

Foglight® for IBM Cloud Migration Assessment  
6.0.0

**User and Administration Guide**



© 2021 Quest Software Inc.

**ALL RIGHTS RESERVED.**

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Quest Software Inc.

The information in this document is provided in connection with Quest Software products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Quest Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL QUEST SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF QUEST SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Quest Software does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.  
Attn: LEGAL Dept.  
4 Polaris Way  
Aliso Viejo, CA 92656

Refer to our website (<https://www.quest.com>) for regional and international office information.

**Patents**

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at <https://www.quest.com/legal>.

**Trademarks**

Quest, the Quest logo, and Where Next Meets Now are trademarks and registered trademarks of Quest Software Inc. For a complete list of Quest marks, visit <https://www.quest.com/legal/trademark-information.aspx>. Red Hat, JBoss, the JBoss logo, and Red Hat Enterprise Linux are registered trademarks of Red Hat, Inc. in the U.S. and other countries. CentOS is a trademark of Red Hat, Inc. in the U.S. and other countries. Fedora and the Infinity design logo are trademarks of Red Hat, Inc. Microsoft, .NET, Active Directory, Internet Explorer, Hyper-V, Office 365, SharePoint, Silverlight, SQL Server, Visual Basic, Windows, Windows Vista and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. AIX, IBM, PowerPC, PowerVM, and WebSphere are trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. Java, Oracle, Oracle Solaris, PeopleSoft, Siebel, Sun, WebLogic, and ZFS are trademarks or registered trademarks of Oracle and/or its affiliates in the United States and other countries. SPARC is a registered trademark of SPARC International, Inc. in the United States and other countries. Products bearing the SPARC trademarks are based on an architecture developed by Oracle Corporation. OpenLDAP is a registered trademark of the OpenLDAP Foundation. HP is a registered trademark that belongs to Hewlett-Packard Development Company, L.P. Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both. MySQL is a registered trademark of MySQL AB in the United States, the European Union and other countries. Novell and eDirectory are registered trademarks of Novell, Inc., in the United States and other countries. VMware, ESX, ESXi, vSphere, vCenter, vMotion, and vCloud Director are registered trademarks or trademarks of VMware, Inc. in the United States and/or other jurisdictions. SAP is a registered trademark of SAP, Inc. The X Window System and UNIX are registered trademarks of The Open Group. Mozilla and Firefox are registered trademarks of the Mozilla Foundation. IOS is a registered trademark or trademark of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. Apple, iPad, iPhone, Mac OS, Safari, Swift, and Xcode are trademarks of Apple Inc., registered in the U.S. and other countries. Ubuntu is a registered trademark of Canonical Ltd. Symantec and Veritas are trademarks or registered trademarks of Symantec Corporation or its affiliates in the U.S. and other countries. OpenSUSE, SUSE, and YAST are registered trademarks of SUSE LCC in the United States and other countries. Citrix, AppFlow, NetScaler, XenApp, and XenDesktop are trademarks of Citrix Systems, Inc. and/or one or more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries. PostgreSQL is a registered trademark of the PostgreSQL Global Development Group. MariaDB is a trademark or registered trademark of MariaDB Corporation Ab in the European Union and United States of America and/or other countries. Intel, Itanium, Pentium, and Xeon are trademarks of Intel Corporation in the U.S. and/or other countries. Debian is a registered trademark of Software in the Public Interest, Inc. OpenStack is a trademark of the OpenStack Foundation. All other marks and names mentioned herein may be trademarks of their respective companies.

**Legend**

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
  
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
  
-  **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

# Contents

<b>IBM Cloud Migration Assessment Dashboard</b> .....	<b>4</b>
Installation requirements .....	4
Dashboard Location .....	4
IBM Cloud Migration Assessment dashboard Introduction .....	5
Homepage .....	5
IBM Cloud Migration Modeling .....	8
<b>About us</b> .....	<b>11</b>
Technical support resources .....	11

---

# IBM Cloud Migration Assessment Dashboard

IBM Cloud provides some hosted VMware solutions while Foglight for IBM Cloud Migration Assessment dashboard helps the IBM Cloud users to review their on-premises environments, provides appraisal of the costs to run those workloads, and migrates VMware VMs to IBM Cloud Servers for VMware Solutions Dedicated.

This section introduces you to the Foglight for IBM Cloud Migration Assessment environment and provides you with essential information.

For more information, refer to the following topics:

- [Installation requirements](#)
- [Dashboard Location](#)
- [IBM Cloud Migration Assessment dashboard Introduction](#)

## Installation requirements

Foglight for IBM Cloud Migration Assessment dashboard comes installed on Foglight Evolve.

Foglight for IBM Cloud Migration Assessment dashboard requires the following cartridges for data collection:

- *Virtual-VMware-6.0.0.car*
- *CommonAnalytics-6.0.0.car*
- *Cost-Director-6.0.0.car*

While Foglight Evolve comes with these cartridges pre-installed and enabled, a standalone Foglight release requires that these components be installed on the Foglight Management Server. The sequence of cartridge installation is important because of their dependencies. For more information about installing Foglight for IBM Cloud Migration Assessment dashboard, and for details about system requirements and version compatibility, see the Foglight for IBM Cloud Migration Assessment dashboard Release Notes.

## Dashboard Location

After installing Foglight for IBM Cloud Migration Assessment, the **IBM Cloud Migration Assessment** entry appears under *Homes*.

### **To access the IBM Cloud Migration Assessment dashboard:**

- 1 Log in to the Foglight browser interface.
- 2 Ensure that the navigation panel is open.  
To open the navigation panel, click the right-facing arrow  on the left.
- 3 On the navigation panel, under *Homes*, click **IBM Cloud Migration Assessment**.

The IBM Cloud Migration Assessment dashboard opens.

Figure 1. IBM Cloud Migration Assessment dashboard



# IBM Cloud Migration Assessment dashboard Introduction

This section includes the following contents:

- [Homepage](#)
- [IBM Cloud Migration Modeling](#)

## Homepage

The IBM Cloud Migration Assessment dashboard includes the following elements:

- *IBM Cloud Server Pricing*

Click the link **IBM Cloud for VMware Solutions** to popup an IBM Cloud server list dialog box. The default server pricing list has been pre-defined. Users can import a new IBM Cloud pricing.

Region	Service Type	Category	Item Name	Price
Paris	AD	Active Directory VSI	1 Gbps Private Network Uplink	\$11.40/Month
Paris	AD	Active Directory VSI	8 GB RAM	\$26.40/Month
Paris	AD	Active Directory VSI	Windows Server 2019 Standard Edition (64 bit)	\$33.60/Month
Paris	AD	Active Directory VSI	100 GB (SAN)	\$11.32/Month
Paris	AD	Active Directory VSI	2.0 GHz Cores (QTY 2)	\$48.40/Month
Paris	ATTST	Attached Storage	1 GB - 4 IOPS/GB - Shared File-Level Storage for Client Work...	\$8.88/Month
Paris	ATTST	Attached Storage	1 GB - .25 IOPS/GB - Shared File-Level Storage for Client Wor...	\$8.88/Month
Paris	ATTST	Attached Storage	1 GB - 10 IOPS/GB - Shared File-Level Storage for Client Wor...	\$8.88/Month
Paris	ATTST	Attached Storage	1 GB - 2 IOPS/GB - Shared File-Level Storage for Client Work...	\$8.88/Month
Paris	BMMisc	Bare Metal	500 GB Public Bandwidth	\$8.88/Month
Paris	BMMisc	Bare Metal	10 Gbps Dual Public & Private Network Uplinks (Unbonded)	\$22.00/Month
Paris	BMMisc	Bare Metal	Intel TXT	\$3.88/Month
Paris	BMMisc	Bare Metal	Disk Controller	\$38.80/Month
Paris	BMMisc	Bare Metal	10 Gbps Dual Private Network Uplinks (Unbonded)	\$22.00/Month
Paris	BMMisc	Bare Metal	Redundant Power Supply	\$3.88/Month
Paris	BMMisc	Bare Metal	Monitoring	\$8.88/Month
Paris	Caveonix	Network	64 portable IP addresses	\$1.88/Month
Paris	Caveonix	Licenses	Caveonix 10-VM License Pack	\$8.88/Month
Paris	CPU	Bare Metal	Bare Metal Server Dual Intel Xeon Gold 6248 (2U; 12 drives; ...	\$488.00/Month
Paris	CPU	Bare Metal	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 dri	\$477.00/Month

- **Compute Price Plan and Storage Price Plan**

The price plans are used to define the VMware VMs on-premises cost. Click the links and bring you to the **Compute Price Plans** and **Storage Price Plans** tabs under **On-Premises > Administration** in Foglight Cost Director dashboard.

- **Performance Impact**

Performance Impact helps ensure a balance between costs and performance. Impact is measured by understanding how often a virtual machine exceeds the proposed destinations available resources. Users can input value for 0 – 100%. The default value is 5%. The higher the percentage the higher the impact. By choosing an impact, a cheaper server can be selected for the recommendation.

For example, by setting a value of 10%, the impact algorithm will assess how often a cloud cluster exceeds the proposed destination resources and count each breach of the available resources based on historic performance.

- **Analysis Period**

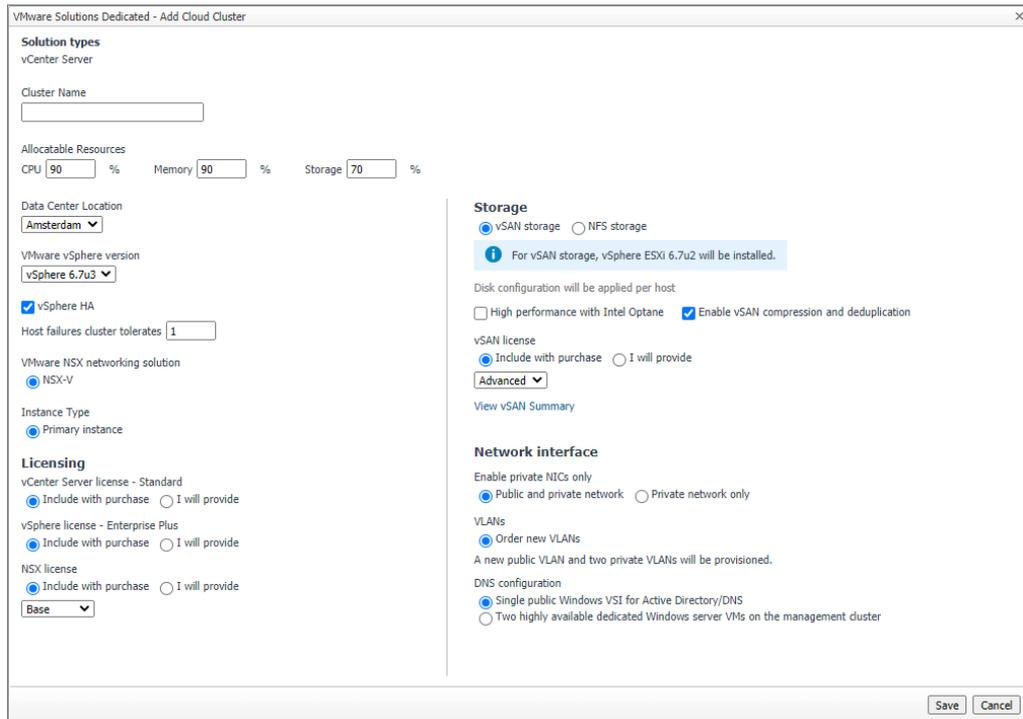
This period will be used to calculate the average usage of the needed resources (CPU, memory, and so on) in the consolidated environment. Users can define an Average Analysis Period. The default value is 7 days and other values, such as 1, 3, and 30 days, are supported.

**i NOTE:** Ensure that the chosen period is available in Foglight. If 30 days is chosen, while only 3 days of history data is available in the Foglight database, it will only use the 3 days of data for the average analysis period.

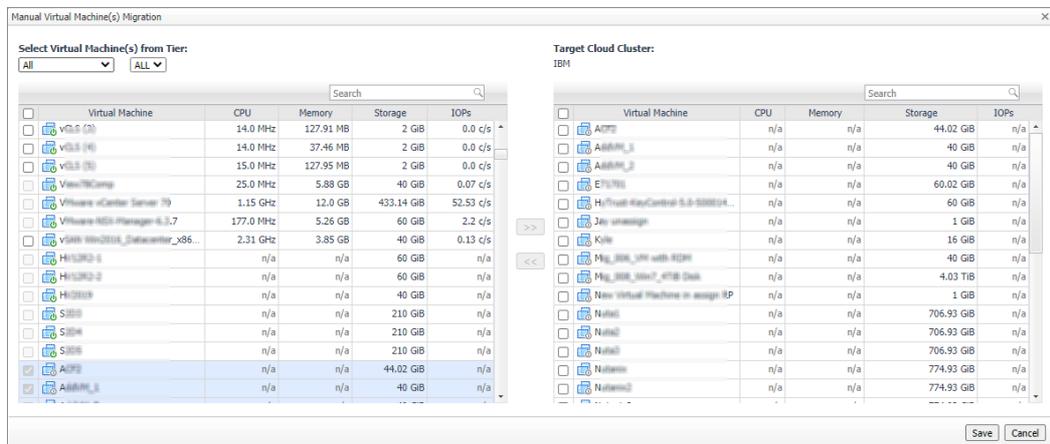
- **IBM Cloud Cluster table**

To create a new cloud cluster, do the following:

- 1 Click **New Cloud Cluster** and a *VMware Solutions Dedicated* dialog box will appear. Specify a cloud cluster name, make necessary changes, and click **Save**.



- 2 Click **Add VMs** to open a *Manual Virtual Machines Migration* dialog box. Select the VMs you want to add to the cloud cluster. The Memory Usage, CPU Demand, Storage Usage, and Storage IOPs for the selected VMs will be aggregated as Cloud Cluster metrics. Click **Save**.



- 3 The **IBM Cloud Migration Assessment** dashboard refreshes and the CPU, Memory, and Storage IOPs Metrics chart for selected IBM Cloud Cluster are displayed.

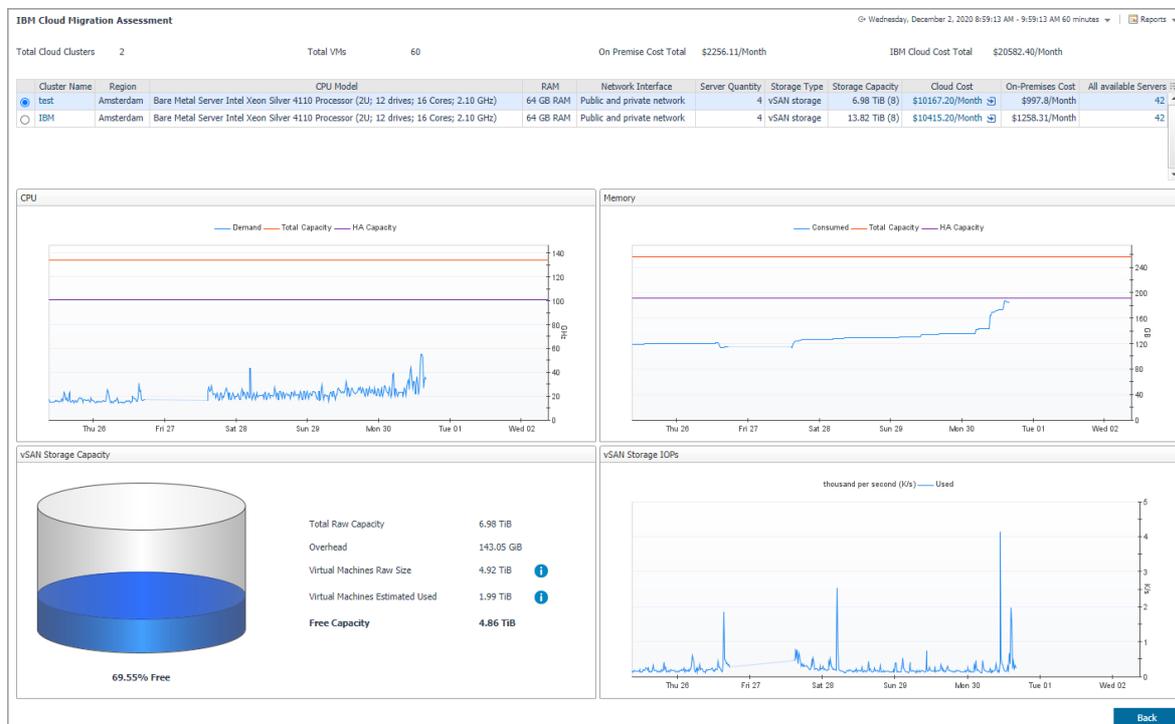
The IBM Cloud Cluster table also supports to edit or delete existing cloud cluster and save the exiting cloud cluster as configuration or load cloud clusters from configuration.

- **Run Model** button

Click the button to assess migration, the IBM Cloud server with lowest cloud cost will be recommended.

# IBM Cloud Migration Modeling

After running model, a migration modeling result breakdown page will be displayed. It shows which IBM Server should be used for each Cloud Cluster. The system recommends the IBM Server with the lowest total cloud cost (server unit cost \* quantity).



The migration modeling result page includes the following elements:

- Model result summary  
Shows the *Total Cloud Clusters*, *Total VMs*, *On-Premises Cost Total*, and *IBM Cloud Cost Total*.
- Cloud Cluster list, including the following information:
  - *Cluster Name* and *Region*. Click *Cluster Name* to display *Cloud Cluster Details* page.

Cloud Cluster Details

**Summary of Cloud Cluster test**

**System**

Initial cluster name	test
VMware vSphere version	vSphere 6.7u3
Data center location	Amsterdam
Number of bare metal servers	4
DNS configuration	Single public Windows VSI for Active Directory/DNS
CPU model	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)
RAM	64 GB RAM

**vSAN storage**

Number of vSAN capacity disks	8
Disk type and size for vSAN capacity disks	Hard Drive: 960 GB SSD
Number of vSAN cache disks	2
Disk size for vSAN cache disks	Hard Drive: 960 GB SSD
Enable vSAN compression and deduplication	true

**Networking**

Enable private NICs only	false
--------------------------	-------

**Licenses**

vSphere license - Enterprise Plus	Include with purchase
vCenter Server license - Standard	Include with purchase
NSX license	Include with purchase(Base)
vSAN license	Include with purchase(Advanced)

Close

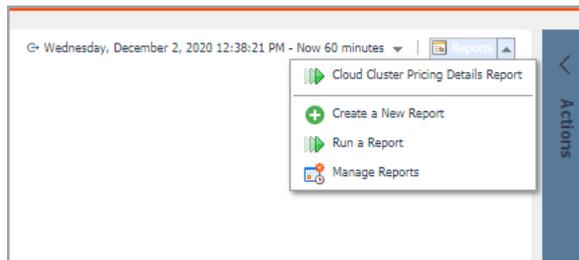
- Recommended Server Information, including *CPU Model*, *RAM*, *Network Interface*, *Server Quantity*, *Storage Type*, and *Storage Capacity*.
- Compare *Cloud Cost* and *On-Premises Cost*.

Click *Cloud Cost* to display *Pricing Details of Cloud Cluster* page. The *Pricing Details* page displays the estimated total price for *Bare Metal Servers*, *Additional Networks*, *License*, *Support and Services*, and *Active Directory*.

IBM Cloud Migration Assessment > Pricing Details of Cloud Cluster test		
<b>Estimated Total Price</b>		<b>\$10167.20/mo</b>
<b>Bare Metal Servers</b>		<b>\$1538.80/mo x 4</b>
vSAN capacity disks	Hard Drive: 960 GB SSD	\$103.00 x 2
vSAN cache disks	Hard Drive: 960 GB SSD	\$103.00 x 2
First PCIe Component	M.2 for OS Boot	\$30.00
Disk Controller	RAID	\$51.50
Operating System	VMware Server Virtualization 6.7 Update 2	\$250.00
Uplink Port Speed	10 Gbps Dual Public & Private Network Uplinks (Unbonded)	\$206.00
Power Supply	Redundant Power Supply	\$10.30
RAM	64 GB RAM	\$227.00
Server	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	\$350.00
Server Security	Intel TXT(Trusted Execution Technology)	\$2.00
<b>Additional Networks</b>		<b>\$64.00/mo</b>
Public (only) Secondary VLAN IP Addresses	16 Portable Public IP Addresses	\$32.00 x 2
<b>License</b>		<b>\$2408.00/mo</b>
Software License	vCenter Server Appliance 6.x	\$0.00
Software License	VMware NSX Base 6.0	\$174.00 x 4
Software License	VMware vSAN Advanced Tier 1 0 - 20 TB 6.x	\$428.00 x 4
<b>Support and Services</b>		<b>\$1400.00/mo</b>
Service	Service & Support	\$350.00 x 4
<b>Active Directory</b>		<b>\$140.00/mo</b>
Operating System	Windows Server 2019 Standard Edition (64 bit)	\$53.10
First Disk	100 GB (SAN)	\$10.60
Uplink Port Speeds	1 Gbps Private Network Uplink	\$10.30
Computing Instance	2 x 2.0 GHz or higher Cores	\$41.28
RAM	8 GB	\$24.72

- Pricing Details Report

In *Pricing Details* page, click *Reports > Cloud Cluster Pricing Details Report* to generate a *Pricing Details* report.



- Click the number of servers in *All Available Servers* column to open an *All Cloud Servers* dialog box. Users can select another server in the list. Once another available server is chosen, the system will update server information in the selected cloud cluster and recalculate the Cloud Cost (server unit cost \* quantity).

All Cloud Servers

Select another cloud server for cluster test

The system recommends the least expensive cloud server for the cluster by default, but an alternate server can be selected for the cluster from the following table.

	CPU Model	RAM	Quantity	Storage Capacity	Total Cost
<input checked="" type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	64 GB RAM	4	6.98 TB (8)	\$10167.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	64 GB RAM	4	6.98 TB (8)	\$10167.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	96 GB RAM	4	6.98 TB (8)	\$10395.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	96 GB RAM	4	6.98 TB (8)	\$10395.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	128 GB RAM	4	6.98 TB (8)	\$10627.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	128 GB RAM	4	6.98 TB (8)	\$10627.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	64 GB RAM	4	6.98 TB (8)	\$10643.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	64 GB RAM	4	6.98 TB (8)	\$10643.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	96 GB RAM	4	6.98 TB (8)	\$10871.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	96 GB RAM	4	6.98 TB (8)	\$10871.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	192 GB RAM	4	6.98 TB (8)	\$11087.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	192 GB RAM	4	6.98 TB (8)	\$11087.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	128 GB RAM	4	6.98 TB (8)	\$11103.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	128 GB RAM	4	6.98 TB (8)	\$11103.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 drives; 36 Cores; 2.30 GHz)	64 GB RAM	4	6.98 TB (8)	\$11135.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 6248 (2U; 12 drives; 40 Cores; 2.50 GHz)	64 GB RAM	4	6.98 TB (8)	\$11135.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 drives; 36 Cores; 2.30 GHz)	96 GB RAM	4	6.98 TB (8)	\$11363.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 6248 (2U; 12 drives; 40 Cores; 2.50 GHz)	96 GB RAM	4	6.98 TB (8)	\$11363.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	192 GB RAM	4	6.98 TB (8)	\$11563.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	192 GB RAM	4	6.98 TB (8)	\$11563.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 drives; 36 Cores; 2.30 GHz)	128 GB RAM	4	6.98 TB (8)	\$11595.2/Month

Save Cancel

Quest creates software solutions that make the benefits of new technology real in an increasingly complex IT landscape. From database and systems management, to Active Directory and Office 365 management, and cyber security resilience, Quest helps customers solve their next IT challenge now. Around the globe, more than 130,000 companies and 95% of the Fortune 500 count on Quest to deliver proactive management and monitoring for the next enterprise initiative, find the next solution for complex Microsoft challenges and stay ahead of the next threat. Quest Software. Where next meets now. For more information, visit <https://www.quest.com/>.

## Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.