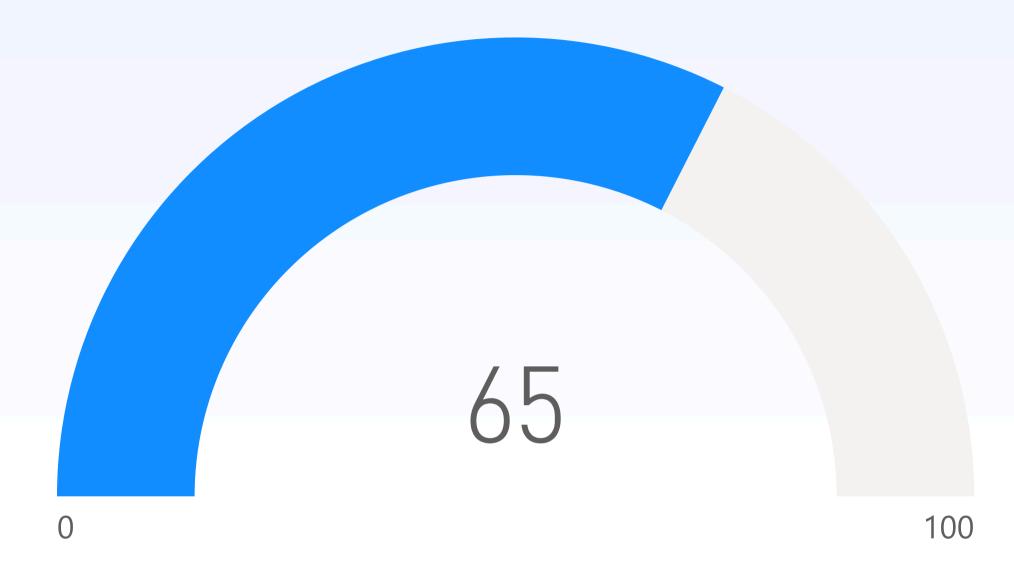# The Cloud Mastery

Azure Advisor Analyzer

CONTOSO
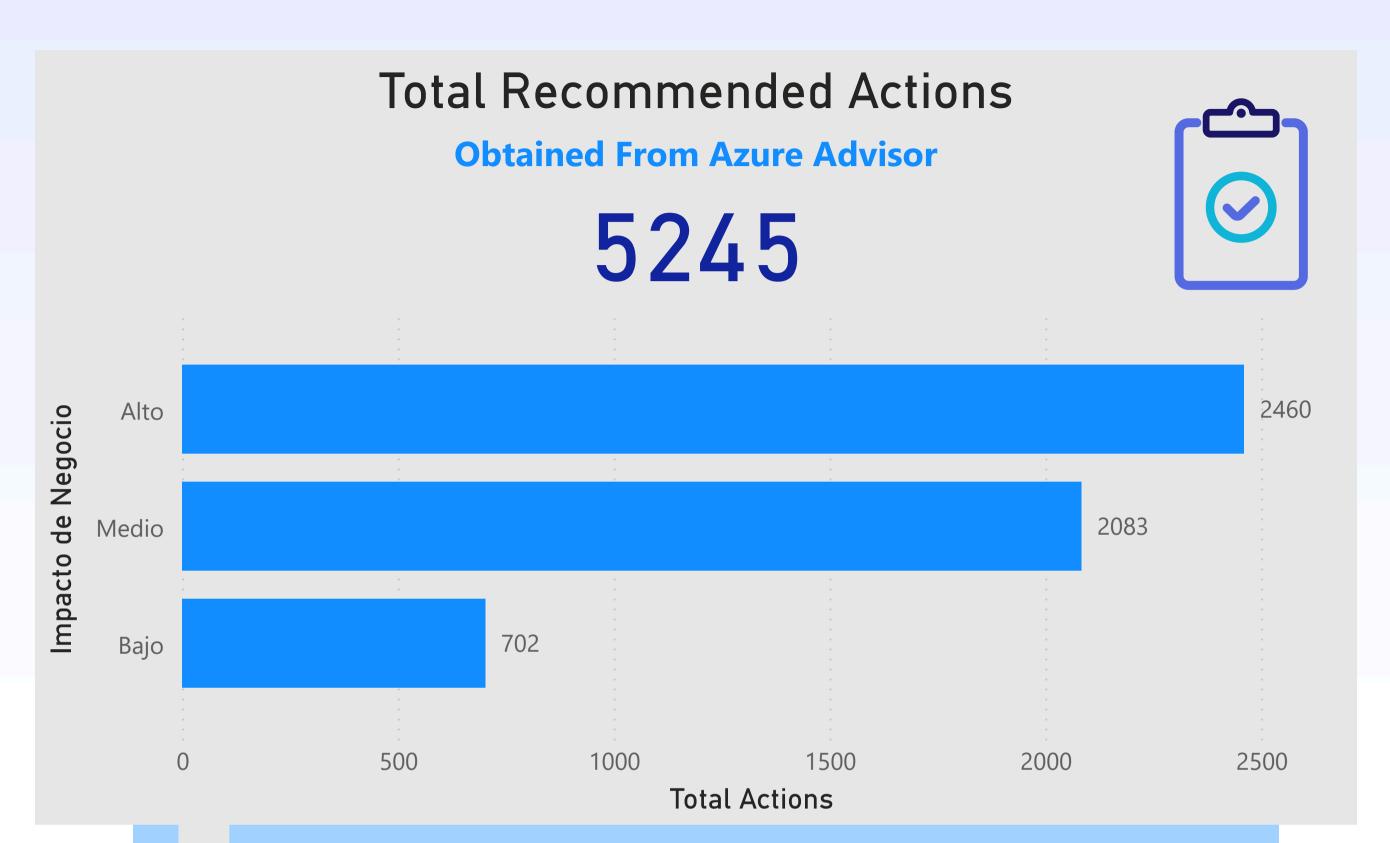
SUMMARY OF FINDINGS

Azure Advisor Score

65

0   100

Azure Advisor Score is a metric that evaluates the **overall optimization status** of resources in Azure, based on five key categories: **reliability**, **security**, **operational excellence**, **performance**, and **cost optimization**.

It provides **personalized recommendations** to improve each area, helping to **maximize efficiency** and **reduce risks** in the **cloud environment**.

Total Recommended Actions

Obtained From Azure Advisor

5245

Impacto de Negocio

Alto	2460
Medio	2083
Bajo	702

0   500   1000   1500   2000   2500

Total Actions

Actions In Scope

Selected By Business Impact

4318

Remediation

No increase in Billing

2728

COST OPTIMIZATION
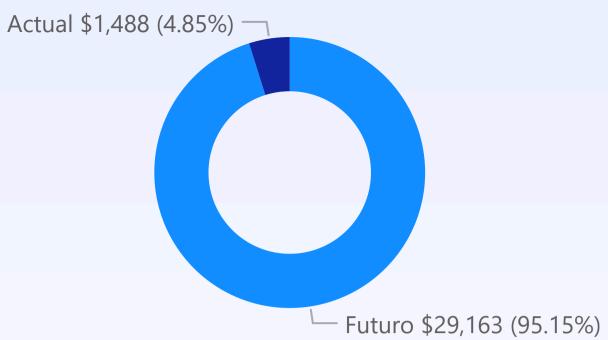
Estimated Monthly Optimization

$30,651

83
Total Actions

30.8
Working Hours

Sources Of Optimization

Actual $1,488 (4.85%)

Futuro $29,163 (95.15%)

Recommendation	Solution On Azure	Resource Type	Resource Name	Working Hours	Monthly Savings ▼
Consider virtual machine reserved instance to save over your on-demand costs	Virtual Machines	Subscription	resource_name_1276	0.5	$16,719
Consider virtual machine reserved instance to save over your on-demand costs	Virtual Machines	Subscription	resource_name_1345	0.5	$7,472
Consider App Service reserved instance to save over your on-demand costs	App Service	Subscription	resource_name_1276	0.4	$2,462
Consider Azure Synapse Analytics (formerly SQL DW) reserved instance to save over your pay-as-you-go costs	Azure Synapse Analytics	Subscription	resource_name_1345	1.0	$713
Consider Database for PostgreSQL reserved instance to save over your pay-as-you-go costs	Azure Database for PostgreSQL	Subscription	resource_name_1276	0.4	$676
Consider virtual machine reserved instance to save over your on-demand costs	Virtual Machines	Subscription	resource_name_008	0.5	$513
Consider virtual machine reserved instance to save over your on-demand costs	Virtual Machines	Subscription	resource_name_072	0.5	$428
Right-size or shutdown underutilized virtual machines	Virtual Machines	Virtual machine	resource_name_1356	0.5	$294
Consider Database for MySQL reserved instance to save over your pay-as-you-go costs	Azure Database for MySQL	Subscription	resource_name_1276	0.4	$179
Right-size or shutdown underutilized virtual machines	Virtual Machines	Virtual machine	resource_name_1347	0.5	$175
Right-size or shutdown underutilized virtual machines	Virtual Machines	Virtual machine	resource_name_1346	0.5	$155
Right-size or shutdown underutilized virtual machines	Virtual Machines	Virtual machine	resource_name_025	0.5	$149
Right-size or shutdown underutilized virtual machines	Virtual Machines	Virtual machine	resource_name_022	0.5	$138
Right-size or shutdown underutilized virtual machines	Virtual Machines	Virtual machine	resource_name_1357	0.5	$79
Total				**30.8**	**$30,651**

SECURITY OPTIMIZATION

Actions To Take	$63,900	Incremento en facturación		Impacto de Negocio		
3637	Monthly Investment	No	Sí	Alto	Bajo	Medio

Resource Type	Solution On Azure	Recommendation	Resource Name	Working Hours	Monthly Investment
Virtual machine	Microsoft Defender for Cloud	Machines should have a vulnerability assessment solution	resource_name_001	0.5	$50
			resource_name_011	0.5	$50
			resource_name_012	0.5	$50
			resource_name_014	0.5	$50
			resource_name_015	0.5	$50
			resource_name_017	0.5	$50
			resource_name_020	0.5	$50
			resource_name_022	0.5	$50
			resource_name_025	0.5	$50
			resource_name_028	0.5	$50
			resource_name_029	0.5	$50
			resource_name_030	0.5	$50
			resource_name_031	0.5	$50
			resource_name_032	0.5	$50
			resource_name_033	0.5	$50
			resource_name_034	0.5	$50
			resource_name_035	0.5	$50
			resource_name_036	0.5	$50
			resource_name_037	0.5	$50
			resource_name_038	0.5	$50
			resource_name_039	0.5	$50
			resource_name_040	0.5	$50

RELIABILITY OPTIMIZATION

Actions To Take	$43,705	Incremento en facturación		Impacto de Negocio		
1153	**Monthly Investment**	No	Sí	Alto	Bajo	Medio

Resource Type	Solution On Azure	Recommendation	Resource Name	Working Hours	Monthly Investment
Virtual machine	**Virtual Machines**	**Migrate workload to D-series or better virtual machine**	resource_name_058	0.5	$138
			resource_name_059	0.5	$138
			resource_name_060	0.5	$138
			resource_name_061	0.5	$138
			resource_name_062	0.5	$138
			resource_name_063	0.5	$138
			resource_name_064	0.5	$138
			resource_name_065	0.5	$138
			resource_name_066	0.5	$138
			resource_name_067	0.5	$138
			resource_name_069	0.5	$138
			resource_name_070	0.5	$138
			resource_name_071	0.5	$138
			resource_name_073	0.5	$138
			resource_name_074	0.5	$138
			resource_name_075	0.5	$138
			resource_name_076	0.5	$138
			resource_name_077	0.5	$138
			resource_name_078	0.5	$138
			resource_name_079	0.5	$138
			resource_name_080	0.5	$138
			resource_name_081	0.5	$138

OPTIMIZATION IN OPERATIONAL EXCELLENCE

Actions To Take	$2,702	Incremento en facturación		Impacto de Negocio		
372	Monthly Investment	No / Sí		Alto / Bajo / Medio		

Resource Type	Solution On Azure	Recommendation	Resource Name	Working Hours	Monthly Investment
Front Door Profile	**Azure Front Door**	**Migrate Azure CDN Standard from Microsoft (Classic) to Azure Front Door Standard/Premium tier**	resource_name_1102	1.5	$150
			resource_name_1150	1.5	$150
			resource_name_1176	1.5	$150
			resource_name_1204	1.5	$150
			resource_name_1209	1.5	$150
			resource_name_1266	1.5	$150
Virtual network gateway	**Azure Monitor**	**Configure Connection Monitor for ExpressRoute Gateway**	resource_name_1077	0.5	$142
			resource_name_1139	0.5	$142
			resource_name_1178	0.5	$142
			resource_name_1274	0.5	$142
			resource_name_1281	0.5	$142
			resource_name_137	0.5	$142
SQL virtual machine	**Azure Monitor**	**Install SQL best practices assessment on your SQL VM**	resource_name_012	0.3	$91
			resource_name_1359	0.3	$91
			resource_name_1363	0.3	$91
			resource_name_1367	0.3	$91
			resource_name_1408	0.3	$91
ExpressRoute circuit	**Azure Monitor**	**Configure Connection Monitor for ExpressRoute**	resource_name_1188	0.5	$142
			resource_name_1192	0.5	$142
			resource_name_210	0.5	$142
Subscription	**Azure Virtual Network Manager**	**Subscription with more than 10 VNets should be managed using AVNM**	resource_name_1276	0.2	$73

LISTING OF ACTIONS IN SCOPE

Recommendation	Average of Risk
⊞ Consider App Service reserved instance to save over your on-demand costs	10
⊞ Consider Azure Synapse Analytics (formerly SQL DW) reserved instance to save over your pay-as-you-go costs	10
⊞ Consider Database for MySQL reserved instance to save over your pay-as-you-go costs	10
⊞ Consider Database for PostgreSQL reserved instance to save over your pay-as-you-go costs	10
⊞ Consider virtual machine reserved instance to save over your on-demand costs	10
⊞ Enable Azure backup for SQL on your virtual machines	10
⊞ Enable Cross Region Restore for your recovery Services Vault	10
⊞ Right-size or shutdown underutilized virtual machines	10
⊞ Enable Trusted Launch foundational excellence, and modern security for Existing Generation 2 VM(s)	5
⊞ Ensure Geo-replication is enabled for resilience	5
⊞ Migrate workload to D-series or better virtual machine	5
⊞ Use Premium tier for critical production workloads	5
⊞ API Management calls to API backends should be authenticated	4
⊞ API Management minimum API version should be set to 2019-12-01 or higher	4
⊞ API Management services should use a virtual network	4
⊞ Authentication to Linux machines should require SSH keys	4
⊞ Azure Database for PostgreSQL should have an Azure Active Directory administrator provisioned	4
⊞ Azure DDoS Protection Standard should be enabled	4
⊞ Azure Key Vaults should use private link	4
⊞ Azure MySQL flexible server should have Azure Active Directory Only Authentication enabled	4
⊞ Azure SQL Database should have Azure Active Directory Only Authentication enabled	4
⊞ Azure SQL Managed Instance authentication mode should be Azure Active	4

Total Recommended Actions

Actions In Scope

4318

Remediation
No increase in Billing

2728

+

Optimizations
With billing increase

1590

Why were these actions chosen?

In Azure Advisor, recommendations are prioritized based on their **impact** on improving the environment, with greater emphasis placed on those classified as **high impact**. These recommendations have the potential to generate **significant changes** in critical areas, such as improving **security**, optimizing **costs**, or ensuring the **reliability** of services.
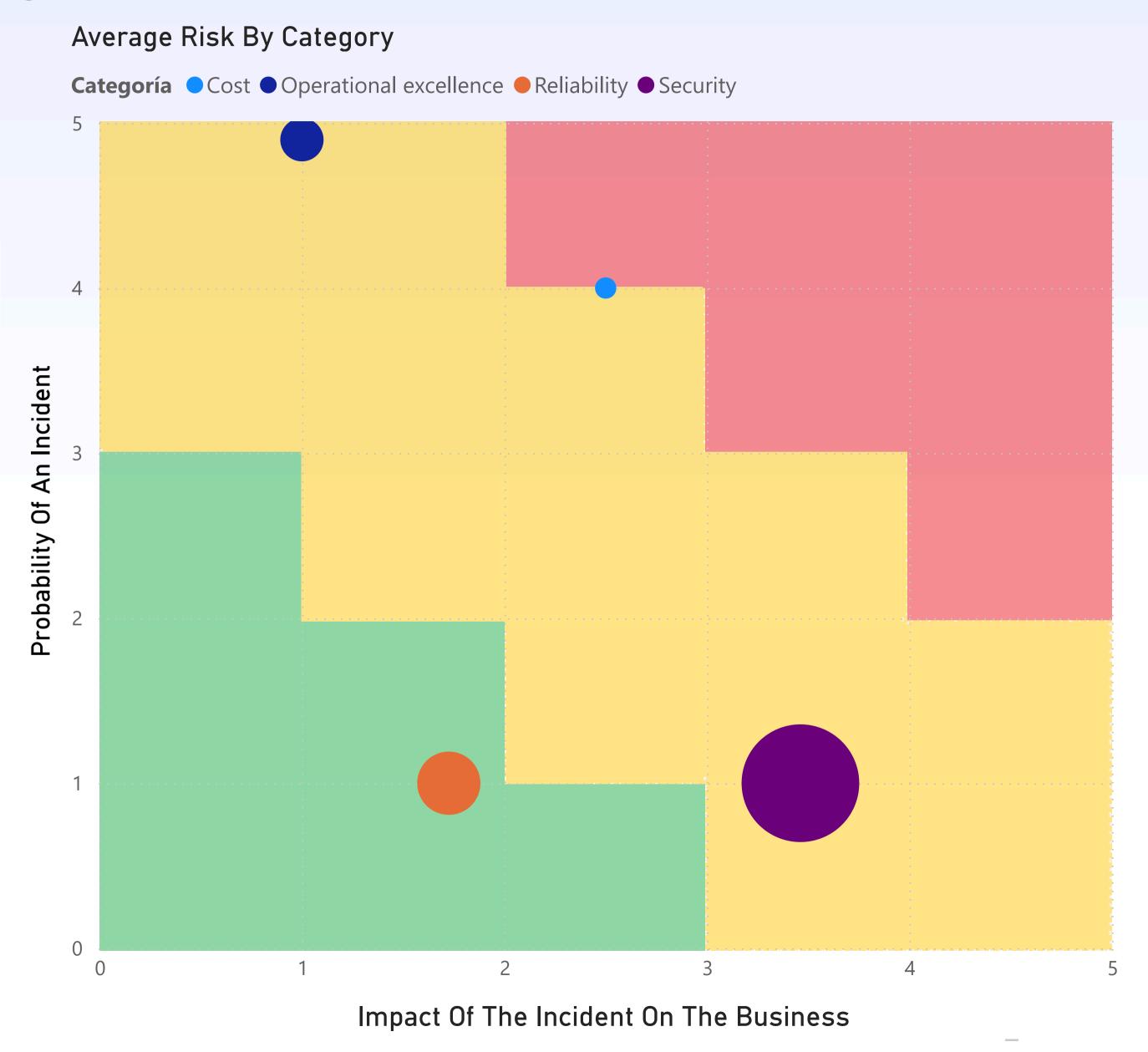
REMEDIATION (No Impact On Billing)

Actions To Take
2728

1008.4
Working Hours

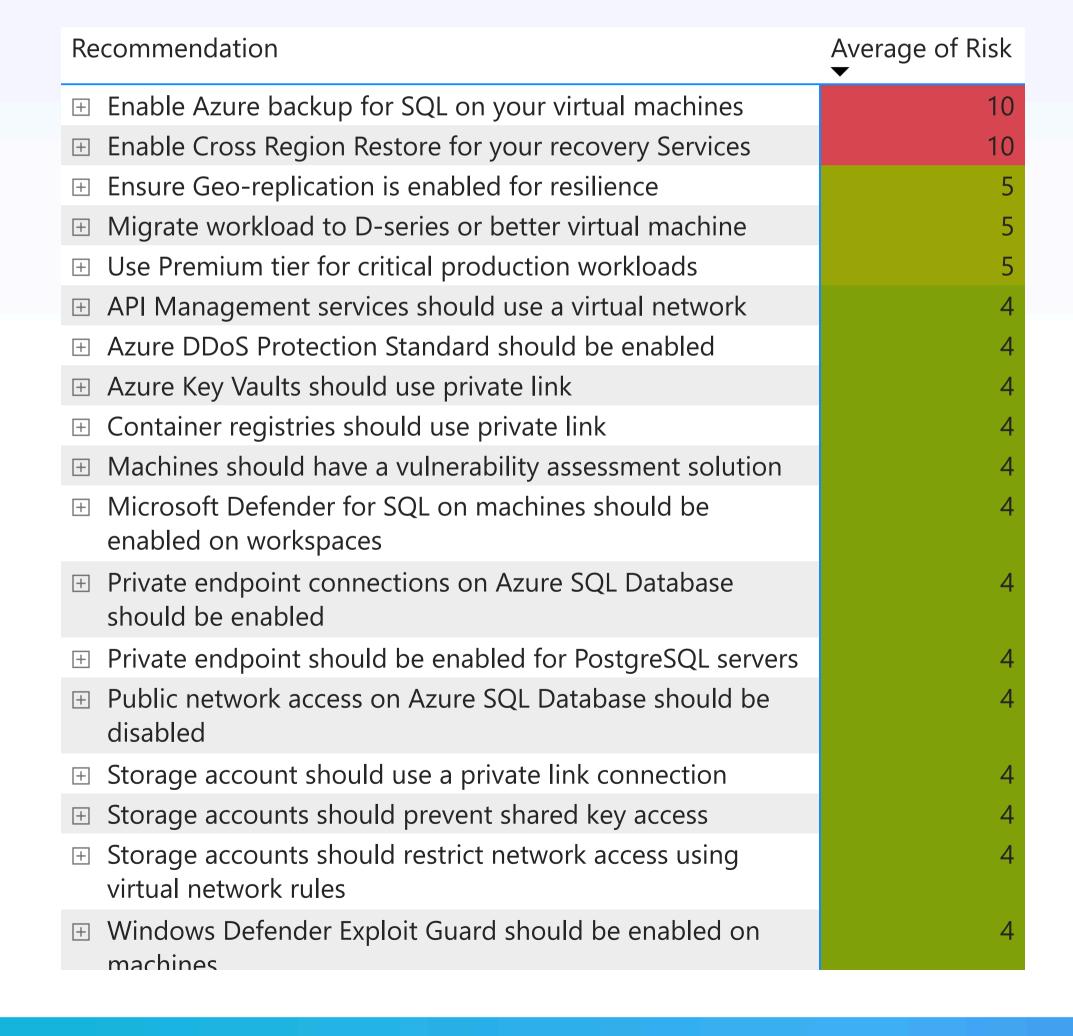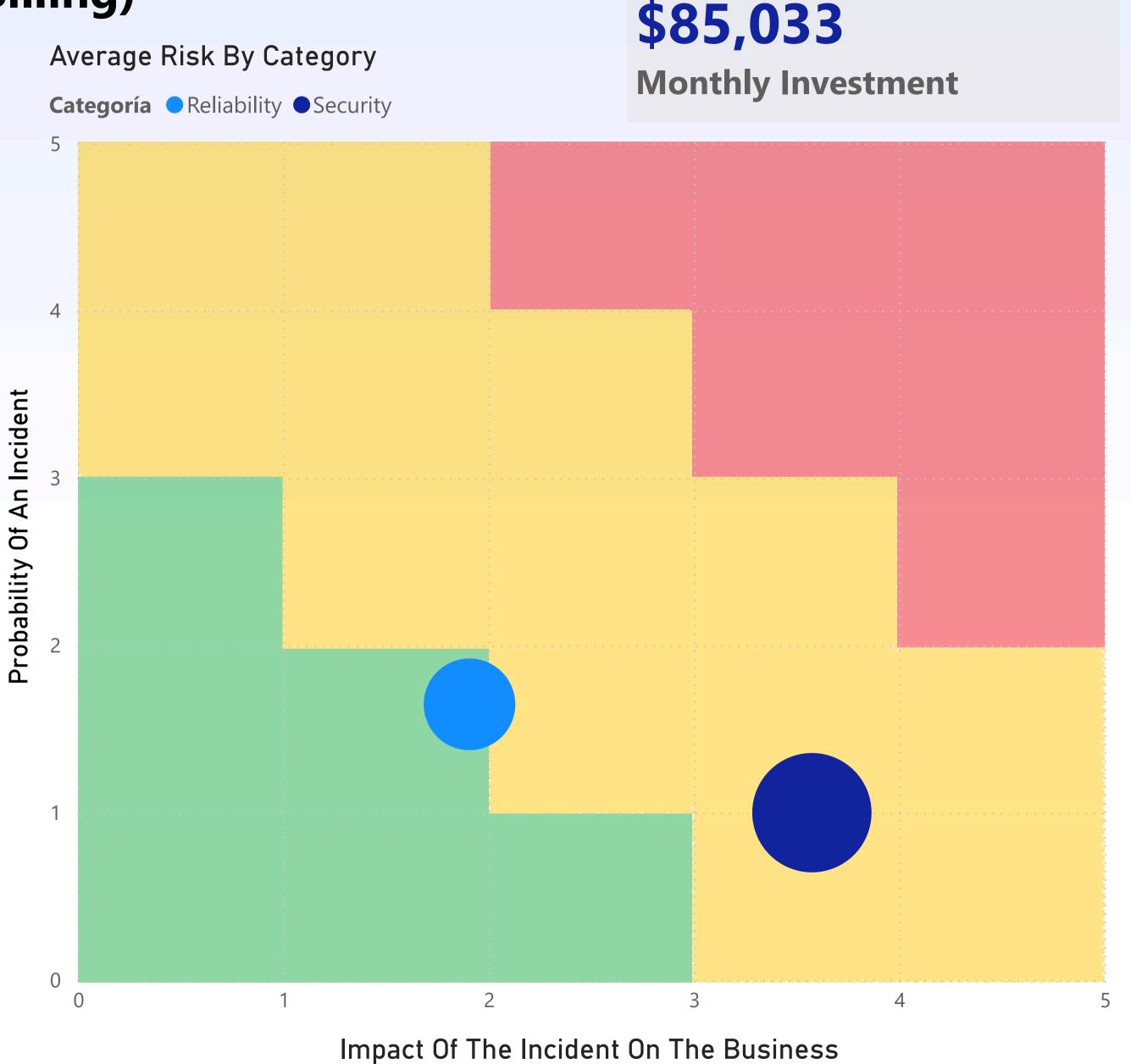| Recommendation	Average of Risk ▼
⊞ Consider App Service reserved instance to save over your on-demand costs	10
⊞ Consider Azure Synapse Analytics (formerly SQL DW) reserved instance to save over your pay-as-you-go costs	10
⊞ Consider Database for MySQL reserved instance to save over your pay-as-you-go costs	10
⊞ Consider Database for PostgreSQL reserved instance to save over your pay-as-you-go costs	10
⊞ Consider virtual machine reserved instance to save over your on-demand costs	10
⊞ Right-size or shutdown underutilized virtual machines	10
⊞ Enable Trusted Launch foundational excellence, and modern security for Existing Generation 2 VM(s)	5
⊞ API Management calls to API backends should be authenticated	4
⊞ API Management minimum API version should be set to 2019-12-01 or higher	4
⊞ Authentication to Linux machines should require SSH keys	4
⊞ Azure Database for PostgreSQL should have an Azure Active Directory administrator provisioned	4
⊞ Azure MySQL flexible server should have Azure Active Directory Only Authentication enabled	4
⊞ Azure SQL Database should have Azure Active Directory	4

Average Risk By Category

Categoría 🔵 Cost 🔵 Operational excellence 🟠 Reliability 🟣 Security

Y-axis: Probability Of An Incident
X-axis: Impact Of The Incident On The Business

OPTIMIZATIONS (With Increase in Billing)

Actions To Take
1590

786.9
Working Hours

$85,033
Monthly Investment

Average Risk By Category

Categoría ● Reliability ● Security

Recommendation	Average of Risk
Enable Azure backup for SQL on your virtual machines	10
Enable Cross Region Restore for your recovery Services	10
Ensure Geo-replication is enabled for resilience	5
Migrate workload to D-series or better virtual machine	5
Use Premium tier for critical production workloads	5
API Management services should use a virtual network	4
Azure DDoS Protection Standard should be enabled	4
Azure Key Vaults should use private link	4
Container registries should use private link	4
Machines should have a vulnerability assessment solution	4
Microsoft Defender for SQL on machines should be enabled on workspaces	4
Private endpoint connections on Azure SQL Database should be enabled	4
Private endpoint should be enabled for PostgreSQL servers	4
Public network access on Azure SQL Database should be disabled	4
Storage account should use a private link connection	4
Storage accounts should prevent shared key access	4
Storage accounts should restrict network access using virtual network rules	4
Windows Defender Exploit Guard should be enabled on machines	4

(Scatter/bubble chart: Impact Of The Incident On The Business (x-axis, 0–5) vs Probability Of An Incident (y-axis, 0–5))

PLAN (Actions In Scope)

Remediation

2728

1008.4
Working Hours

1011
1-Hour Sessions

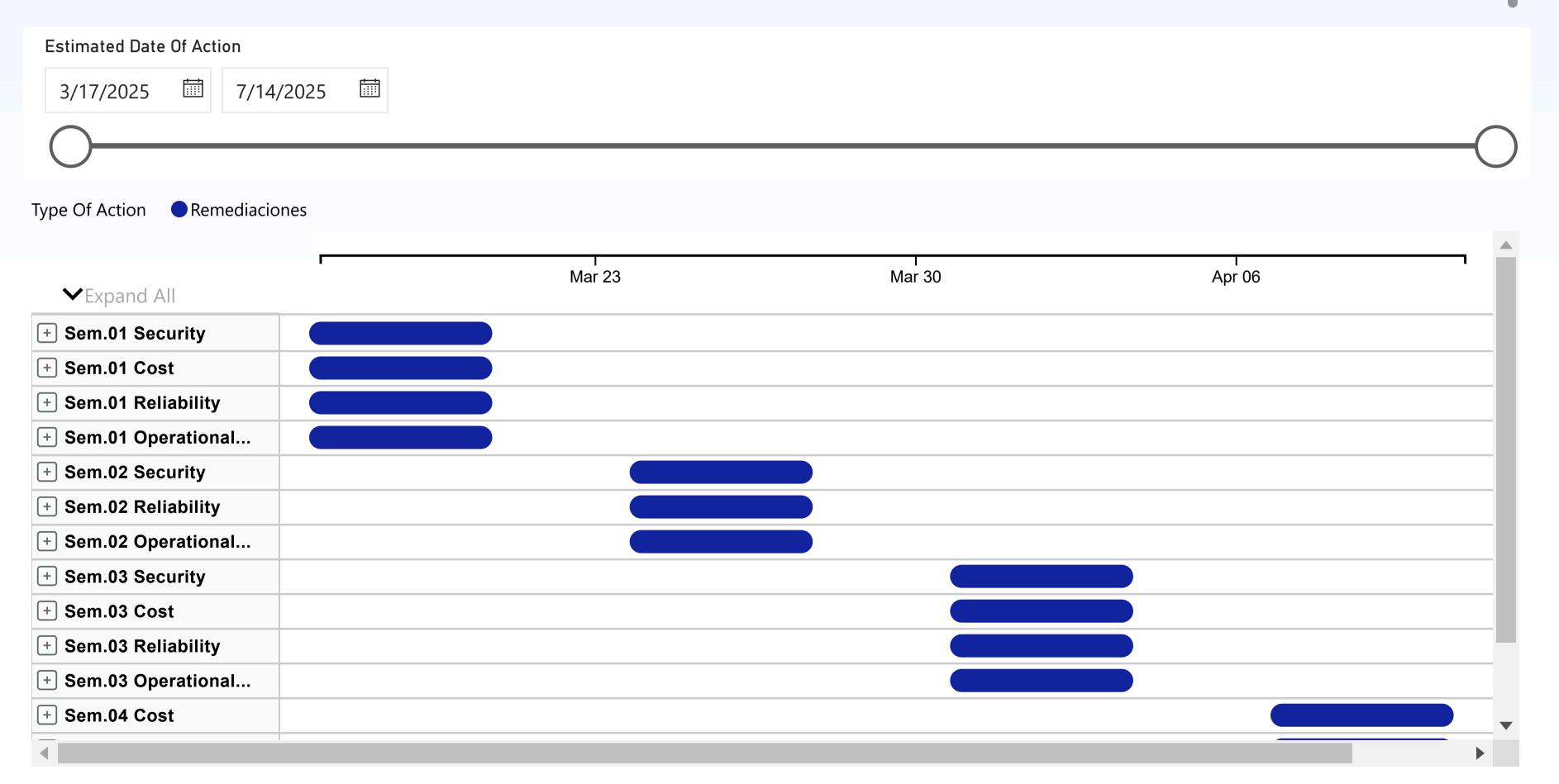## Optimizations

1590

786.9
Working Hours

788
1-Hour Sessions

Requirements for the sessions:

- Access to the internet and the Azure Portal site (www.portal.azure.com).
- A Microsoft Azure account with permissions as Subscription Reader, Subscription Contributor, or Subscription Owner.
- A person responsible for Azure Infrastructure Management.
- Access to a browser compatible with Power BI (Microsoft Edge, Google Chrome, Apple Safari, Mozilla Firefox).
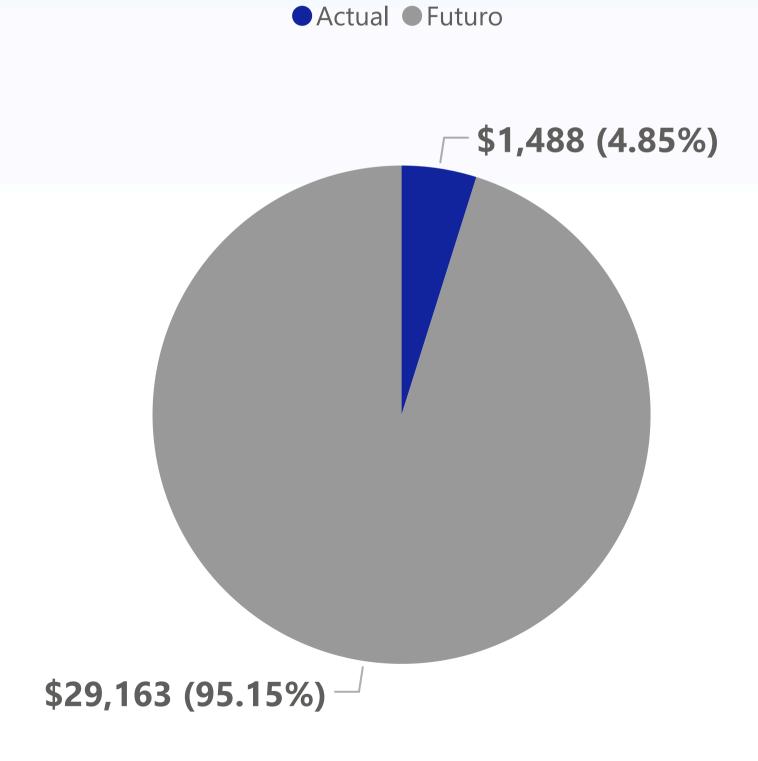
Estimated Date Of Action

3/17/2025   7/14/2025

Type Of Action   ● Remediaciones

	Mar 23	Mar 30	Apr 06

∨ Expand All

⊞ **Sem.01 Security**	
⊞ **Sem.01 Cost**	
⊞ **Sem.01 Reliability**	
⊞ **Sem.01 Operational...**	
⊞ **Sem.02 Security**	
⊞ **Sem.02 Reliability**	
⊞ **Sem.02 Operational...**	
⊞ **Sem.03 Security**	
⊞ **Sem.03 Cost**	
⊞ **Sem.03 Reliability**	
⊞ **Sem.03 Operational...**	
⊞ **Sem.04 Cost**	

If started on Monday, March 17, 2025, the project would be completed around Friday, July 18, 2025. Assuming 100 hours of work per week.

AZURE OPTIMIZATION

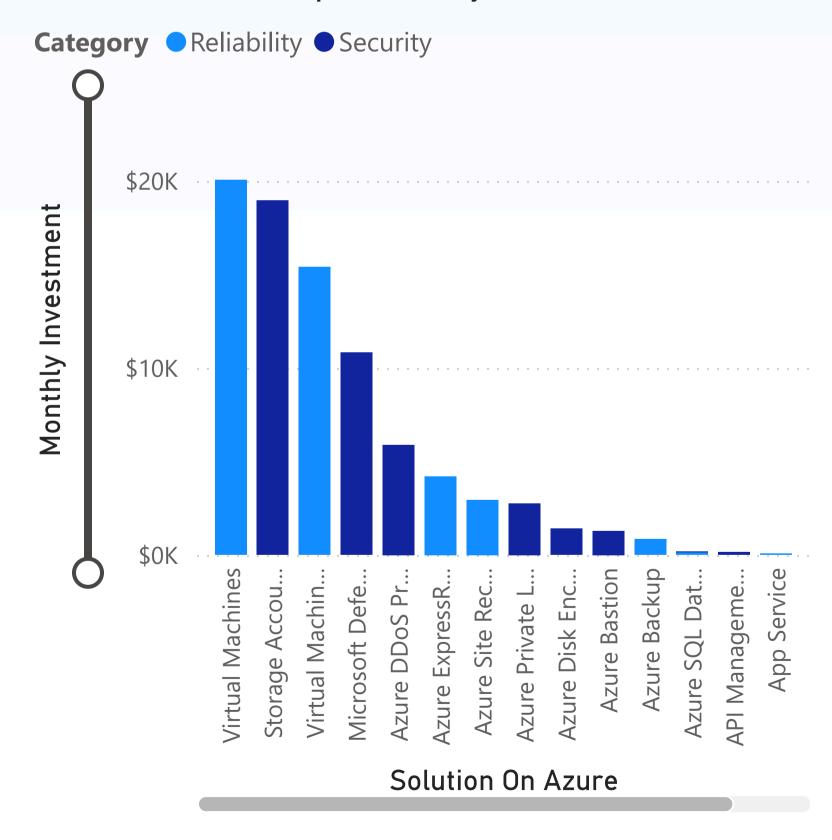## $30,651
Monthly Savings

$85,033
Monthly Investment

$0
Monthly Net Savings

Sources Of Optimization

● Actual ● Futuro

$1,488 (4.85%)

$29,163 (95.15%)
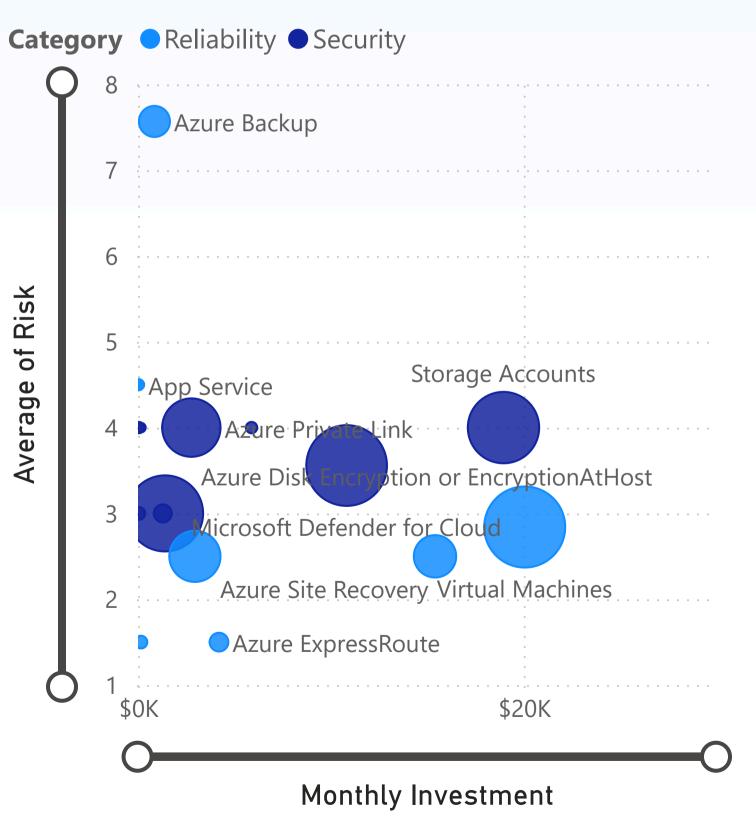
Investment In Complementary Services

Category ● Reliability ● Security

Monthly Investment

$20K

$10K

$0K

Solution On Azure

Virtual Machines
Storage Accou...
Virtual Machin...
Microsoft Defe...
Azure DDoS Pr...
Azure ExpressR...
Azure Site Rec...
Azure Private L...
Azure Disk Enc...
Azure Bastion
Azure Backup
Azure SQL Dat...
API Manageme...
App Service

Risk Mapping And Investment

Category ● Reliability ● Security

Average of Risk

8
7
6
5
4
3
2
1

Azure Backup

App Service   Storage Accounts

Azure Private Link

Azure Disk Encryption or EncryptionAtHost

Microsoft Defender for Cloud

Azure Site Recovery Virtual Machines

Azure ExpressRoute

$0K $20K

Monthly Investment

CONCLUSIONS

This report summarizes the main areas of detected optimization, highlighting their potential impact on improving operational efficiency and generating significant economic savings.

Potential Optimization:

1. Economic optimization of **30,651 USD** per month pending validation.

2. Below is a summary of key tasks, essential for strategic implementation and maximizing organizational benefits (visible through the increase in the Azure Advisor Score, currently at **65%**):

Category	Total Actions	Monthly Investment	Working Hours
Reliability	1067	$43,691	547.3
Security	3030	$41,342	1138.6
Operational excellence	197	$0	97.3
Total	**4294**	**$85,033**	**1783.1**

Índice	Week Number	Session Number	Category	Business Impact	Recommendation	Resource Type
1	1	1	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
2	1	1	Security	High	Machines should be configured to periodically check for missing system updates	Virtual machine
3	1	1	Security	Medium	Virtual machines and virtual machine scale sets should have encryption at host enabled	Virtual machine
4	1	2	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
5	1	2	Security	Medium	Virtual machines and virtual machine scale sets should have encryption at host enabled	Virtual machine
6	1	2	Security	Medium	Diagnostic logs in App Service should be enabled	App service
7	1	2	Security	Medium	Managed identity should be used in web apps	App service
8	1	3	Security	High	TLS should be updated to the latest version for web apps	App service
9	1	3	Security	Medium	Storage account public access should be disallowed	Storage Account
10	1	3	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
11	1	4	Security	Medium	Virtual machines and virtual machine scale sets should have encryption at host enabled	Virtual machine
12	1	4	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
13	1	4	Security	Medium	Virtual machines and virtual machine scale sets should have encryption at host enabled	Virtual machine
14	1	5	Cost	High	Consider virtual machine reserved instance to save over your on-demand costs	Subscription
16	1	5	Security	Medium	Diagnostic logs in App Service should be enabled	App service
17	1	6	Security	Medium	Managed identity should be used in web apps	App service
18	1	6	Security	High	TLS should be updated to the latest version for web apps	App service
19	1	6	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
20	1	7	Security	High	Machines should be configured to periodically check for missing system updates	Virtual machine
21	1	7	Security	Medium	Virtual machines and virtual machine scale sets should have encryption at host enabled	Virtual machine
22	1	7	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
23	1	7	Security	High	Machines should be configured to periodically check for missing system updates	Virtual machine
24	1	8	Security	Medium	Virtual machines and virtual machine scale sets should have encryption at host enabled	Virtual machine
25	1	8	Security	Medium	API Management minimum API version should be set to 2019-12-01 or higher	Api Management
26	1	8	Operational excellence	High	Enable Trusted Launch foundational excellence, and modern security for Existing Generation 2 VM(s)	Virtual machine
27	1	9	Security	Medium	Guest Configuration extension should be installed on machines	Virtual machine
28	1	9	Security	High	Machines should be configured to periodically check for missing system updates	Virtual machine