



Maximize the value of your cloud

Cloudamize Overview



Cloudamize is a cloud infrastructure analytics platform that provides data analysis and recommendations to speed and simplify cloud assessment, migration, and management.



The Cloud Journey

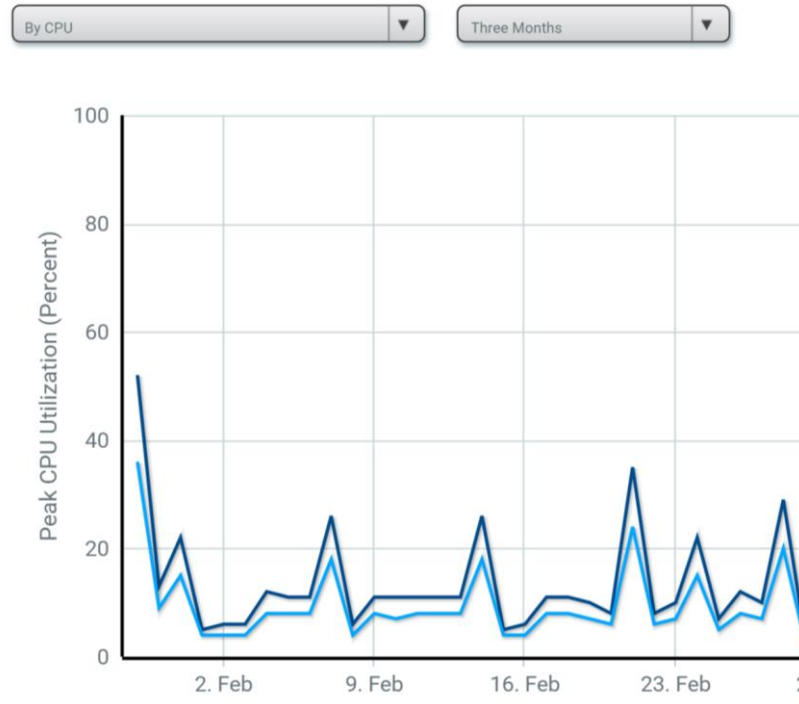
Assess • Plan • Migrate • Validate • Manage



THE CLOUD JOURNEY



Performance Over Time

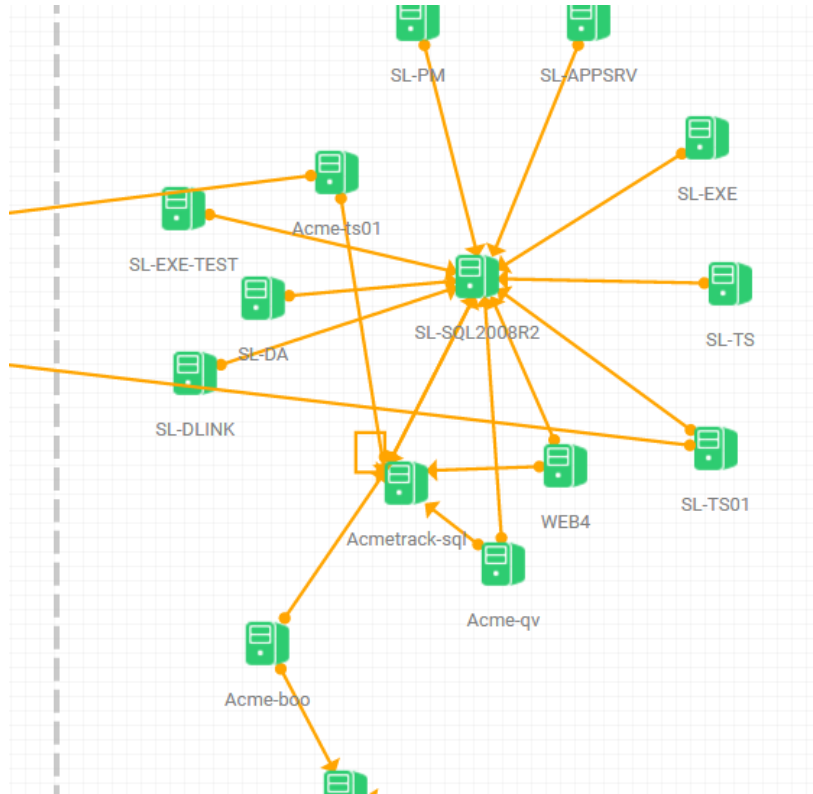


Assess

- Calculate precise TCO for Azure
- Identify your best-fit cloud provider and configuration
- See projected performance with recommended cloud configuration



THE CLOUD JOURNEY



Plan

- Discover your infrastructure
- Map application dependencies
- Build move groups and design your migration plan
- Identify optimal cloud configuration for each workload to migrate to



THE CLOUD JOURNEY



Migrate Your Environment

Select A Design:

- Test
- Workload, All Upfront 1-yr
- Workload, All Upfront 3-yr
- Workload, Cost Optimized 3-yr
- Workload, On Demand

Select Source Groups:

Select/Clear All

- no agent
- SQL-Migration

Apply

Summary

Compute

Storage

Network

Q e.g. host name, asset name, group name

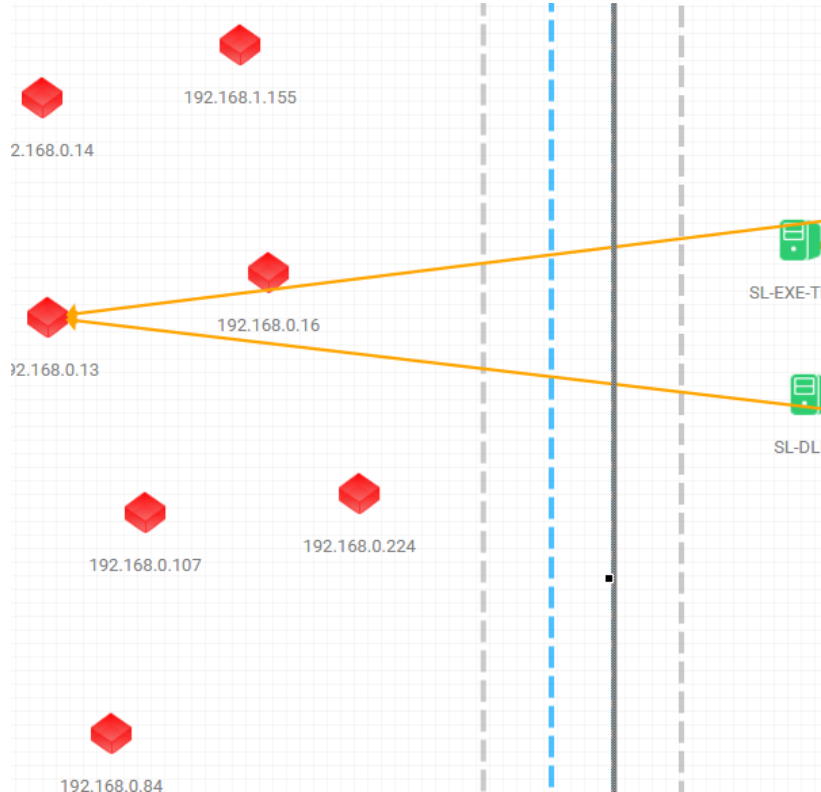
<input checked="" type="checkbox"/>	Group Name	Asset Name	Host Name	Instance Type	Region	Annual Cost	Migration Status
<input checked="" type="checkbox"/>	SQL-Migration	SL-Appsvr	COOLSIGN	m3.medium	us-west-1	721	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-boo	m3.medium	us-west-1	775.4	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-iweb	m4.large	us-west-1	1299	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acmembam	m3.medium	us-west-1	888.3	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-phi1	m3.medium	us-west-1	951.8	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-phi2	m3.medium	us-west-1	988.8	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-phi3	m3.medium	us-west-1	1193.6	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-qv	m4.large	us-west-1	1378.6	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acme-sl	c3.large	us-west-1	1521.5	N/A
<input checked="" type="checkbox"/>	SQL-Migration	SQL-Migration	Acmetrack-sql	c3.large	us-west-1	1547.9	N/A

Migrate

- Import your migration plan
- Integrate with migration vendors
- Migrate workloads to any cloud



THE CLOUD JOURNEY



Validate

- Visualize connectivity between infrastructures
- Compare new state to historical state
- Validate application dependency



THE CLOUD JOURNEY



Infrastructure Summary

Waste Pricing Plan Right Sizing

\$ 45 **4** **44**

Running Nodes: **6/44**

Current Spending: **\$51.1k**

Group, Account, Asset, Component

Infrastructure

- Cloudamize **\$** **⬆️**
- LinkedAccount **\$** **⬆️**
- Default **\$** **⬆️**
- ▶ Default **\$** **⬆️**
- ▶ app-prod-db-ma... **\$** **⬆️**
- ▶ CO-Raw-DB-24d... **\$** **⬆️**

Infrastructure

Overview Resource Waste

Status

Resource Waste

IMPROVE
45 Actions
Save \$3.2k

Cost Summary

Current Spend **\$51.1k** Re

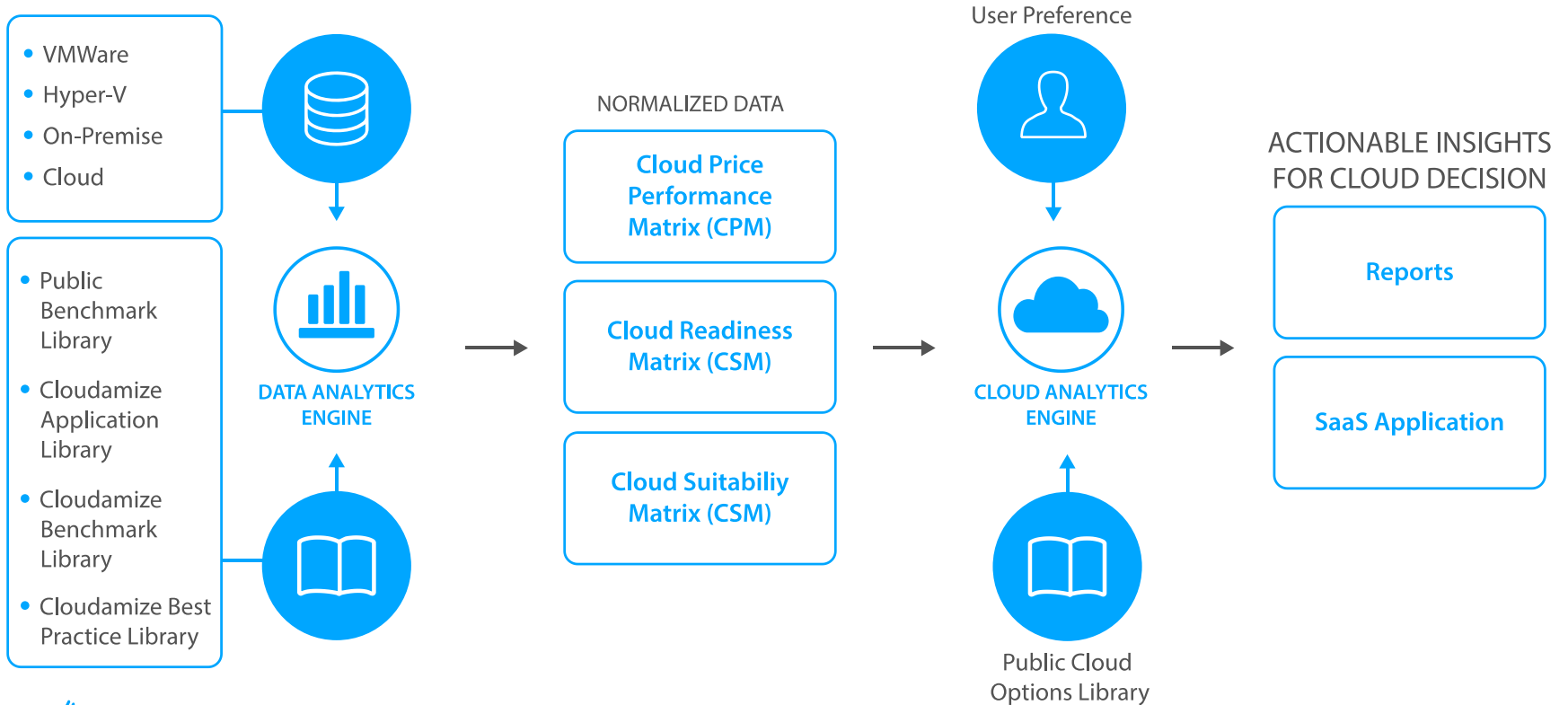
Manage

- Right-size cloud workloads
- Accurately plan capacity
- Analyze costs, filter billing data, and build chargebacks

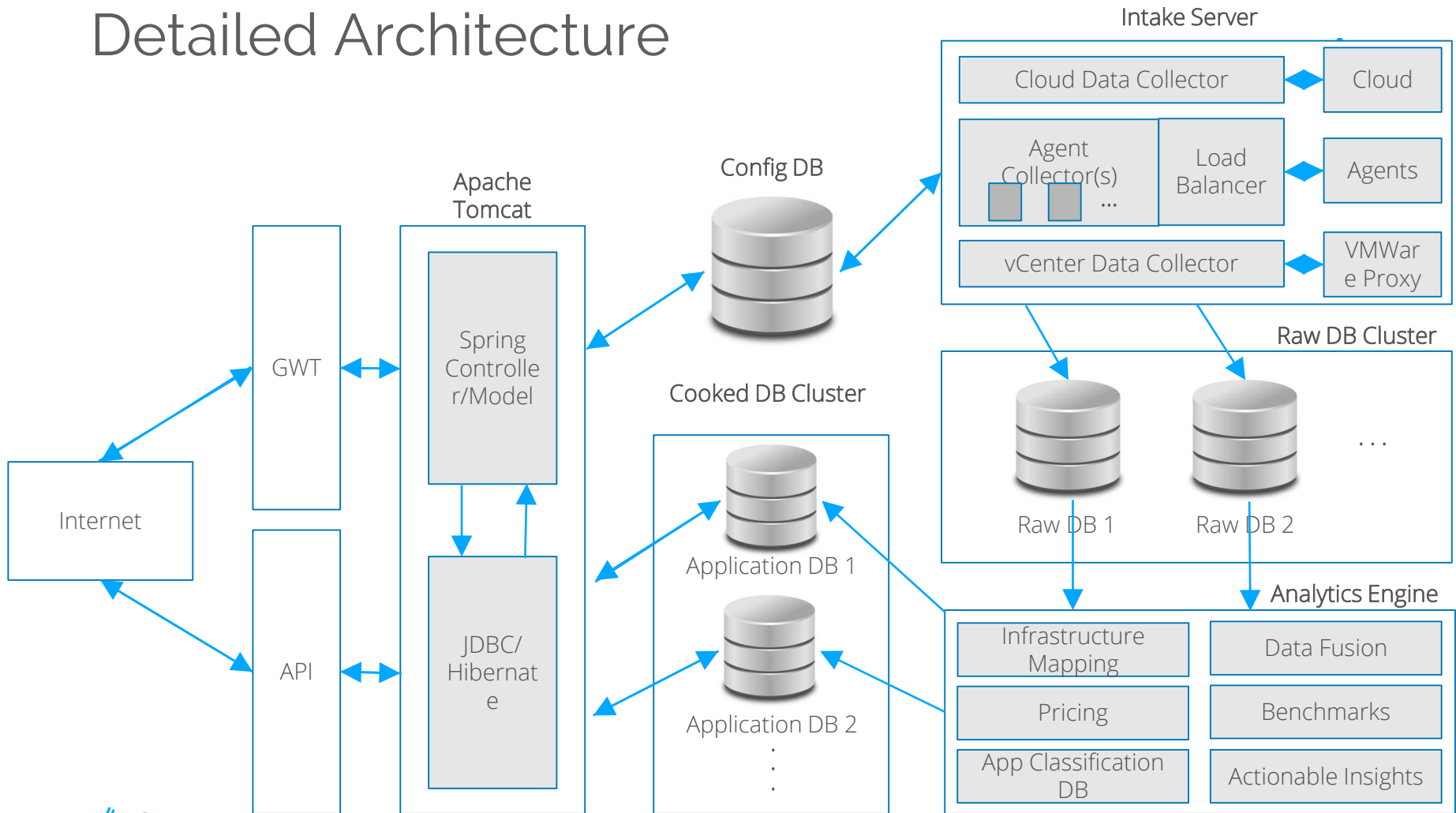


How it works.

Analytics Engine



Detailed Architecture



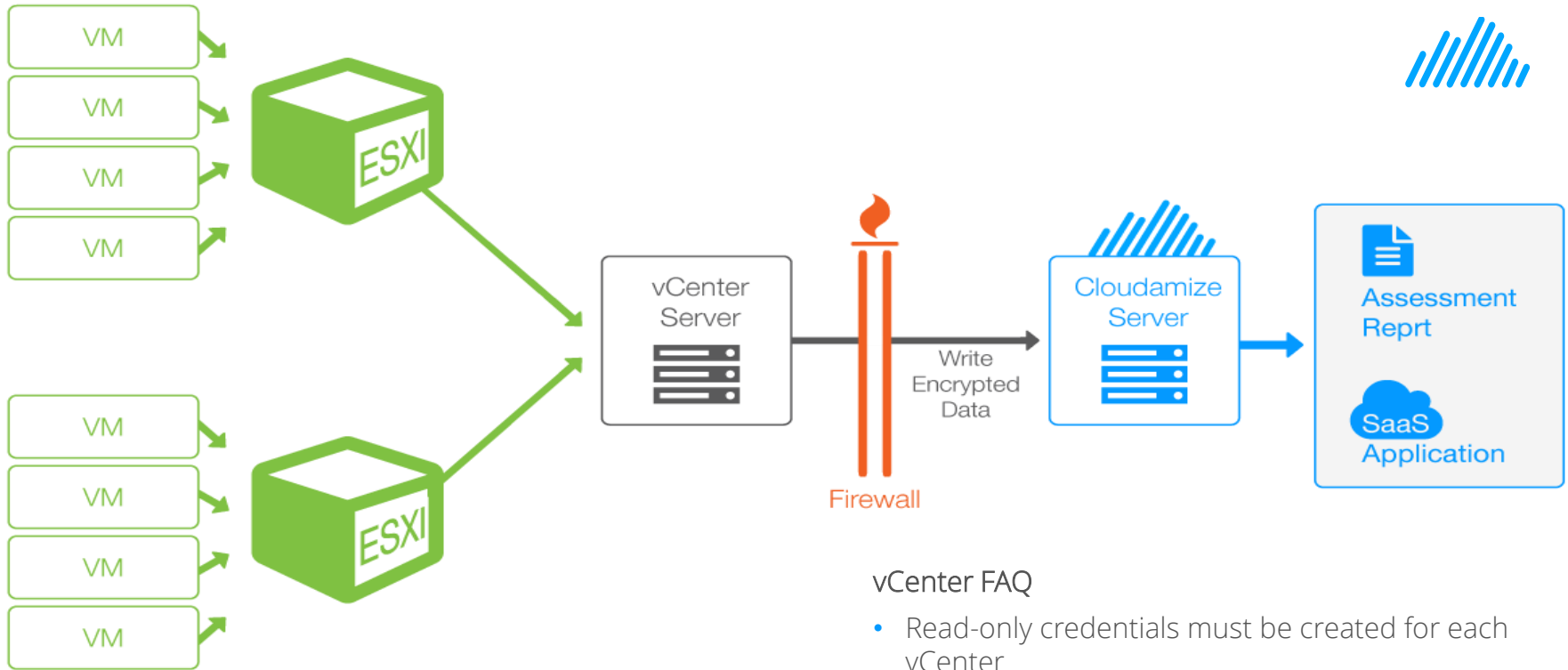


Data Collection

Data Collection Method



Infrastructure	Data Collection Options
VMware	Hypervisor via Cloudamize Proxy, agent, and agent-less
Hyper-V	Agent on Hyper-V host, agent on individual VMs, and agent-less
Windows Physical Machine	Agent and agent-less
Linux Physical Machine	Agent and agent-less
Cloud Instances	Agent and agent-less



vCenter FAQ

- Read-only credentials must be created for each vCenter
- Data travels via Cloudamize Proxy which can be installed either directly on the vCenter machine or different VM
- The Cloudamize Proxy is unique to each vCenter
- The proxy communicates on 443 to IP 184.73.183.154

Agent-less vs Agent-based



Class	Agent-based	Agent-less
Data Collection Method	Light-weight software on each end-point	SSH, WMI
Security Protection	Traffic is encrypted via SSL between endpoints and the Cloudamize server with mutual end-point authentication.	Ports will be open between the agent-less data collector and all endpoints on the subnet. Data is sent from the collector to the Cloudamize servers and is encrypted via SSL.
Deployment Model	Agents must be installed on physical and virtual machines as well as Hyper-V hosts. The agent can easily be pushed out via Active Directory, chef, puppet, SCCM, etc.	WMI services for each Windows endpoint and SSH will need to be configured for each Linux endpoint. One machine/VM will need to have the agentless data collector installed.
Ease of Deployment	A single outbound port (TCP 443) to a 104.197.11.97 is required. Generally this port is already open and no changes are needed.	Agentless Data collector installed locally on one machine per subnet. Ports 135, 445, and 1024-65535 will need to be open inbound on all Windows endpoints, and open outbound on the machine with the data collector installed. Port 22 will need to be open inbound on all Linux endpoints. The machine with the data collector installed will communicate outbound on 443 to Cloudamize IP 184.73.183.154.
Resource Consumption	Data collection occurs locally and compressed data is sent over the internet. Data collection is halted if CPU and memory thresholds are crossed. For example, CPU is throttled at 2%.	Increases network traffic as the raw performance data is transported over the network to a remote data collector. No throttling mechanism available on the endpoints.
Accuracy	High frequency collection of performance metrics. Discovers all applications and their dependencies in detail.	Lower frequency data collection results in less accuracy and not all application dependencies are captured.
Scalability	Agent handles process initiation and stream handling making this very easy to scale.	Server must handle process initiation and stream handling resulting in a limit to how many connections can be handled concurrently. Agent-less Data collector can handle 500 endpoints per collector.
Robustness	Caching mechanism is available in the event of network disruption for added robustness.	Network connectivity issues can impact data collection.

Feature Comparison- Application Discovery and Migration Planning



Features	Agent Based	Agent-less
Application Discovery	Yes	Yes
Application Dependency Mapping	Yes	Yes
Auto-grouping applications based on business rules and affinity mapping	Yes	Yes
Inter and Intra dependency analysis	Yes	Yes
Cloud Readiness Analysis	Yes	Yes
Cloud Suitability Analysis	Yes	Yes
Migration Group Builder	Yes.	Yes
Shadow IT Identification	Yes	Yes
Firewall Rules Generation	Yes	Yes

Feature Comparison- Right-Sizing and TCO



Features (TCO)	Agent Based	Agent-less
TCO Projection for move groups	Yes	Yes
Right-sizing based on performance profiles (compute, storage, network)	Yes	Yes
Projection Analysis (see current and projected cloud performance)	Yes	Yes
Planning and Forecasting – ability to build custom designs based on the need	Yes	Yes
Pre-build TCO Reports	Yes	Yes

Missing Features in Agent-less Approach



Metric	Impact
Short-lived connections	If the connections short-lived they are not captured and that may result in missed inter-connectivity
Lower performance resolutions	Monitoring window is at every 5 min rather than every 30-seconds. Likely to loose short-term peaks
DNS traffic and analysis	Mapping between IP address and DNS is not available
Installed list of applications	List of installed applications and their CPU Usage will not be collected
SQL Editions	Cost analysis will not include SQL editions and mapping
.NET version	Limited ASR compatibility analysis
Performance Throttling	Agentless-monitoring does not have performance controlling mechanism on the monitored host

Supported Systems



Supported Window OSs

- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2008 R2
- Windows Server 2008
- Windows Server 2003 R2
- Windows Server 2003

Supported Linux OSs

- Red Hat Enterprise Linux Server release 5.0 or higher
- Ubuntu 10.04 or higher
- CentOS release 5 or higher
- Debian GNU/Linux 6.0 or higher
- Amazon Linux AMI release 2013.03 or higher
- Fedora release 12 or higher
- Suse Linux 11 or higher
- Oracle Linux 6.5 or higher

Chipsets

- Intel xeon
- AMD Opteron
- Pentium 4
- Pentium D
- Pentium M
- Some Intel core 2

*Typically desktop and laptop processors are not supported since they are not considered candidates to move to the cloud.



ASR Integration

ASR Readiness Report



Advance Filtering
Match ALL of the following rules:

Migration Complexity | ASR Readiness

ASR Readiness Report (Selected)

High Compute Cost
High Network Cost
High Storage Cost
High Total Cost
Low-Utilization

Save As

Workload, Pay-as-you-go

Instance Name	General Disk Requirements	General Disk Requirements Wo	Windows t
'RTVA25141	Passed		
'RTVD25244	Failed - Disk performance		
'RTVW25336	Passed		
'RTVW25391	Passed		
'RTVW25390	Passed		
'RTVA25140	Failed - Disk performance	Use P30 storage and then n	Pas
'RTDB0260	Failed - Disk performance	Use P30 storage and then n	Pas
'RTVD25245	Passed		

1-11 of 11 | Download

Callouts:

- Disk's performance requirement failed but can be achieved by striping data across several disks.
- Work around: Use P30 and migrate to RAID 0 after migration
- Download detailed analysis

Validation against ~20 checks to see if the target is ready for ASR migration and divides outcome into Success/Warning/Critical.

Provides workaround for the machines that are identified with "Warning"

Example checks:

- General Disk Requirements
- Windows OS Requirements
- Hypervisor Requirements
- Disk Space Requirements
- .NET Version Requirements
- Boot Software Requirements
- Linux System Requirements

Setup the Configuration Server



Migrate Your Environment

Select a Design:

- Hardware, Pay-as-you-go
- Test
- Workload, 12-month (pre-pay)
- Workload, Pay-as-you-go

Select Source Groups/Assets:

Select/Clear All

- ASR Test
- Cloudamize
- Test

[Apply](#) [Download Excel](#)

ASR

Configuration Server

Region	Subscription	Resource Group	Status	Installation Status	Log	Action
East US 2	a269497f-a62b-	111111111111111111 -	-	Installing config server		Setup

<input type="checkbox"/>	Group Name	Asset Name	Host Name	Instance Type	Region	Annual Cost	
<input type="checkbox"/>	ASR Test	ASR Test	asrConfigServer2	-	-	0	-
<input type="checkbox"/>	ASR Test	ASR Test	ToMigrate1	-	-	0	-

1. Select the host to be used as the configuration server

2. Click "Setup"

Select the Machines for Migration



1. Check the boxes next to the hosts to be migrated

ASR [Download Excel](#)

Configuration Server

<input checked="" type="checkbox"/>	Host Name	Region	Subscription	Resource Group	Status	Installation Status
<input checked="" type="checkbox"/>	machine.11.acn	East US 2	a269497f-a62b-	11111111111111111111	-	Installing config serve

Q e.g. host name, asset name, group name

<input type="checkbox"/>	Group Name	Asset Name	Host Name	Instance Type	Region	Annual Cost
<input type="checkbox"/>	ASR Test	ASR Test	asrConfigServer2	-	-	0
<input checked="" type="checkbox"/>	ASR Test	ASR Test	ToMigrate1	-	-	0

--- Perform Action ---
Prepare To Migrate
Start Migration Testing
Stop Migration Testing
Disable Migration
Migrate
Prepare To Migrate

1-2 of 2 [View All](#) [Go](#)

2. Select "Prepare To Migrate" from the drop-down list

3. Click "Go"

Migrate the Selected Hosts



1. Select hosts to migrate

Migrate Your Environment

Select a Design:

- a
- Hardware, On Demand
- Workload, All Upfront 1-yr
- Workload, All Upfront 3-yr
- Workload, Cost Optimized 3-yr

Select Source Groups/Assets:

- Select/Clear All
- csvGnew1
- csvGnew2
- csvGnew5
- Default

ASR

Download Excel

Q e.g. host name, asset name, group name

<input type="checkbox"/>	Group Name	Asset Name	Host Name	Instance Type	Region	Annual Cost	Storage	Network	Subnet	Status	Installation Status	Log
<input type="checkbox"/>	csvGnew1	csvAnew1	GASQLP01	r3.2xlarge	us-east-1	10905.0	-	-	-	-	-	
<input checked="" type="checkbox"/>	csvGnew1	csvAnew1	GASVCP01	c3.2xlarge	us-east-1	8584.6	-	-	-	-	-	
<input checked="" type="checkbox"/>	csvGnew1	csvAnew1	GAWEBP01	r3.2xlarge	us-east-1	11008.1	-	-	-	-	-	
<input checked="" type="checkbox"/>	csvGnew1	csvAnew1	GAWEBP03	m4.2xlarge	us-east-1	10407.3	-	-	-	-	-	
<input type="checkbox"/>	csvGnew1	csvAnew1	SVCP02	m4.xlarge	us-east-1	5557.8	-	-	-	-	-	

1-5 of 5 View All

2. Select Migrate

3. Click "Go"

Perform Action

- Setup Config Server
- Prepare To Migrate
- Start Migration Testing
- Stop Migration Testing
- Disable Migration
- Migrate**
- Prepare To Migrate

Go

Thank you.

Partner Success Team

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