



Infrastructure Assessment Summary

July 16, 2025

Infrastructure Overview

➤ Infrastructure Overview

Utilizing data collected over a month of activity, CMZ-demo evaluated your current infrastructure. The data uncovered and savings potential are found below.

Total Nodes	33
Total Disk	60
Total Bytes/month (GB)	2.1k
Hardware, On Demand	\$67.1k
Workload, On Demand	\$45.4k
License Cost	\$4.2k
Total with License Cost	\$49.6k

➤ Approach

CMZ-demo analyzes your workload and projects that as an AWS environment. The platform provides workload mapping to AWS across a number of pricing plans. Below are a set of these plans created from the data-set collected.

➔ Hardware Mapping

This is a like-to-like mapping of the system configurations to an equivalent AWS instance and storage size. This mapping is based on system hardware specifications (e.g. number of CPUs, CPU speed, and assigned memory, disk size, etc.). This does not take actual workload or usage into account. TCO is estimated based on this configuration.

➔ Workload Mapping

This mapping takes system configurations into account and incorporates actual workload and usage characteristics. That data is then projected to an AWS environment. Mapping of instance sizes, storage, and network demand is provided and the TCO is estimated based on the suggested configuration.

Some of the parameters considered when constructing your optimal plan include: peak CPU usage, disk occupancy, peak disk usage, peak network usage, unused compute or storage resources, disk IOPS and provisioned IOPS, and usage patterns.

→ Pricing Plans

On-Demand pricing plans utilize AWS's hourly rates that require no up-front spending. AWS allows different types of reservations to be made that result in lower hourly cost in exchange for up-front cost. These reservations can be made with a one-year term or a three-year term. Optimal pricing plans take usage hours of each machine and computes the recommendation that is most cost efficient.

➤ Designs

→ Hardware, On Demand

This design looks at your existing hardware and provides an understanding of your like-to-like configuration in AWS with an on-demand plan.

→ Workload, On Demand

This design maps your infrastructure based on workloads and finds optimal AWS configuration using on-demand pricing plan.

→ Workload, All Upfront 3-yr

This design maps your infrastructure based on workloads and finds optimal AWS configuration using AWS's all upfront 3-yr reservation plan, i.e. the reservations are made for a 3-yr term and all the cost is paid upfront.

→ Workload, Cost Optimized 3-yr

This design provides the most cost optimized setting based on your workload mapping. It considers three measures to further optimize the cost:

Scheduled ON-OFF times: Identifying the machines that are lightly utilized or barely utilized at specific time for specific duration of the day and recommending a schedule to turn on/off those machines. AWS's auto-scaling type capabilities can be used in the cloud to turn machines on and off at scheduled time.

Network Traffic Cost: Assuming that all the network traffic is internal rather than going to the Internet, giving a lower bound on the network charges.

Pricing Plan: Use 3-yr all upfront reservations when reservations cost less than on-demand.

➤ Total Cost of Ownership Overview

AWS offers on-demand pricing as well as advance reservations that require initial cash outlays, but can generate substantial savings over the life of the contract. The following analysis includes hardware and workload mappings for on-demand pricing plans, and optimal pricing scenarios. To determine your optimal mapping, CMZ-demo looks at three categories of workload optimization: Compute, Storage, and Network.

	Compute	Storage	Network	Total
Hardware, On Demand	\$40.2k	\$25.1k	\$1.8k	\$67.1k
Workload, On Demand	\$30.7k	\$12.8k	\$1.8k	\$45.4k
OLA 1 - Hardware, On-Demand	\$40.2k	\$25.1k	\$1.8k	\$67.1k
OLA 2 - Workload, On-Demand	\$30.7k	\$12.8k	\$1.8k	\$45.4k

➤ Hardware, On Demand

This table presents the estimated annual cost of running your current data center machines with a baseline mapping of equivalent AWS instances using On-Demand pricing plan.

Data Center	Est. Annual Compute Cost	Disks	Storage (GB)	Est. Annual Storage Cost	Est. Annual Storage IO Cost	Est. Annual Network IO Cost	Cost by Data Center
On Premise	\$37,134	57	20,727	\$24,872	\$0	\$1,774	\$63,780
Datacenter	\$3,034	3	226	\$271	\$0	\$11	\$3,317
Total	\$40,168	60	20,953	\$25,144	\$0	\$1,785	\$67,097

➤ Workload, On Demand

Using the information gathered during the assessment process CMZ-demo determined an optimized instance size that meets the workload and usage requirements. In this table, we show the estimated annual cost of running these optimized instances using On-Demand pricing plan.

Data Center	Est. Annual Compute Cost	Disks	Storage (GB)	Est. Annual Storage Cost	Est. Annual Storage IO Cost	Est. Annual Network IO Cost	Cost by Data Center
On Premise	\$29,504	57	13,225	\$12,750	\$0	\$1,774	\$44,028
Datacenter	\$1,226	3	98	\$94	\$0	\$11	\$1,332
Total	\$30,730	60	13,323	\$12,844	\$0	\$1,785	\$45,360

► OLA 1 - Hardware, On-Demand

Data Center	Est. Annual Compute Cost	Disks	Storage (GB)	Est. Annual Storage Cost	Est. Annual Storage IO Cost	Est. Annual Network IO Cost	Cost by Data Center
On Premise	\$37,134	57	20,727	\$24,872	\$0	\$1,774	\$63,780
Datacenter	\$3,034	3	226	\$271	\$0	\$11	\$3,317
Total	\$40,168	60	20,953	\$25,144	\$0	\$1,785	\$67,097

► OLA 2 - Workload, On-Demand

Data Center	Est. Annual Compute Cost	Disks	Storage (GB)	Est. Annual Storage Cost	Est. Annual Storage IO Cost	Est. Annual Network IO Cost	Cost by Data Center
On Premise	\$29,504	57	13,225	\$12,750	\$0	\$1,774	\$44,028
Datacenter	\$1,226	3	98	\$94	\$0	\$11	\$1,332
Total	\$30,730	60	13,323	\$12,844	\$0	\$1,785	\$45,360

Workload Mapping: OLA 2 - Workload, On-Demand Design

Below is the workload analysis of the OLA 2 - Workload, On-Demand pricing plan. Three categories are evaluated: Compute, Storage and Network.

➤ Workload Optimization: Compute

Your infrastructure has 33 machines. CMZ-demo evaluated workload on those machines and found that only 33 machines were active, while 0 machines were turned off for the entire analysis duration. CMZ-demo identified that 1 machines had CPU as a bottleneck and 31 machines had memory as bottleneck while 0 machines were constrained by both CPU and Memory.

Compute Cost

\$30.7k

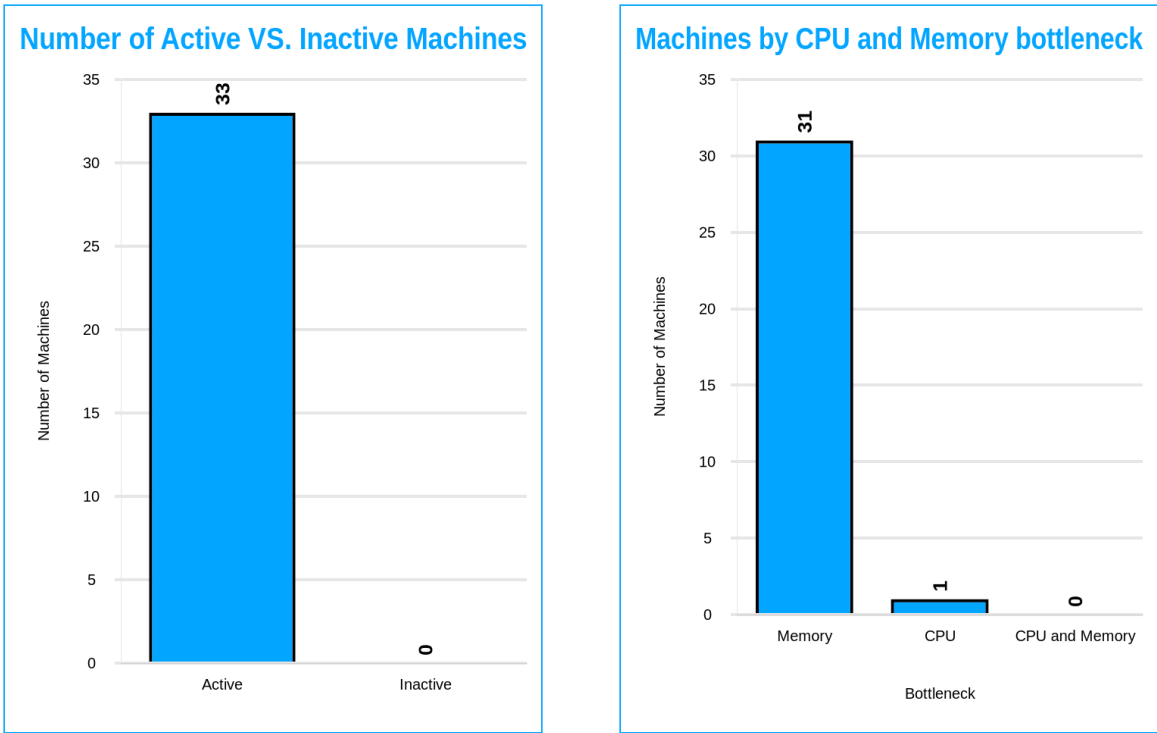
Per Year

Total Machines Mapped

33

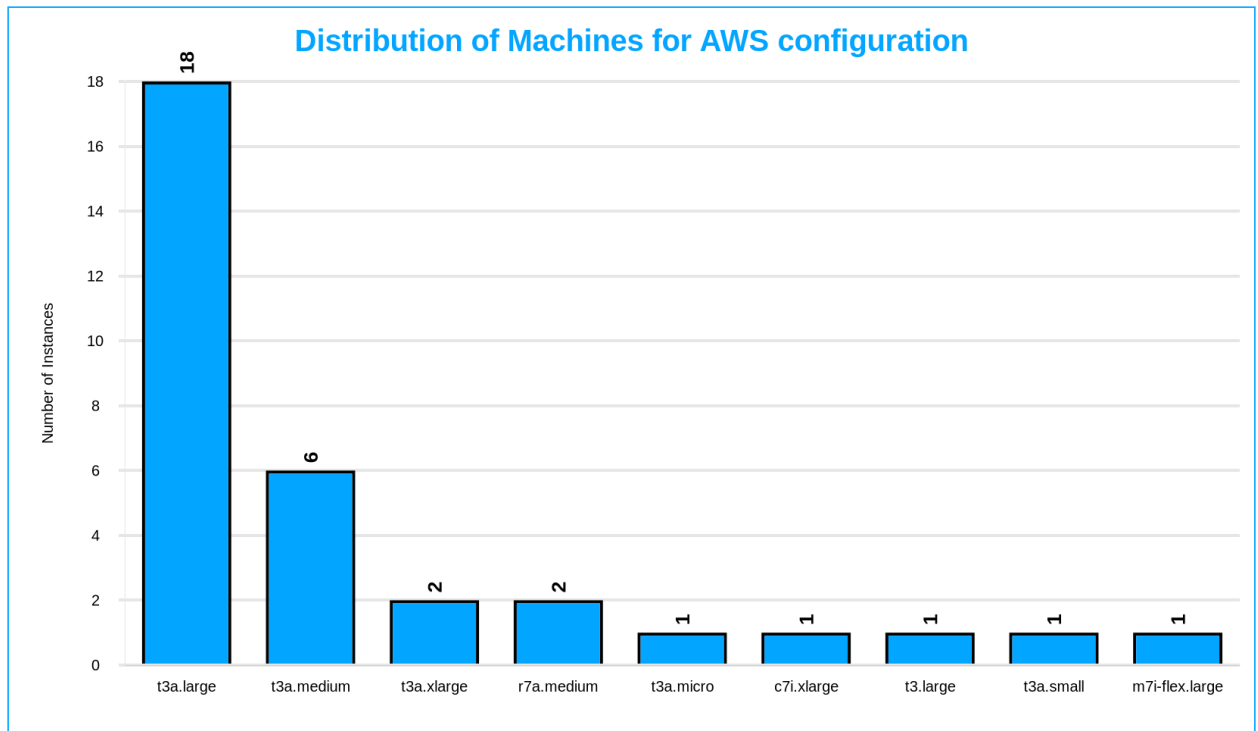
➔ Performance Breakdown

The charts below show the breakdown of Machines by their usage and performance bottleneck.



→ Projected AWS Instance Sizes

Based on your current workload, CMZ-demo recommends the following instance sizes for your AWS environment post-migration.



➤ Workload Optimization: Storage

You will need to spend \$12,844 on storage when moved to AWS. The storage breakdown is given below.

Storage Cost

\$12.8k

Per Year

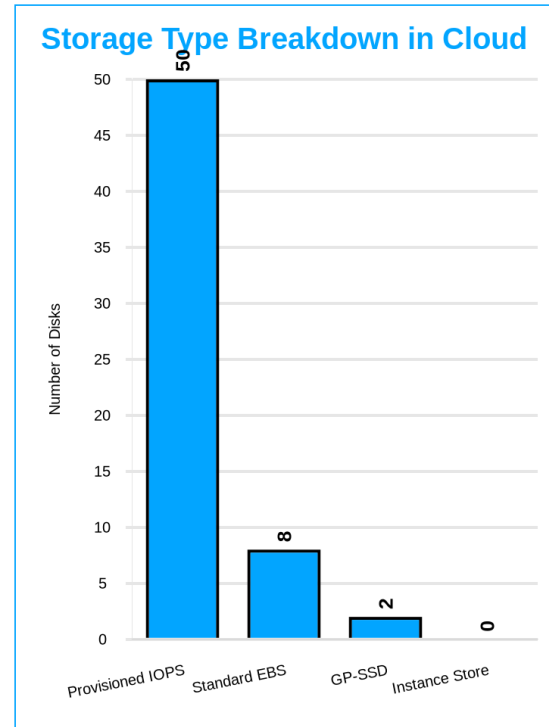
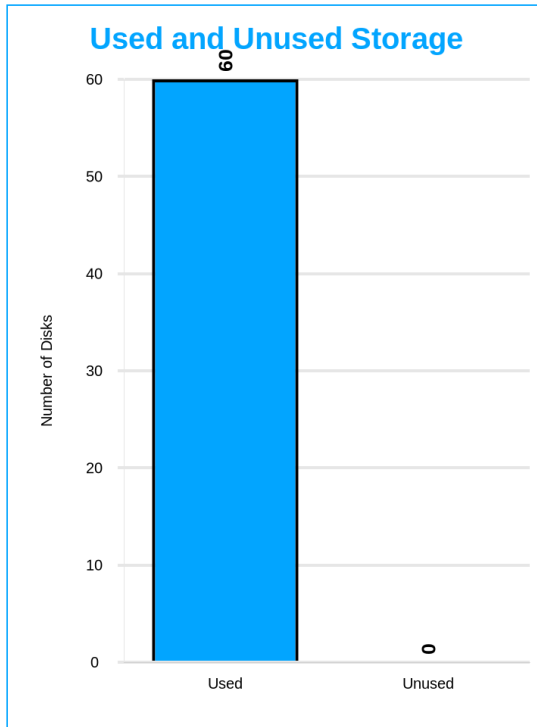
Total Disks Mapped

60

Metric	Value	Cost
Observed Disk Capacity (GB)	20,920	
Observed Disk Occupancy (GB)	13,267	
Observed IOPS/Sec	645	
Predicted Number of Volumes on GP (SSD)	2	
Predicted Cloud Capacity (GB)	13,323	\$12,844
Predicted Provisioned IOPS/Sec	31,400	
Total IOPS Cost	32,045	\$0
Total Cost		\$12,844

→ Breakdown

The charts below show that 60 of the total 60 disks were in-use. Based on the disk usage, CMZ-demo recommends that 50 of these disks use provisioned IOPS, 8 use Standard EBS, 2 use GP-SSD and 0 use Instance Store.



➤ Workload Optimization: Network

Based on your current network usage, the estimated network usage is 2,110 GB/month.

Network Cost

\$1.8k

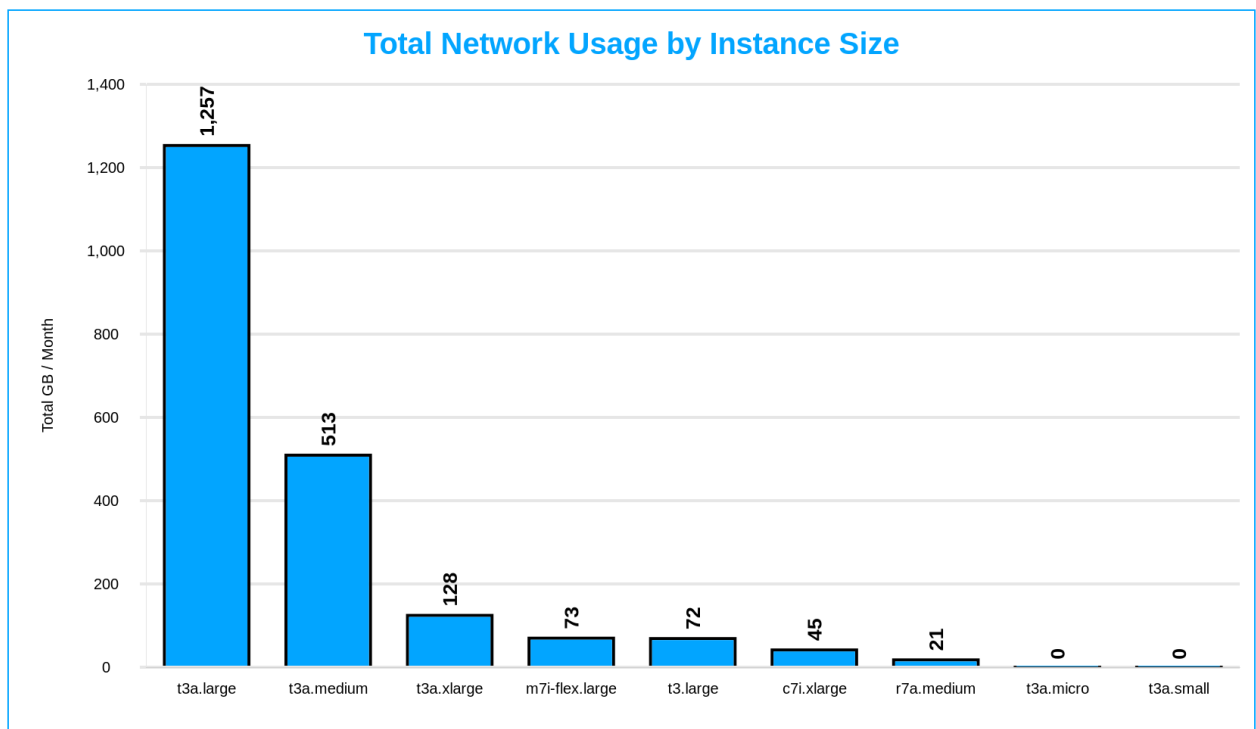
Per Year

Total Network Usage

2.1k
(GB/mo)

→ Network usage analysis

The chart below demonstrates the projected total network usage by each instance type.



→ Network Utilization Analysis

The chart below shows the worst-case peak network utilization per instance type observed during the analysis period. The compute mapping methodology ensures that the peak level of network utilization is supported by the proposed instance type.

