

# Webinar

## **Slim patch management voor hybride IT met Azure Update Manager**

17/10/2024

# Introduction



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What is Azure Update Manager?

# Chapter

# 01

# What is it


Update Manager is a unified service to help **manage and govern updates for all your machines.**

You can monitor Windows and Linux update compliance across your deployments **in Azure, on-premises, and on other cloud platforms** from a single dashboard.

You can also use Update Manager to make real-time updates or schedule them within a defined **maintenance window.**



Replaces **Azure Automation Update management**


Home >





# Azure Update Manager


Microsoft











- Overview
- Get started
- Manage
- Manage Azure Stack HCI
- Monitoring
- Support + troubleshooting


 Refresh


 Check for updates


 One-time update

 Schedule updates

 Settings

 Feedback

 7 out of 150 machine(s) don't have update data. Enable periodic assessment using Azure Policy or Update settings to regularly check for updates. [Enable now](#) →

 Automation Update Management has retired on 31st August, 2024. New VM onboarding is no longer supported. Migrate to Azure Update Manager to continue patching. Refer to guidance on migrating to Azure Update Manager [here](#). [Migrate Now](#) →

Subscription : 23 selected

Resource group : All

Resource type : All

Workloads : All

Location : West Europe

OS : All

Tags : All

Total machines ⓘ

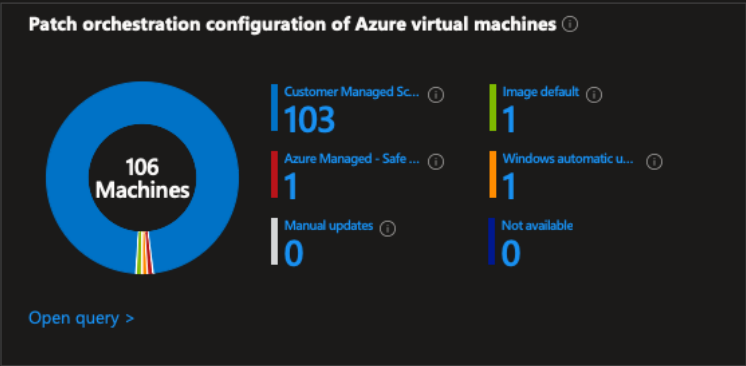
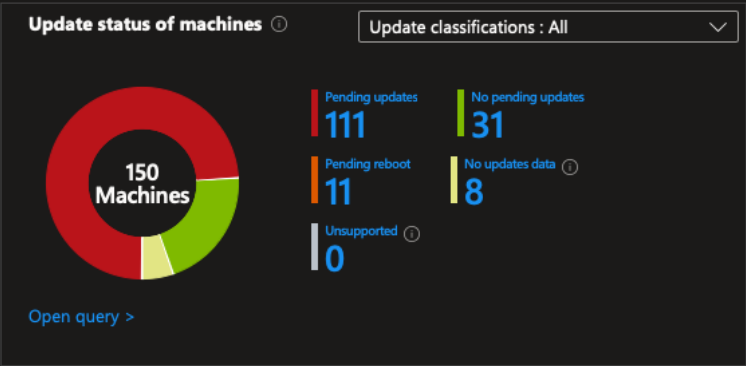
150

Azure virtual machines ⓘ

106






Arc enabled machines ⓘ

44



Update installation status

Last 30 Days

Total installation runs	Failed	Completed with warnings	Installation runs by operation type	
98 	12 	6 	Customer Managed Schedules	42
	Completed	In progress	Azure Managed - Safe Deployment	0
	80 	0 	Manual updates	56
Open query >				

Azure Update Manager  
Vs  
Automation Update  
Management

# Chapter

# 02

# Difference (support)

What	Azure Automation Update management	Azure Update Manager
Patching Linux	✓	✓
Patching Windows (2008 - ...)	✓	✓
Patching SQL	✗	✓
Pre/Post scripts	✓	✓
Migrated VMs	✓	✓
Arc-enabled servers	✗	✓ (5\$/server/month)
Host patching	✗	✓
Windows Client	✗	✗
Virtual Machine Scale Set	✗	✗
AKS	✗	✗

# Difference (components)

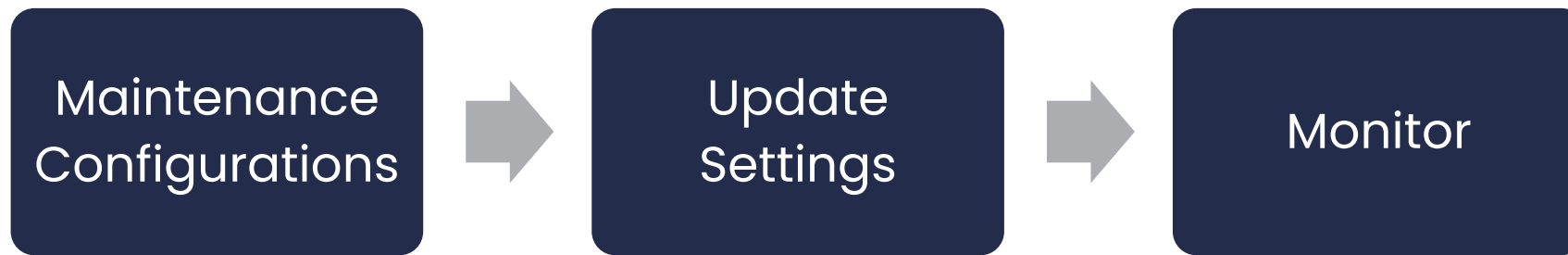
Azure Automation Update management	Azure Update Manager
Automation Account	Maintenance configurations
Automation runbooks	Pre and post events
Log Analytics Workspace for storing updates data	Azure Resource Graph for data storage



Implementation

# Chapter

# 03





# Maintenance Configurations

# Maintenance configurations

---

Patching schedules

---

Scope

---

Update types

# Maintenance Confi... <<

+ Create ⚙️ Manage view ▾ ⋮

Filter for any field...





Name ↑↓

-  mc-dev-wave-01 ...
-  mc-dev-wave-02 ...
-  mc-prd-wave-01 ...
-  mc-prd-wave-02 ...
-  mc-qua-wave-01 ...
-  mc-qua-wave-02 ...
-  mc-sbx-wave-01 ...
-  mc-sbx-wave-02 ...
-  mc-val-wave-01 ...
-  mc-val-wave-02 ...








## mc-dev-wave-01 | Schedule ☆ ⋮

Maintenance Configuration

 Search << + Edit schedule ↺ Refresh 🗨 Give feedback

-  Overview
-  Activity log
-  Access control (IAM)
-  Tags

### Settings

-  Dynamic scopes
-  Resources
-  Schedule
-  Updates
-  Events (Preview)
-  Properties
-  Locks

Starts on	Mon Feb 12 2024 20:00 ((UTC+01:00) Brussels, Copenhagen, Madrid, Paris)
Repeats	On the second Tuesday every month
Ends on	-
Maintenance window	3 hours 55 minutes

# Add resources

## Option 1: Add resources directly

- Any subscription
- Any Resource Group
- Any location
  - Does not cover new Virtual Machines

## Option 2: Dynamic scope, add resources based on

- Subscription
- Resource Group
- Resource type: Virtual Machine / Arc enabled server
- Location
- OS type: Linux / Windows
- Tags: any of / all of

Search <<

Overview

Activity log

Access control (IAM)

Tags

### Settings

Dynamic scopes

Resources

Schedule

Updates

Events (Preview)

Properties

Locks

### Automation

Tasks (preview)



Export template

### Help

Support + Troubleshooting

+ Add a dynamic scope — Remove dynamic scope Refresh Give feedback

Manage dynamic scopes assigned to this maintenance configuration. You can assign new dynamic scopes, see the status of all dynamic scopes currently assigned to the configuration, and by selecting dynamic scopes below either apply pending maintenance or remove them from this configuration.

Subscription	Resource group	Resource type	Location	OS type	Tags	Actions
Subscription- 1	-	-	-	windows, linux	(All) patching:development-1	
Subscription- 2	-	-	-	windows, linux	(All) patching:development-1	
Subscription- 3	-	-	-	windows, linux	(All) patching:development-1	
Subscription- 4	-	-	-	windows, linux	(All) patching:development-1	



## Add a dynamic scope

### Define a dynamic scope

Use filters below to define a dynamic scope which will be resolved at run time. You can preview the machines in the dynamic scopes now, but the final list of machines may change when the schedule starts. Azure machines in the preview below may not be configured for Schedule patching. Click on Save to select the required configuration.

Subscriptions \* 

All items selected

Filter by [Select](#)

### Select filter by

Resource groups

No items selected

Resource types

All items selected

Locations

No items selected

OS types

All items selected

Tags

No tags selected

# Schedule

## Parameters

- Startdate
- Timezone
- Time window
- Repeat every x hours / day / weekday / month
- Offset: update x days after repeat day
- Enddate

Limitations: Max window: 3h 55m

# Add/Modify schedule



Start on ⓘ

12-02-2024



8:00 PM

(UTC+01:00) Brussels, Copenhagen, Madri... ▾

Maintenance window \* ⓘ

Hours

Minutes

3

55

Repeats ⓘ

1

Month ▾

On the



1st ▾



Second ▾

Tuesday ▾

Offset (days after) ⓘ

0

Add end date ⓘ



Schedule summary

**Starts on:** Mon Feb 12 2024 20:00 ((UTC+01:00) Brussels, Copenhagen, Madrid, Paris)  
**Maintenance window:** 3 hours 55 minutes  
**Repeats:** On the second Tuesday every month  
**Ends on:** -



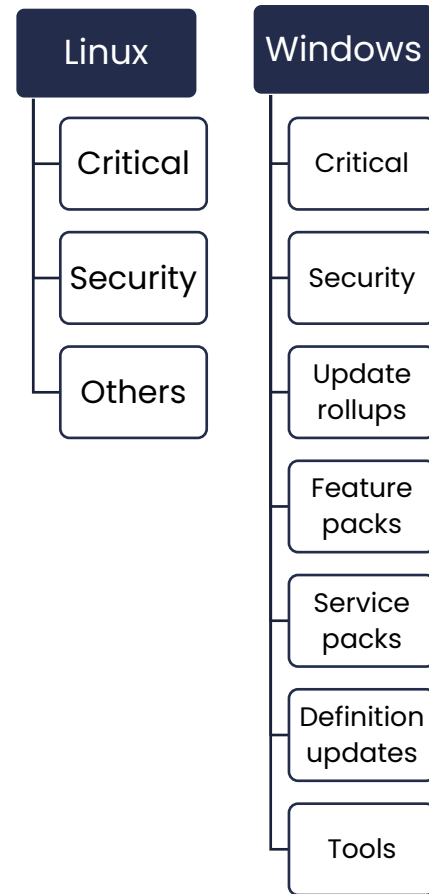
If the start date comes before the first scheduled occurrence based on the Repeats value set, the schedule will begin on the first occurrence date, not the start date.



You have a pre maintenance task configured which will not get triggered in the upcoming scheduled run. Please ensure to allocate at least 40 minutes for the pre maintenance task to execute before the maintenance schedule run.

# Update types

## Classifications



## Knowledge Base (KB)

- Include
- Exclude

# Pre and Post events

# Prerequisites

## Prerequisites

Register resource provider  
'EventGrid' on Subscription

Home > Maintenance Configurations > mc-dev-wave-01 > sub-management

**sub-management** | Resource providers ☆ ...  
Subscription

Search << 3 Re-register Unregister Refresh Feedback

eventgrid

	Provider ↑	Status
2	✓ Microsoft.EventGrid ...	✓ Registered

1

- Cost Management
  - Cost analysis
  - Cost alerts
  - Budgets
  - Advisor recommendations
- Billing
  - Billing profile invoices
- Settings
  - Programmatic deployment
  - Resource groups
  - Resources
  - Preview features
  - Usage + quotas
  - Policies
  - Management certificates
  - My permissions
  - Resource providers

# Subscribe to events

## Event Subscription

- System Topic
- Event types: pre / post maintenance events
- Different Endpoint types

[Basics](#) [Filters](#) [Additional Features](#) [Delivery Properties](#)

Event Subscriptions listen for events emitted by the topic resource and send them to the endpoint resource. [Learn more](#)

### EVENT SUBSCRIPTION DETAILS

Name *	EventSubscription1 ✓
Event Schema	Event Grid Schema ▼

### TOPIC DETAILS

Pick a topic resource for which events should be pushed to your destination. [Learn more](#)

Topic Type	🕒 Maintenance Configuration
Source Resource	📦 mc-dev-wave-01
System Topic Name	🖨️ mc-dev-wave-01

### EVENT TYPES

Pick which event types get pushed to your destination. [Learn more](#)

Filter to Event Types *	Post Maintenance Event ▼
-------------------------	--------------------------

### ENDPOINT DETAILS


Pick an event handler to receive your events. [Learn more](#)

Endpoint Type *	🔗 Web Hook <a href="#">(change)</a>
Endpoint *	<a href="https://webhook.site/544990d9-a898-406f-9b99-807c1333c253">https://webhook.site/544990d9-a898-406f-9b99-807c1333c253</a> <a href="#">(change)</a>

# Subscribe to events

## Filter events

- Specific subjects
- Specific attributes

 **Create Event Subscription** ...

Event Grid

Basics **Filters** Additional Features Delivery Properties

---

**SUBJECT FILTERS**

Apply filters to the subject of each event. Only events with matching subjects get delivered. [Learn more](#)

☒ Enable subject filtering

Subject Begins With

Subject Ends With

Case-sensitive subject matching ☐

**ADVANCED FILTERS**

Filter on attributes of each event. Only events that match all filters get delivered. Up to 25 filters can be specified. All string comparisons are case-insensitive. [Learn more](#)

Valid keys for currently selected event schema:

- id, source, type, specversion
- Custom properties, using "." as the nesting separator. (e.g. key, key1.key2)

Key	Operator	Value
No results		

[Add new filter](#)

☒ Enable advanced filtering on arrays ⓘ



# Subscribe to events

## Additional features

- Dead lettering
- Retry policies
- Expiration time



## Create Event Subscription ...

Event Grid

Basics

Filters

**Additional Features**

Delivery Properties

### DEAD-LETTERING

Save events that cannot be delivered to storage. [Learn more](#)

☐ Enable dead-lettering

### RETRY POLICIES

Customize how many times and for how long event delivery will be retried. [Learn more](#)

☐ Configure Retry Policies

### EVENT SUBSCRIPTION EXPIRATION TIME

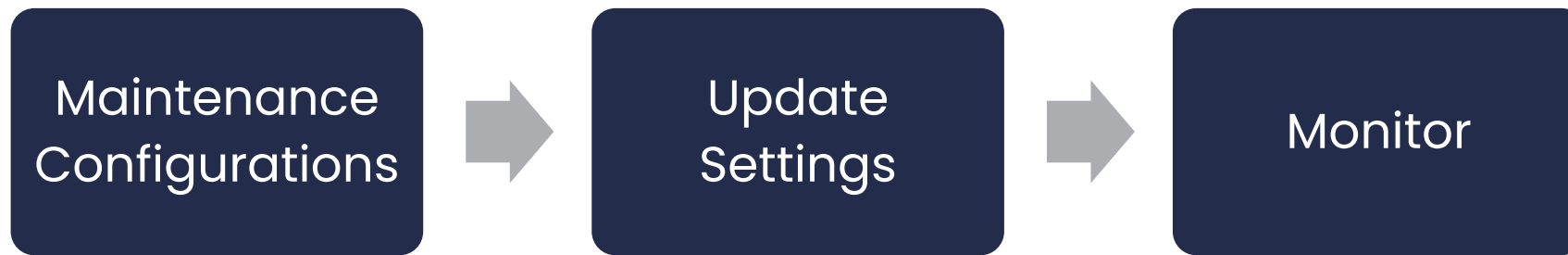
Set a time at which the event subscription will automatically be deleted.

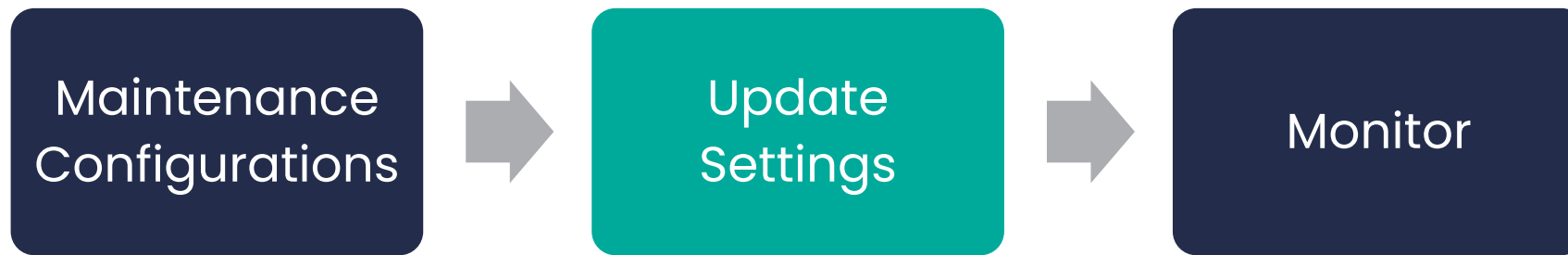
☐ Enable expiration time

### LABELS

Set metadata on this event subscription that is only visible through this experience. The metadata (labels) set does not affect the data plane behavior in any way. For example, labels do not show anywhere in the request or in the events that are sent to subscribers.

[+ Add Label](#)





# Update settings on Virtual Machines

Test-VM-01  
Virtual machine

Search

Size

Availability + scaling

Security

Identity

Microsoft Defender for Cloud

Backup + disaster recovery

Backup

Disaster recovery

Restore point

Operations

Auto-shutdown

Run command

Updates

Health monitoring

Automanage

Configuration management

Policies

Inventory

Updates

Leave new experience Refresh Check for updates One-time update Schedule updates Update settings Azure Update Manager Maintenance configurations

Manage VM updates at scale with the new Azure Update Manager experience. Try it now

Recommended updates History Scheduling

Operating system (guest) updates

Periodic assessment Yes Patch orchestration Customer Managed Schedules

Total updates 4 Critical updates 0 Security updates 0 Other updates 4

Last assessed: 6/10/2024, 08:12:46 AM

Search by update name, KB ...

Classifications : All selected Severity (MSRC) : All selected Reboot required : All selected Maximum publish date

Update name	Classifications	Severity (MSRC)	KB ID	Reboot required	Published date
2021-01 Update for Windows Server 2019 for x64-based Systems (KB4589208)	Updates	N/A	4589208	Can request reboot	3/9/2021, 12:00 AM
Windows Malicious Software Removal Tool x64 - v5.124 (KB890830)	UpdateRollUp	N/A	890830	Can request reboot	5/14/2024, 12:00 AM
2024-05 Cumulative Update for .NET Framework 3.5, 4.7.2 and 4.8 for Windows Server ...	Updates	N/A	5038283	Can request reboot	5/14/2024, 12:00 AM


Open query >

# Update settings on Virtual Machines

Periodic Assessment

Patch orchestration

Windows (1)

Machine Name	Resource type	Periodic assessment ⓘ	Hotpatch ⓘ	Patch orchestration ⓘ
-	-	Select and apply to all	Select and apply to all	Select and apply to all
 Test-VM-01	Azure virtual machine	<div>Enable (current)</div> <div>Enable (current)</div> <div>Disable</div>	<div>Not available</div> ⓘ	<div>Customer Managed Schedules (current)</div> <div>Customer Managed Schedules (current) Schedule and customize patch deployments according to user preferences using maintenance configuration.</div> <div>Azure Managed - Safe Deployment Orchestrates patches across availability sets, with Azure safety checks.</div> <div>Windows automatic updates Best for scenarios where interrupting workloads for patching isn't an issue.</div> <div>Manual updates Turns off Windows Automatic Updates. You install patches or pick a different solution.</div> <div>Image default Uses the default patching configuration in the image used to create the VM.</div>

# Update settings on SQL Virtual Machines

Home > SQL virtual machines > SQL-VM-1



## SQL-VM-1 | Updates ...

SQL virtual machine



Leave new experience



Refresh



Check for updates



One-time update



Schedule updates



Settings ▾

### Settings



Configure



Storage Configuration



Updates

### Recommended updates

History

Scheduling

### Operating system (guest) updates

Periodic assessment ⓘ



No (Enable now)

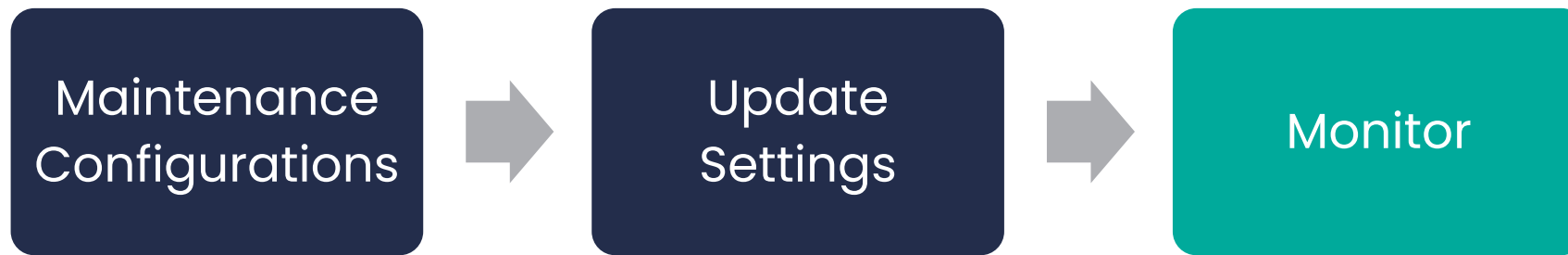


Patch orchestration ⓘ

Windows automatic update

✓ Enable Microsoft updates


⚙ Update settings





# Built-in dashboard

Home > Azure Update Manager



Azure Update Manager | History

Microsoft

Search

Overview

Get started

Manage

Machines

Updates

History

Manage Azure Stack HCI

Azure Stack HCI

History

Monitoring

Update reports

New alert rule (Preview)

Support + troubleshooting

New Support Request

1

By machines

2

By maintenance run ID

On 31 August 2024, both Automation Update Management and the Log Analytics agent it uses will be retired. Migrate to Azure Update Manager before that. Refer to guidance on migrating to Azure Update Manager [here](#). [Migrate Now](#) →

Filter by name

Subscription : 13 selected

Resource group : All

Resource type : All

Location : West Europe

OS : All

Update operation : All

Time frame : Last 30 Days

Status : All

Operation type : All

Showing 45 of 45 records

No grouping

Machine Name	Maintenance run...	Status	Operation status ...	Update installed	Update operation	Operation type	Operation start
Test-VM-01	N/A	Succeeded	0 error/s reported	-	Assessment	Periodic assessment	6/10/2024, 03:08
Test-VM-02	N/A	Succeeded	0 error/s reported	-	Assessment	Periodic assessment	6/10/2024, 08:12
Test-VM-03	N/A	Succeeded	0 error/s reported	-	Assessment	Periodic assessment	6/10/2024, 08:12
Test-VM-04	N/A	Succeeded	0 error/s reported	-	Assessment	Periodic assessment	6/10/2024, 08:12

inetum.

33

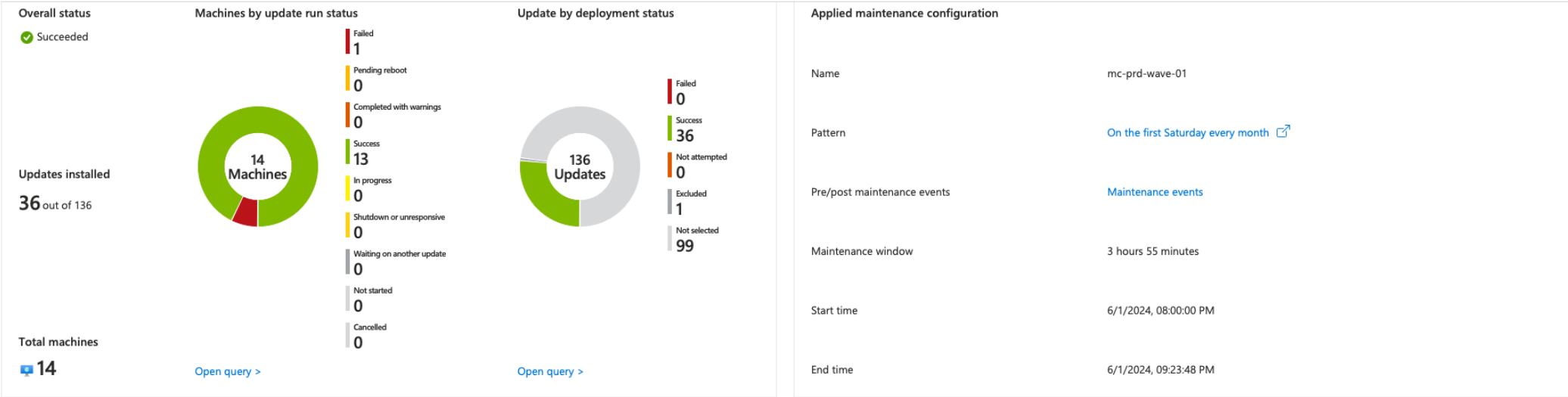
# Built-in dashboard

Home > Azure Update Manager | History >

20240601180000 ...

Maintenance run

Refresh



Total machines (14) [Open query >](#)

Search by machine name

Machine Name	↑↓ Updates deployed	Deployment end time	↑↓ Operating system
Test-VM-01	✓ 1 out of 5	6/1/2024, 08:52:08 PM	Windows
Test-VM-02	✓ 4 out of 8	6/1/2024, 09:22:40 PM	Windows
Test-VM-03	✓ 1 out of 5	6/1/2024, 08:49:20 PM	Windows

Update deployment status (136) [Open query >](#)

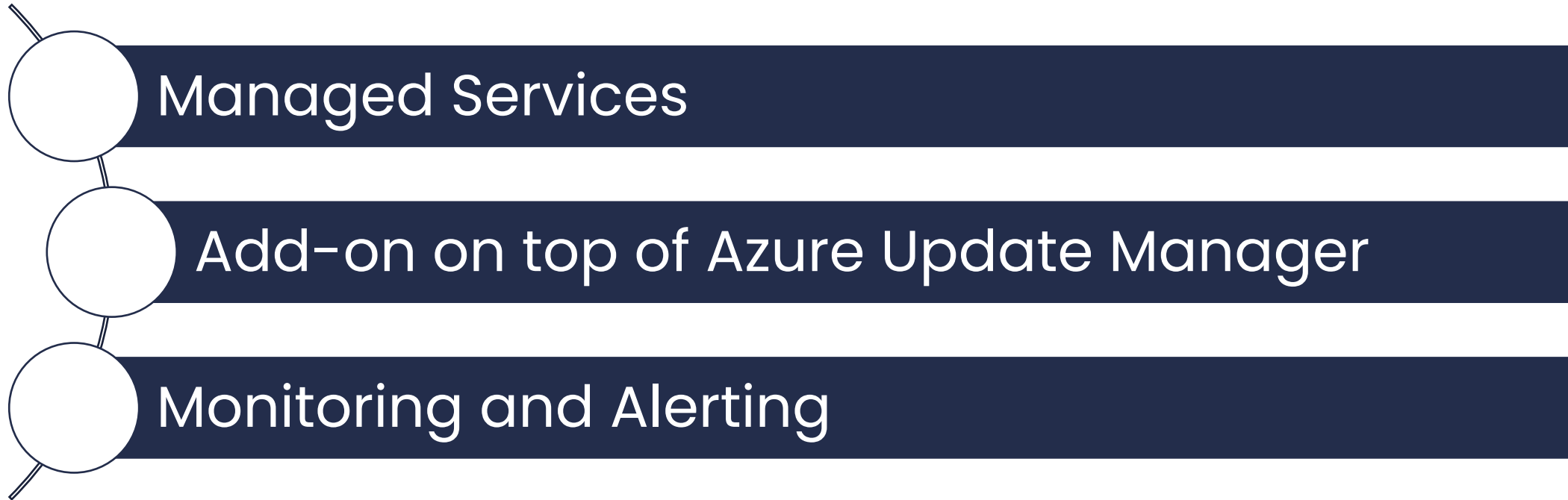
Search by update name

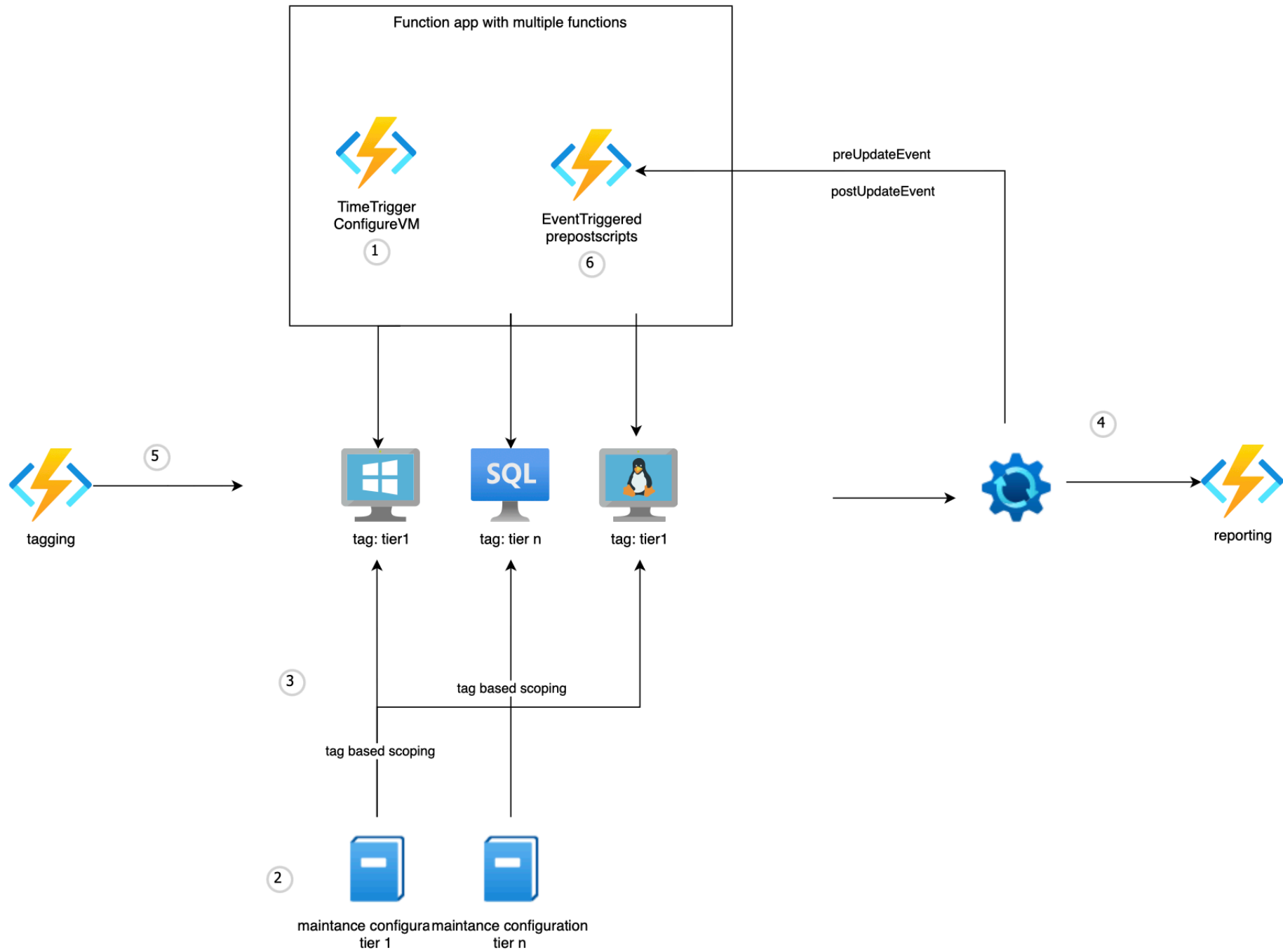
Update name	↑↓ Classification	↑↓ Update status on machine
2021-01 Update for Windows Server 2016 for x6...	Updates	● 0 out of 1
2021-01 Update for Windows Server 2019 for x6...	Updates	● 0 out of 3
2022-10 Security Monthly Quality Rollup for Wi...	Security	✓ 1 out of 1

The slide features several decorative squares in light blue and red. A light blue square is in the top right. Another light blue square is in the upper left. A red square is in the lower left. A large red L-shaped graphic is on the right side. In the bottom right corner, there is a cluster of three squares: a light blue one on top, a red one to its left, and another red one below the light blue one.

# Managed Services by Inetum

# Azure Platform Solutions

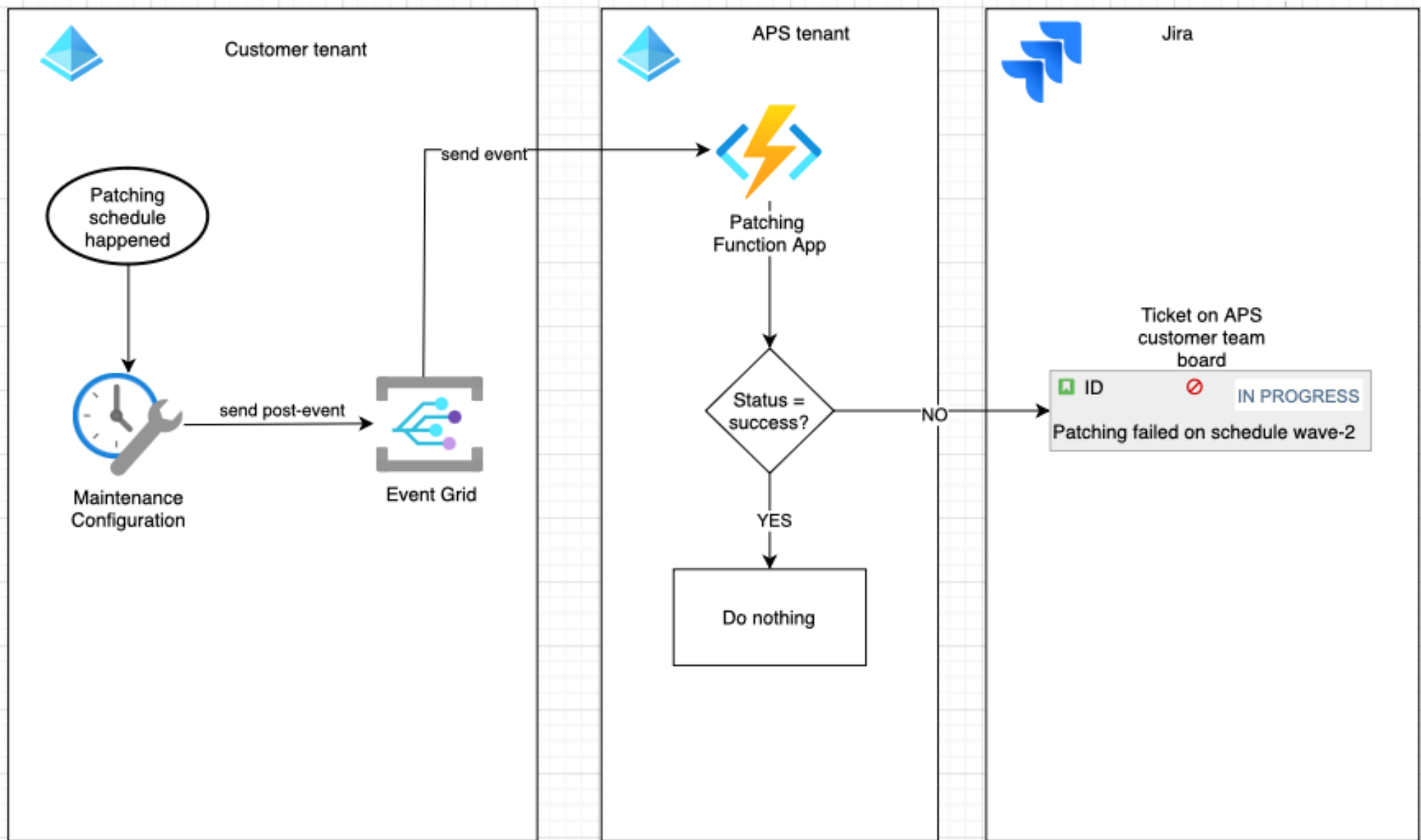




# Alerting on failed patching schedules (APS)

## Function App in APS tenant

- Receive post event
- Check status
- Create ticket



What is the cost of Azure Update Manager?

# Chapter

# 04



# Cost

Azure Automation Update management	Azure Update Manager
Automation Account: cost for runtime - First 500 minutes free – then \$0.002/minute	Maintenance configurations: free resources
Automation runbooks	Pre and post events: free resources
Log Analytics Workspace for storing updates data: - \$2.76/GB log ingestion - \$0.12/GB/month for retention	Azure Resource Graph for data storage: built-in
	Azure Arc enabled servers: 5\$/server/month

# What's next?

## Azure Update Management Kickstart

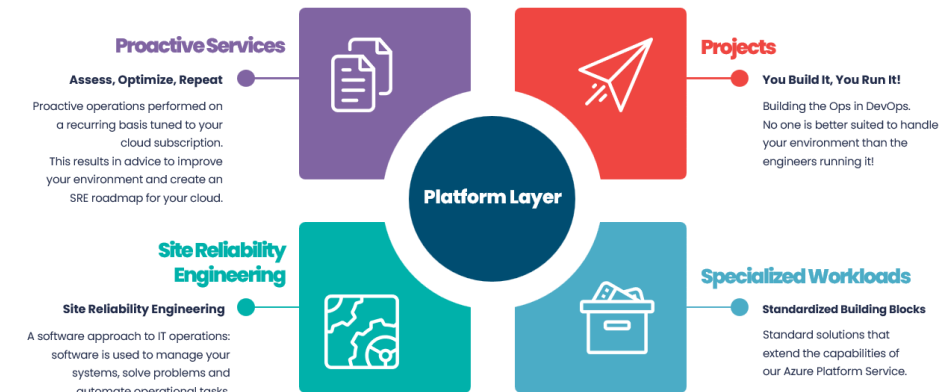
- **2,5 day engagement**
  - Day 1:
    - Server inventory
    - Patching schedules – scope – update types
  - Day 2:
    - Configuration
  - Day 3:
    - Monitoring, followup, finetuning
- **Fixed price: 2500€**
- **Contact us:**  
[rik.delva@inetum-realdolmen.world](mailto:rik.delva@inetum-realdolmen.world)  
[info@inetum-realdolmen.world](mailto:info@inetum-realdolmen.world)



# What's next ?

## Azure Platform Solution (APS)

- **APS Specialized Workload for Update Management**



- **Contact us for more information :**  
[Jonathan.vanbeneden@inetum-realdolmen.world](mailto:Jonathan.vanbeneden@inetum-realdolmen.world)  
[info@inetum-realdolmen.world](mailto:info@inetum-realdolmen.world)





# Hoe *cybersecurity* en *cloud* gebruiken als drivers voor innovatie en groei?

19/11, De Waerboom te Dilbeek

- Full day event
- i.s.m. Beltug
- 6 business en IT-sessies





# Q&A



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