

WEEK 8: COST MANAGEMENT & OPTIMIZATION





Content Usage Parameters

Content refers to material including instructor guides, student guides, lab guides, lab or hands-on activities, computer programs, etc. designed for use in a training program

1

Content is subject to
copyright protection

2

Content may only be
leveraged by students
enrolled in the training
program

3

Students agree not to
reproduce, make
derivative works of,
distribute, publicly perform
and publicly display in any
form or medium outside of
the training program

4

Content is intended as
reference material only to
supplement the instructor-
led training

REVIEW: WEEK 7

We focused on real-world case studies of cloud transformation using Azure.

We highlighted real-world benefits of using Azure to transform businesses.

- Healthcare
- Finance
- Manufacturing
- Retail

- Week 1-2: Introduction to Cloud Technology
- Week 3-5: Cloud Strategy and Architecture
- Week 6-7: Use Cases and Real-World Applications
- **Week 8-9: Benefits and Value Proposition**
- Week 10-12: Challenges and Risks
- Week 13-14: Interactive Simulations and Practical Exercises
- Week 15: Course Review and Final Assessment

OVERVIEW: WEEK 8

Understanding Cloud Economics:

- Evaluate CapEx vs. OpEx, Total Cost of Ownership (TCO), and ROI models
- Learn how cloud economics drive business value and investment decisions

Cost Management Tools and Techniques:

- Explore Azure Cost Management, Pricing Calculator, and Reserved Instance strategies
- Discover budgeting, auto-scaling, and resource optimization best practices

Case Studies on Cost Savings:

- Review real-world examples where strategic cost management led to 30-40% savings
- Analyze how similar strategies can be applied to your organization

INTRODUCTION TO CLOUD ECONOMICS

Definition: Understanding the financial aspects of cloud computing.

Importance: Aligning cloud strategies with business goals.

Scope: CapEx vs. OpEx, TCO, and ROI models.

Objective: Equip leaders with financial insights for cloud decisions.

Outcome: Enhanced investment decision-making.

CAPEX VS OPEX



CapEx (Capital Expenditure): Upfront investments in physical assets.

OpEx (Operational Expenditure): Ongoing costs for operations.

Cloud Shift: Transitioning from CapEx to OpEx.

Financial Flexibility: Benefits of reduced upfront costs.

Budgeting Implications: Impact on financial planning.

TOTAL COST OF OWNERSHIP (TCO)

Definition: Comprehensive cost assessment over asset lifespan.

Components: Direct and indirect costs.

Cloud TCO: Factors influencing cloud computing costs.

Comparison: On-premises vs. cloud TCO.

Decision-Making: Using TCO for strategic planning.



RETURN ON INVESTMENT (ROI)



Definition: Measure of profitability from investments.

Calculation: ROI formula and interpretation.

Cloud ROI: Evaluating returns from cloud investments.

Factors: Elements affecting cloud ROI.

Strategic Use: Leveraging ROI for investment decisions.

CLOUD ECONOMICS DRIVING BUSINESS VALUE

Agility: Rapid scalability and innovation.

Cost Efficiency: Optimizing operational expenses.

Global Reach: Expanding market presence.

Risk Management: Enhancing security and compliance.

Competitive Edge: Staying ahead in the market



FACTORS INFLUENCING CLOUD TOTAL COST OF OWNERSHIP (TCO)

Usage Patterns: Variability in resource consumption.

Service Selection: Choosing appropriate cloud services.

Pricing Models: Understanding pay-as-you-go vs. reserved instances.

Geographic Considerations: Data center locations affecting costs.

Compliance Requirements: Costs associated with regulatory adherence

STRATEGIES TO OPTIMIZE CLOUD TCO

Right-Sizing Resources: Aligning resources with actual needs.

Auto-Scaling: Adjusting resources based on demand.

Reserved Instances: Leveraging cost savings for predictable workloads.

Efficient Architecture: Designing for cost-effective performance.

Continuous Monitoring: Regularly reviewing and adjusting resource usage.

POP QUIZ:

Which of the following best describes OpEx in cloud computing?

- A. Upfront capital investments
- B. Ongoing operational expenses
- C. Total cost over asset lifespan
- D. Revenue generated from cloud services



POP QUIZ:

Which of the following best describes OpEx in cloud computing?

- A. Upfront capital investments
- B. Ongoing operational expenses**
- C. Total cost over asset lifespan
- D. Revenue generated from cloud services



POP QUIZ:

Which strategy involves adjusting cloud resources automatically based on demand?

- A. Right-sizing
- B. Auto-scaling
- C. Reserved instances
- D. Continuous monitoring



POP QUIZ:

Which strategy involves adjusting cloud resources automatically based on demand?

- A. Right-sizing
- B. Reserved instances
- C. Auto-scaling**
- D. Continuous monitoring



OVERVIEW OF AZURE COST MANAGEMENT

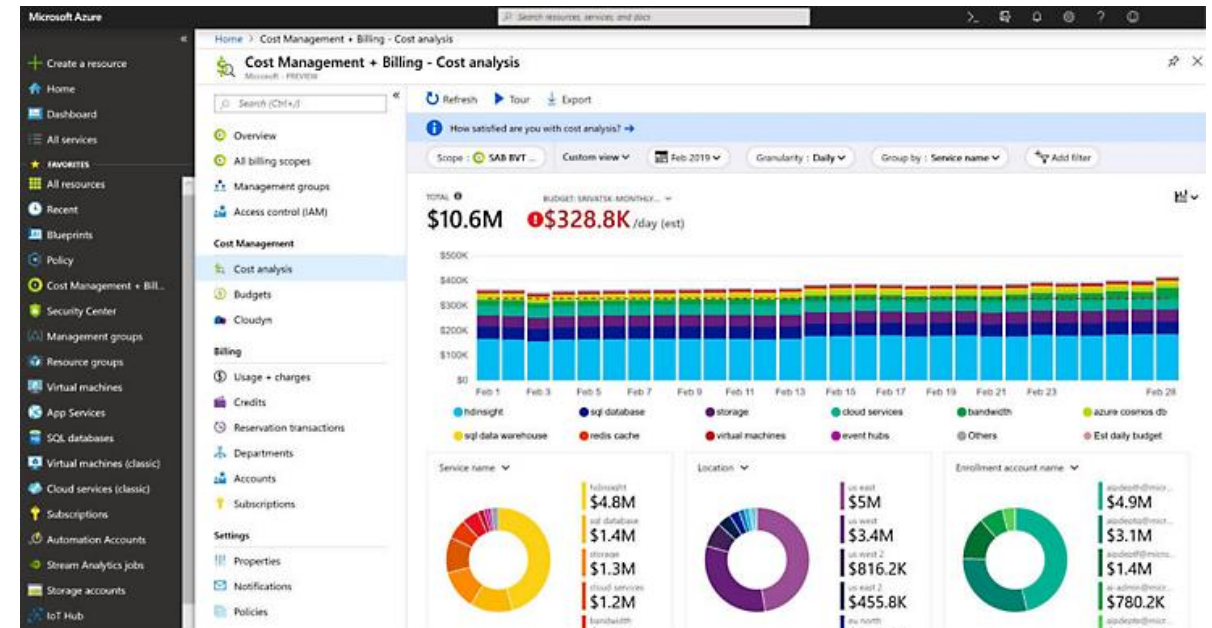
Comprehensive Cost Analysis: Provides detailed insights into cloud spending across services and resources.

Budgeting and Forecasting: Enables setting budgets and predicting future costs based on usage trends.

Cost Allocation: Allows distribution of costs across departments or projects for accountability.

Anomaly Detection: Identifies unexpected spending patterns to prevent budget overruns.

Integration Capabilities: Seamlessly integrates with other Azure services and third-party tools.



[Cloud Cost Optimization | Microsoft Azure](#)

MICROSOFT COST MANAGEMENT



Microsoft Cost Management is a suite of FinOps tools designed to help organizations analyze, monitor, and optimize their Microsoft Cloud costs.

Accessibility: Available to anyone with access to a billing account, subscription, resource group, or management group.

Integration: Can be accessed within the billing and resource management experiences or as a standalone tool.

Automation: Supports automation and extension of native capabilities to maximize organizational visibility and accountability.

Optimization: Helps achieve optimization and efficiency goals faster.

KEY FEATURES OF MICROSOFT COST MANAGEMENT

Cost Analysis: Report on and analyze costs in the Azure portal, Microsoft 365 admin center, or Power BI.

Proactive Monitoring: Monitor costs with budget, anomaly, reservation utilization, and scheduled alerts.

Cost Allocation: Enable tag inheritance and split shared costs with cost allocation rules.

Data Export: Automate business processes or integrate cost data into external tools by exporting data.

Visibility: Provides comprehensive visibility into costs across multiple scopes.



UNDERSTANDING HOW CHARGES ARE PROCESSED



Commerce System: Microsoft Commerce is a data pipeline that underpins all Microsoft commercial transactions.

Usage Measurement: Azure, Microsoft 365, Dynamics 365, and Power Platform services measure usage and purchase quantities.

Rating System: Applies discounts based on specific price sheets and generates rated usage.

Billing Process: Credits are applied, and invoices are published at the end of the billing period.

DATA INCLUDED IN COST MANAGEMENT

Products and Subscriptions: Manage all products, subscriptions, and recurring purchases.

Credits and Invoices: Review credits and commitments, view and pay invoices.

Exclusions: Cost Management doesn't include credits, taxes, and some purchases like support charges.

Transition: Classic CSP and sponsorship subscriptions will be supported after transitioning to Microsoft Customer Agreement.

ORGANIZING AND ALLOCATING COSTS

Subscription Hierarchy: Organize subscriptions and resources for natural reporting.

Billing Profiles and Invoice Sections: Group subscriptions into invoices for different business units.

Management Groups: Group subscriptions with inherited access and multiple levels.

Resource Tags: Add business context to cost details for applications, business units, and environments.

Edit tags

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. Tag names are case-insensitive and tag values are case-sensitive. [Learn more about tags](#)

Tags

Name	Value
Dept	Finance
Environment	Production

Resource

demoGroup (Resource group)
2 to be added

Save **Cancel**

ORGANIZING AND ALLOCATING COSTS – CONT'D

Consistent Tagging Conventions: Establishing standardized tags for all resources.

Departmental Allocation: Assigning resources to specific departments for precise cost tracking.

Project-Based Tagging: Categorizing resources by project to monitor spending effectively.

Environment Identification: Differentiating between development, testing, and production environments.

Automated Tag Enforcement: Utilizing policies to ensure compliance with tagging standards.

MONITORING COSTS WITH ALERTS

Create an alert rule ...

Scope

Condition

Actions

Details

Tags

Review + create

Configure when the alert rule should trigger by selecting a signal and defining its logic.

Signal name *

Availability

See all signals

Alert logic

We have set the condition configuration automatically based on popular settings for this metric. Please review and make changes as needed.

Threshold type

Static

Dynamic

Aggregation type

Average

Value is

Less than

Threshold *

90

%

Split by dimensions

Use dimensions to monitor specific time series and provide context to the fired alert. [About monitoring multiple time series](#)

Dimension name	Operator	Dimension values	Include all future values
Select dimension	=	0 selected	<input type="checkbox"/>
Add custom value			

When to evaluate

Check every

1 minute

Lookback period

5 minutes

Review + create

Previous

Next: Actions >

Budget Alerts: Notify when costs exceed predefined amounts.

Anomaly Alerts: Detect unexpected changes in daily usage.

Scheduled Alerts: Provide regular updates on costs based on saved views.

EA Commitment Balance Alerts: Notify when commitment balance is 90% or 100% used.

© 2025 by Innovation In Software Corporation

22

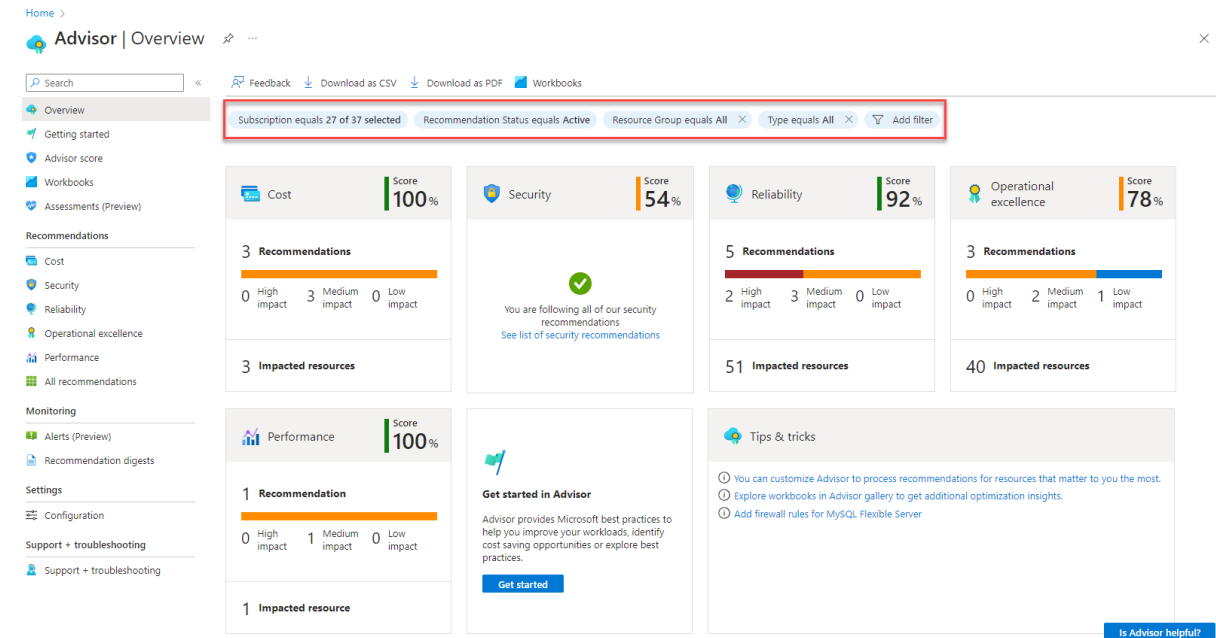
OPTIMIZING COSTS

Azure Advisor: Provides cost recommendations based on usage patterns.

Azure Savings Plans: Save up to 65% on Azure compute resources.

Azure Reservations: Save up to 72% by pre-committing to usage.

Azure Hybrid Benefit: Reduce costs using existing licenses on Azure.



[Introduction to Azure Advisor - Azure Advisor | Microsoft Learn](#)

POP QUIZ:

What is the primary function of Billing in Microsoft Cost Management?

- A) Analyzing costs
- B) Managing billing accounts and paying invoices
- C) Optimizing cloud resources
- D) Monitoring security policies



POP QUIZ:

What is the primary function of Billing in Microsoft Cost Management?

- A) Analyzing costs
- B) Optimizing cloud resources
- C) Monitoring security policies
- D) Managing billing accounts and paying invoices**



POP QUIZ:

What does the rating system in Microsoft Commerce do?

- A) Measures usage
- B) Applies discounts and generates rated usage
- C) Publishes invoices
- D) Manages user accounts



POP QUIZ:

What does the rating system in Microsoft Commerce do?

- A) Applies discounts and generates rated usage**
- B) Measures usage
- C) Publishes invoices
- D) Manages user accounts



ESTIMATING YOUR CLOUD COSTS

TCO Calculator: Helps estimate the cost of moving on-premises infrastructure to the cloud.

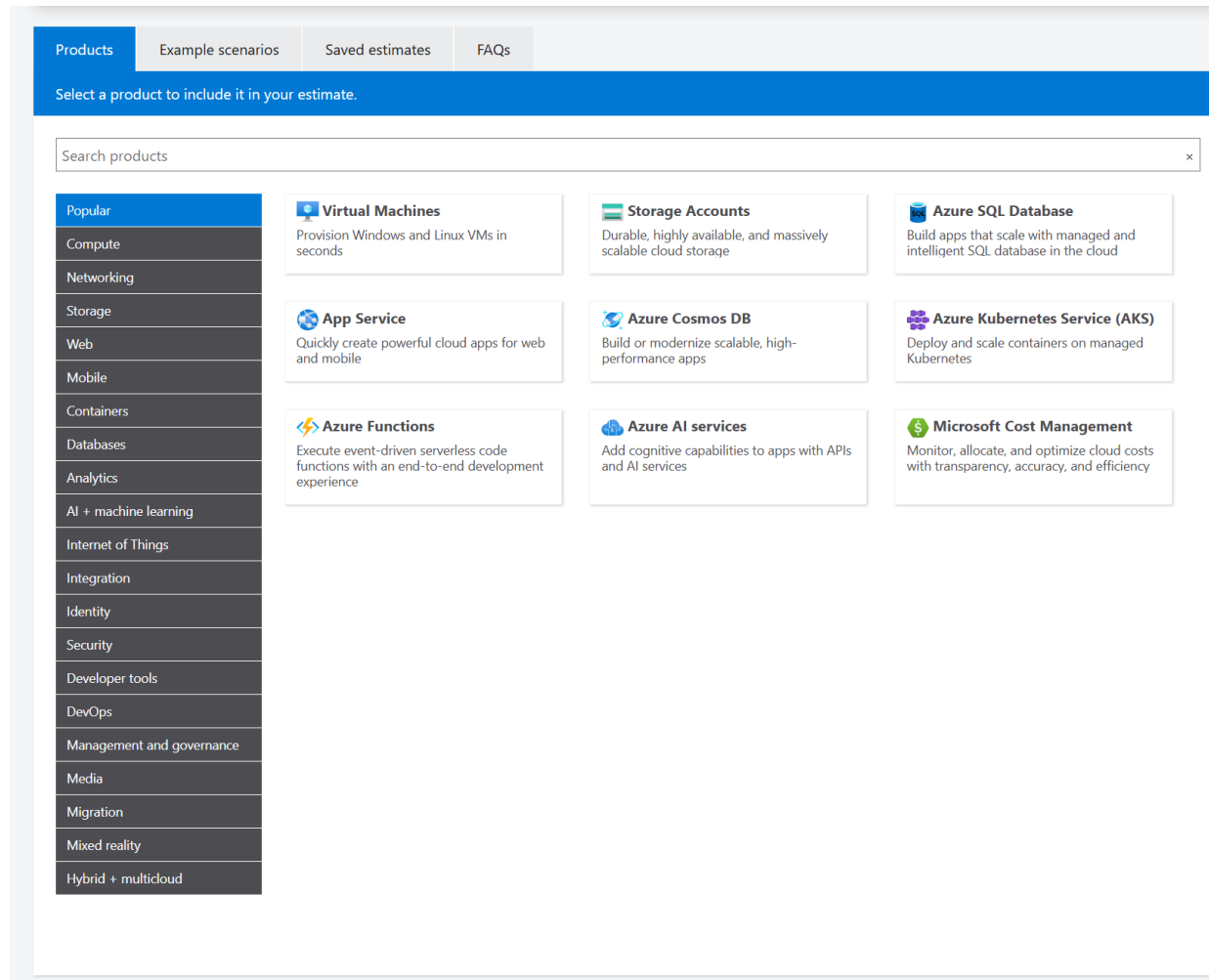
Azure Migrate: Analyzes on-premises workloads and plans cloud migration.

Azure Pricing Calculator: Estimates costs for new or expanded deployments.

VM Selector Tool: Finds the best VMs for your solutions.

Azure Hybrid Benefit Calculator: Estimates savings using existing licenses on Azure.

UTILIZING THE PRICING CALCULATOR



Customizable Estimates: Tailor cost estimates based on specific service selections and configurations.

Scenario Planning: Evaluate costs for various deployment scenarios and usage patterns.

Currency Selection: View estimates in multiple currencies for global financial planning.

Exportable Reports: Generate detailed reports for stakeholder review and decision-making.

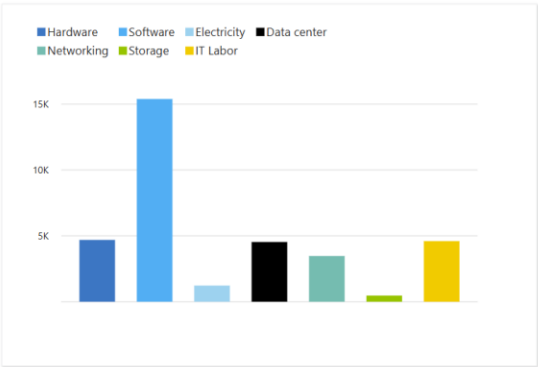
Regular Updates: Reflects the latest pricing to ensure accurate estimations.

INTRODUCTION TO THE TCO CALCULATOR

- Purpose:** Estimate cost savings by migrating workloads to Azure.
- Workload Details:** Enter on-premises workload details for accurate analysis.
- Components:** Includes servers, databases, storage, and networking.
- Customization:** Adjust assumptions to match your environment.
- Report Generation:** View detailed cost comparison reports.

Total on-premises cost breakdown

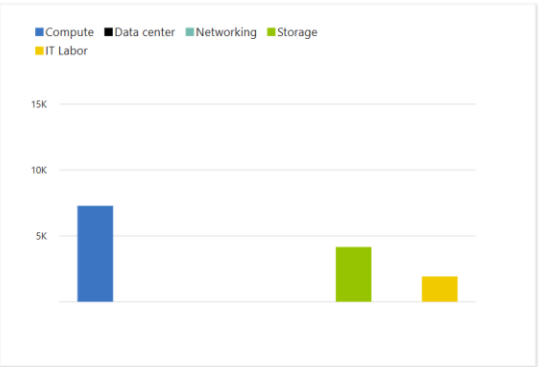
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.



\$98,353
Cost over 5 year(s)

Total Azure cost breakdown

In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.



\$13,353
Cost over 5 year(s)

On-premises cost breakdown summary		Azure cost breakdown summary	
Category	Cost	Category	Cost
Compute	\$85,279.10	Compute	\$7,280.04
Hardware	\$4,692.00	Data Center	\$0.00
Software	\$15,387.50	Networking	\$0.00
Electricity	\$1,227.60	Storage	\$4,155.61
Database	\$63,972.00	IT Labor	\$1,917.05
Data Center	\$4,534.05		
Networking	\$3,472.71		
Storage	\$467.20		
IT Labor	\$4,600.00		
Total	\$98,353.00	Total	\$13,353.00

DEFINING YOUR WORKLOADS

Servers: Enter details of on-premises server infrastructure.

Databases: Provide information on on-premises database infrastructure.

Storage: Specify details of on-premises storage infrastructure.

Networking: Enter the amount of network bandwidth consumed.

Bulk Upload

My saved reports

Sign In

Define your workloads

Enter the details of your on-premises workloads. This information will be used to understand your current TCO and recommended services in Azure.

Servers

Enter the details of your on-premises server infrastructure. After adding a workload, select the workload type and enter the remaining details.

+ Add server workload

Databases

Enter the details of your on-premises database infrastructure. After adding a database, enter the details of your on-premises database infrastructure in the Source section. In the Destination section, select the Azure service you would like to use.

+ Add database

Storage

Enter the details of your on-premises storage infrastructure. After adding storage, select the storage type and enter the remaining details.

+ Add storage

Networking

Enter the amount of network bandwidth you currently consume in your on-premises environment.

Outbound bandwidth ⓘ

1

GB

▼

(1 - 2000000)


Destination Region

East Asia

▼

Next

CERTIFIED BY



© 2025 by Innovation In Software Corporation

31

ADJUSTING ASSUMPTIONS

My saved reports

Sign In

Adjust assumptions

The following assumptions in the TCO model are industry averages accredited by Nucleus Research. To get a more accurate TCO report, update and customize these values to reflect your situation, which can vary by industry and location.

Currency

United States - Dollar (\$) ▼

Software Assurance coverage (provides Azure Hybrid Benefit)

Enable this if you have purchased this benefit for your on-premises Windows or SQL Servers. If enabled, Azure Hybrid Benefit (AHB) will be applied to Azure estimates. AHB helps you get more value from your on-premises licenses — save up to 40 percent on virtual machines and up to 82 percent with Azure Reserved Virtual Machines (VM) instances.

Windows Server Software Assurance coverage

SQL Server Software Assurance coverage

[Learn more about Software Assurance >](#) [Learn more about Azure Hybrid Benefit >](#)

Geo-redundant storage (GRS)

GRS replicates your data to a secondary region that is hundreds of miles away from the primary region.

[Learn more about GRS >](#)

Virtual Machine costs

Enable this for the Calculator to not recommend Bs-series virtual machines ⓘ

[Learn more about Bs-series virtual machines >](#)

Electricity costs

Price per KW hour ⓘ

0.1334

USD

Storage costs

Storage procurement cost/GB for local disk/SAN-SSD ⓘ

Storage procurement cost/GB for local disk/SAN-HDD ⓘ

Storage procurement cost/GB for NAS/file storage ⓘ

Storage procurement cost/GB for Blob storage ⓘ

Annual enterprise storage software support cost ⓘ

Cost per tape drive ⓘ

0.4

USD

0.2

USD

0.2

USD

0.2

USD

10

%

160

USD

Customization: Tailor assumptions to match your environment.

Cost Factors: Adjust factors like hardware costs, software costs, and labor costs.

Usage Patterns: Modify usage patterns to reflect actual consumption.

Scalability: Consider future growth and scalability needs.

© 2025 by Innovation In Software Corporation

32

TCO REPORT

Cost Comparison: Detailed comparison of on-premises vs. Azure costs.

Savings Breakdown: Highlights potential savings in various areas.

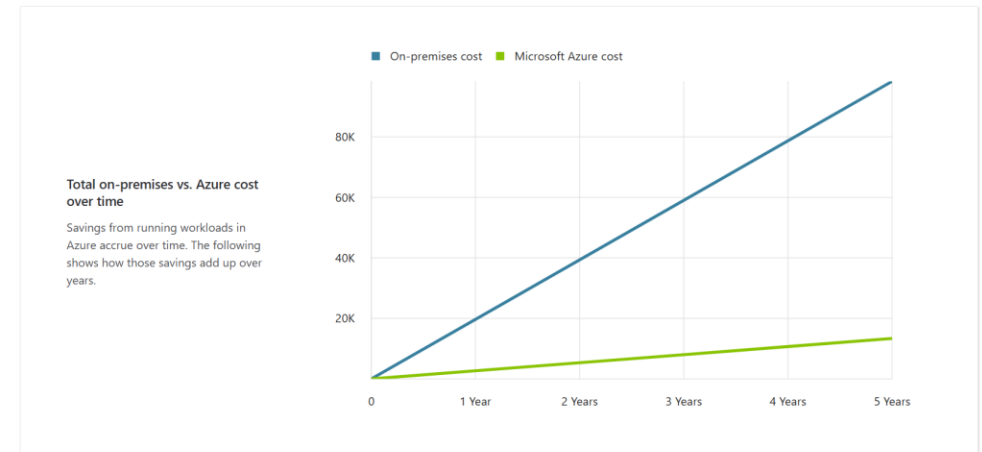
Recommendations: Provides recommendations for optimizing costs.

Export Options: Export the report for further analysis and sharing.

View report

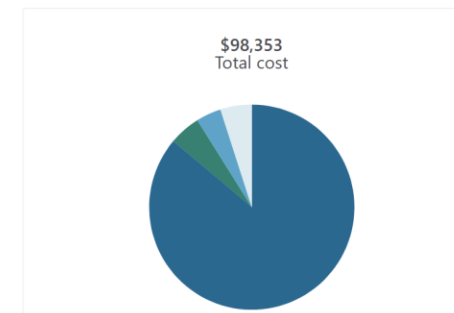
Timeframe ⓘ 5 Years Region ⓘ East US Licensing program ⓘ Microsoft Online Services Program Show Dev/Test Pricing ⓘ ☐

Over 5 year(s) with Microsoft Azure, your estimated cost savings could be as much as **\$85,000**



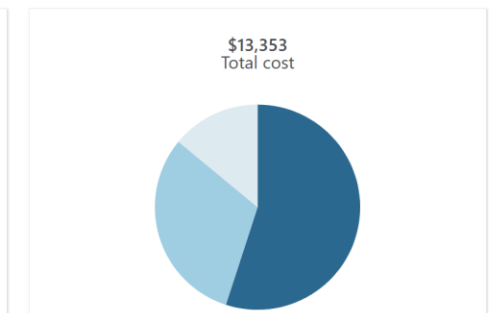
Total on-premises over 5 year(s)

TCO of on-premises environments tends to be driven by compute and data center costs.



Total Azure cost over 5 year(s)

In Azure, certain cost categories decrease or go away completely.



BENEFITS OF USING THE TCO CALCULATOR

Accurate Estimates: Provides accurate cost estimates for migration.

Informed Decisions: Helps make informed decisions about cloud migration.

Cost Optimization: Identifies areas for potential cost savings.

Strategic Planning: Supports strategic planning and budgeting.

CASE STUDY: ENGLEWOOD HEALTH'S MIGRATION TO AZURE



Overview: Englewood Health, a healthcare provider with over 3,700 employees, migrated its IT infrastructure to Azure.

Challenges: Fragmented IT architecture, underutilized resources, and the need for performance and efficiency improvements.

Solution: CloudIQ helped consolidate and migrate Englewood's IT infrastructure to Azure, enhancing productivity and optimizing resources.

Azure Migrate: Used to assess on-premises workloads and plan the migration.

Cost Estimation: TCO Calculator provided detailed cost savings estimates.

CASE STUDY: CUSTOMER CHALLENGES



Fragmented IT Architecture: Various solutions adopted piecemeal, leading to inefficiencies.

Underutilized Resources: Existing infrastructure was not fully optimized.

Performance and Efficiency: Needed improvements in overall performance and task automation.

Cost Estimation: Required accurate cost estimates for migration.

CASE STUDY: PARTNER SOLUTION



CloudIQ Partnership: Englewood Health partnered with CloudIQ for the migration.

Azure Migrate: Assessed on-premises workloads and planned the migration.

TCO Calculator: Provided detailed cost savings estimates.

Phased Migration: Application dependencies were studied and mapped, and a cluster-based migration plan was devised.

CASE STUDY: CUSTOMER BENEFITS



Enhanced Security: Modern hybrid Azure infrastructure with updated network infrastructure.

Cost Reduction: VM consolidation and modernization reduced costs using Azure Hybrid Benefit.

Performance Boost: Significant performance improvements with CPU utilization of 60-70%.

Better Decision-Making: Improved infrastructure helps make better decisions and enhance overall care.

POP QUIZ:

Which tool helps you estimate the cost of moving on-premises infrastructure to the cloud?

- A) Azure Migrate
- B) Azure Pricing Calculator
- C) TCO Calculator
- D) VM Selector Tool



POP QUIZ:

Which tool helps you estimate the cost of moving on-premises infrastructure to the cloud?

- A) Azure Migrate
- B) Azure Pricing Calculator
- C) TCO Calculator**
- D) VM Selector Tool



POP QUIZ:

Which tool provides cost recommendations based on usage patterns?

- A) Azure Savings Plans
- B) Azure Reservations
- C) Azure Advisor
- D) Azure Hybrid Benefit



POP QUIZ:

Which tool provides cost recommendations based on usage patterns?

- A) Azure Savings Plans
- B) Azure Reservations
- C) Azure Advisor**
- D) Azure Hybrid Benefit



POP QUIZ:

What is the purpose of Resource Tags in cost management?

- A) Grouping subscriptions
- B) Adding business context to cost details
- C) Generating invoices
- D) Monitoring costs



POP QUIZ:

What is the purpose of Resource Tags in cost management?

- A) Grouping subscriptions
- B) Adding business context to cost details**
- C) Generating invoices
- D) Monitoring costs



POP QUIZ:

Why is it important to adjust assumptions in the TCO Calculator?

- A) To match your specific environment
- B) To develop applications
- C) To manage user accounts
- D) To monitor security policies



POP QUIZ:

Why is it important to adjust assumptions in the TCO Calculator?

- A) To match your specific environment**
- B) To develop applications
- C) To manage user accounts
- D) To monitor security policies



RESERVED INSTANCE STRATEGIES

Cost Savings: Potentially reduce costs by up to 72% compared to pay-as-you-go pricing.

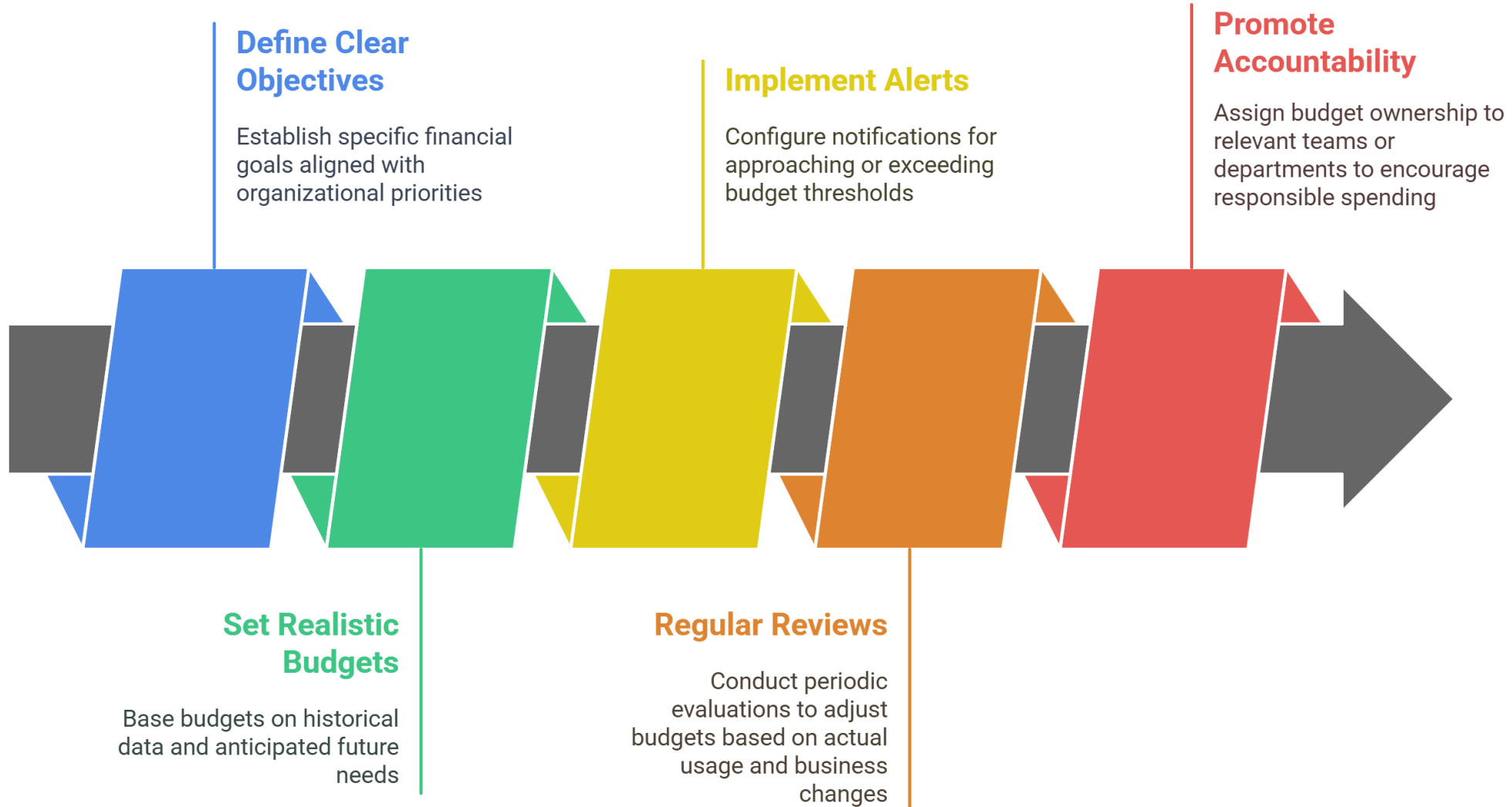
Flexible Terms: Offers one-year or three-year commitment options to suit organizational needs.

Instance Size Flexibility: Allows adjustments within a specific VM family to accommodate changing requirements.

Exchange and Refund Options: Provides the ability to modify or cancel reservations under certain conditions.

Scope Application: Apply reservations to specific subscriptions or shared across the organization.

BUDGETING BEST PRACTICES



LEVERAGING AUTO-SCALING FOR COST EFFICIENCY

Demand-Driven Resource Allocation: Automatically adjusts resources based on real-time workload demands.

Cost Reduction: Minimizes expenses by scaling down resources during periods of low demand.

Improved Performance: Ensures optimal application performance during peak usage times.

Policy-Based Scaling: Utilize predefined policies to govern scaling actions, maintaining control over resource adjustments.

Integration with Monitoring Tools: Combine with monitoring solutions for proactive management and optimization.

AUTOMATION IN COST MANAGEMENT

Automated Resource Provisioning: Deploying resources based on predefined templates to prevent over-provisioning.

Policy-Driven Automation: Enforcing cost policies through automated workflows.

Automated Scaling: Adjusting resource capacity in real-time based on demand fluctuations.

Cost Anomaly Detection: Utilizing machine learning to identify and alert on unusual spending patterns.

Automated Decommissioning: Retiring unused resources without manual intervention.

TRAINING & AWARENESS

Cost Management Training Programs: Educating teams on best practices and tools.

Regular Workshops: Conducting sessions to share updates and strategies.

Accessible Documentation: Providing clear guidelines and resources for cost management.

Leadership Engagement: Ensuring leadership understands and supports cost management initiatives.

Feedback Mechanisms: Establishing channels for continuous improvement

WEEK 8 ACTIVITY

Objective: Learn how to use Azure Cost Management & Billing to track cloud expenditures

Lab Requirements:

- An **Azure account** (Your instructor will provide you with a student account)
- Access to the **Azure portal** (portal.azure.com).

STEP 1: CREATE A WEB APP TO GENERATE COST DATA

Replace **YourName** with your actual name in the instructions that follow:

- Log in to the [Azure portal](#).
- Click on + **Create a resource** at the top left.
- Search for “Web App” and select it.
- Click **Create** and fill out the basic details:
 - **Subscription:** Your subscription.
 - **Resource Group:** Create a new resource group called “CostManagementRGYourName”.
 - **Name:** Enter a unique name (e.g., “SampleWebAppYourName2025”).
 - **Publish:** Code.
 - **Runtime Stack:** Choose Node 22 LTS.
 - **Operating System:** Leave Linux as the selected choice
 - **Region:** Select East US
 - **Linux Plan:** Click Create New and name it “SampleWebAppPlanYourName”
 - **Pricing Plan:** Select Premium V3 P0V3
- Leave Zone Redundancy as is
- Click on **Review + create**
- Click on **Create** and wait for deployment to complete
- Click on **Go to resource** after deployment completes

Home > Create a resource >

Create Web App

Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Microsoft Azure Sponsorship

Resource Group * ⓘ (New) CostManagementRG

[Create new](#)

Instance Details

Name SampleWebApp2025 ✓
-hxf3hqcbdjcfckf2.eastus-01.azurewebsites.net

☒ Secure unique default hostname on. [More about this update](#) ⓘ

Publish * ☒ Code ☐ Container

Runtime stack * Node 22 LTS

Operating System * ☒ Linux ☐ Windows

Region * East US

Pricing plans

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. [Learn more](#) ⓘ

Linux Plan (East US) * ⓘ (New) SampleWebAppPlan

[Create new](#)

Pricing plan Premium V3 P1MV3 (195 minimum ACU/vCPU, 16 GB memory, 2 vC...
[Explore pricing plans](#)

Zone redundancy

An App Service plan can be deployed as a zone redundant service in the regions that support it. This is a deployment time only decision. You can't make an App Service plan zone redundant after it has been deployed. [Learn more](#) ⓘ

Zone redundancy

☐ **Enabled:** Your App Service plan and the apps in it will be zone redundant. The minimum App Service plan instance count will be three.

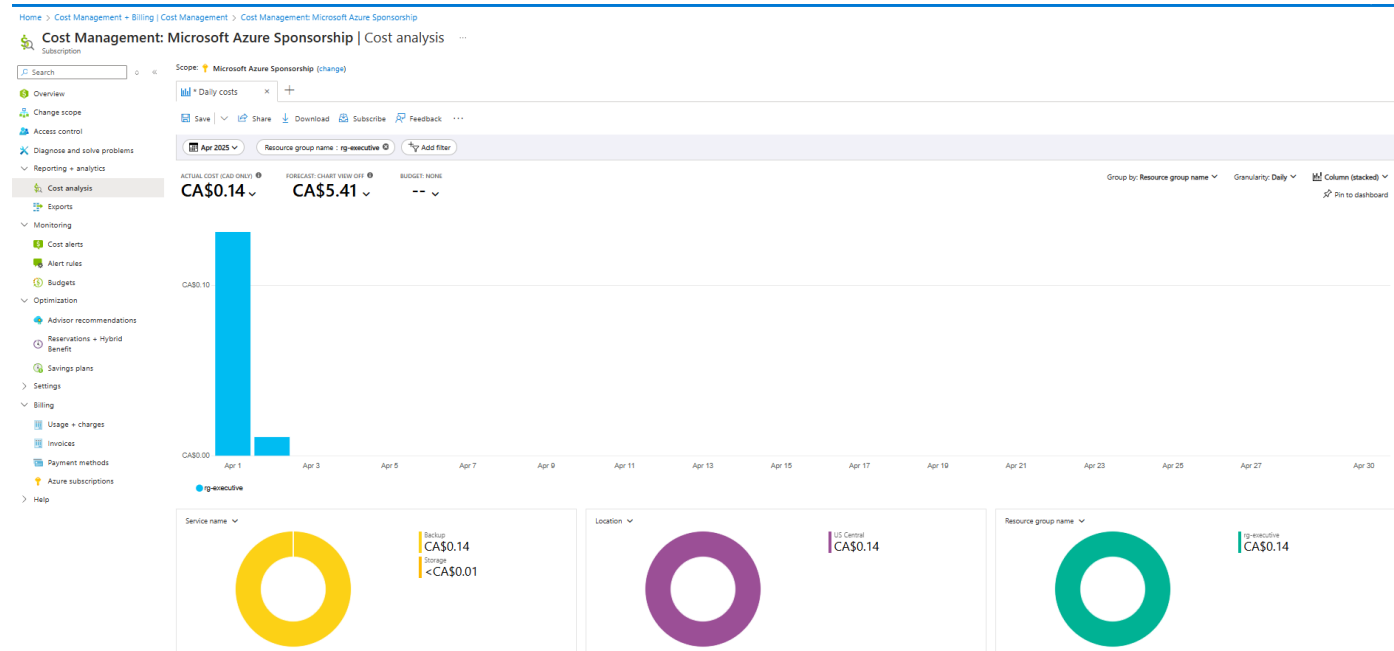
☒ **Disabled:** Your App Service Plan and the apps in it will not be zone redundant. The minimum App Service plan instance count will be one.

[Review + create](#) < Previous Next : Database >

STEP 2: AZURE COST ANALYSIS

The purpose of this activity is for you to familiarize with the Azure Cost Analysis. You will not get any data on the report if you have just created a new account or resource. It takes a few hours for Azure to show the data.

- In the **Azure portal**, click on the search bar and type "Cost Management + Billing", then select it.
- Click on **Cost Analysis** to view an overview of your current spending.
- Since you just created resources, you'll see zero or minimal cost data. This is expected in a blank account.



STEP 3: SET A BUDGET

- In **Cost Management + Billing**, go to **Budgets** (located on the left panel under Monitoring).
- Click **+ Add** to create a new budget.
- Set the **Filter** to your newly created resource group
"CostManagementRGYourName".
- Name your budget (e.g., "Training-Budget").
- Enter a **budget amount** (e.g., \$10 for the month—this low amount reflects the minimal usage).
- Click **Next** to set up alerts

Home > Cost Management + Billing | Cost Management > Cost Management: Microsoft Azure Sponsorship | Budgets >

Create budget

Budget

✓ Create a budget ② Set alerts

Create a budget and set alerts to help you monitor your costs.

Budget scoping

The budget you create will be assigned to the selected scope. Use additional filters like resource groups to have your budget monitor with more granularity as needed.

Scope  Microsoft Azure Sponsorship

Filters


ResourceGroupName : rg-executive


 Add filter


Budget Details

Give your budget a unique name. Select the time window it analyzes during each evaluation period, its expiration date and the amount.

* Name ✓

* Reset period 


* Creation date  2025

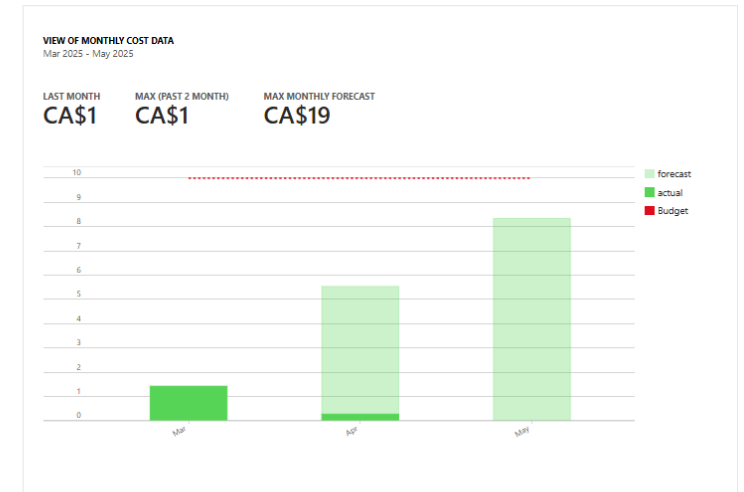
* Expiration date  2027



Budget Amount

Give your budget amount threshold

Amount (C) * ✓

 Suggested budget: CA\$19 based on forecast.



STEP 4: SETUP BUDGET ALERTS

- In the **Set alerts** step, go to alert conditions and enter the following:
 - **Type:** Actual
 - **% of budget:** 10
 - **Leave the Action group blank**
- **Alert recipients email:** Enter the email(s) to send alerts to
- Click **Create** to finish setting up your budget

NB: The budget takes a few hours to be active.

To learn more visit: [Tutorial - Create and manage budgets - Microsoft Cost Management | Microsoft Learn](#)

Home > Cost Management > Billing | Cost Management > Cost Management: Microsoft Azure Sponsorship | Budgets >

Create budget

Budget

✓ Create a budget ② Set alerts

Create a budget and set alerts to help you monitor your costs.

Budget scoping

The budget you create will be assigned to the selected scope. Use additional filters like resource groups to have your budget monitor with more granularity as needed.

Scope Microsoft Azure Sponsorship

Filters

ResourceGroupName : rg-executive

Add filter

Budget Details

Give your budget a unique name. Select the time window it analyzes during each evaluation period, its expiration date and the amount.

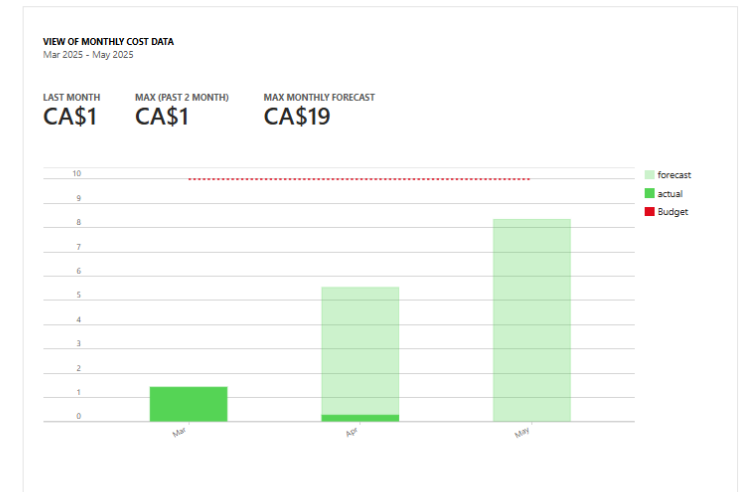
* Name Training-Budget ✓
* Reset period Billing month
* Creation date 2025 February 22
* Expiration date 2027 February 21

Budget Amount

Give your budget amount threshold

Amount (C) * 10 ✓

① Suggested budget: CA\$19 based on forecast.



Previous Next >

+ Add Refresh Help

Scope : Microsoft Azure Sponsorship

Search by name

All periods

Name	Scope	Reset period	Creation date	Expiration date	Budget	Forecasted	Evaluated spend	Progress
Training-Budget	33266a41-134d-4de7-a780-665b3...	BillingMonth	2/22/2025	2/21/2027	CA\$10.00	①	CA\$0.00	0.00%

STEP 5: CREATE A COST REPORT

- In **Cost Management + Billing**, click on **Exports** under Reporting + analytics
- Click **+ Create** to create a new export report.
- Click on **Create your own export**
- Define the export
 - **Type of data:** Cost and usage details
 - **Export name:** Daily-Usage
 - **Data version:** Leave default
 - **Frequency:** Daily export of month-to-date costs
- Click **Add**
- Enter an Export Prefix e.g. EXEC
- Click **Next** to add a destination
 - **Storage type:** Azure blob storage
 - **Destination and storage:** Create new
 - **Resource group:** CostManagementYourNameRG
 - **Account name:** enter a globally unique name
 - **Container:** exec-reports
 - **Directory:** usage
 - **Leave all other fields as default**
 - Click **Review + create**
 - Then click on **Create**

Edit export

Microsoft Azure Sponsorship

Type of data: Cost and usage details (usage only)

Export name: Weekly-Usage

Dataset version: 2019-11-01

Frequency: Daily export of month-to-date costs

Export description: Describe this export

New export

Microsoft Azure Sponsorship

Export multiple types of Cost Management datasets to your Azure storage. You will incur storage and network charges. [Learn more](#)

Basics Datasets Destination Review + create

Export prefix: EXEC

+ Add export (9 exports left)

Name	Type of data	Frequency
EXEC-Weekly-Usage	Cost and usage details (usage on...	Daily

New export

Microsoft Azure Sponsorship

Export multiple types of Cost Management datasets to your Azure storage. You will incur storage and network charges. [Learn more](#)

Basics Datasets Destination Review + create

Storage type: Azure blob storage

Destination and storage: Create new

Subscription: Microsoft Azure Sponsorship

Resource group: CostManagementRG

Account name: execreports2020

Location: (US) East US

Container: exec-reports

Directory: usage

Format: CSV

Compression type: Gzip

File partitioning: Enable partitioning if you have larger datasets and want your exports to be split into multiple files.

Override data: Exports can now overwrite the same file throughout the month instead of creating a new file for each run. We recommend setting this to true.

[Review + create](#) < Previous Next >

EXEC-Weekly-Usage

Name	Type	Schedule status	Dataset version	Last run	Frequency	Destination type	Destination	Estimated next run
EXEC-Weekly-Usage	Cost and usage details (usage only)	Active	2019-11-01	---	Daily	Azure blob storage	execreports2025	4/3/2025, 3:00 AM UTC

STEP 6: RUNNING A REPORT EXPORT

- In **Cost Management + Billing**, click on **Exports** under Reporting + analytics
- Click on your report e.g. **EXEC-Daily-Usage**
- Click on **Run now** to schedule an export
- The report will be generated the following day if you selected Daily export of month-to-date costs when setting up the exports.

EXEC-Weekly-Usage

Exports

⌕ Run now → Export selected dates || Disable 🗑 Delete ✎ Edit ↻ Refresh

✅ Export successfully queued. The export should be available within the next day.

^ Essentials

Scope	: Microsoft Azure Sponsorship (Subscription)	Storage type	: Azure blob storage
Type of data	: Cost and usage details (usage only)	Storage account	: execreports2030
Frequency	: Daily	Storage account subscrip...	: 33266a41-134d-4de7-a780-665b38b0f7b8
Export start date (UTC)	: 4/2/2025	Storage container	: exec-reports
Expiration date (UTC)	: 2/1/2050	Storage directory	: usage
Schedule status	: Active	Dataset version	: 2019-11-01
File partitioning	: On	Export description	: ---
Overwrite data	: On	Format	: CSV
		Compression type	: Gzip

Run history

Execution time	↑↓ Execution status	↑↓
Apr 02, 2025, 11:28 AM	🔄 In progress	

INDIVIDUAL KEY TAKEAWAYS



Write down three key insights from today's session.

Highlight how these take aways influence your work.

COURSE REVIEW

We explored the comprehensive suite of tools and strategies available in Microsoft Cost Management. We delved into key features such as cost analysis, proactive monitoring, and cost allocation, and examined how these tools can help organizations optimize their cloud spending.

Additionally, we discussed the importance of accurate cost estimation using tools like the TCO Calculator and Azure Migrate, and highlighted real-world case studies to illustrate the practical benefits of these solutions.

- Week 1-2: Introduction to Cloud Technology
- Week 3-5: Cloud Strategy and Architecture
- Week 6-7: Use Cases and Real-World Applications
- **Week 8-9: Benefits and Value Proposition**
- Week 10-12: Challenges and Risks
- Week 13-14: Interactive Simulations and Practical Exercises
- Week 15: Course Review and Final Assessment

NEXT WEEK: INNOVATION & AGILITY

- Accelerating time-to-market
- Enabling innovation through cloud services
- Examples of innovative cloud-based solutions

Q&A AND OPEN DISCUSSION





THANK
YOU