Exam Alert: Monitor and Back Up Azure Resources

AZURE MONITOR "NEED TO KNOW" EXAM INFORMATION

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Exam Breakdown of Objective Domain

Monitor and Backup Up Azure Resources (10-15%)

- Monitor resources by using Azure Monitor
- Implement backup and recovery

Monitoring Resources by using Azure Monitor

Objectives

Configure and Interpret Metrics

- Analyze metrics across subscriptions

Configure Log Analytics

- Implement a Log Analytics workspace
- Configure diagnostic settings

Set up Alerts and Actions

Objectives

Query and analyze logs

- Create a query
- Save a query to the dashboard
- Interpret graphs

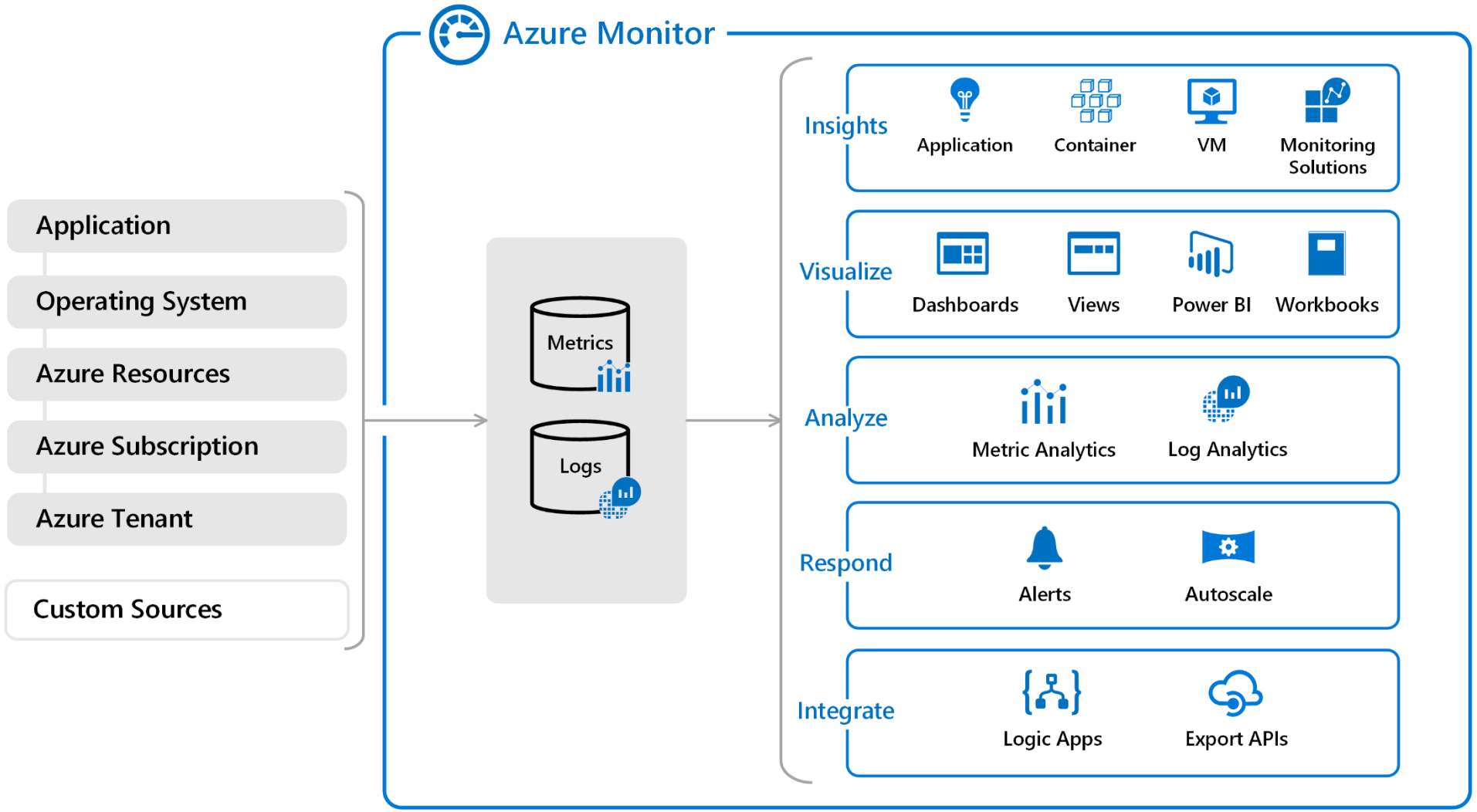
Set up alerts and actions

- Create and test alerts
- Create action groups
- View alerts in Azure Monitor
- Analyze alerts across subscriptions

Configure Application Insights

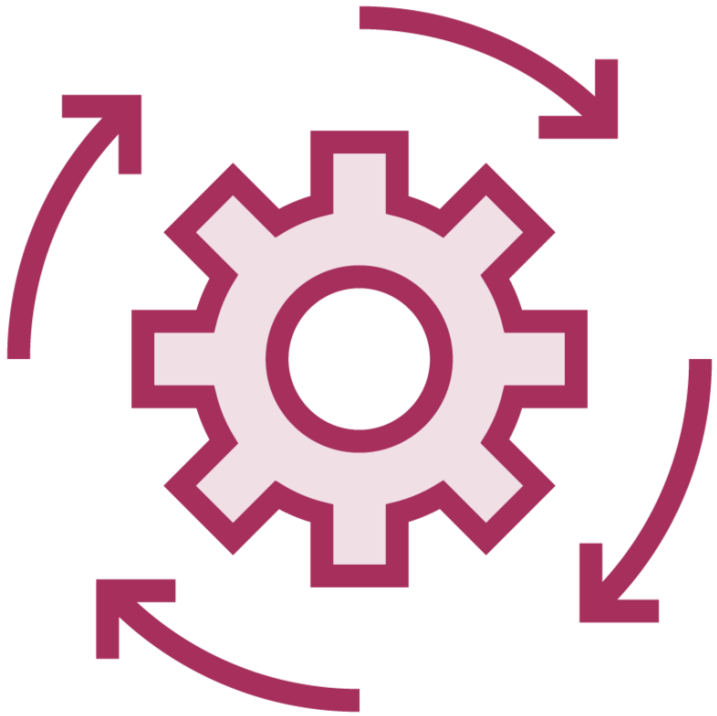
Network monitor NOT on exam

Azure Monitor



Configure Log Analytics

Implement a Log Analytics Workspace



Create the Log Analytics workspace

- Works across regions

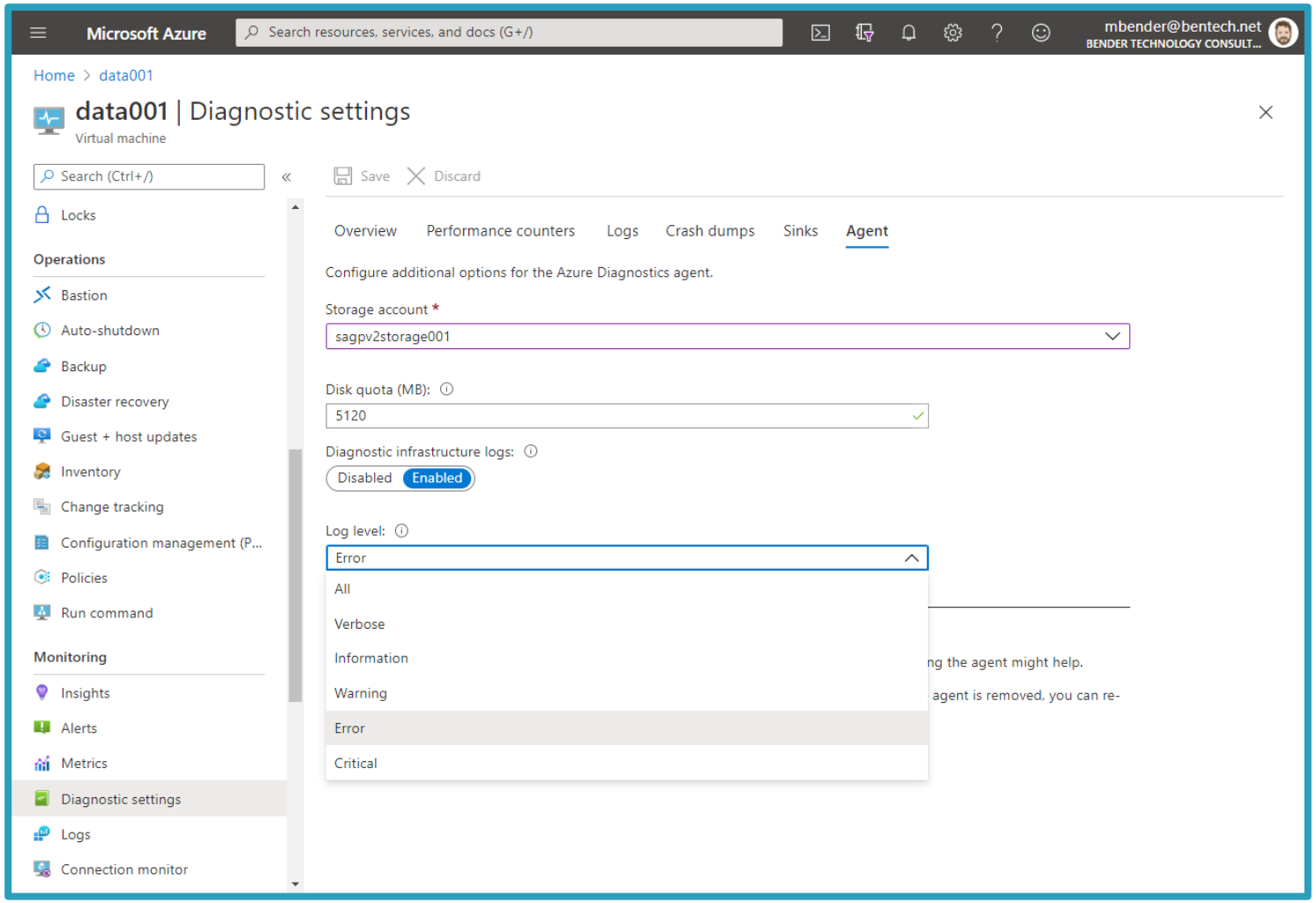
Enable Connection to Resource

- Know the different agents

Collect information

- Configure diagnostic settings on resources

Configure Diagnostics Settings



Set up Alerts and Actions

Create Alert Rule

Define the scope

- Targets

Select conditions

- Configure signal logic

Select Action Group

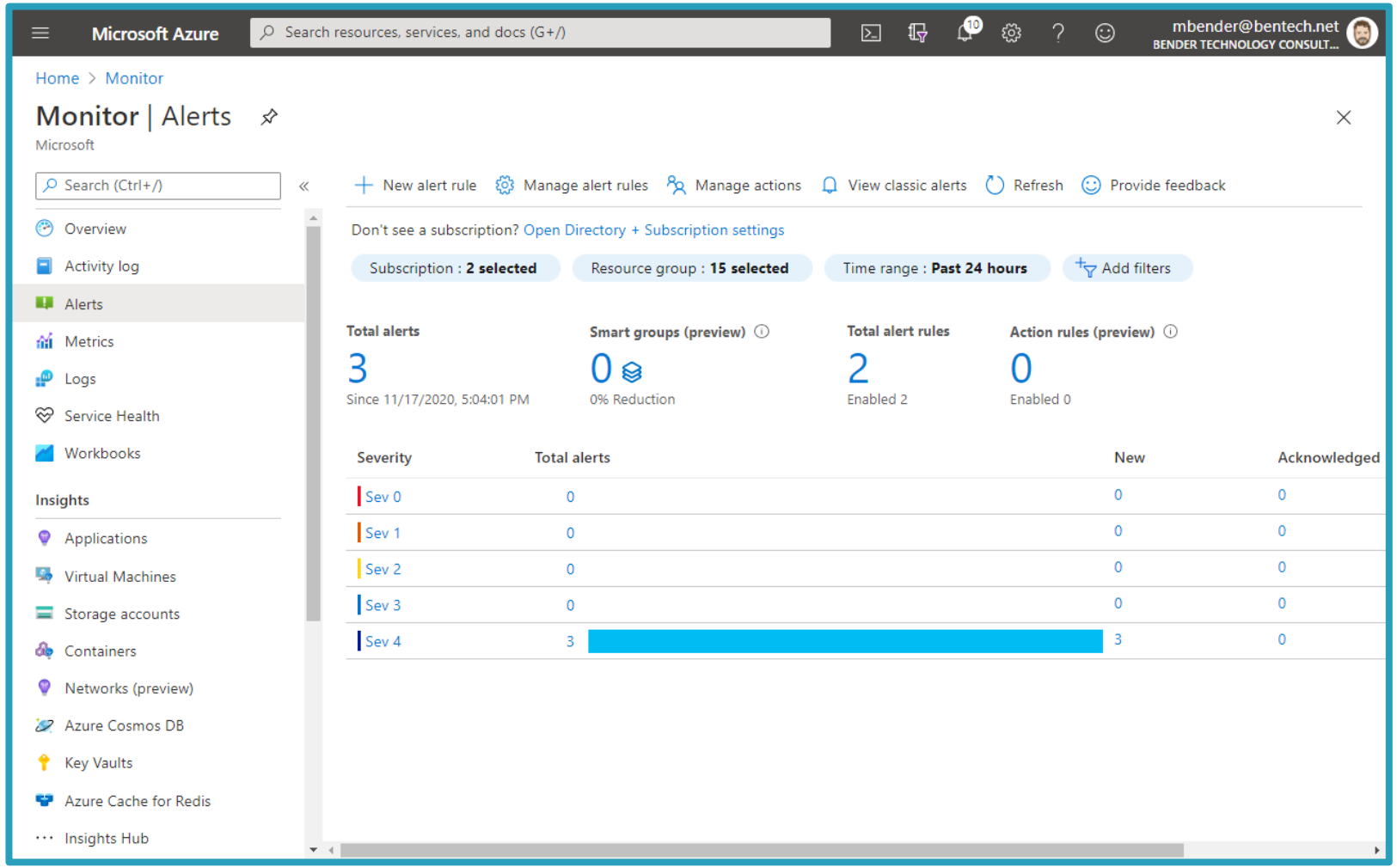
- Notifications to send
- Action type to perform

Define rule details

Test Rule

- Use a notification-only action group

View Alerts in Azure Monitor



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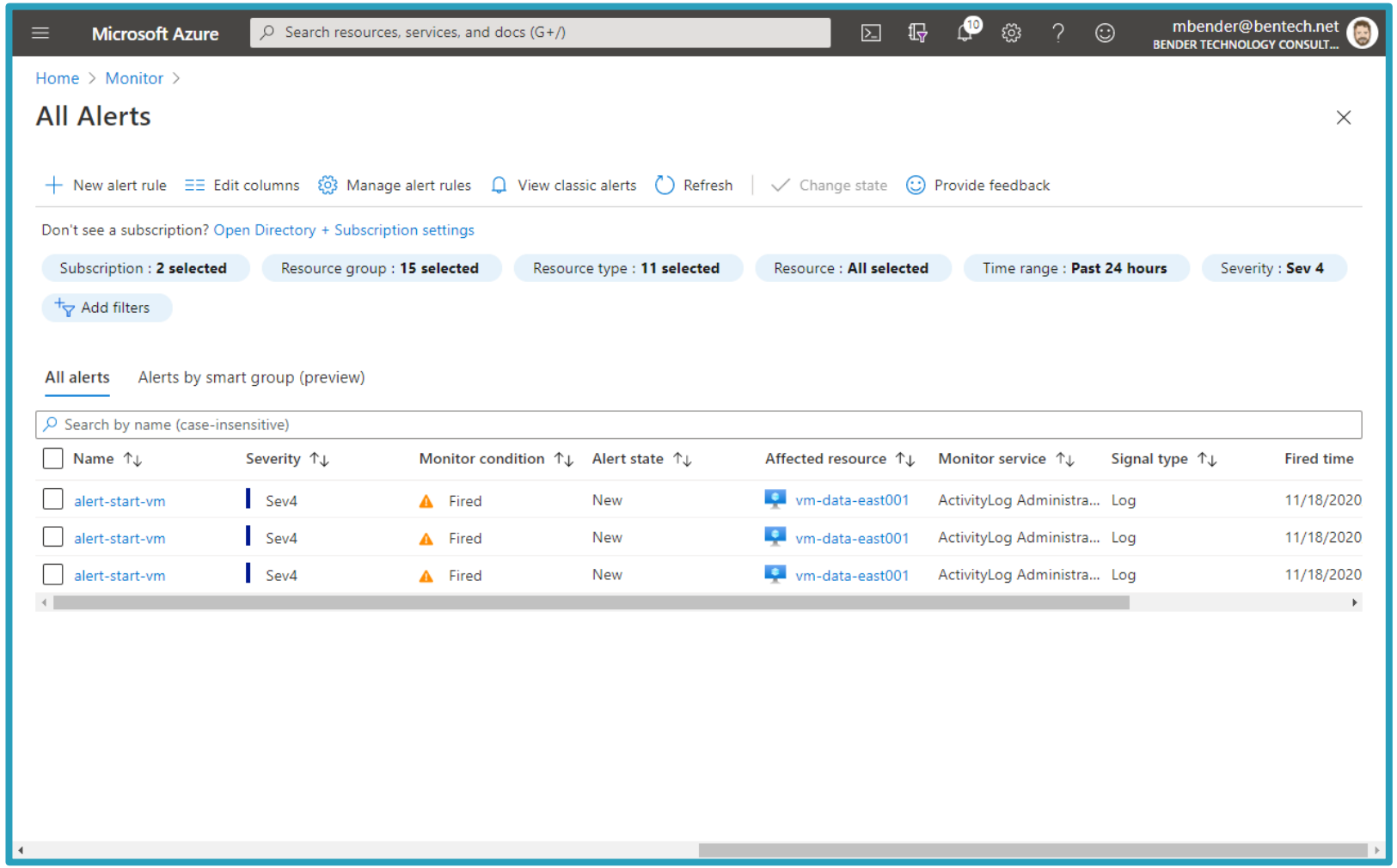
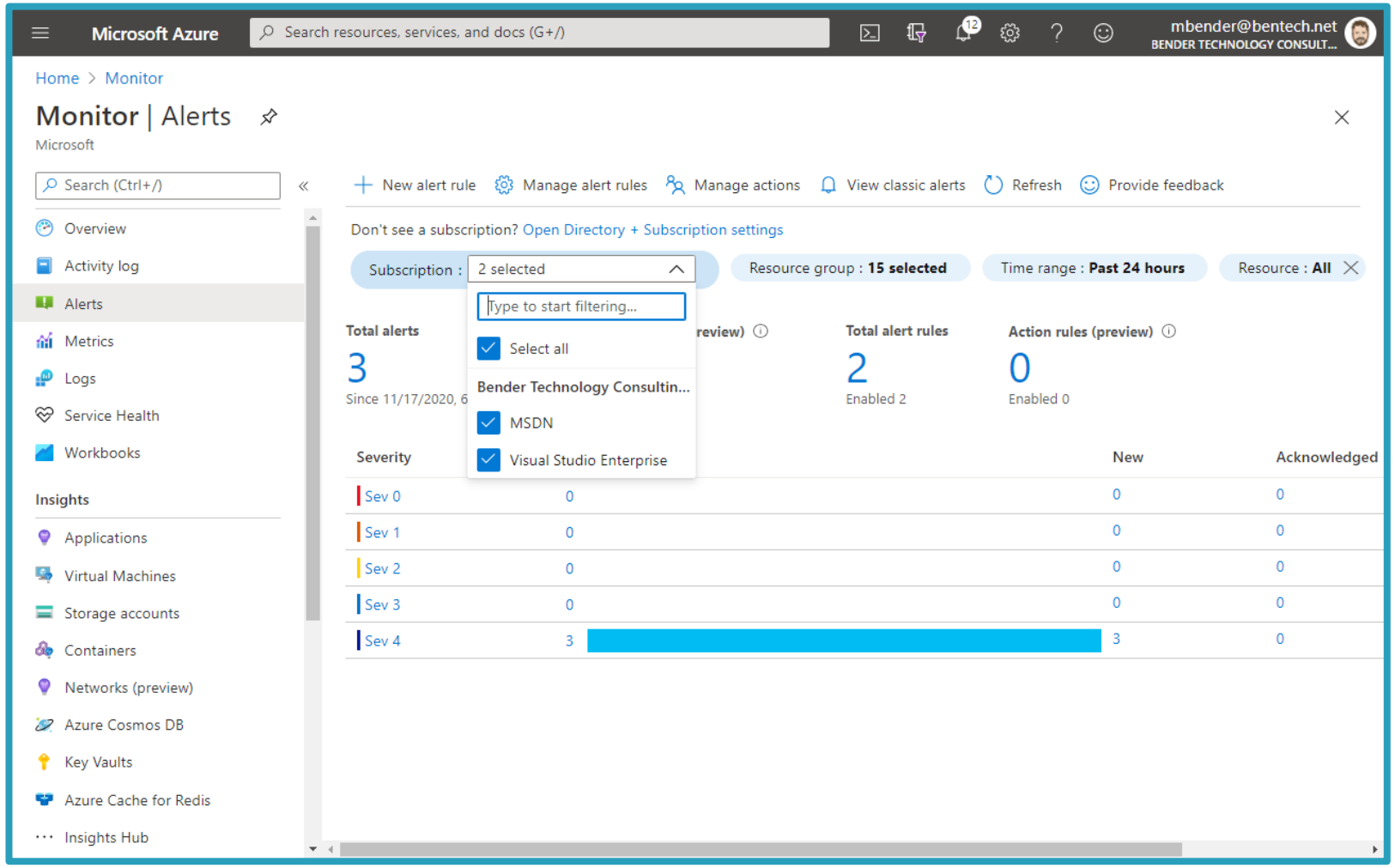
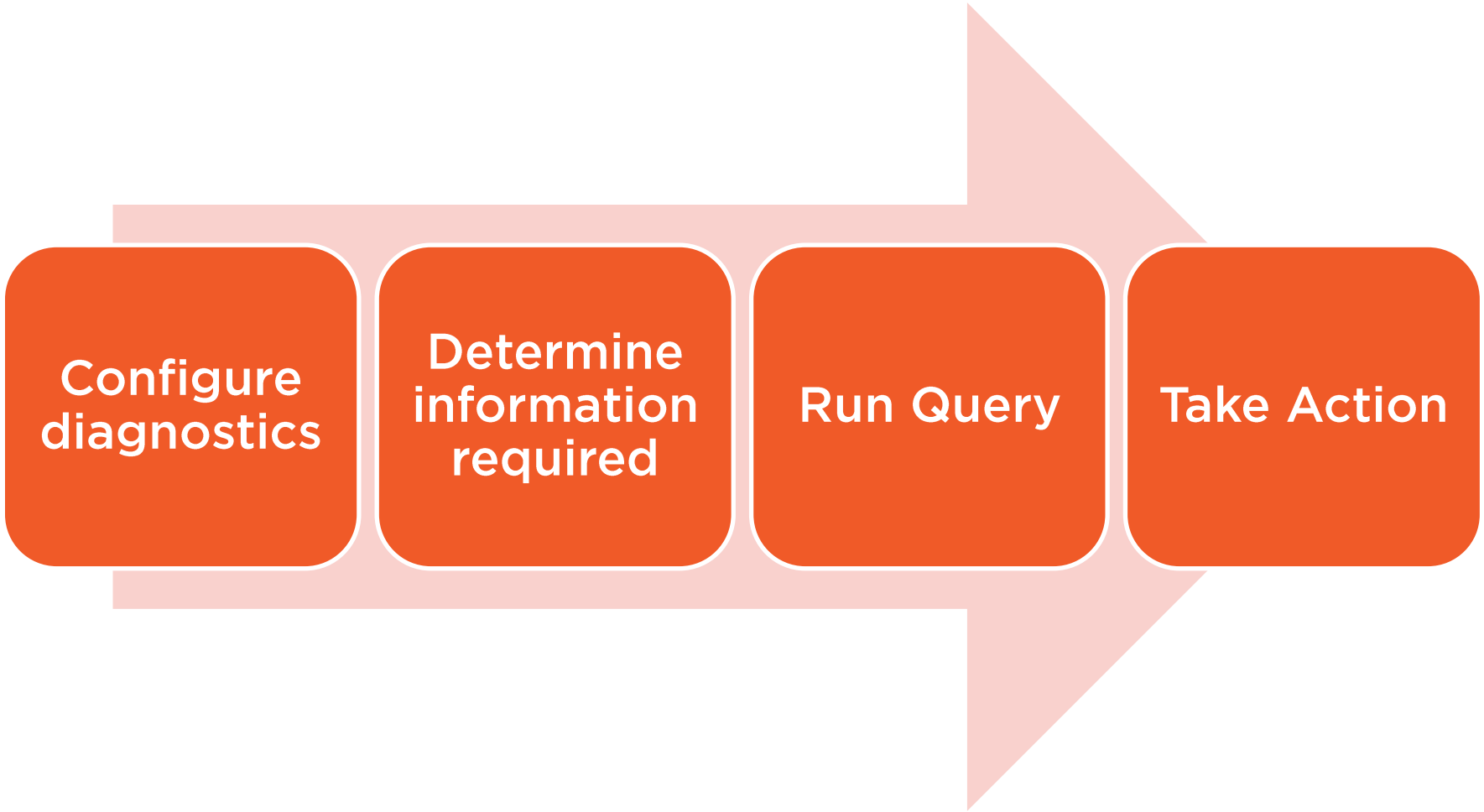


Analyze Alerts across Subscriptions



Query and Analyze Logs

Log Search Workflow



Create a Query with Kusto Query Language

Understand the syntax

Be able to differentiate KQL from other queries

Check out the resources at https://docs.microsoft.com/en-us/azure/data-explorer/kusto/concepts/

Configure and Interpret Metrics

Configure and Interpret Metrics

Metrics are real-time numbers like CPU%

Use Metrics Explorer to visualize & analyze the data

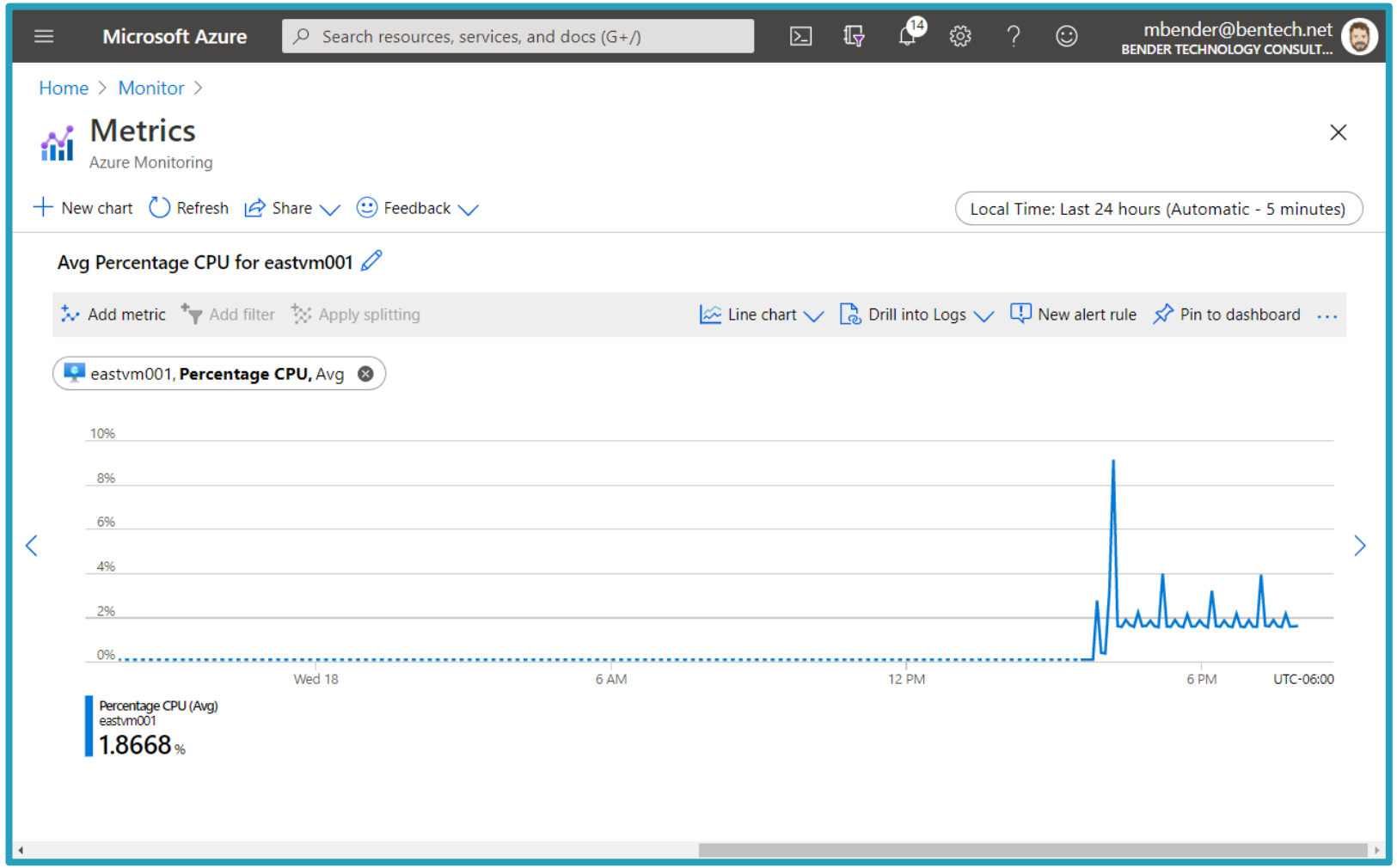
Use filters to refine data

Change views in Metrics Explorer

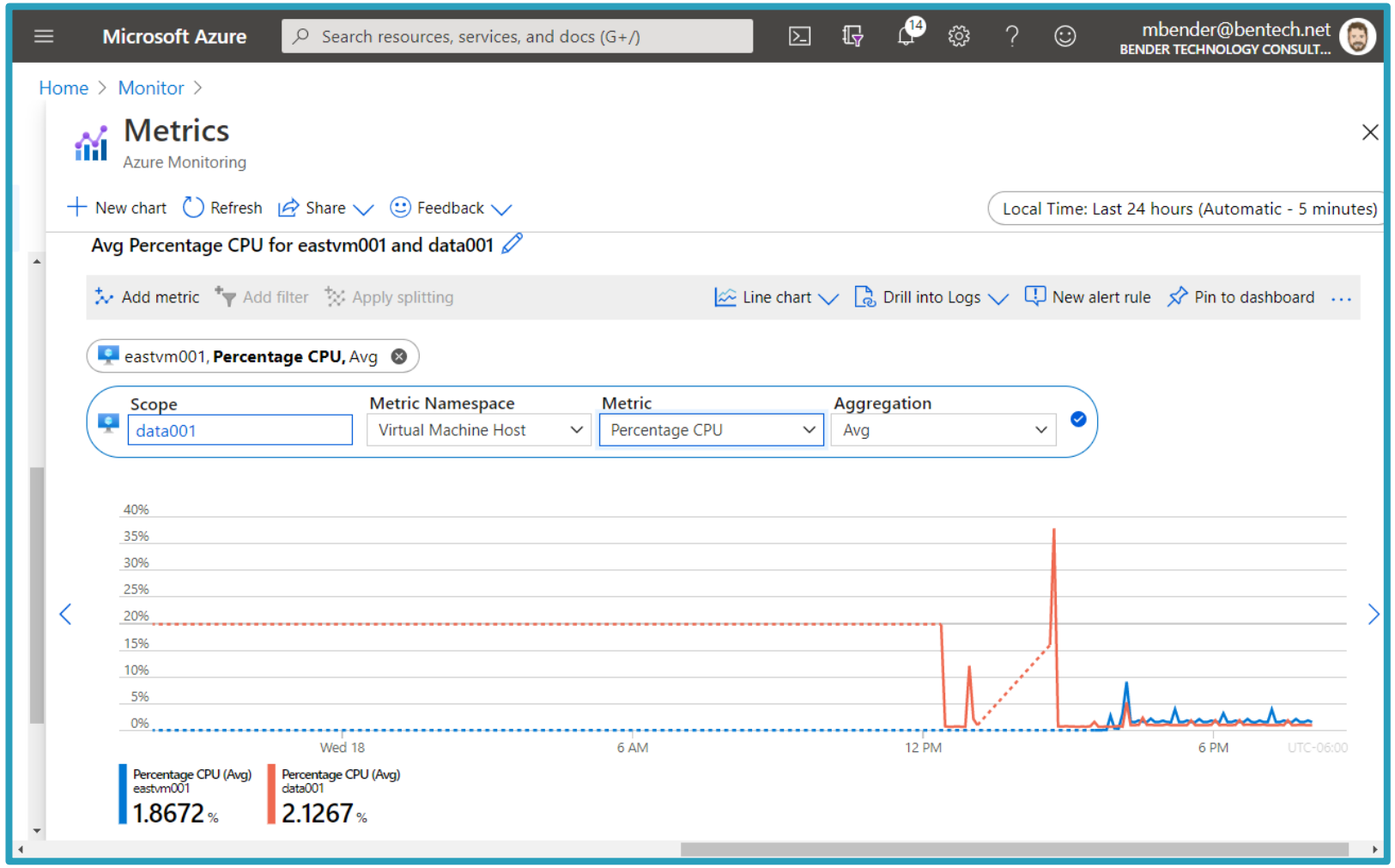
Pin to dashboard for regular use

Create a rule

Multiple Subscriptions in Metric Explorer



Multiple Subscriptions in Metric Explorer



Configure Application Insights

Configure and Interpret Metrics

Monitoring service for live applications

Deployed with agent or via code

Configured through Azure portal or Code

Azure Backup “Need to Know” Exam Information

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Exam Breakdown of Objective Domain

Monitor and Backup Up Azure Resources (10-15%)

- Monitor resources by using Azure Monitor
- Implement backup and recovery

Objectives

Configure and review backup reports

Perform backup and restore operations by using Azure Backup

Create a Recovery Services Vault

- use soft delete to recover Azure VMs

Create and configure backup policy

Perform site-to-site recovery by using Azure Site Recovery

Perform Backup and Restore Operations by using Azure Backup

Implement Backup and Recovery

Create a

Functional Group

Implement backup and recovery

Implement backup and recovery

- configure and review backup reports
- perform backup and restore operations by using Azure Backup ~~Service~~
- create a Recovery Services Vault
  - use soft delete to recover Azure VMs
- create and configure backup policy
- perform site-to-site recovery by using Azure Site Recovery
- NOT: SQL or HANA

Areas that are not covered

Backup of SQL and SAP HANA

Network Monitor

Preview Items

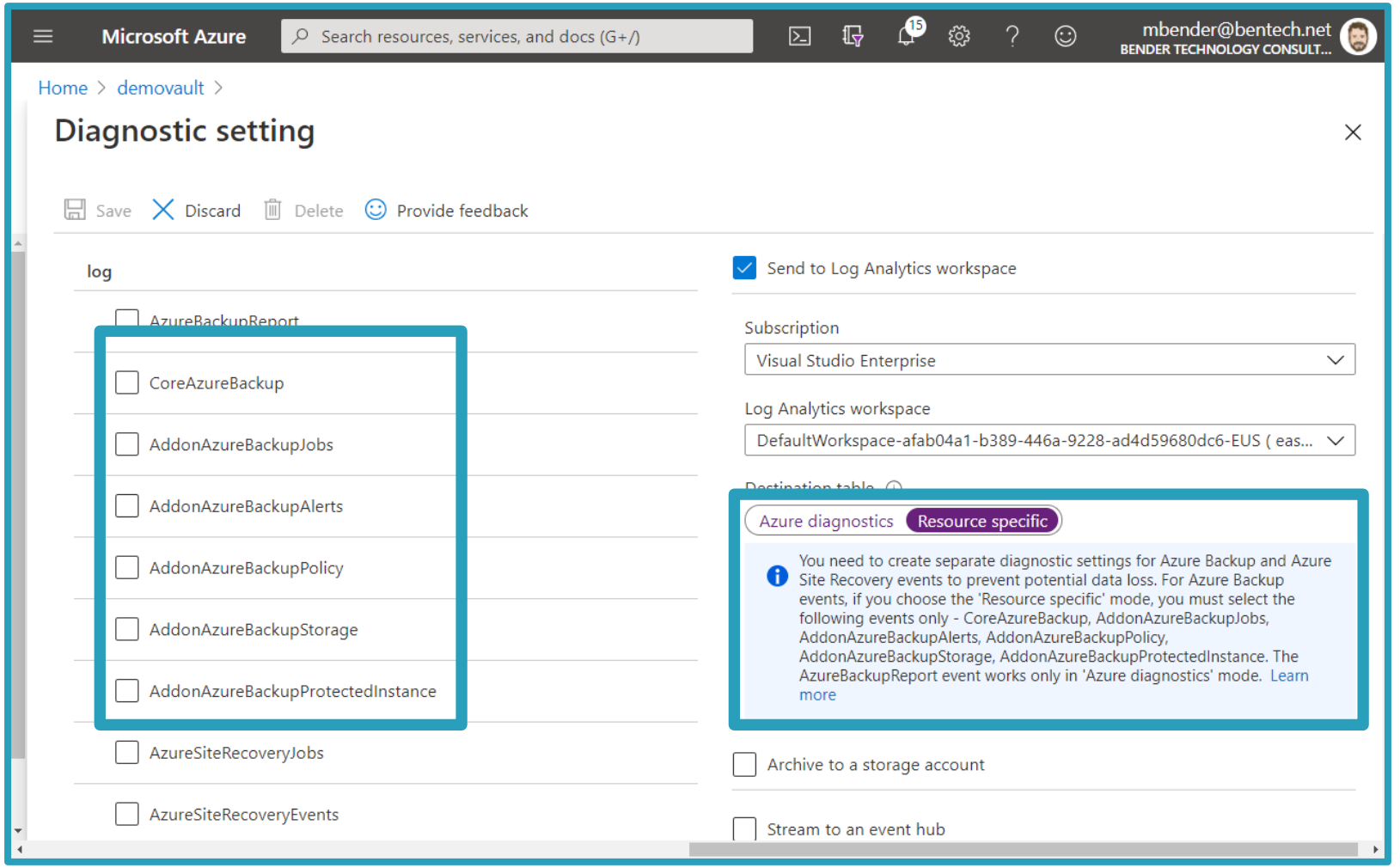
Azure Backup Center

Configure and Review Backup Reports

Configure Backup Reports

- Support multiple backup sources
- Requires a Log Analytics workspace
- Configure diagnostic settings in Recovery Services Vault
- Know the Azure Backup log events for Resource specific diagnostics
- View Reports in the Recovery Services Vault

Log Events for Resource Specific Diagnostic Logs



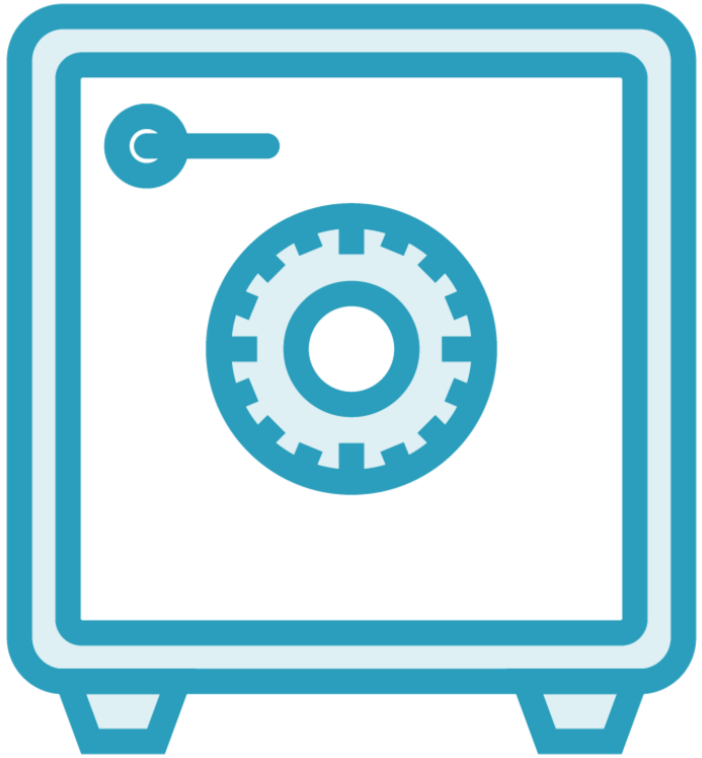
Create and Configure Backup Policy

Create a Backup Policy

- Stored in Recovery Services Vault in region of resources
- Defines how a backup plan is implemented
- Setup asks for backup configuration
- Multiple retention periods
- Policy for each resource type

Create a Recovery Services Vault

Recovery Service Vault



Storage Entity for backup and recovery resources

Centralized management

Work with on-premises and cloud-based workloads.

Backup resources in same region as RSV

- RSV and VMs in East US

Site recovery resources in different region

- RSV in East US
- Source VMs in West US

Understand what you can and can’t protect based on Azure region

Perform Backup and Restore Operations by using Azure Backup

Performing Backup Operations

- Supports on-premises and Azure workloads
- App-consistent backups
- Require resources and vault in same region
- Initiate backup manually or scheduled

You can only backup resources in the SAME region as your Recovery Services Vault

Restoring VM Backups

Point-In-time Restores

VM Restore Options

- Entire VM
- Individual disks
- Files

Mount Files in VM Backup via Script

Restoring File Shares

Based on Snapshots

Incorporates Soft Delete for 14 days of retention by default

File Share backup data is in storage account

Backup Agents

Azure Backup extension

For all Azure VMs

Microsoft Azure Recovery Services agent (MARS)

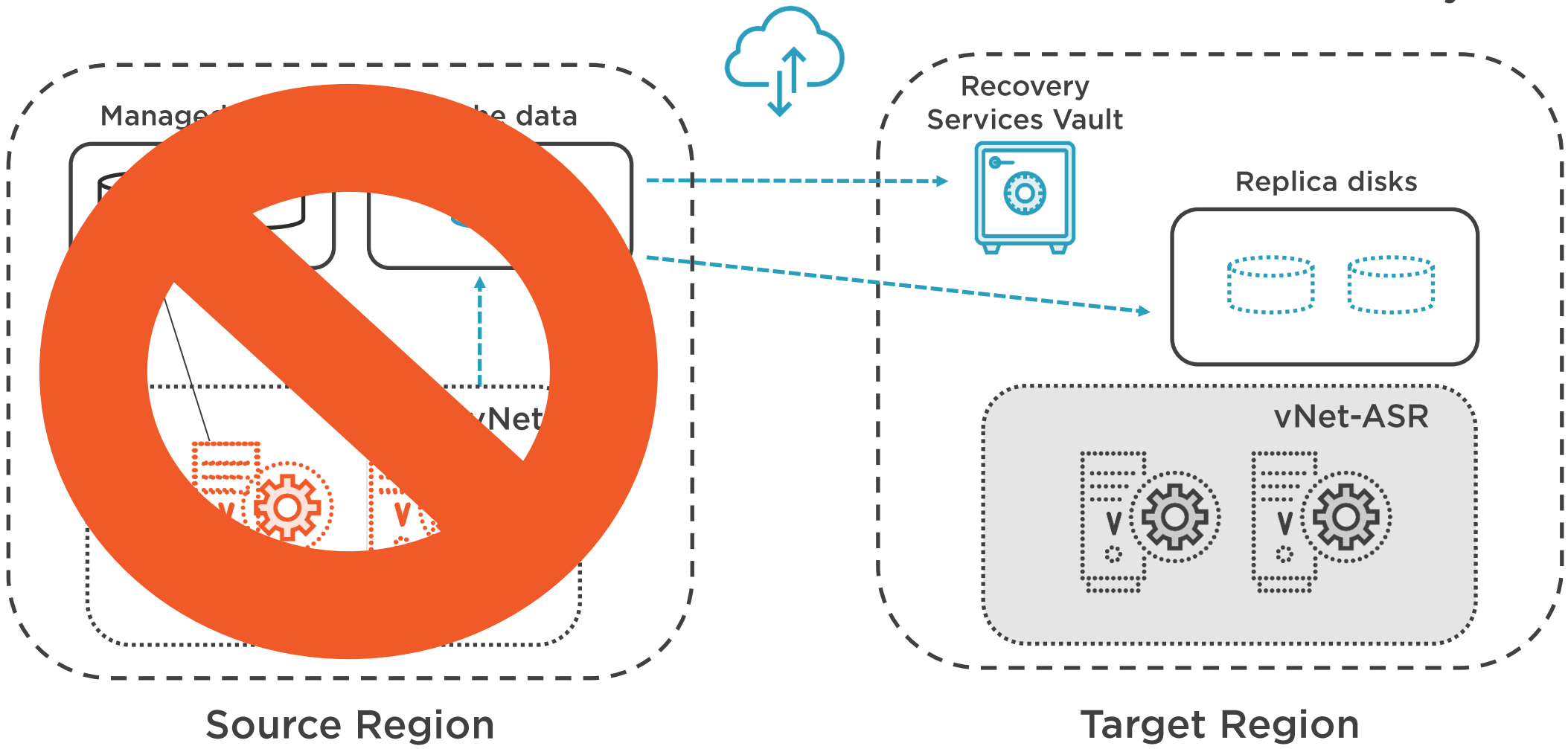
For On-premises servers or AWS VMs

Virtual Machine Soft Delete

- Protects against unintended VM deletions
- Stored for up to 14 days
- Requires a backup to have been completed
- Multiple tools for completing

Perform Site-to-site Recovery by Using Azure Site Recovery

Azure Site Recovery Topology



Perform Site-to-site Recovery by Using Azure Site Recovery

Set up site recovery at VM level or in recovery services vault

RSV and VM resources for replication must be in different regions

Example:

- VMs in East US and West US Regions
- Existing RSV in West US Region
- Only East US VMs can be protected

You can perform test failovers or production failovers.

Site-Recovery Protected VMs must be in a different Azure region from your Recovery Services Vault.

Exam Strategy

Know how services fit together

- For example, how would you backup up VMs and Azure Files
- Creating Alerts in Azure Monitor

Be familiar with implementations in portal and with code

Weight your study time based on exam percent

- Monitor and Backup will be approximately 5-8 questions

Exam Strategy

- Build on your weaknesses
- Make sure to check the AZ-104 exam guide regularly
- Remember this is an Administrator Associate Exam
- Get hands-on experience

Best of Luck on the Exam!!!

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