

ZABBIX

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ENGLISH

5.4

SCHEDULED REPORT GENERATION

ARTŪRS LONTONS
TECHNICAL SUPPORT ENGINEER

ZABBIX



REPORTING IN 5.4

Zabbix version 5.4 makes the first step in bringing the end user out of the box scheduled reporting

- ✓ New web service component responsible for generating reports
- ✓ No need to use custom scripts
- ✓ Quick and simple to install
- ✓ Works with existing Email media types
- ✓ Respects user permissions and roles
- ✓ Ability to test the report before implementing it



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SCHEDULED REPORTS

New 'Scheduled reports' section added in 5.4

ZABBIX Demo Instance

Scheduled reports Create report

Filter

Name Show **All** Created by me Status **Any** Enabled Disabled Expired

Apply **Reset**

<input type="checkbox"/> Name ▲	Owner	Repeats	Period	Last sent	Status	Info
<input type="checkbox"/> DC1 problems report	Arturs	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> DC2 problems report	Arturs	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> DC Global view	Arturs	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> Management report	Admin (Zabbix Administrator)	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> Network team	John Smith	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> NOC	NOC manager	Weekly	Previous day	Never	Enabled	
<input type="checkbox"/> Website status	John Smith	Daily	Previous day	Never	Enabled	

0 selected **Enable** **Disable** **Delete** Displaying 7 of 7 found

CREATING A REPORT

Ability to create a scheduled report based on an existing dashboard

- ✓ Daily, Weekly, Monthly or Yearly report cycle
- ✓ Reports for Previous: Day/Week/Month/Year
- ✓ Restrict report generation by Start and End date

☰ Scheduled reports

* Owner

* Name

* Dashboard

Period

Cycle

Start time :

Start date

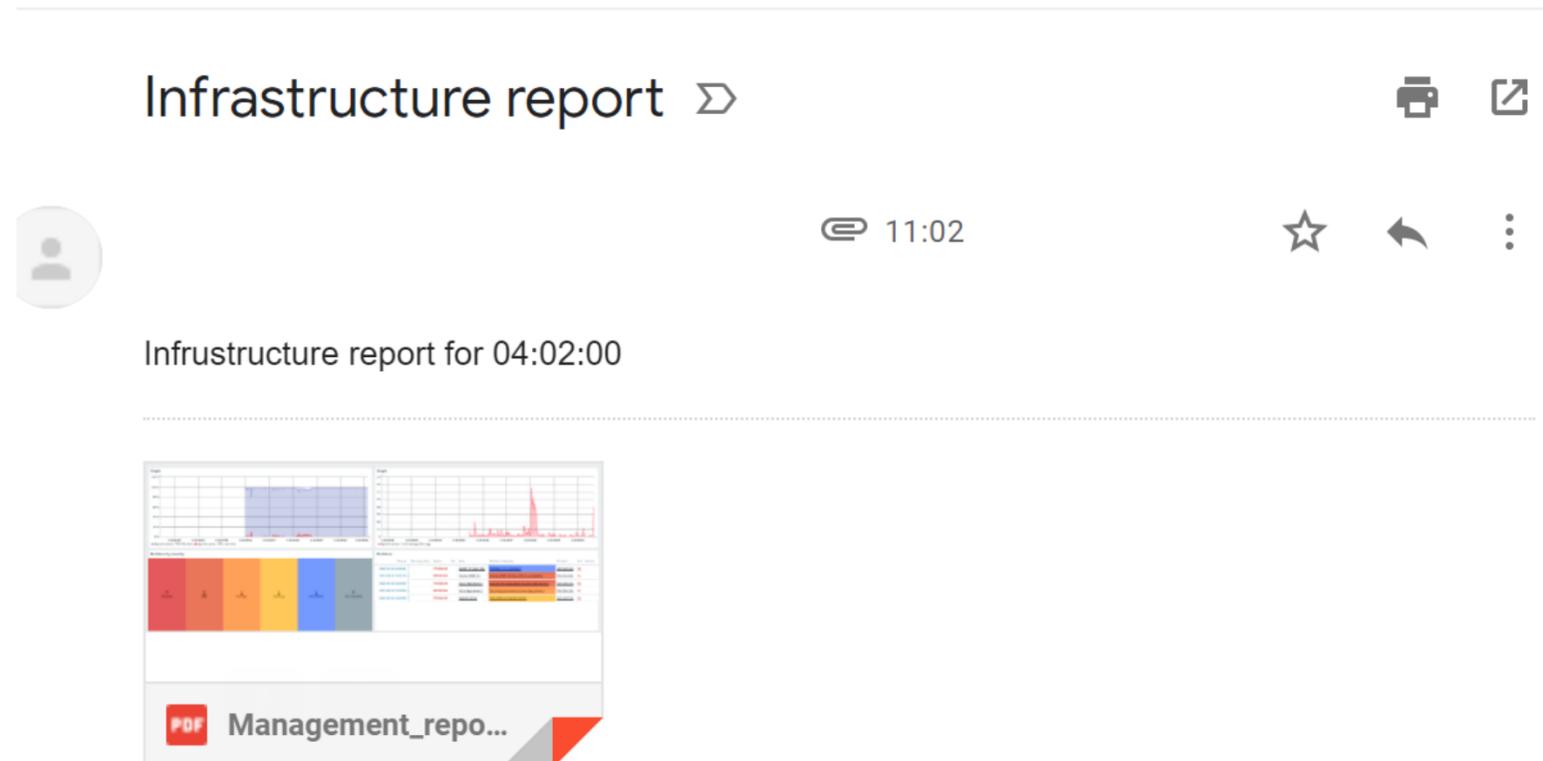
End date



RECEIVING A REPORT

Report will be generated in PDF format

- ✓ Report will contain the Dashboard information
- ✓ {TIME} macro can be used to provide the time of when the report was sent



RECEIVING A REPORT - EXAMPLE

Report will be generated in PDF format



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REPORTS – PERMISSIONS

After performing the upgrade to 5.4 you will see two new options in role permissions

- ✓ **Scheduled reports UI element**
 - Allows to view scheduled reports
 - Accessible to Super admin and Admin user Types

☰ User roles

The screenshot shows the 'User roles' configuration page for a user named 'NoC Admin' with the role 'Admin'. The page is divided into several sections, each with a list of UI elements and their corresponding permission checkboxes. The 'Reports' section is highlighted with a red box, showing that 'Scheduled reports' is checked. Other sections include Monitoring, Inventory, Configuration, and Administration, each with various sub-elements and their respective permission states.

Section	UI Element	Permission
Monitoring	Dashboard	<input checked="" type="checkbox"/>
	Overview	<input checked="" type="checkbox"/>
	Discovery	<input checked="" type="checkbox"/>
	Problems	<input checked="" type="checkbox"/>
	Latest data	<input checked="" type="checkbox"/>
	Services	<input checked="" type="checkbox"/>
Inventory	Overview	<input checked="" type="checkbox"/>
	Hosts	<input checked="" type="checkbox"/>
Reports	System information	<input type="checkbox"/>
	Audit	<input type="checkbox"/>
	Scheduled reports	<input checked="" type="checkbox"/>
	Availability report	<input checked="" type="checkbox"/>
Configuration	Host groups	<input checked="" type="checkbox"/>
	Maintenance	<input checked="" type="checkbox"/>
	Discovery	<input checked="" type="checkbox"/>
	Templates	<input checked="" type="checkbox"/>
	Actions	<input checked="" type="checkbox"/>
	Services	<input checked="" type="checkbox"/>
Administration	General	<input type="checkbox"/>
	User groups	<input type="checkbox"/>
	Media types	<input type="checkbox"/>
	Proxies	<input type="checkbox"/>
	User roles	<input type="checkbox"/>
	Scripts	<input type="checkbox"/>
	Hosts	<input checked="" type="checkbox"/>
	Event correlation	<input type="checkbox"/>
	Triggers top 100	<input checked="" type="checkbox"/>
Notifications	<input checked="" type="checkbox"/>	

* At least one UI element must be checked.



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REPORTS – PERMISSIONS

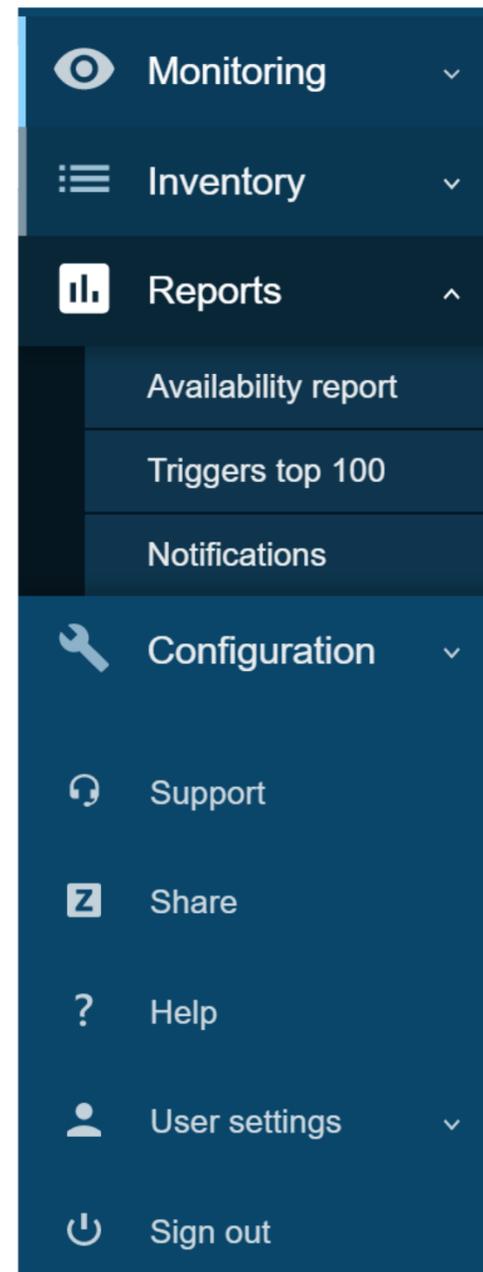
If **Scheduled reports UI element** is unchecked, the user won't be able to access the Scheduled reports section



Access denied

- You are logged in as "NoCUser". You have no permissions to access this page.
- If you think this message is wrong, please consult your administrators about getting the necessary permissions.

[Go to "Dashboard"](#)



- Monitoring
- Inventory
- Reports**
 - Availability report
 - Triggers top 100
 - Notifications
- Configuration
- Support
- Share
- Help
- User settings
- Sign out



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REPORTS – PERMISSIONS

After performing the upgrade to 5.4 you will see two new options in role permissions

- ✓ **Manage scheduled reports action**
 - Allows to create and edit scheduled reports
 - Accessible to Super admin and Admin user Types

Access to API

Enabled

API methods

Access to actions

- Create and edit dashboards
- Create and edit maps
- Create and edit maintenance
- Add problem comments
- Change severity
- Acknowledge problems
- Close problems
- Execute scripts
- Manage API tokens
- Manage scheduled reports**

Default access to new actions



REPORTS – PERMISSIONS

If **Manage scheduled reports action** is unchecked, the user won't be able to create new or view existing reports

☰ Scheduled reports

*** Owner** Admin (Zabbix Administrator)

*** Name** Management report

*** Dashboard** Inaccessible dashboard

Period

Cycle

Start time 06 : 46

Start date 2021-05-13

End date 2021-05-15

Subject Infrastructure report

Message Infrastructure report for {TIME}

*** Subscriptions**

Recipient	Generate report by	Status	Action
Admin (Zabbix Administra...	Admin (Zabbix Administra...	Include	Remove

[Add user](#) [Add user group](#)

Description Test

Enabled



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REPORTS – RECIPIENTS

Report subscriptions can contain users or user groups

- ✓ When selecting a user you can specify to include or exclude the user from receiving reports
- ✓ User group to host group permissions are still applied]
- ✓ We can specify which user is going to be generating the report
 - ⊗ The current user performing the configuration changes
 - ⊗ Or the recipient

Subscription [Close]

* Recipient

Generate report by Current user Recipient

Status Include Exclude



REPORT PREREQUISITES

Two additional packages need to be installed to enable the reports

- ✓ **zabbix-web-service** – additional report service
 - ⊗ Needs to be reachable from the Zabbix server
 - ⊗ By default listens on port **10053**
 - ⊗ Can be installed on a separate machine
- ✓ **Google Chrome** is required
 - ⊗ Chromium reported to work on some distros (not 100% tested)
 - ⊗ Google Chrome packages not included with Zabbix



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INSTALLING THE PREREQUISITES

- ✓ Install the **zabbix-web-service** package

```
#yum install zabbix-web-service
```

- ✓ Install the **Google Chrome** package

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

```
#yum install google-chrome-stable_current_x86_64.rpm
```



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CONFIGURING REPORTS – WEB SERVICE

Web service supports many different configuration options

✓ Logging

```
### Option: LogType - system (syslog), file, console (standard output)
### Option: LogFile - Log file location
### Option: LogFileSize - Size in MB before rotation
### Option: DebugLevel - 0 - 5
```

✓ List of allowed server addresses

```
### Option: AllowedIP List of comma delimited IP addresses, optionally in CIDR
notation, or DNS names of Zabbix servers
```

✓ Timeout settings

```
### Option: Timeout - Spend no more than Timeout seconds on processing (Default
- 3)
```



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CONFIGURING REPORTS – WEB SERVICE

Web service supports many different configuration options

✓ Listen Port

```
### Option: ListenPort - Service will listen on this port for connections from  
the server  
(Default - ListenPort=10053)
```

✓ Encryption settings

```
### Option: TLSAccept - unencrypted or cert  
### Option: TLSCAFile - pathname of a file containing top level CA(s)  
certificates  
### Option: TLSCertFile - pathname of a file containing the service certificate  
### Option: TLSKeyFile - pathname of a file containing the service private key
```



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CONFIGURING REPORTS - SERVER

In addition, server also now contains report related parameters

- ✓ Number of report writer instances

```
### Option: StartReportWriters - Number of pre-forked report writer instances.  
(Default - 0)
```

- ✓ Zabbix Web Service URL

```
### Option: WebserviceURL - URL to Zabbix web service, used to perform web  
related tasks. (No default value)
```

```
#Example: http://192.168.1.156:10053/report
```



CONFIGURING REPORTS – FRONTEND

As our last step, let's enable communication between frontend and the web service

- ✓ Available in **Administration – General – Other**
- ✓ Specify the **Zabbix frontend** url that will be reachable by the web service

Other configuration parameters ▾

Frontend URL	<input type="text" value="http://192.168.1.156/zabbix/"/>
* Group for discovered hosts	<input type="text" value="Discovered hosts"/> <input type="button" value="Select"/>
Default host inventory mode	<input type="radio" value="Disabled"/> <input type="radio" value="Manual"/> <input type="radio" value="Automatic"/>
User group for database down message	<input type="text" value="Zabbix administrators"/> <input type="button" value="Select"/>
Log unmatched SNMP traps	<input checked="" type="checkbox"/>



REPORTS – TESTING

Once the report has been configured you can send out a test report

* Owner

* Name

* Dashboard

Period

Cycle

Start time :

Start date

End date

Subject

Message

* Subscriptions

Recipient	Generate report by	Status	Action
Admin (Zabbix Administra...	Admin (Zabbix Administra...	Include	Remove

[Add user](#) [Add user group](#)

Description

Enabled



Currently test reports do not resolve the {TIME} macro



COMMON ISSUES

Make sure that the user has a properly configured Email media

- ✓ Make sure that the Email media type settings are properly configured
- ✓ Test the media type
- ✓ Test the report

<input type="checkbox"/> Name ▲	Owner	Repeats	Period	Last sent	Status	Info
<input type="checkbox"/> DC2 problems report	Arturs	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> DC Global view	Arturs	Daily	Previous day	Never	Enabled	
<input type="checkbox"/> Management report	Admin (Zabbix Administrator)	Daily	Previous day	2021-05-13 16:49	Enabled	
<input type="checkbox"/> Network team	John Smith	Daily	Previous day	Never		
<input type="checkbox"/> NOC	NOC manager	Weekly	Previous day	Never		
<input type="checkbox"/> Website status	John Smith	Daily	Previous day	Never	Enabled	

Displaying 6 of 6 found

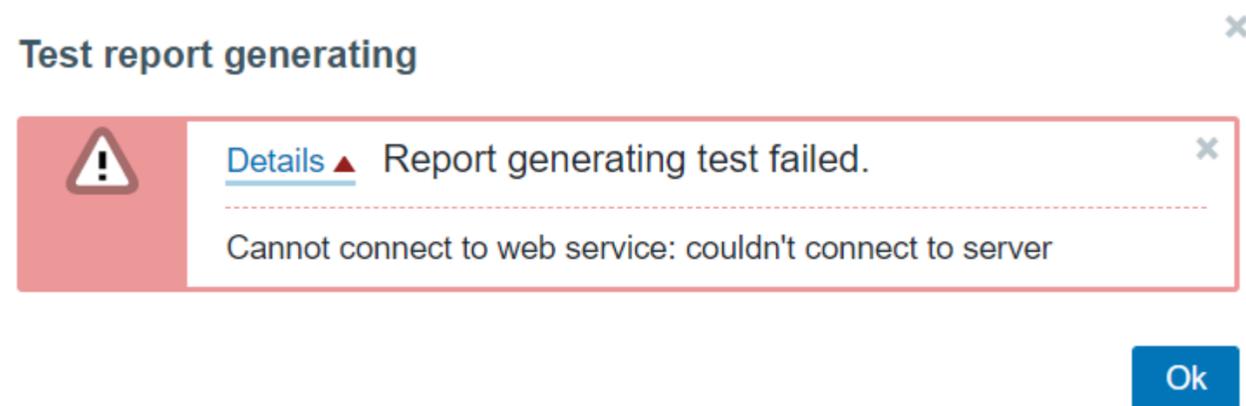
Failed to create 1 report(s):
No media configured for the report recipients.



COMMON ISSUES

Make sure that the correct Web service address is configured on the Zabbix server in **WebServiceURL** parameter

- ✔ Confirm that the Zabbix server can connect to Zabbix web service
- ✔ Check firewall settings if the Zabbix web service is running on a dedicated machine
- ✔ Make sure that third party security software isn't blocking the communication

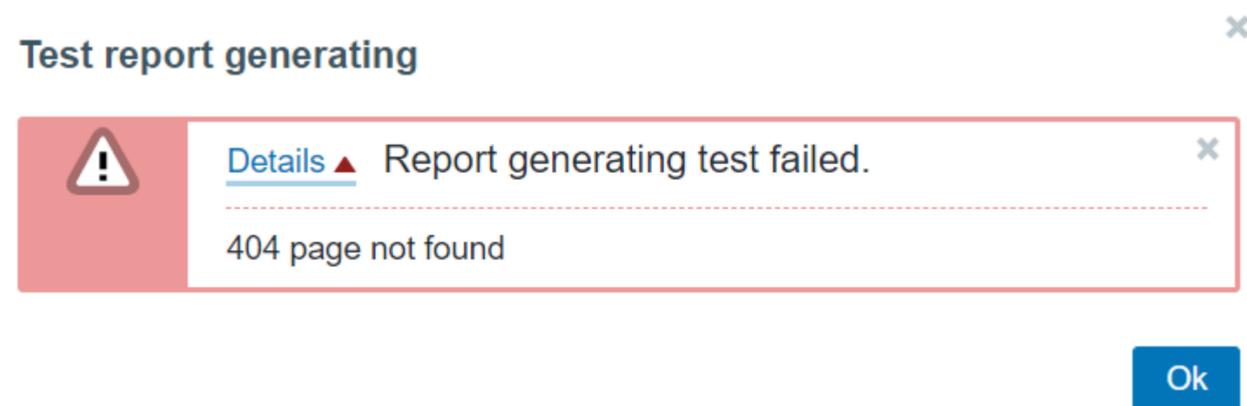


COMMON ISSUES

Make sure that the Web service URL is configured without any typos

- ⊗ Located in Zabbix server configuration file

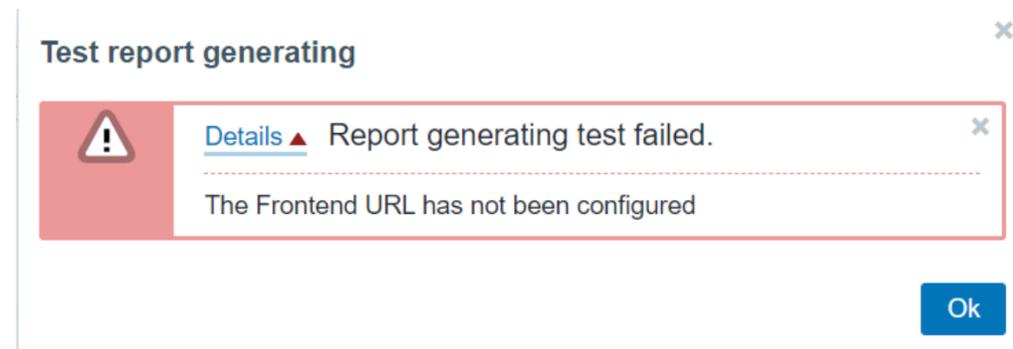
```
WebServiceURL=http://192.168.1.156:10053/reportwrong
```



COMMON ISSUES

Don't forget to assign the frontend URL in Administration – Other

- ✓ If the URL is misconfigured you might start receiving empty reports
- ✓ If the URL syntax is wrong, you will receive an error message about malformed URL



Other configuration parameters ▾

Frontend URL

* Group for discovered hosts

Default host inventory mode

User group for database down message

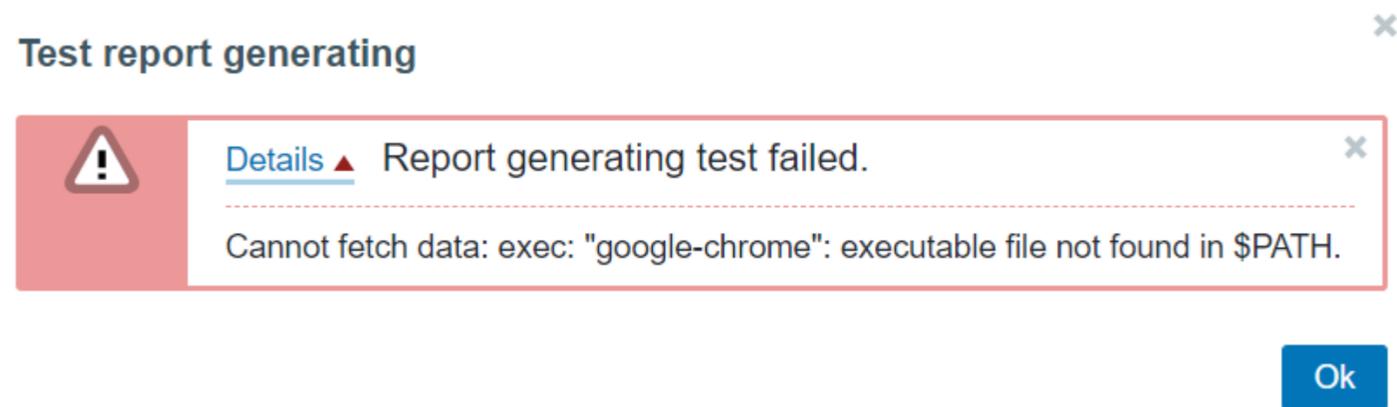
Log unmatched SNMP traps



COMMON ISSUES

Remember that Google Chrome does not come pre-packaged with Zabbix!

- ✓ Install Google Chrome separately
- ✓ Make sure that Google Chrome is available via \$PATH environmental variable



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THANK YOU!
QUESTIONS?

