## **Cloud TCO Analysis**

Date: August 28, 2018



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Version: Model v1.32, Report v1.0.2



### **Executive Summary**

The number of organizations moving their business operations to the cloud continues to grow as more software vendors move to a cloud-first development and sales model<sup>1</sup>. Intel is assisting in the progression of widespread cloud adoption by working with the industry to bring feature-rich, easy-to-deploy cloud solutions to market.

This analysis collects information about your current server environment, proposes a recommendation for your new cloud environment, and quantifies the potential total cost of ownership savings and business value from upgrading your current server infrastructure to an Intel-based cloud environment.

Based on the information provided, with Intel cloud solutions you could see a savings of: \$89,457

## **Modeling Tool Information**

The inputs entered into the Intel® Open Source Cloud TCO Calculator will drive the solutions savings value. Below is the information you have entered.

### **Company Profile:**

Industry: Agriculture

Primary Location for Your Data Center Operations: United States

Annual Revenue: 250 Million

Server Profile	Current Cloud Environment
Current server population	3,790
Percentage of virtualized physical servers	34.0%
Total operating system instances supported (bare metal/single tenant/virtual operating system instances)	10,000
Total number of virtualized servers	1,289
Current virtual machines per server	6
Total number of virtual machines	7,499
Forecasted compute demand for bare metal server resources (5-year CAGR)	35%
Projected growth in the number of operating system instances (5-year CAGR)	35%
Server refresh policy	5 years

On-Premises/Internal Storage	Current Cloud Environment
Total on-premises SAN/NAS (storage area network/network attached storage) storage demand in TB	600
Projected storage demand (5-year CAGR)	50%

Orchestrations, Management and Labor	Current Cloud Environment
Engineers currently supporting the laaS Hardware/Software/Operating Systems/Hypervisors	33
The recommended cloud maturity model is	OPPORTUNISTIC

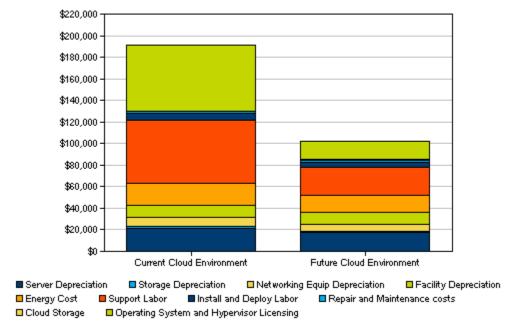


## **Financial Analysis**

Comparing the current cloud environment to the new cloud environment, will see a CapEx savings of **\$6,811**, an OpEx savings of **\$82,646**, and a total savings of **\$89,457**, or **47%**.

5-Year TCO Analysis (in Thousands)	Current Cloud Environment	New Cloud Environment	Savings with Intel Cloud
Total Cost of Ownership	\$191,675	\$102,218	\$89,457
Server depreciation	\$21,332	\$17,586	\$3,746
Storage depreciation	\$2,022	\$1,406	\$616
Networking equipment depreciation	\$8,467	\$6,218	\$2,249
Facility depreciation	\$10,859	\$10,659	\$200
Total CapEx	\$42,680	\$35,869	\$6,811
Energy cost	\$20,229	\$16,310	\$3,919
Support labor	\$58,273	\$25,614	\$32,659
Install and deploy labor	\$6,582	\$5,272	\$1,310
Repair/maintenance costs	\$2,018	\$1,484	\$534
Cloud storage	\$535	\$535	\$0
Operating system/hypervisor licensing	\$61,358	\$17,134	\$44,224
Total OpEex	\$148,995	\$66,349	\$82,646

#### **Total Cost of Ownership**



This graph is demonstrative of the TCO savings by switching to an Intel cloud solution from your current environment.



# **Next Steps**

Learn how to get started with Intel cloud solutions.



# **Assumptions**

Operating System and Software Assumptions	
Annual cost of operating system license with support (per instance)	\$360
Annual cost of open sourced operating system license with support (per instance)	\$120
Annual cost of commercial hypervisor license with support (per instance)	\$2,807
Annual cost of open sourced hypervisor license with support (per instance)	\$936
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Server Assumptions	
Cost per average server	\$6,000
Storage Assumptions	
Hot tier/fabric attached storage annual cost per GB	\$2.00
Warm tier/network attach storage annual cost per GB	\$1.50
Cold tier/network attach storage cost per GB	\$0.50
Networking	
Discount from acquiring networking hardware from a white box supplier	25%
Discount from acquiring networking hardware from an original design manufacturer supplier	30%
Discount (savings) with third-party network operating system software stack	20%
Discount (savings) with open source network operating system software stack	25%
Facilities Facilities	
FTE engineer salary	\$150,000



### **About Alinean**

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<sup>&</sup>lt;sup>1</sup> International Data Corp., Cloud Research, https://www.idc.com/prodserv/4Pillars/cloud