Checkmk #10



Cloud monitoring made simple

The future of multi-step workflows



Pung ManosroiProduct Manager
Checkmk GmbH











Let's set up Cloud Monitoring in Checkmk

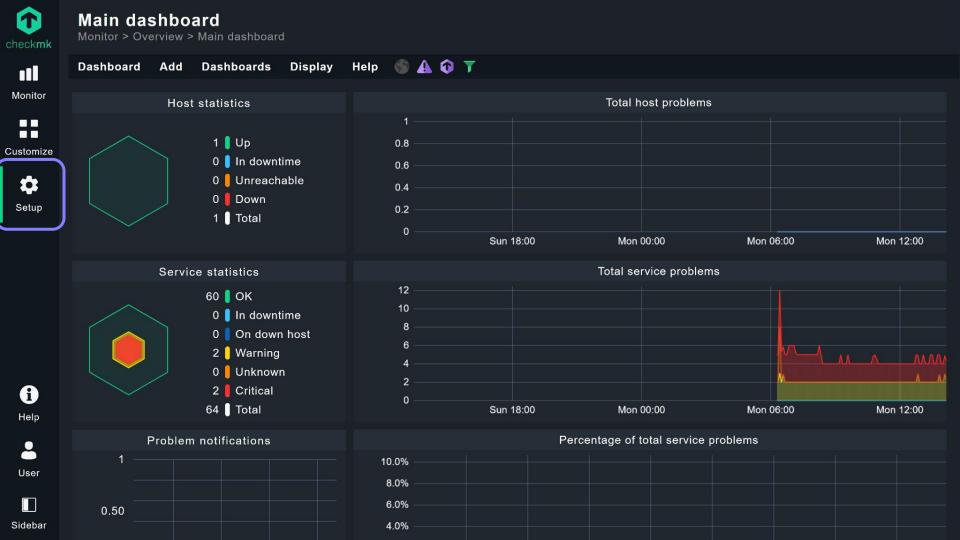
How hard could it be?

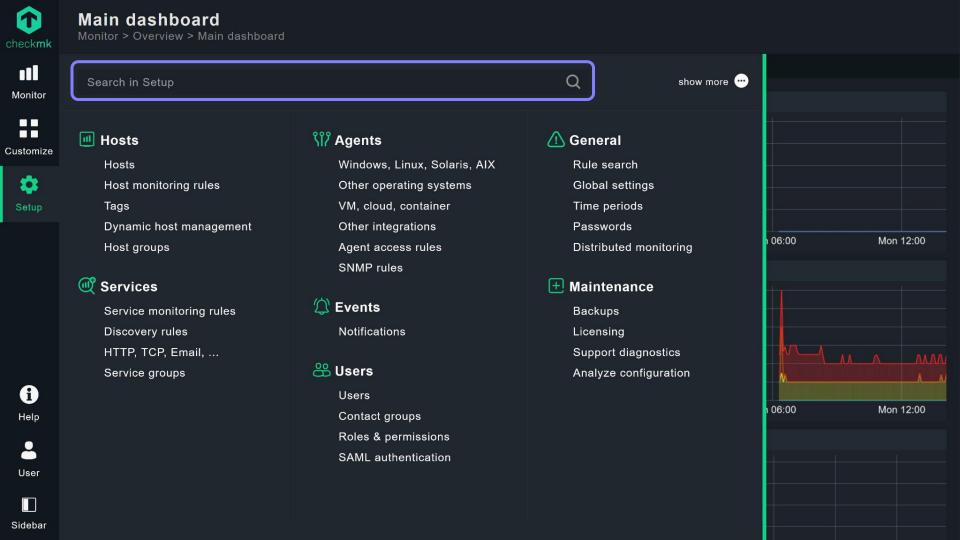


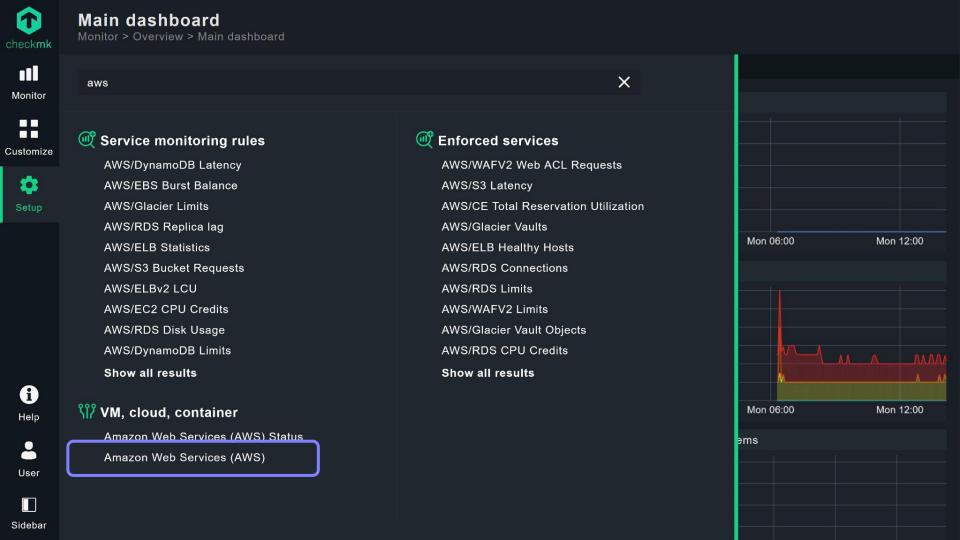


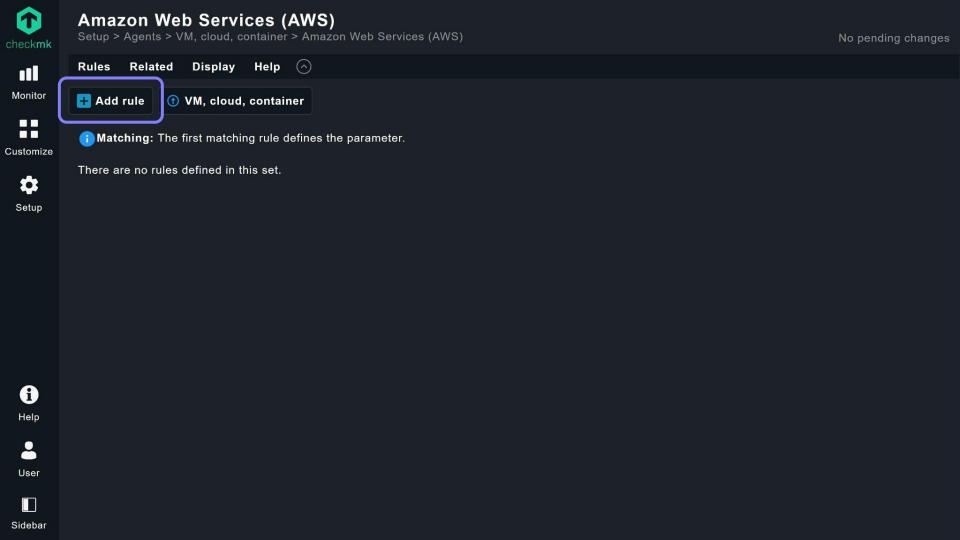


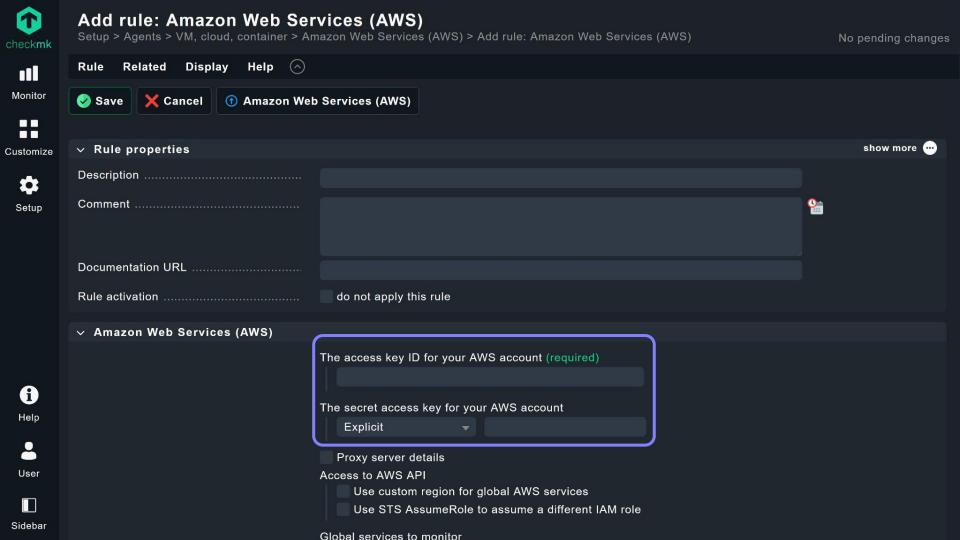


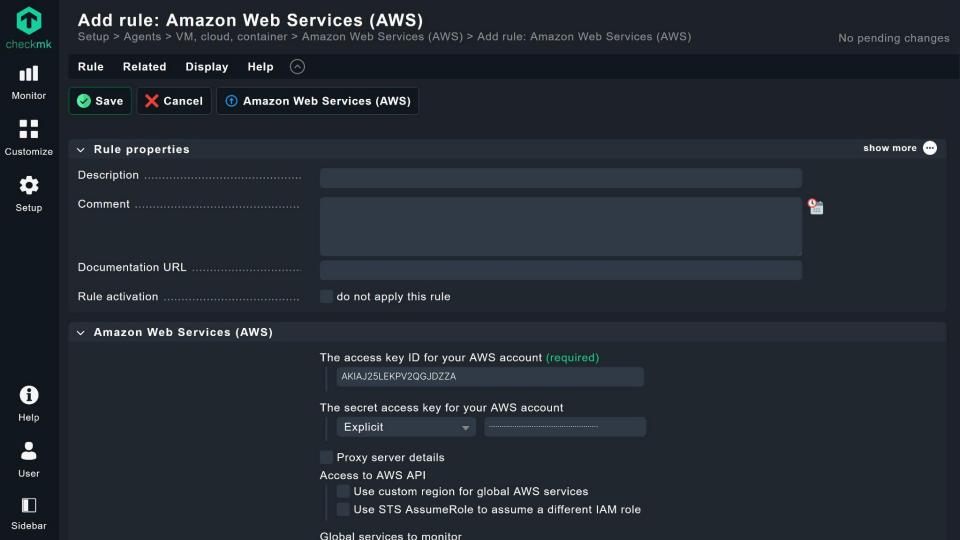


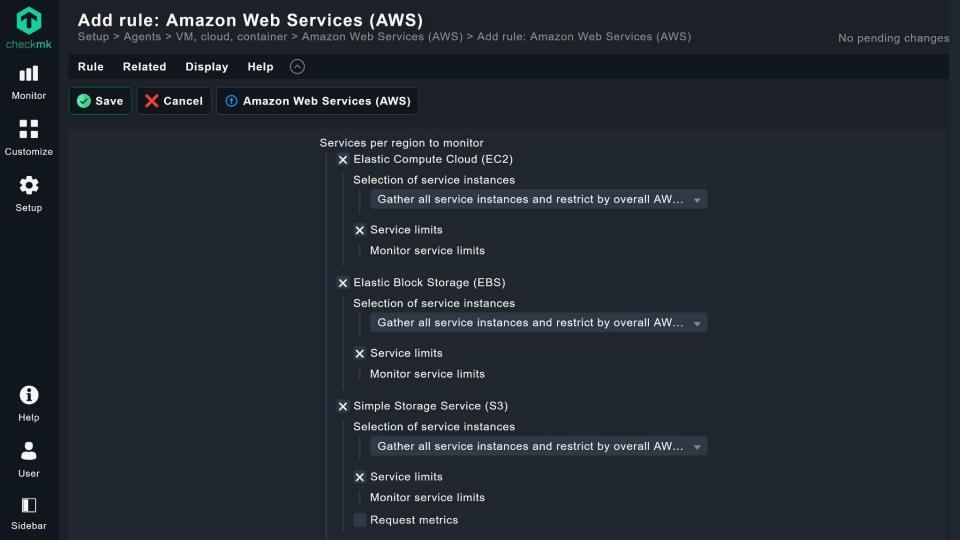


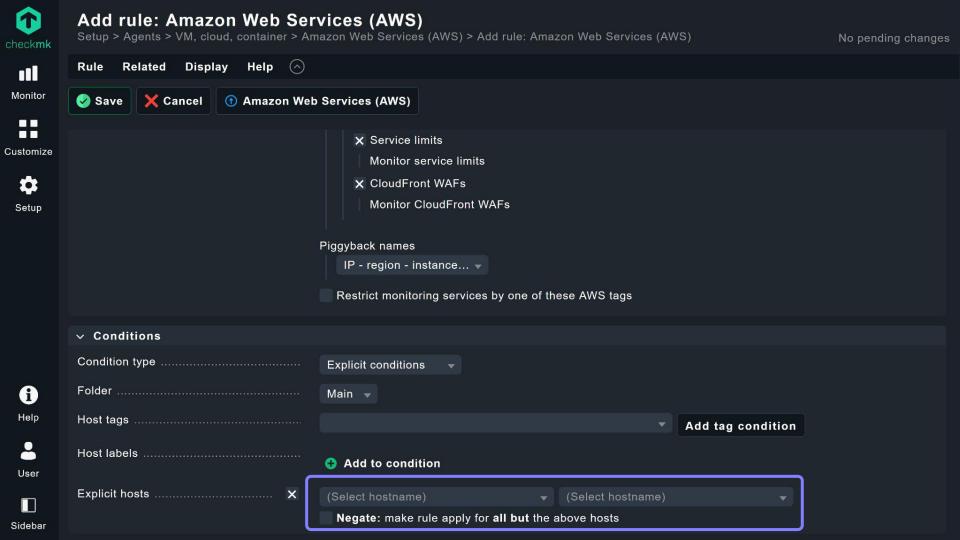


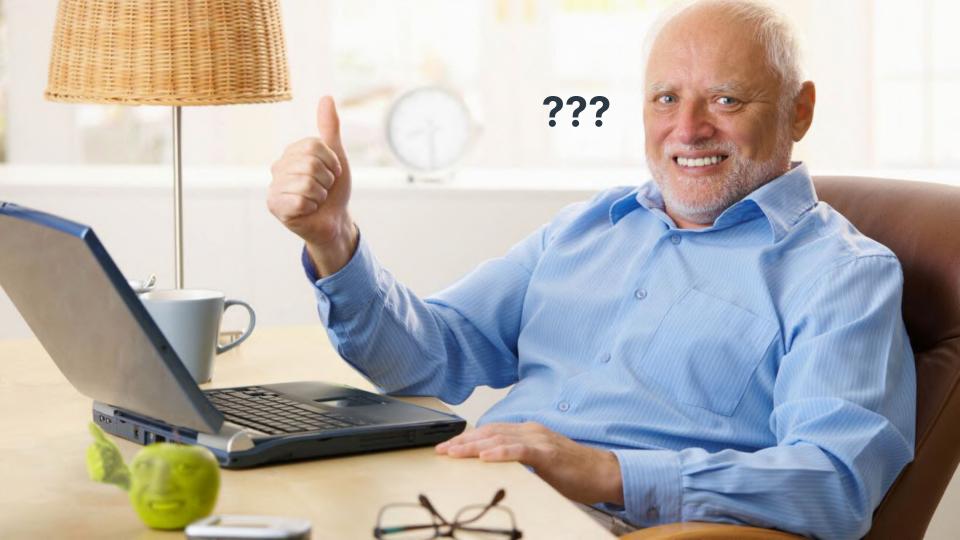


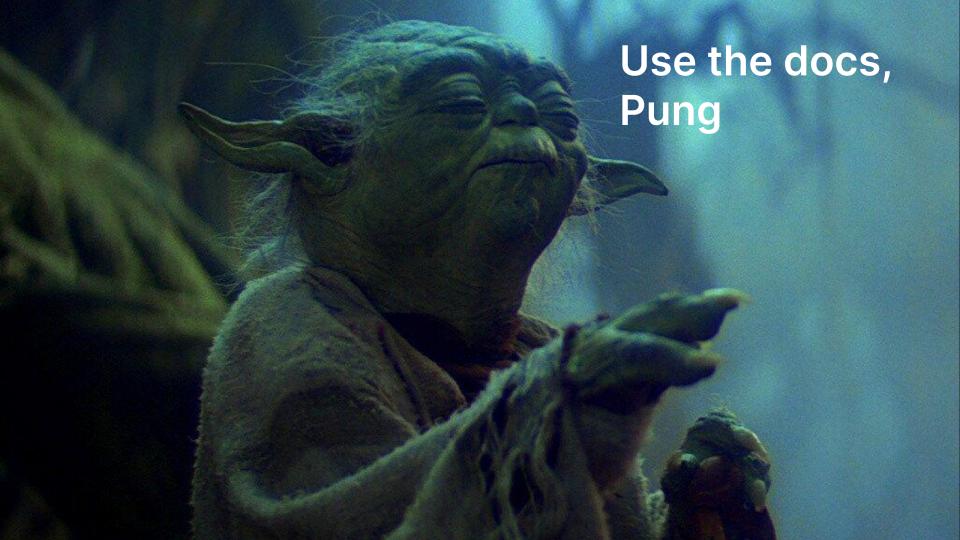












check**mk**

2. Beginner's Guide

4. Administration of Checkmk

3. Installation

5. Configuration

1. Welcome to Checkmk

Monitoring Amazon Web Services (AWS)

Related Articles *

Last modified on 11-Jul-2023

Edit this page on GitHub



Checkmk includes a extensive module for monitoring Amazon Web Services (AWS), consisting of a connector to AWS and a comprehensive collection of check plug-ins that retrieve and evaluate various metrics and statuses for you.

In addition to general information about the costs 2 that are incurred by your AWS environment and the current status ☑ of AWS in your region, you can monitor the following AWS products with all editions of Checkmk:

- Elastic Compute Cloud (EC2) [2]
- Elastic Block Store (EBS) [2]
- Relational Database Service (RDS) 🗹
- DynamoDB
- Elastic Load Balancing (ELB) Application, Network, Classic
- CloudWatch
- AWS Web Application Firewall (WAF)

With the Checkmk Cloud Edition you can also include the following products in your monitoring system:

- AWS Lambda 🖸
- Elastic Container Service (ECS) [2]
- Route 53 🖸
- CloudFront

- 1. Introduction
- 0 Θ

0

Monitoring agents

6. Monitoring systems

6.1. Checkmk agents and SNMP Automatic agent updates

Monitoring Linux

Monitoring Linux in legacy mode

Monitoring Windows

Monitoring FreeBSD

Monitoring via SNMP

6.2. Agent extensions

The HW/SW inventory Monitoring files

Monitoring Oracle databases

Monitoring MySQL

Monitoring MSSQL

Monitoring MSSQL with the legacy plug-in

Monitoring time-based processes

(Cronjobs) The spool directory

About Checkmk -

Learn -

On this page

1. Introduction

monitoring

2. Concrete implementation of AWS

2.1. Hosts and services

2.2. Access to AWS

3. Preparing AWS for Checkmk

3.1. Creating a user

3.2 Permissions

3.3. Keys

3.4. Access to billing information

4. Setting up monitoring in Checkmk

4.1. Creating a host for AWS

4.2. Configuring the AWS agent

4.3. Services on the AWS host itself

4.4. Creating hosts for the EC2 instances Setting up dynamic host management

Manually creating hosts for EC2 instances

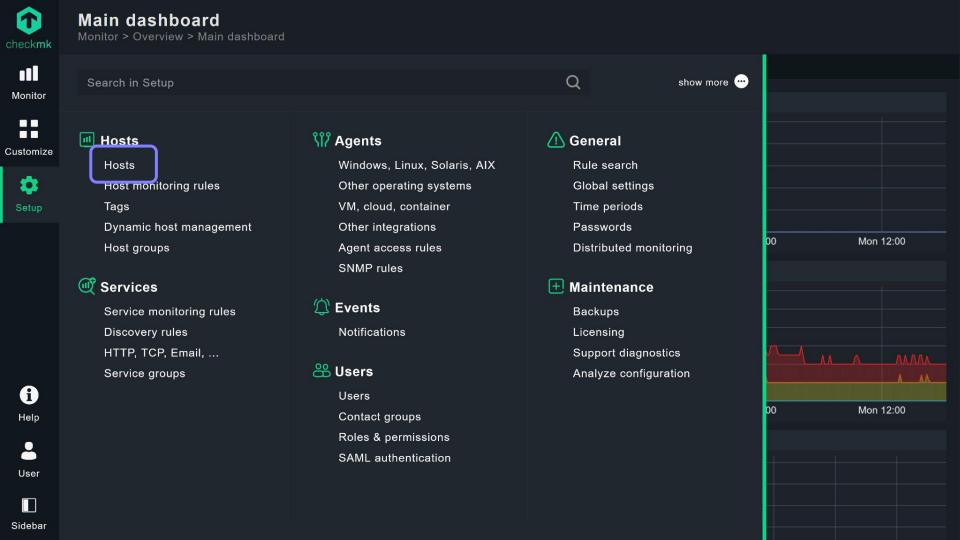
4.5. Hosts for the ELB (Classic Load Balancer)

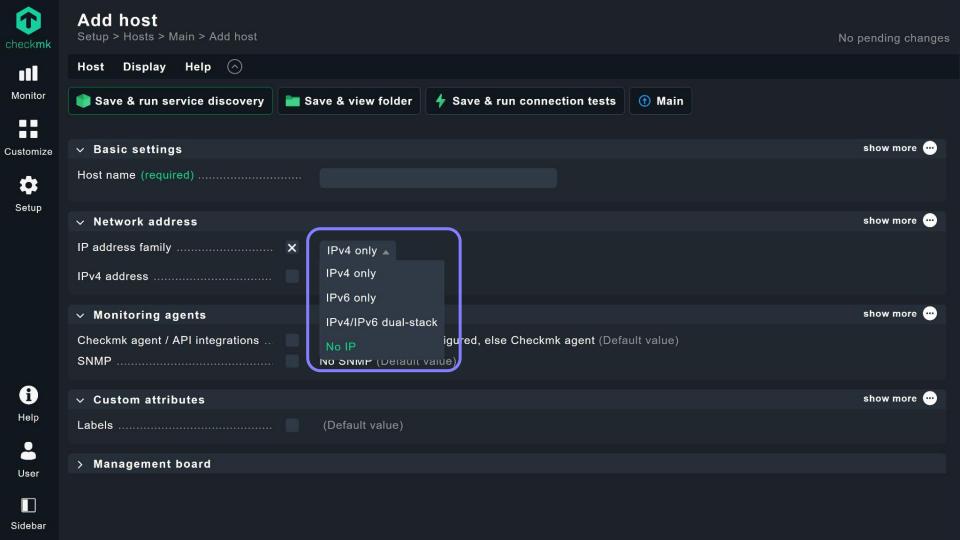
4.6. Monitor traffic statistics of S3 buckets

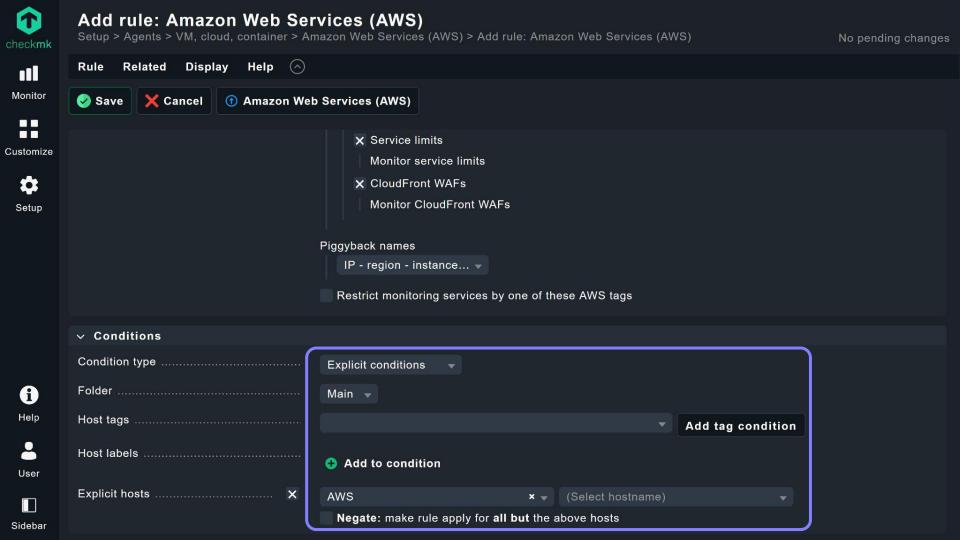
4.7. Monitoring limits

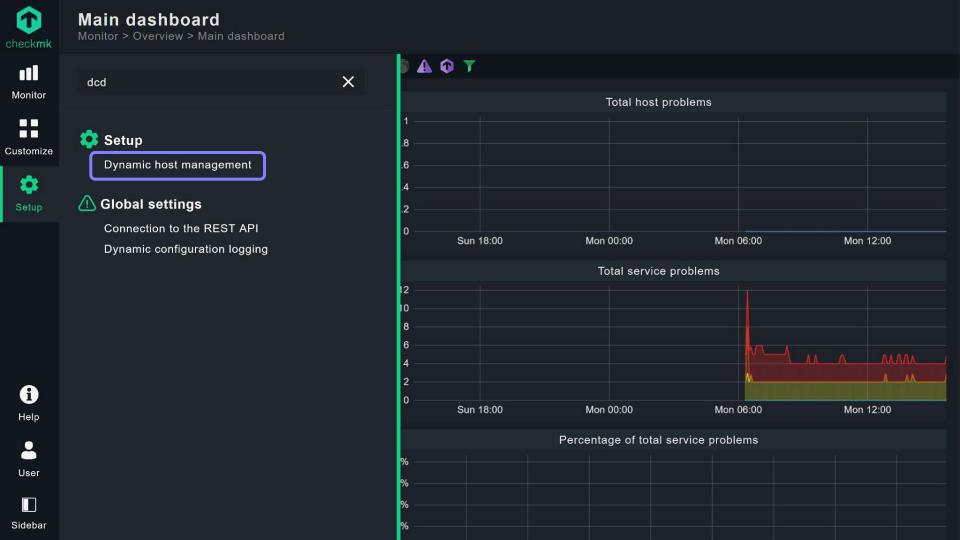
4.8. Further services

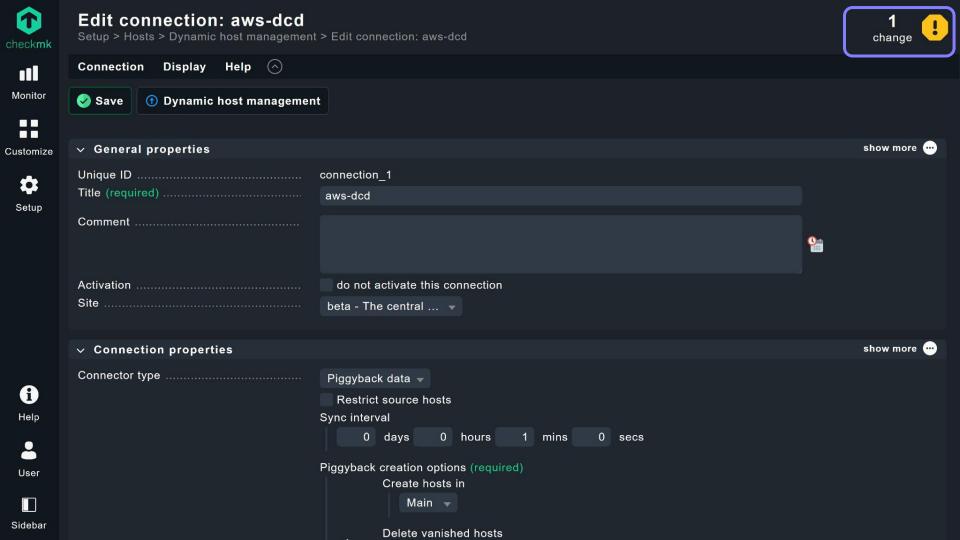
5. Dashboards

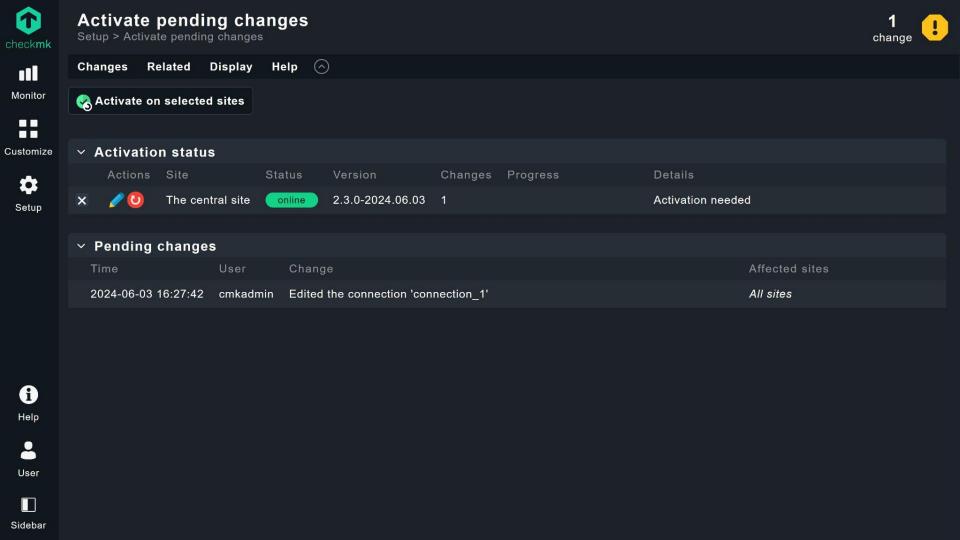


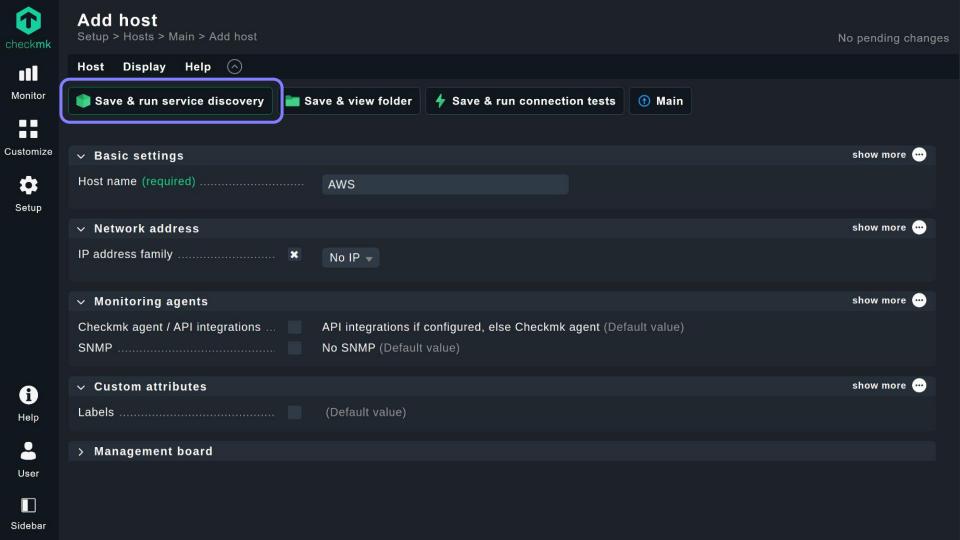


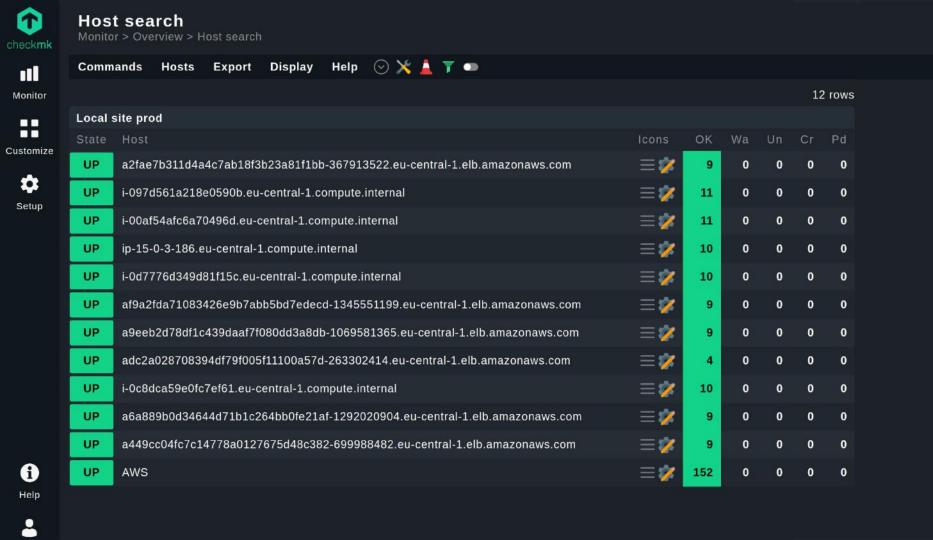


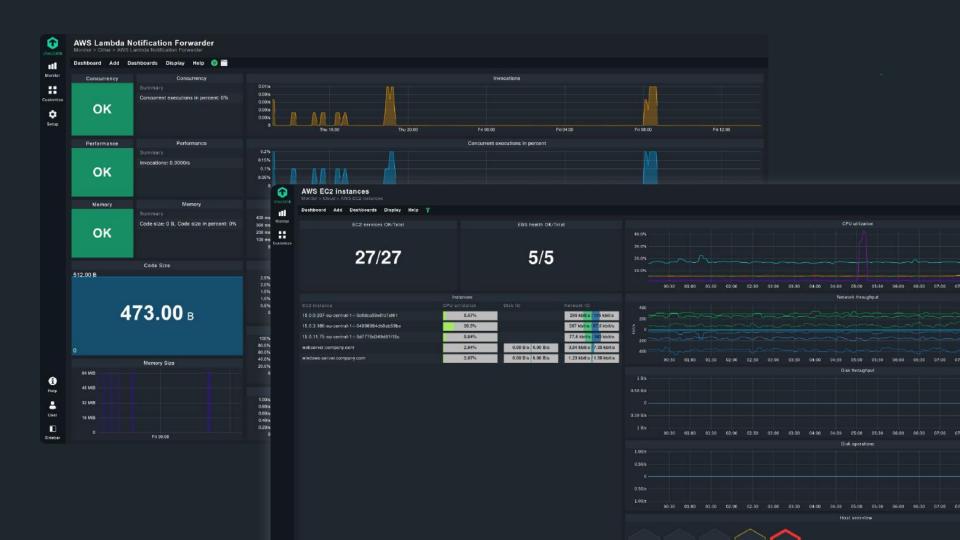














THE END







THE END?







What have I learned?

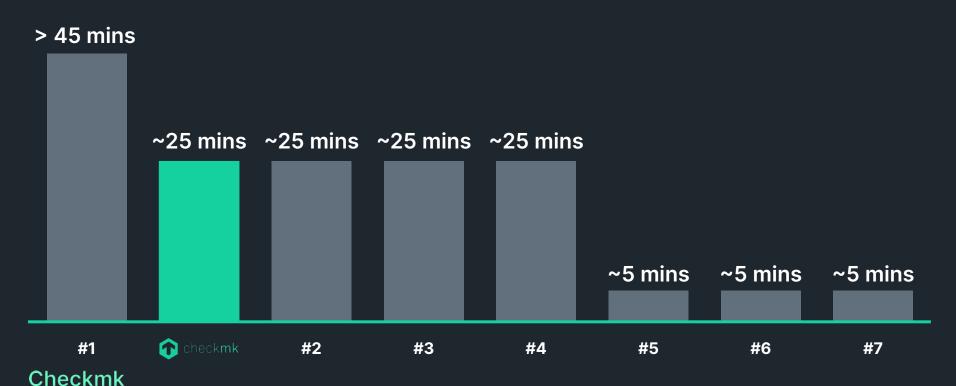


Time to set up AWS monitoring

Conference

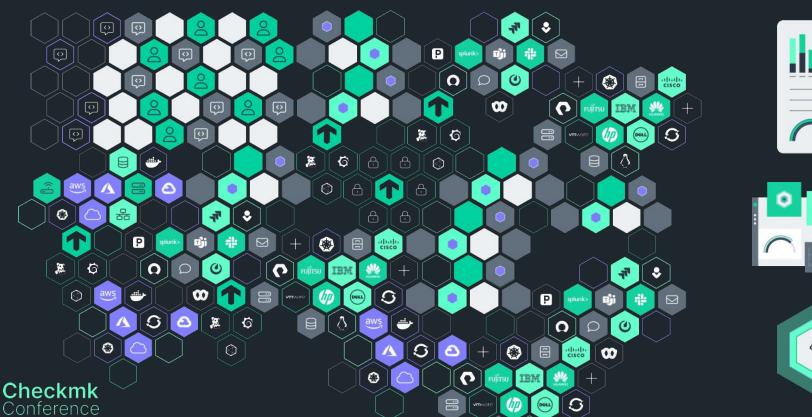


*Internal evaluation. Specifically for setting up AWS monitoring.



More features, more complexity











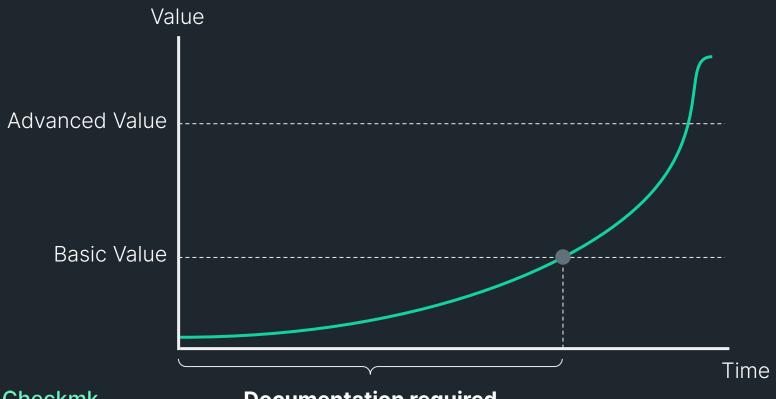
Making experience simple = Difficult tech and design challenges

(law of conservation of complexity)



Time to Value (TTV)





Documentation required

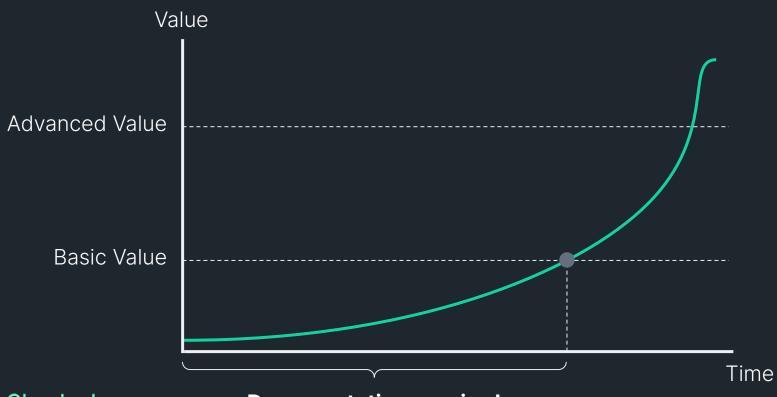


Goal: Bring TTV down to ~5-10 mins



Time to Value (TTV)



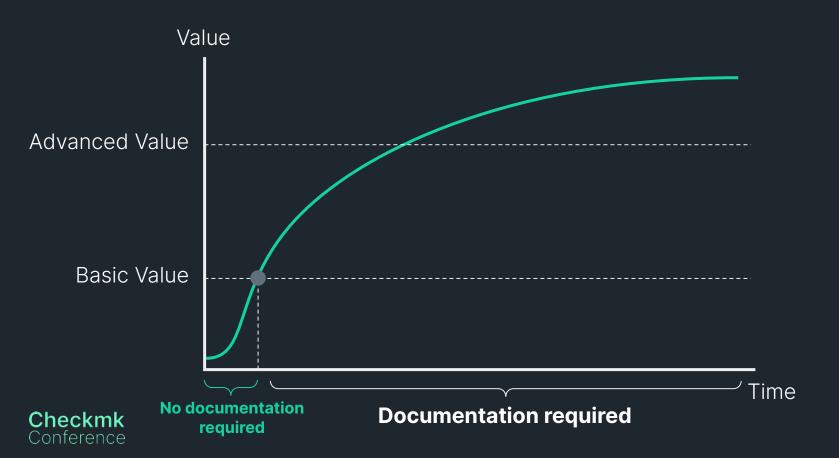




Documentation required

Time to Value (TTV)







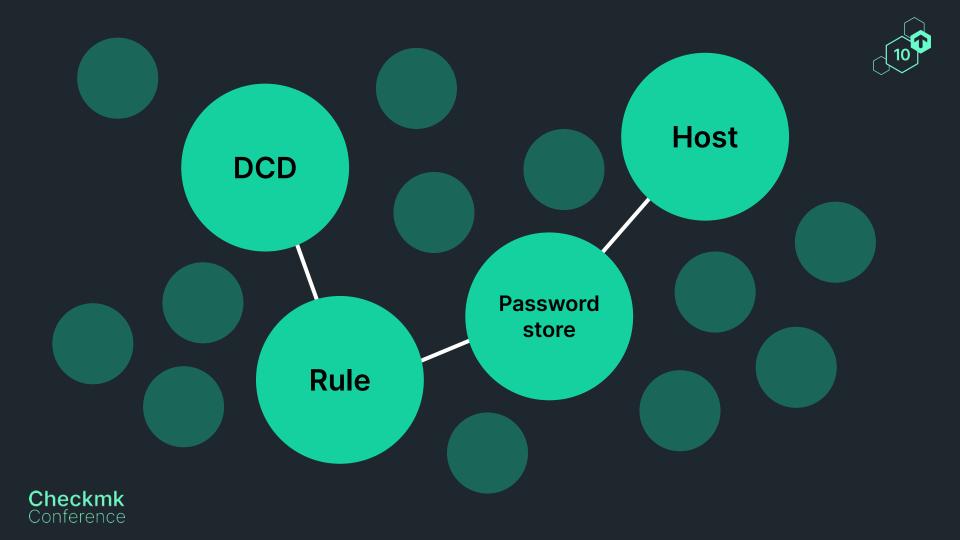
But how?



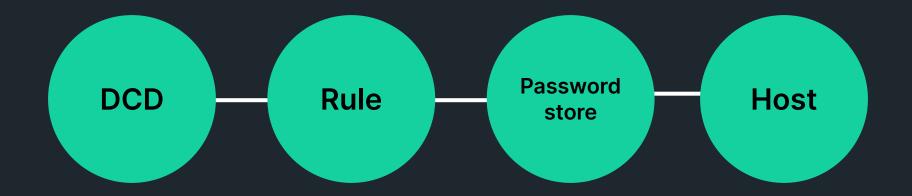






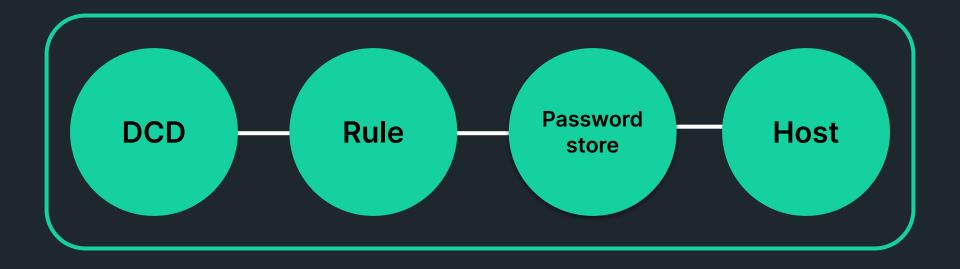








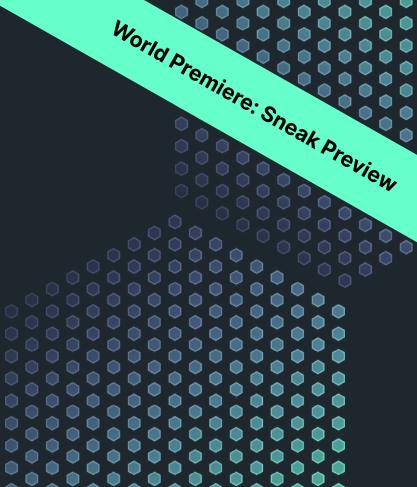




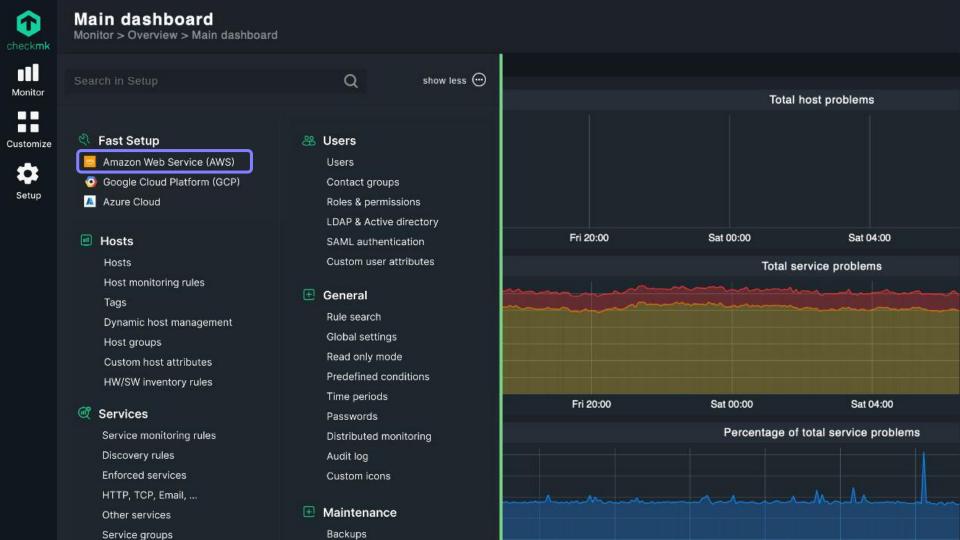


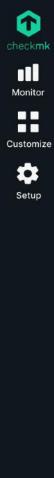
Multi-step workflows in Checkmk 2.4

*subject to change



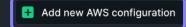






Integration: Amazon Web Services (AWS)

Setup > Integration > Amazon Web Services (AWS)









Customize



Setup

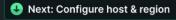
Prepare /	AWS for (Checkmk
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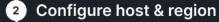
- 1. Go to AWS root account > Services > IAM.
- 2. Click "Add user" under Users, select "Access key Programmatic access", and attach the "ReadOnlyAccess" policy*.
- 3. Save the generated access key and secret key and use it below.

*Since this is a ReadOnlyAccess, we won't create any resources on your AWS account.

Access key ID:

Secret access key:





Name your host, path, and select region you would like to monitor

Configure services to monitor

Select & configure AWS services you would like to monitor

Review & run service discovery

Run service discovery









Customize



Setup

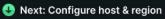
Prepare <i>i</i>	AWS for	Checkmk
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*Since this is a ReadOnlyAccess, we won't create any resources on your AWS account.

Access key ID: AKIAJ25LEKPV2QGJDZZA

Secret access key:



Configure host & region

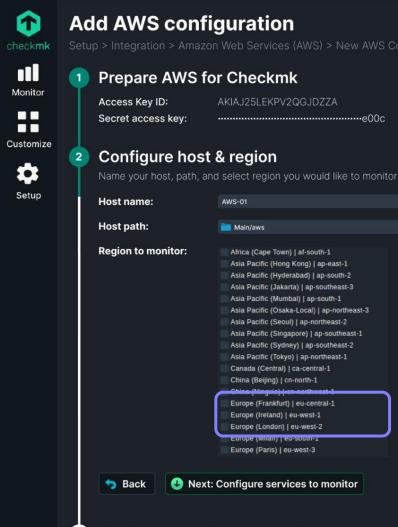
Name your host, path, and select region you would like to monitor

Configure services to monitor

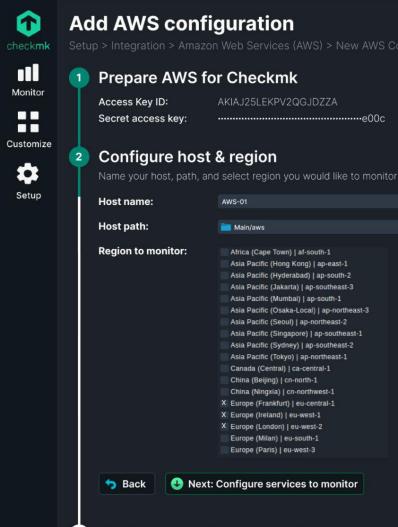
Select & configure AWS services you would like to monitor

Review & run service discovery

Run service discovery



3 Configure services to monitor



3 Configure services to monitor



Setup > Integration > Amazon Web Services (AWS) > New AWS Configuration

Prepare AWS for Checkmk

Access Key ID: AKIAJ25LEKPV2QGJDZZA

Secret access key: ----e00c

Configure host & region

Host name: AWS-01
Host path: Main/aw

Region to monitor: Europe (Frankfurt) | eu-central-1,

Europe (Ireland) | eu-west-1, Europe (London) | eu-west-2

Configure services to monitor

Select & configure AWS global services and services per region you would like to monitor

Global services:

Back

Services per region: Elastic Compute Cloud (EC2)

Elastic Block Storage (EBS)

Costs and usage (CE)

Simple Storage Service (S3)
Amazon S3 Glacier (Glacier)

Next: Review & run service discovery

Classic Load Balancing (ELB)

Application and Network Load Balancing (ELBv2)

Other: See other configuration ... (Optional)

4 Review & run service discovery

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Setup > Integration > Amazon Web Services (AWS) > New AWS Configuratio

Prepare AWS for Checkmk

Access Key ID: AKIAJ25LEKPV2QGJDZZA

Secret access key: -----e00c

2 Configure host & region

Host name: AWS-01

Host path: Main/aw

Region to monitor: Europe (Frankfurt) | eu-central-1,

Europe (Ireland) | eu-west-1, Europe (London) | eu-west-2

Configure services to monitor

Select & configure AWS global services and services per region you would like to monitor

Global services: Costs and usage (CE)

Services per region: X Elastic Compute Cloud (EC2)

X Elastic Block Storage (EBS)
 X Simple Storage Service (S3)

Amazon S3 Glacier (Glacier)

Next: Review & run service discovery

Classic Load Balancing (ELB)

X Application and Network Load Balancing (ELBv2)

Other: See other configuration ... (Optional)

4 Review & run service discovery

Davidson O erra samilas ellassorasis

Back



Prepare AWS for Checkmk

Access Key ID: AKIAJ25LEKPV2QGJDZZA

Secret access key: -----e00c

Configure host & region

Host name:

Host path: Main/aws

Europe (Frankfurt) | eu-central-1, Region to monitor: Europe (Ireland) | eu-west-1,

Europe (London) | eu-west-2

Configure services to monitor

Services per region:

Other:

Cost and usage (CE) Glolbal services:

Elastic Compute Cloud (EC2)

Elastic Block Storage (EBS) Simple Storage Service (S3)

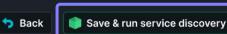
Restrict monitoring services by one of these AWS tags:

kev1: value1, value2

key2: value1, value2

Review & run service discovery

Please review the configuration above and then run service discovery. You can always change these configurations later.





Region to monitor:

Europe (Frankfurt) | eu-central-1,

Europe (Ireland) | eu-west-1, Europe (London) | eu-west-2



Setup

Monitor

Configure services to monitor

Glolbal services:

Cost and usage (CE)

Services per region:

Elastic Compute Cloud (EC2)

in Elastic Block Storage (EBS)

Simple Storage Service (S3)

Other:

Restrict monitoring services by one of these AWS tags:

- key1: value1, value2 key2: value1, value2
- **Review & run service discovery**

Please review the configuration above and then run service discovery. You can always change these configurations later.

Succeed! We have found the following AWS services:

- 32 EC2 instances
- 34 Lambda functions
- **89** S3 buckets
- 45 Other services

For the last step, head to the Activate changes by clicking the button below and follow the instructions.

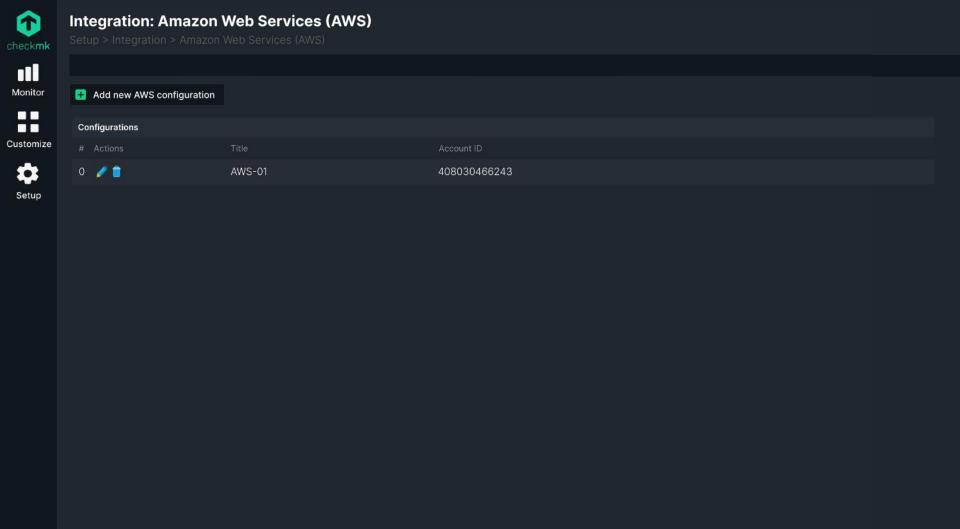


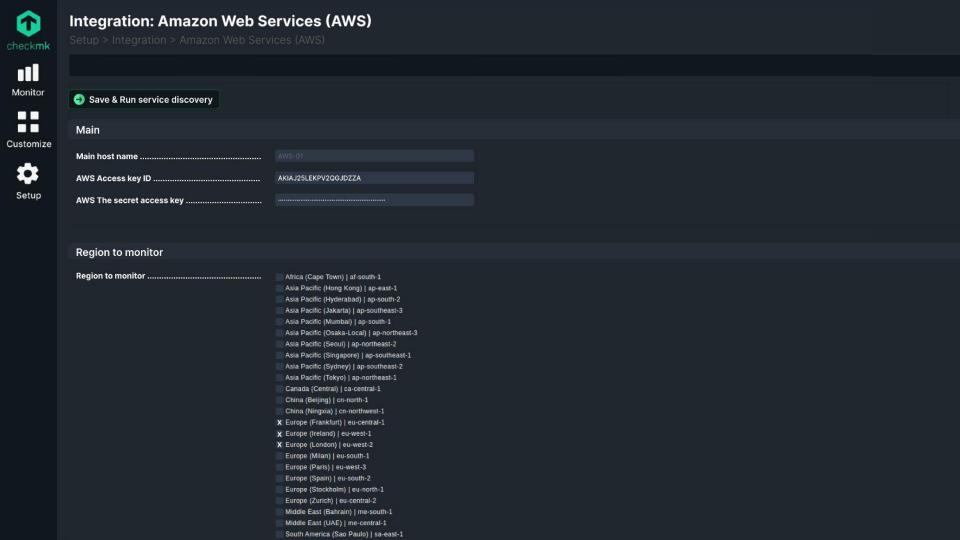
Go to activate changes

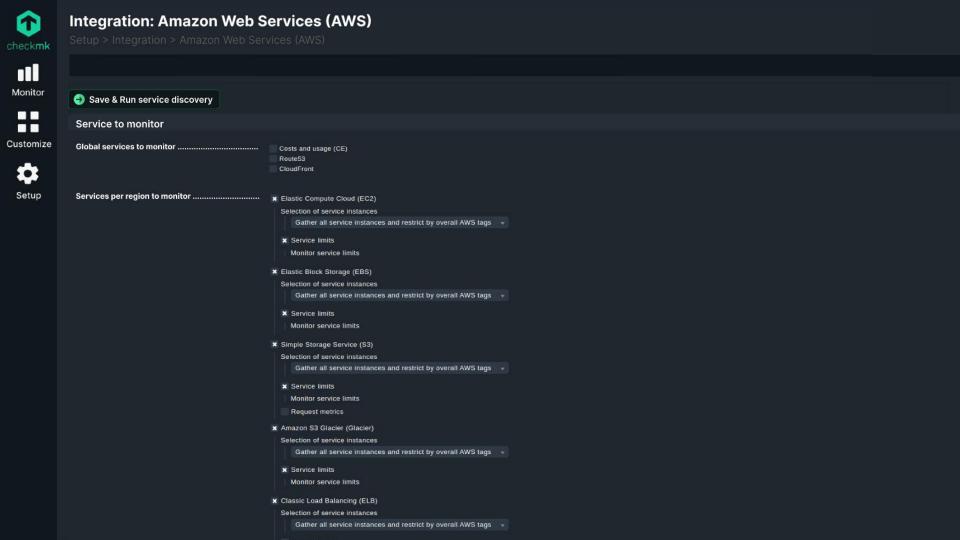
©	Services of Host AWS Monitor > Overview > All hosts > AWS > Services of Ho			
checkmk	Commands Host Services Export Display	Help	⊙	
ul	X Acknowledge problems 🛕 Schedule downtimes 🍞 Filter 💿 Show checkboxes 🛈 AWS			
Monitor				
	AWS			
	State Service		Summary	
Customize	OK Check_MK	≡ <u></u>	[special_aws] Success, [piggyback] Success (but no data found for this host), execution time 1.3 sec	
*	OK Check_MK Discovery		Services: all up to date, Host labels: all up to date	
	OK AWS Exceptions		AWSSectionsUSEast: No exceptions, AWSSectionsGeneric: No exceptions	
Setup	OK AWS/CloudWatch Alarms		Everything looks OK - 1 detail available	
	OK AWS/CloudWatch Alarms Limits eu-central-1	\equiv	No levels reached, 1 additional detail available	
	OK AWS/DynamoDB Limits eu-central-1	$\equiv \simeq$	No levels reached, 3 additional details available	
	OK AWS/EBS Limits eu-central-1	\equiv	Everything looks OK - 10 details available	
	OK AWS/EC2 Limits eu-central-1	≡≝	No levels reached, 25 additional details available	
	OK AWS/EC2 Summary		Instances: 6, stopped: 5, running: 1, 6 additional details available	
	OK AWS/ELB Limits eu-central-1	≡ <u>~</u>	No levels reached, 1 additional detail available	
	OK AWS/ELBv2 Limits eu-central-1	≡ <u>~</u>	No levels reached, 3 additional details available	
	OK AWS/Glacier Limits eu-central-1	≡ <u>~</u>	No levels reached, 1 additional detail available	
	OK AWS/Glacier Summary	≡ <u>~</u>	Total size: 0 B, Largest vault: test-vault-pung (0 B)	
	OK AWS/Glacier Vault: test-vault-pung	≡ <u>~</u>	Vault size: 0 B, Number of archives: 0, [Tags]: test tag mo1 : test2, test tag2sdsf: testtag-mo	
	OK AWS/RDS Limits eu-central-1	==	No levels reached, 15 additional details available	
	OK AWS/S3 Limits Global	= <u>~</u>	No levels reached, 1 additional detail available	
	OK AWS/S3 Objects awsdashboardbucket01	\equiv	Bucket size: 339 MiB, StandardStorage: 339 MiB, Number of objects: 2, Location: eu-central-1	
	OK AWS/S3 Objects awsdashboardbucket02	\equiv	Bucket size: 3.96 MiB, StandardStorage: 3.96 MiB, Number of objects: 1, Location: eu-central-1, [Tags] testkeys3-1: testvalues3-1	
	AWS/S3 Objects datadogintegration- forwarderstackforwarderbucket- levaqv3jumbg	≡ <u></u>	Bucket size: 0 B, Number of objects: 0, Location: eu-central-1, [Tags] aws:cloudformation:stack-id: arn:aws:cloudformation:eu-central-1:408030466243:stack/DatadogIntegration-ForwarderStack-ND03QCGCALL4/2d844510-9da2-11ee-ac05-02b323115abf, aws:cloudformation:stack-name: DatadogIntegration-ForwarderStack-ND03QCGCALL4, aws:cloudformation:logical-id: ForwarderBucket	
	OK AWS/S3 Summary	$\equiv \simeq$	Total size: 343 MiB, Largest bucket: awsdashboardbucket01 (339 MiB)	

~ 5 mins











The future of multi-step configuration workflows



