/32,zabbix.example.com
#
# Mandatory: yes
# Default:
# AllowedIP=

AllowedIP=127.0.0.1,::1
```

DEPLOYING AND CONFIGURING SCHEDULED REPORTS

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- Check and confirm the listen port

```
### Option: ListenPort
#       Service will listen on this port for connections from the server.
#
# Mandatory: no
# Range: 1024-32767
# Default:
# ListenPort=10053
```

DEPLOYING AND CONFIGURING SCHEDULED REPORTS

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- Once the configuration parameters are adjusted and confirmed - enable and start the Zabbix web service

```
systemctl enable zabbix-web-service --now
```

DEPLOYING GOOGLE CHROME

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- Zabbix web service requires Google Chrome to be installed on the same host

```
# curl https://dl.google.com/linux/direct/google-chrome-
stable_current_x86_64.rpm --output google-chrome-stable_current_x86_64.rpm
```

```
# dnf install google-chrome-stable_current_x86_64.rpm -y
```

02

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CONFIGURING THE ZABBIX SERVER

CONFIGURING ZABBIX SERVER

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Next, let's enable scheduled report generation on Zabbix server

- We need to provide the URL of our Zabbix Web report service and enable the Report Rriter processes

```
# vi /etc/zabbix/zabbix_server.conf
```

```
### Option: StartReportWriters
#       Number of pre-forked report writer instances.
#
# Mandatory: no
# Range: 0-100
# Default:
# StartReportWriters=0

StartReportWriters=3
```

CONFIGURING ZABBIX SERVER

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Next, let's enable scheduled report generation on Zabbix server

- We need to provide the URL of our Web report service and enable the Report Rriter processes

```
### Option: WebServiceURL
#       URL to Zabbix web service, used to perform web related tasks.
#       Example: http://localhost:10053/report
#
# Mandatory: no
# Default:
# WebServiceURL=

WebServiceURL=127.0.0.1:10053/report
```

- By default the Zabbix Web report service listens on port 10053

03

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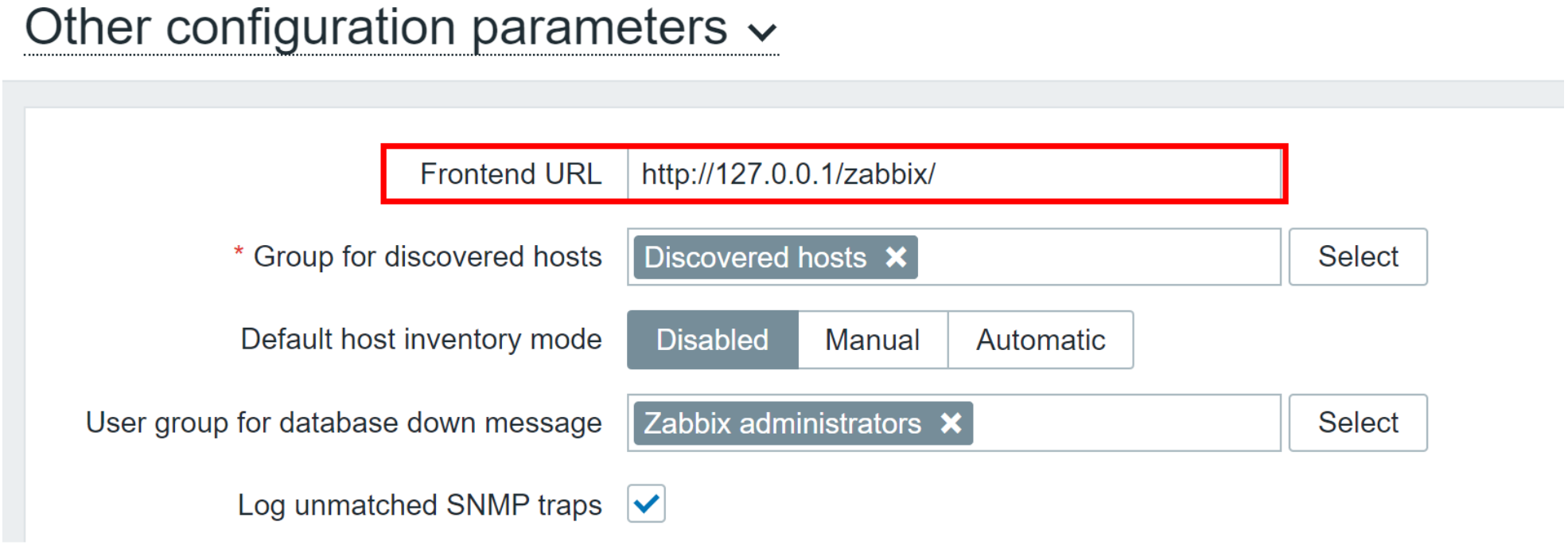
CONFIGURING SCHEDULED REPORTS IN THE FRONTEND

SPECIFIYING THE FRONTEND ADDRESS

The Frontend URL parameter should be set to enable communication between Zabbix frontend and Zabbix web service:

- Navigate to *Administration – General - Other*
- Set the frontend URL which should be reachable by the Zabbix web service



CONFIGURING THE EMAIL MEDIA TYPE

Make sure that you have configured an Email Media type.

- This media type will be used to send out the scheduled reports
- Navigate to *Administration – Media types*
- Either update the existing *Email* or *Email (HTML)* media type or create a new one

CONFIGURING THE EMAIL MEDIA TYPE

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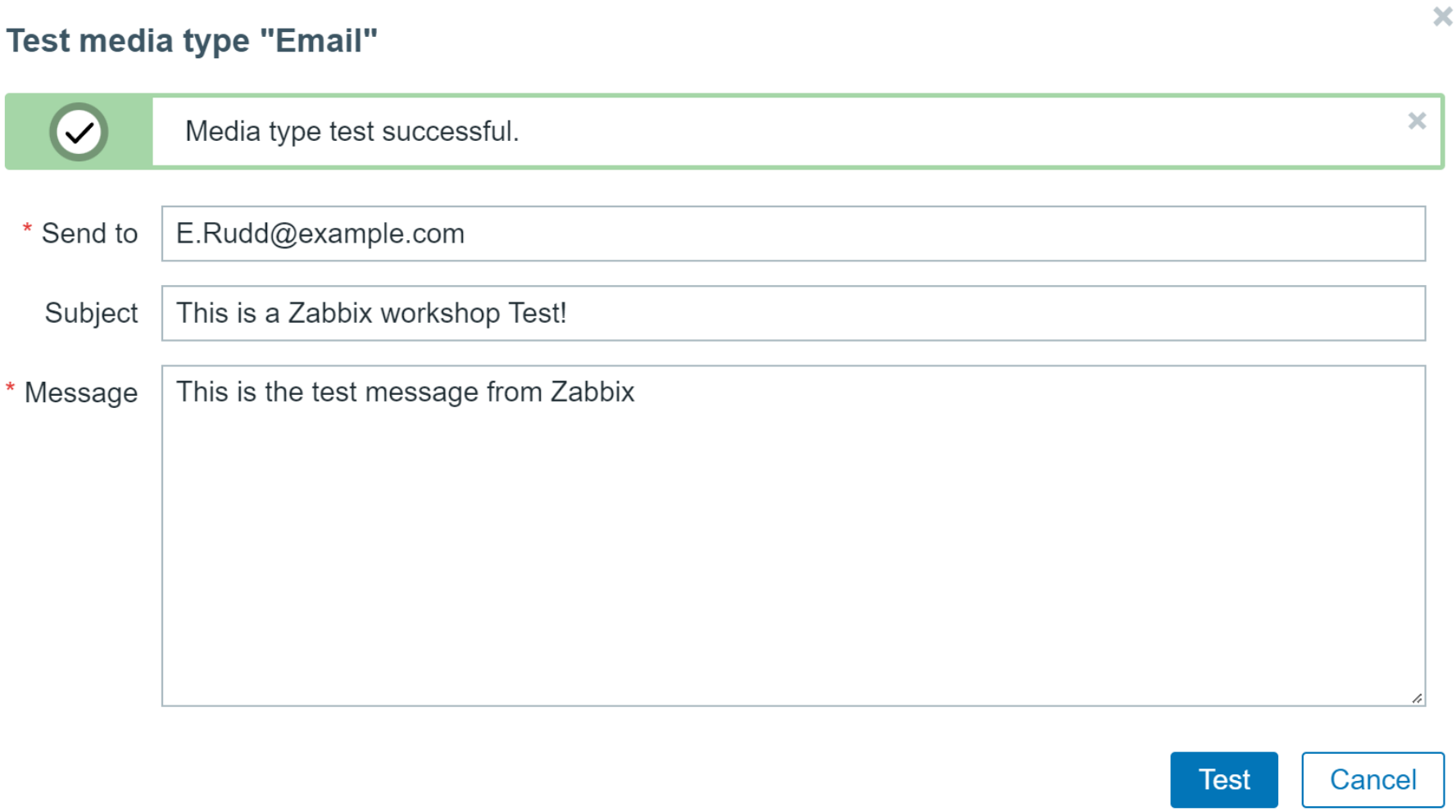
Media type | Message templates 5 | Options

* Name	Email
Type	Email
* SMTP server	127.0.0.1
SMTP server port	25
* SMTP helo	example.com
* SMTP email	zabbix@example.com
Connection security	None / STARTTLS / SSL/TLS
Authentication	None / Username and password
Message format	HTML / Plain text
Description	
Enabled	☑

TESTING THE MEDIA TYPE

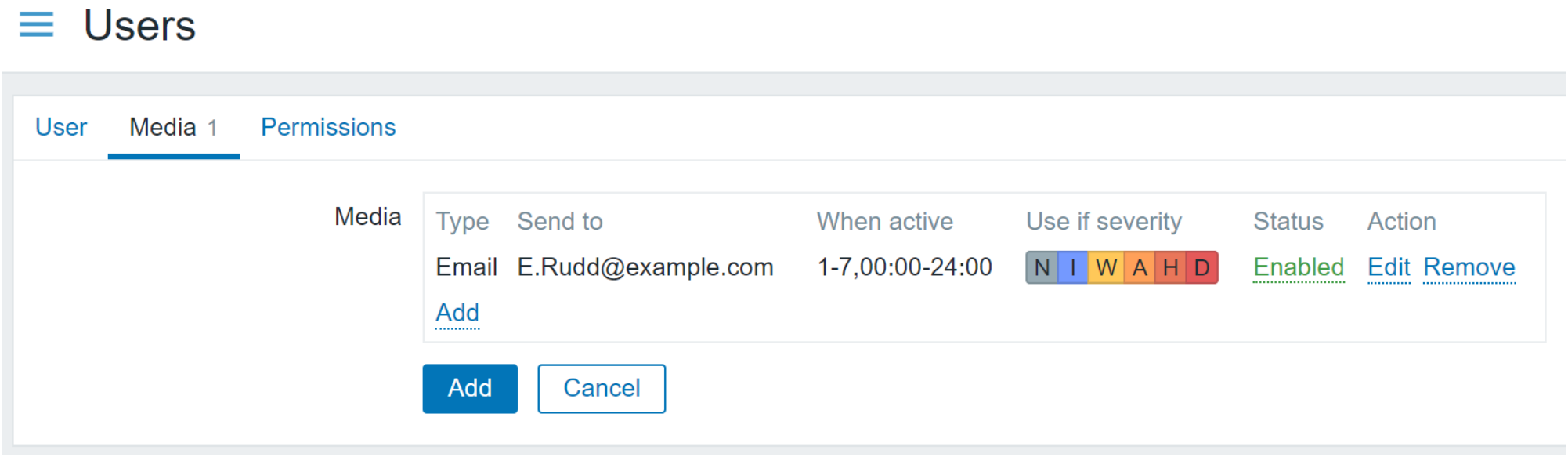
We also have to option to confirm if the media type is configured properly by using the *Test* button in the Media types section



ASSIGNING THE EMAIL MEDIA

Don't forget to assign a media of the Email media type to your recipients!

- Navigate to *Administration – Users* and click on the recipient user
- Switch over to the *Media tab*
- Add a new media of type *Email*



04

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CREATING DASHBOARDS FOR SCHEDULED REPORTS

CREATING A DASHBOARD FOR THE REPORTS

Our next goal is to create a dashboard that we can use in our reports

- The new widgets such as *Top hosts* and *SLA report* widgets can provide useful views of our metrics
- The *Graph* widget can dynamically display information for a selected time period
- Other widgets can be used without any restrictions

CREATING ITEMS FOR THE REPORTS

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We can use calculated items to aggregate our information and collect daily/weekly/monthly and other aggregated information.

For example:

- Top weekly/daily/monthly hosts sorted by traffic on an interface
- Top weekly/daily/monthly hosts sorted by traffic on ALL interfaces
- Number of weekly transactions on our online store website
- And much more!

* The Full list of supported functions can be found in the Zabbix documentation: https://www.zabbix.com/documentation/6.0/en/manual/appendix/functions

CREATING ITEMS FOR THE REPORTS

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Examples:

- Weekly sum of website transactions

```
sum(//transactions,7d)
```

- Average incoming traffic on an interface

```
avg(//net.if.in["enp0s3"],7d)
```

- Average weekly host incoming traffic

```
avg(avg_foreach(//net.if.in[*],7d))
```

CREATING ITEMS FOR THE REPORTS

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Top Weekly traffic

Edit dashboard

All dashboards / Top Weekly traffic

Zoom out | Last 12 hours

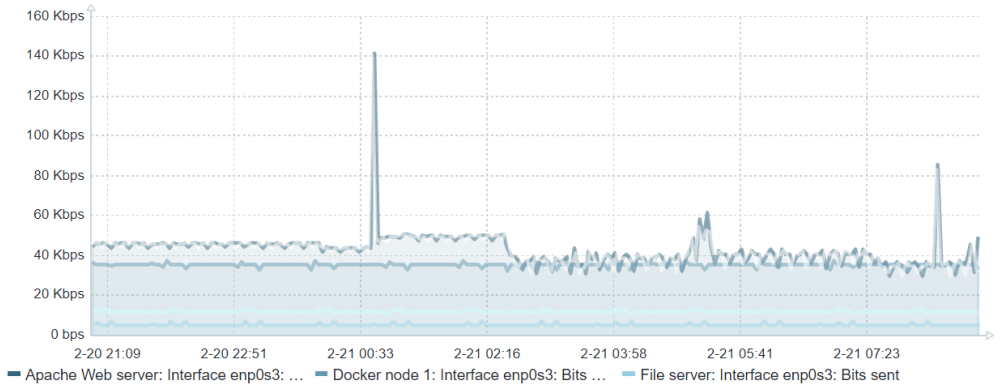
TOP weekly traffic on interface Enp0s3

Host	Incoming traffic	Outgoing traffic
Docker node 1	33.05 Kbps	35.84 Kbps
PostgreSQL primary node	27.69 Kbps	46.19 Kbps
Apache Web server	27.64 Kbps	46.07 Kbps
Mail server	15.67 Kbps	12.25 Kbps
File server	11.99 Kbps	5.67 Kbps

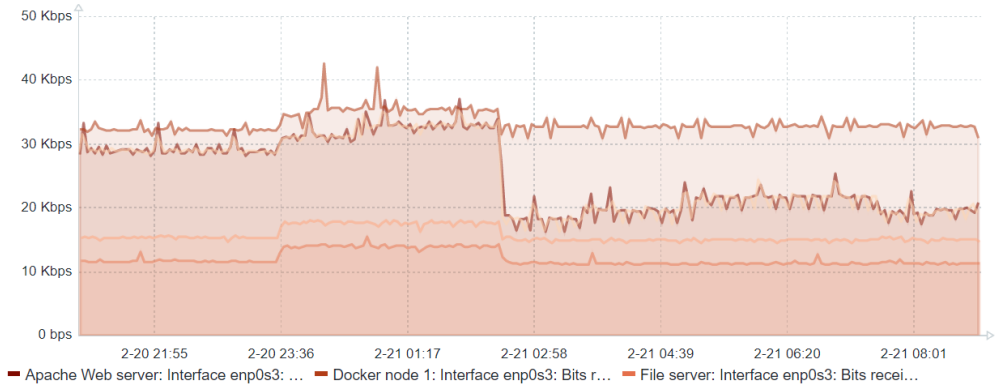
TOP weekly traffic on All interfaces

Host	Incoming traffic	Outgoing traffic
Mail server	47.56 Kbps	45.86 Kbps
Docker node 1	44.82 Kbps	46.22 Kbps
Apache Web server	15.58 Kbps	21.73 Kbps
PostgreSQL primary node	15.55 Kbps	21.71 Kbps
File server	6 Kbps	2.84 Kbps

Graph



Graph



05

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CREATINGA AND TESTING THE SCHEDULED REPORTS

CREATING SCHEDULED REPORTS

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The last step is to create and test scheduled reports

- Navigate to *Reports – Scheduled reports* and click *Create report*
- Enter the report name and select the dashboard which will be used in the report
- Select the report *Period* and *Cycle* and *Start time / Start date / End date*
- Provide the report *subject* and *message*
- Select the report *recipients*
- Provide an optional *description*

CREATING SCHEDULED REPORTS

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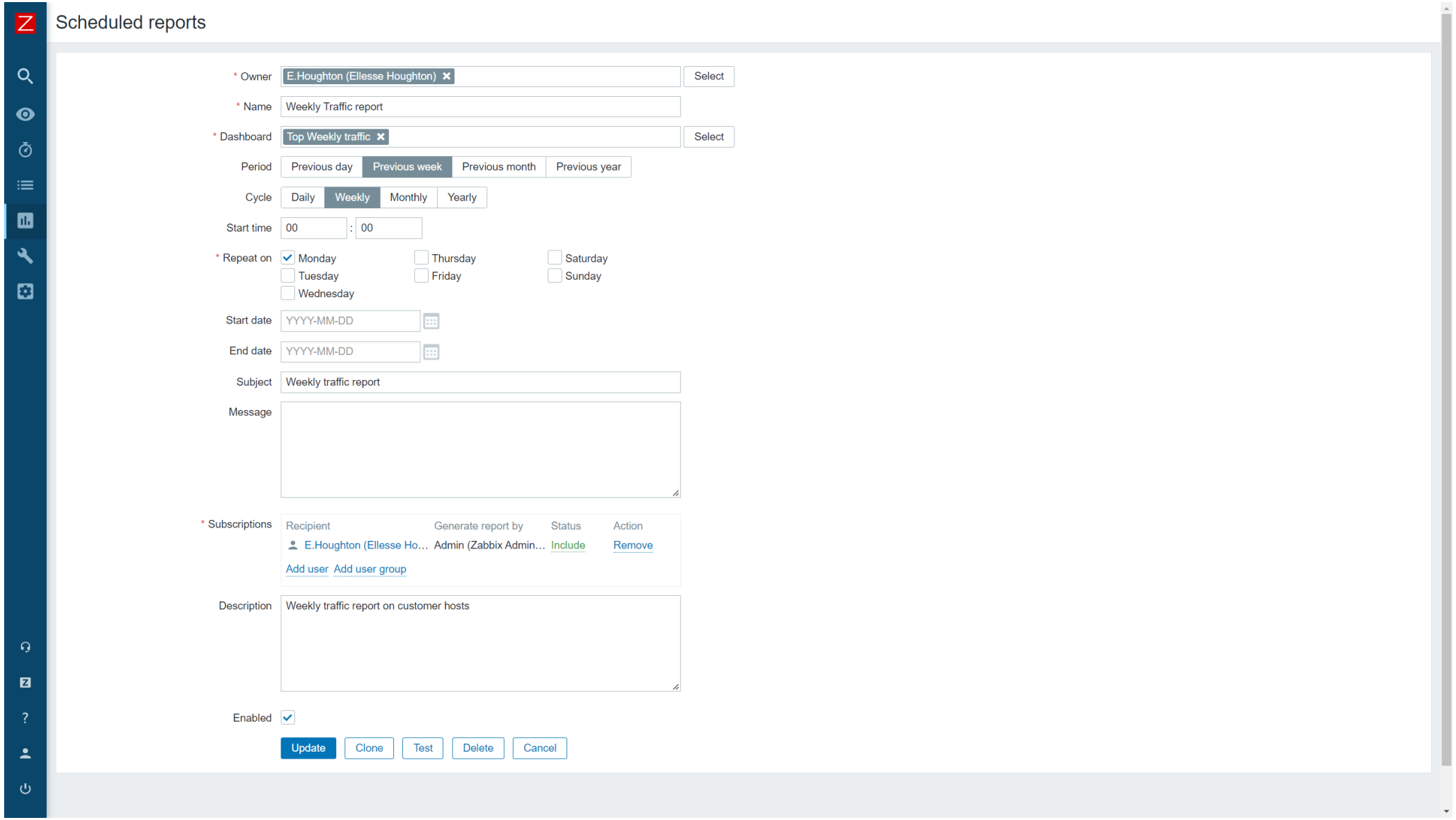

TEST THE SCHEDULED REPORT

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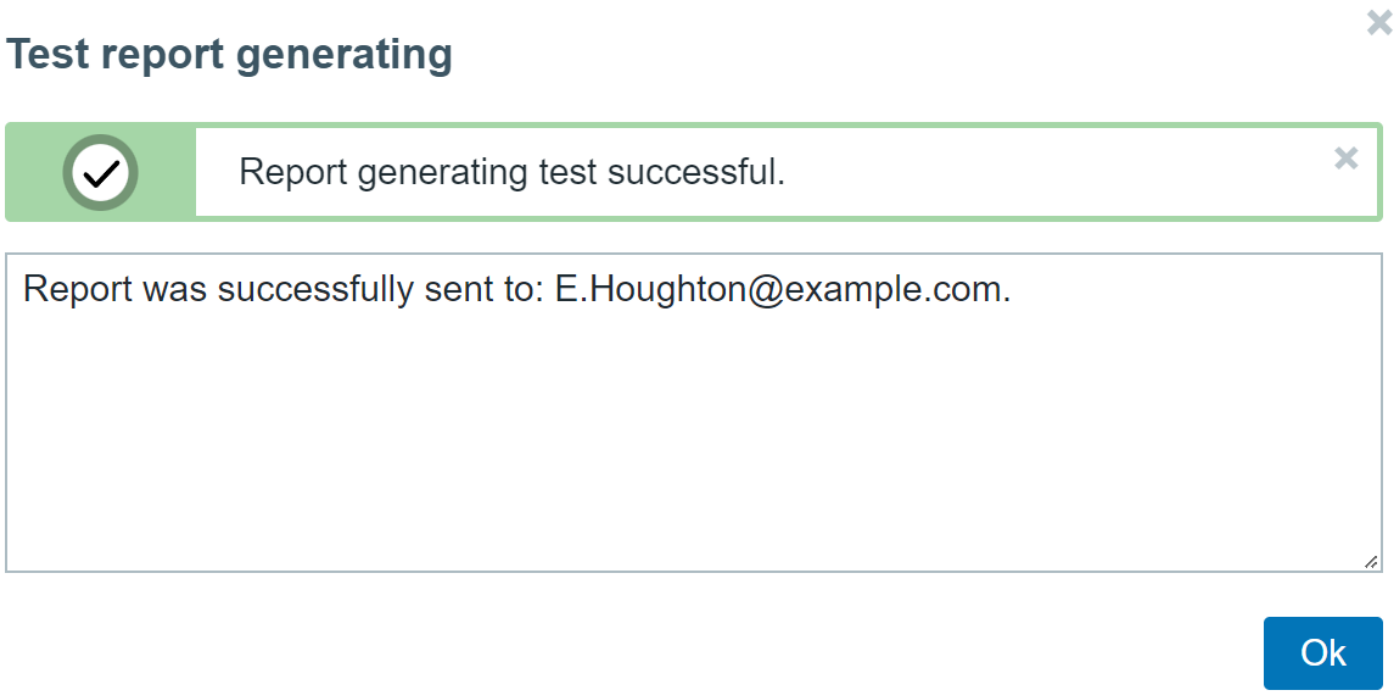
We can test the scheduled report to confirm that the reports and the Email media are configured correctly

- Click the *Test* button
- Check your mailbox



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Questions?

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Training schedule

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AVAILABLE TRAINING COURSES

Zabbix offers 4 standard training courses. Each course is designed for a particular type of user:

Level 1

Zabbix Certified User

Use Zabbix frontend to view information. Know potential of Zabbix

1 day

Requirements

None

Level 2

Zabbix Certified Specialist

Setup & configure Zabbix in SMBs or configure Zabbix in large companies

5 days

Requirements

Advanced computer literacy

Level 3

Zabbix Certified Professional

Manage big, distributed, highly loaded installations in large companies

3 days

Requirements

Zabbix Certified Specialist exam or attendance certificate

Level 4

Zabbix Certified Expert

Design & maintain highly efficient & loaded setups with expertise in API, HA/DR, and DB partitioning

5 days

Requirements

Requirements: Zabbix Certified 5.0 Specialist certificate

AVAILABLE EXTRA TRAINING COURSES

At the moment, Zabbix offers four Extra training courses. It is possible to choose one or several classes to study the features you require working with Zabbix professionally.

Automation and Integration with Zabbix API

The course is designed to provide a detailed and in-depth study of Zabbix API functionality - like import host groups, generate reports, or integrate with other systems.

1 day

Requirements
None

Advanced Zabbix Data Pre-processing

The course will cover how to extract and transform information from different sources using Zabbix built-in functionality - without using external tools or scripts.

1 day

Requirements
None

Advanced Zabbix Security Administration

The course will cover how to protect Zabbix internal communications and secure sensitive information like user credentials or encryption keys.

1 day

Requirements
None

Advanced Problem and Anomaly Detection with Zabbix

The course is fully dedicated to problem detection, from creating simple triggers to using new long-term analytics functions.

1 day

Requirements
None

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Thank you

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