



Workloads

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Workloads Pane

You can complete the following actions from the Workloads Pane:

Clone Workload

Click the *Clone* icon of an existing Workload to create a copy of the Workload and complete the following fields.

Edit Workload

Click the *Edit* icon of an existing Workload to edit the Workload profile.

Delete Workload

Click the *Delete* icon of an existing Workload to delete the Workload.

Modify Virtual Machine or Desktop Count

To modify the number of desktops or VMs for a Workload, change the value in the **Count** box. Click **Save**.

Add VDI Workload

To change the default values, click **Customize**.

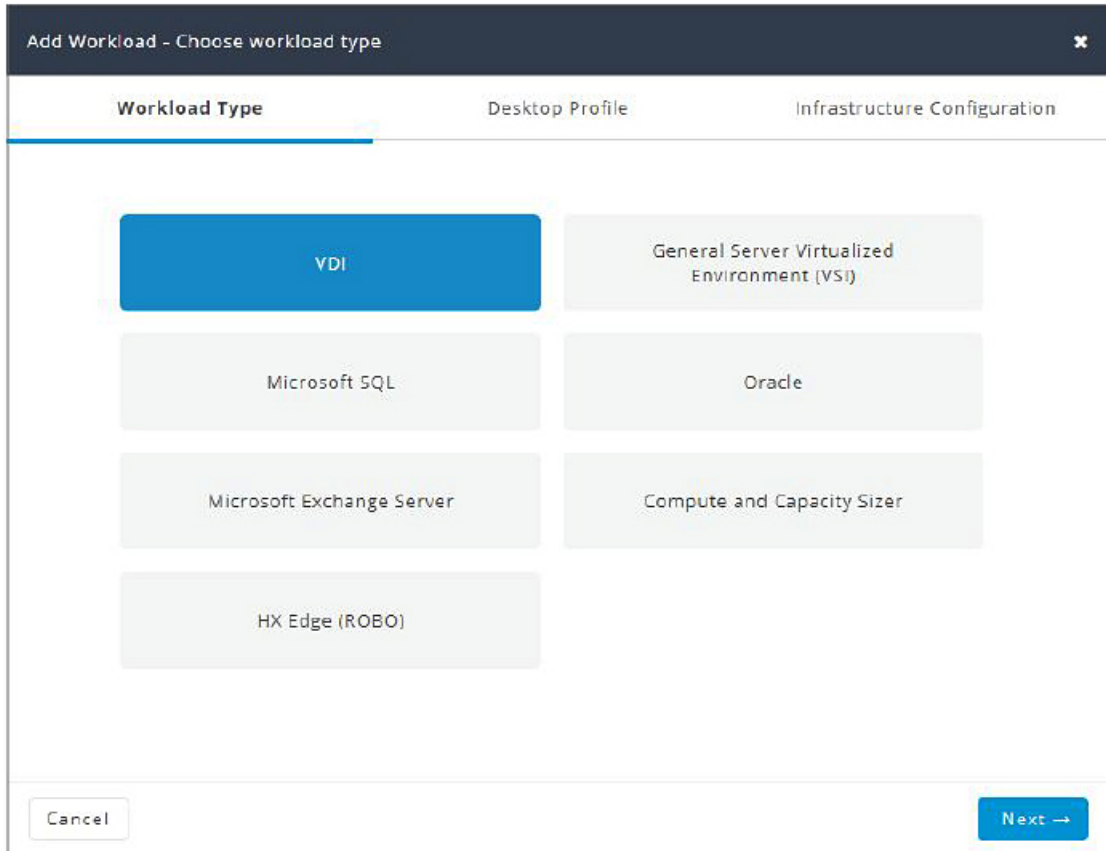


Attention The recommended values are based on performance tests and should be changed with care.

To add a VDI Workload:

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** page, select **VDI**, (shown as follows). Click **Next**.



Step 3 On the **Desktop Profile** page (shown as follows), complete the following fields:

Add Workload - VDI
✕

Workload Type
Desktop Profile
Infrastructure Configuration

Workload Name

User Type Task Worker ▼

Provisioning Type Pooled Desktops ▼

OS Type Windows 7 ▼

Number of Desktops

Concurrency (%)

Do the desktops require GPU?

Desktop Compute Profile ✎ Customize

vCPUs

Clock (MHz)

RAM (GB)

Desktop Storage Profile

Average Storage IOPS

User / Application Data Size (GB)

OS Image Size (GB)

Number of Snapshots

Working Set Size (%)

Cancel
← Prev
Next →

UI Element	Description
Workload Name field	Name of the Workload
User Type drop-down list	Choose from a list of predefined resource consumption values: <ul style="list-style-type: none"> • Task Worker • Knowledge Worker • Power User • Custom User—If the predefined resource consumption values in the templates listed do not meet your requirements, select the Custom User option to manually enter the Desktop Compute Profile and Desktop Storage Profile values.
Provisioning Type drop-down list	You have the following options for data retention: <ul style="list-style-type: none"> • Persistent Desktops—Retains data on the desktop. • Pooled Desktops—Does not retain on the desktop.

UI Element	Description
OS Type drop-down list	<ul style="list-style-type: none"> • Windows 7 • Windows 10
Number of Desktops field	Enter the total number of desktops. The limit is 1 - 30,000 desktops.
Concurrency (%) field	Enter percentage relevant to the total number of desktops that should remain powered on concurrently.
Do the desktops require GPU?	Indicate if the desktops need to use GPUs.
Desktop Compute Profile	
Depending on the User Type you choose, the recommended values will change.	
vCPUs field	<ul style="list-style-type: none"> • Task Worker—1 vCPU • Knowledge Worker—2 VCPUs • Power User—2 VCPUs
Clock (MHz) field	<ul style="list-style-type: none"> • Task Worker—325 MHz • Knowledge Worker—400 MHz • Power User—400 MHz
RAM (GB) field	<ul style="list-style-type: none"> • Task Worker—1 GB • Knowledge Worker—2 GB • Power User—2 GB
Desktop Storage Profile	
Average Storage IOPS field	Depending on the User Type you choose, the recommended values will change. <ul style="list-style-type: none"> • Task Worker—6 IOPS • Knowledge Worker—8 IOPS • Power User—10 IOPS
User / Application Data Size (GB) field	Recommended is 0 GB
OS Image Size (GB) field	Recommended is 20 GB
Number of Snapshots field	Recommended is 0 GB
Working Set Size (%) field	Recommended is 10%

Click **Next**.

Step 4 On the **Infrastructure Configuration** page (shown as follows), complete the following fields.

The screenshot shows a dialog box titled "Add Workload - VDI" with a close button (X) in the top right corner. The dialog is divided into three tabs: "Workload Type", "Desktop Profile", and "Infrastructure Configuration". The "Infrastructure Configuration" tab is active. It contains four configuration fields:

- Data Replication Factor**: A dropdown menu with "RF3" selected.
- Performance Headroom (nodes)**: A dropdown menu with "1" selected.
- Compression savings (%)**: A text input field with "10" entered.
- Deduplication Savings (%)**: A text input field with "30" entered.

At the bottom of the dialog, there are three buttons: "Cancel" on the left, and "← Prev" and "Save" on the right. A vertical ID number "306686" is visible on the right edge of the dialog box.

UI Element	Description
Data Replication Factor drop-down list	RF3 is recommended for data redundancy.
Performance Headroom (nodes) drop-down list	Enter the number of nodes used for Fault Tolerance. Recommended is 1 node. Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of a node failure.
Compression Savings (%) field	Recommended is 10%
Deduplication Settings (%) field	Recommended is 30%

Step 5 Click **Save**.

Add General Server VSI Workload

To change the default values, click **Customize**.

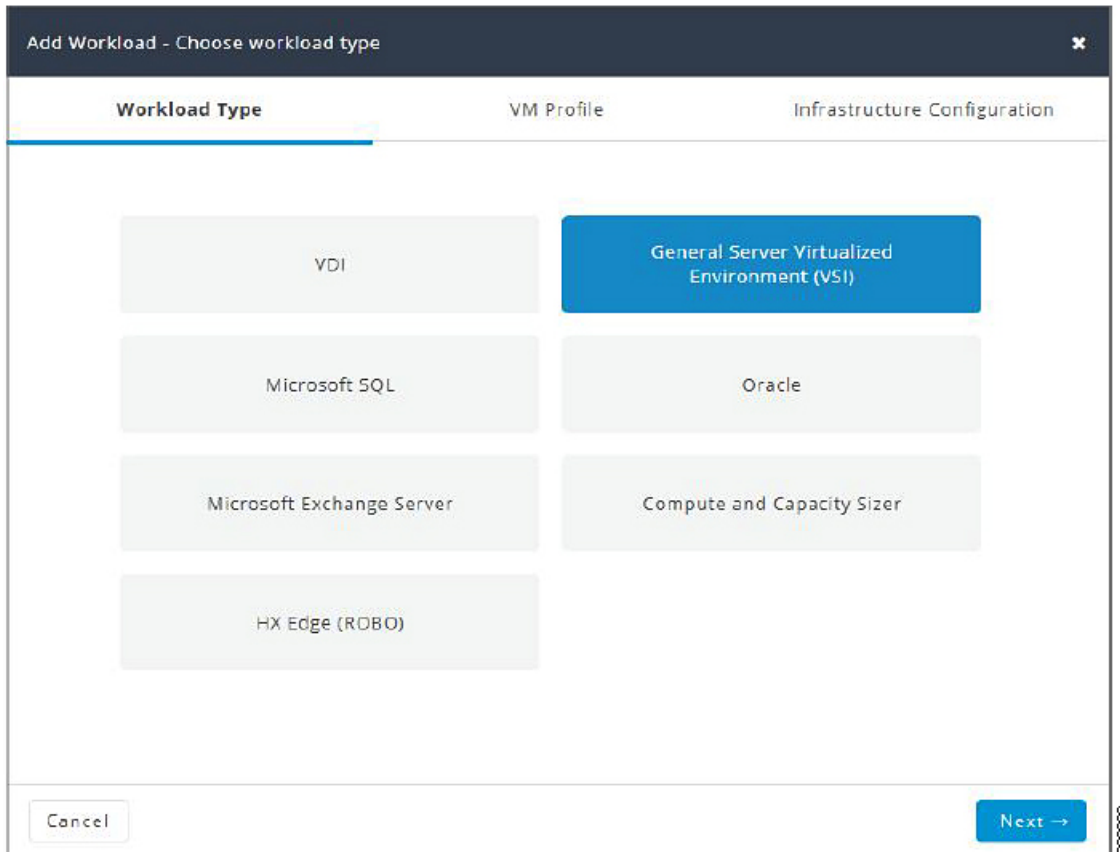


Attention The recommended values are based on performance tests and should be changed with care.

To add a General Server Virtualized Environment (VSI) Workload:

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** page, select **General Server Virtualized Environment (VSI)** (shown as follows). Click **Next**.



Step 3 On the **VM Profile** page, complete the following fields:

UI Element	Description
Workload Name field	Enter a name for the Workload.

UI Element	Description
VM Type drop-down list	Choose from a list of predefined resource consumption values: <ul style="list-style-type: none"> • Small • Medium • Large • Custom—If the predefined resource consumption values in the templates listed do not meet the requirements, select Custom option to enter profile values on the Infrastructure Configuration page.
Number of VMs field	Enter the number of VMs.
VM Compute Profile Depending on the VM Type you choose, the recommended values will change.	
vCPUs field	<ul style="list-style-type: none"> • Small—2 vCPUs • Medium—4 vCPUs • Large—8 vCPUs
vCPU Overprovisioning Ratio field	Recommended value for all VM Types is 4 vCPUs. The total number of vCPUs that can be packed per core.
RAM (GB) field	<ul style="list-style-type: none"> • Small—8 GB • Medium—16 GB • Large—32 GB
VM Storage Profile Depending on the VM Type you choose, the recommended values will change.	
Average 8K Storage IOPS field	<ul style="list-style-type: none"> • Small—50 IOPS • Medium—100 IOPS • Large—200 IOPS
User / Application Data Size (GB) field	<ul style="list-style-type: none"> • Small—50 GB • Medium—200 GB • Large—750 GB
OS Image Size (GB) field	Recommended is 20 GB. Size of the OS image for the VM.

UI Element	Description
Number of Snapshots field	Recommended is 5 snapshots.
Working Set Size (%) field	Recommended is 10%

Click Next.

Step 4 On the **Infrastructure Configuration** page, complete the following fields.

UI Element	Description
Cluster Type button	<ul style="list-style-type: none"> • Normal • Stretch - The Stretch Cluster provides a high-availability cluster for data of high importance. This cluster is spread across two geographic regions and will be available even if one site goes down completely for any reason, such as a natural disaster.
Data Replication Factor drop-down list	RF2 is recommended for better availability.
Performance Headroom (nodes) drop-down list	<p>Enter the number of nodes used for Fault Tolerance. Recommended is 1 node.</p> <p>Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of a node failure.</p>
Compression Savings (%) field	Recommended is 20%
Deduplication Savings (%) field	Recommended is 10%
Enable Remote Replication?	<p>Choose to enable remote replication. You can now set Workload placement and site failure protection as follows:</p> <p>Primary Workload Placement drop-down list</p> <ul style="list-style-type: none"> • Site A • Site B <p>Site Failure Protection (% Workload)—Recommended is 100.</p>

Step 5 Click Save.

Add Microsoft SQL Workload

To change the default values, click **Customize**.

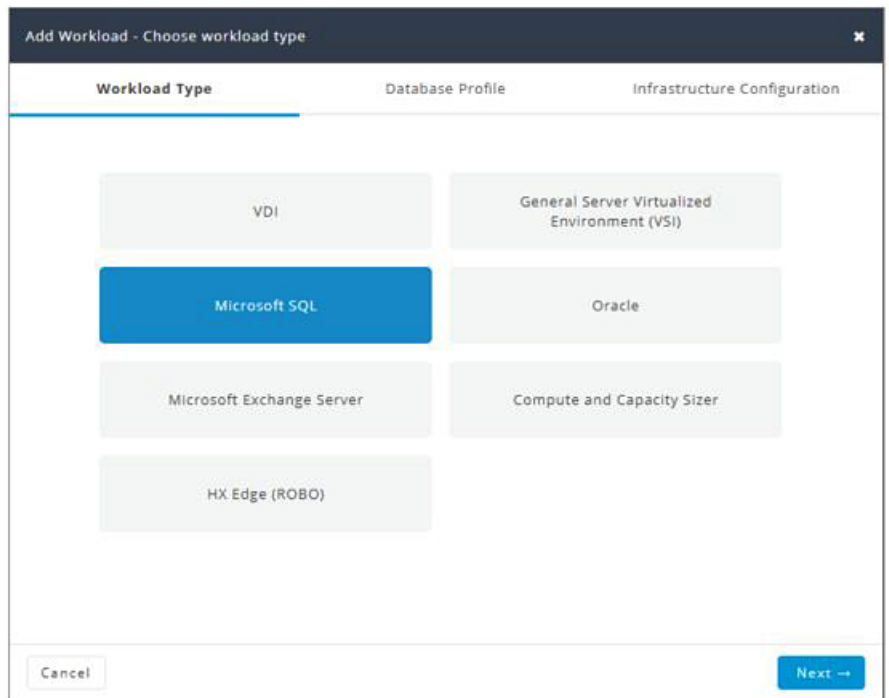


Attention The recommended values are based on performance tests and should be changed with care.

To add a Microsoft SQL Workload:

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** page, select **Microsoft SQL** (shown as follows). Click **Next**.



Step 3 On the **Database Profile** page, complete the following fields:

UI Element	Description
Workload Name field	Enter a name of the Workload.
Database Type drop-down list	<p>You can choose OLTP or OLAP database type.</p> <ul style="list-style-type: none"> • OLTP—Represents transactional workloads. The Sizer assigns a workload that consists of 8K, 70% read, 30% write; 100% random, when sizing for the specified number of IOPS for OLTP. • OLAP—Represents query, reporting, or analytics workloads. The Sizer assigns a workload that consists of large sequential reads when sizing for the specified throughput for OLAP.

UI Element	Description
Database Profile drop-down list	Choose from a list of predefined Database Profile values: <ul style="list-style-type: none"> • Small • Medium • Large • Custom—If the predefined values in the templates listed do not meet your requirements, select the Custom option to manually enter Compute Profile and Storage Profile values.
Number of Databases field	Enter the total number of databases.
Compute Profile Depending on the Database Profile you choose, the recommended values will change.	
vCPUs field	<ul style="list-style-type: none"> • Small—2 vCPUs • Medium—4 vCPUs • Large—8 vCPUs
vCPU Provisioning Ratio field	Recommended is 2 vCPUs.
RAM (GB) field	<ul style="list-style-type: none"> • Small—8 GB • Medium—16 GB • Large—32 GB
Storage Profile Depending on the Database Profile you choose, the recommended values will change.	
Database Size (GB) field	<ul style="list-style-type: none"> • Small—400 GB • Medium—1000 GB • Large—4000 GB

UI Element	Description
IOPS field	<p>IOPS changes based on the Database Type you choose.</p> <p>For OLTP Database Type, the following values are recommended:</p> <ul style="list-style-type: none"> • Small—1000 IOPS • Medium—3000 IOPS • Large—10000 IOPS <p>For OLAP Database Type, the following values are recommended:</p> <ul style="list-style-type: none"> • Small—100 MB/s • Medium—200 MB/s • Large—800 MB/s
Database Overhead (%) field	<ul style="list-style-type: none"> • Small—45% • Medium—40% • Large—30%

Click **Next**.

Step 4 On the **Infrastructure Configuration** page, complete the following fields:

UI Element	Description
Cluster Type button	<ul style="list-style-type: none"> • Normal • Stretch - The Stretch Cluster provides a high-availability cluster for data of high importance. This cluster is spread across two geographic regions and will be available even if one site goes down completely for any reason, such as a natural disaster.
Data Replication Factor drop-down list	RF3 is recommended for data redundancy.
Performance Headroom (nodes) drop-down list	<p>Enter the number of nodes used for Fault Tolerance. Recommended is 1 node.</p> <p>Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of a node failure.</p>
Compression Savings (%) field	Recommended is 30%
Deduplication Settings (%) field	Recommended is 0%

UI Element	Description
Enable Remote Replication? check box	Choose to enable remote replication. You can now set Workload placement and site failure protection as follows: Primary Workload Placement drop-down list <ul style="list-style-type: none"> • Site A • Site B Site Failure Protection (% Workload) —Recommended is 100%

Step 5 Click **Save**.

Add Oracle Workload

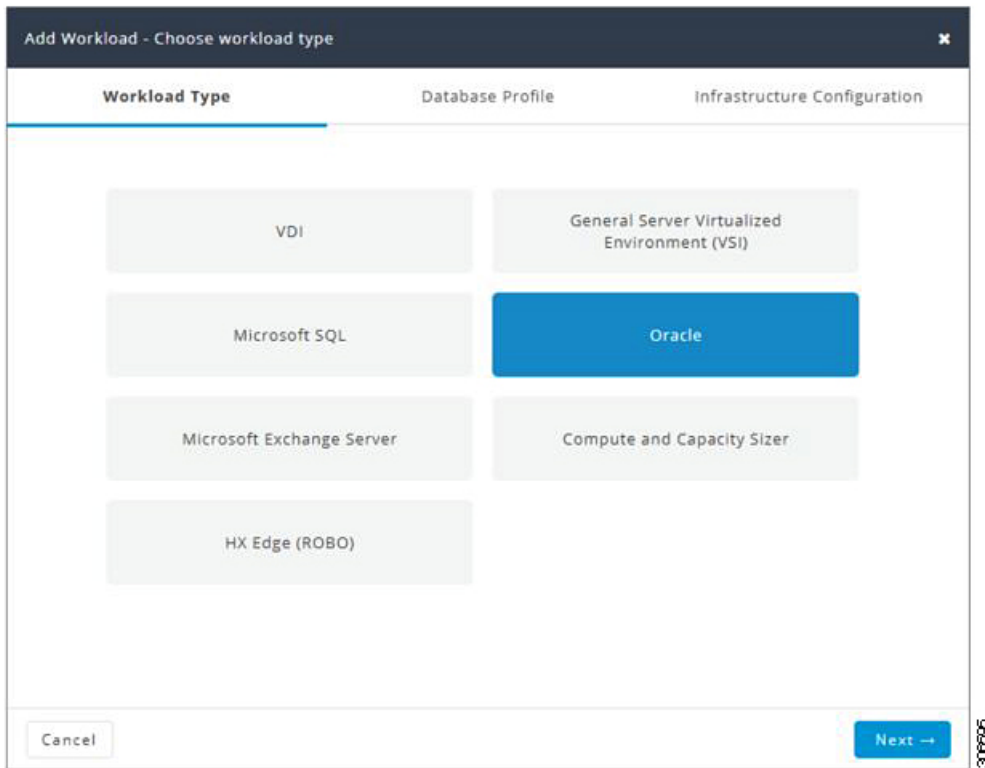
To change the default values, click **Customize**.



Attention The recommended values are based on performance tests and should be changed with caution.

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** page, select **Oracle** (shown as follows). Click **Next**.



Step 3 On the **Database Profile** page, complete the following fields:

UI Element	Description
Workload Name field	Enter a name of the Workload.
Database Type drop-down list	<p>You can choose OLTP or OLAP database type.</p> <ul style="list-style-type: none"> • OLTP—Represents transactional workloads. The Sizer assigns a Workload that consists of 8K 70% read, 30% write; 100% random, when sizing for the specified number of IOPS for OLTP. • OLAP—Represents query, reporting, or analytics workloads. Sizer assigns a workload that consists of large sequential reads, when sizing for the specified throughput for OLAP.

UI Element	Description
Database Profile drop-down list	Choose from a list of predefined Database Profile values: <ul style="list-style-type: none"> • Small • Medium • Large • Custom—If the predefined values in the templates listed do not meet your requirements, select the Custom option to manually enter Compute Profile and Storage Profile values.
Number of Databases field	Enter the total number of databases.
Compute Profile Depending on the Database Profile you choose, the recommended values will change.	
vCPUs field	<ul style="list-style-type: none"> • Small—4 vCPUs • Medium—8 vCPUs • Large—16 vCPUs
vCPU Provisioning Ratio field	Recommended is 2 vCPUs.
RAM (GB) field	<ul style="list-style-type: none"> • Small—16 GB • Medium—64 GB • Large—96 GB
Storage Profile Depending on the Database Profile you choose, the recommended values will change.	
Database Size (GB) field	<ul style="list-style-type: none"> • Small—400 GB • Medium—1000 GB • Large—4000 GB

UI Element	Description
IOPS field	<p>IOPS changes based on the Database Type you choose.</p> <p>For OLTP Database Type, the following values are recommended:</p> <ul style="list-style-type: none"> • Small—6000 IOPS • Medium—10000 IOPS • Large—30000 IOPS <p>For OLAP Database Type, the following values are recommended:</p> <ul style="list-style-type: none"> • Small—200 MB/s • Medium—400 MB/s • Large—1000 MB/s
Database Overhead (%) field	<ul style="list-style-type: none"> • Small—45% • Medium—40% • Large—30%

Click **Next**.

Step 4 On the **Infrastructure Configuration** page, complete the following fields:

UI Element	Description
Cluster Type button	<ul style="list-style-type: none"> • Normal • Stretch - The Stretch Cluster provides a high-availability cluster for data of high importance. This cluster is spread across two geographic regions and will be available even if one site goes down completely for any reason, such as a natural disaster.
Data Replication Factor drop-down list	RF3 is recommended for data redundancy.
Performance Headroom (nodes) drop-down list	<p>Enter the number of nodes used for Fault Tolerance. Recommended is 1 node.</p> <p>Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of a node failure.</p>
Compression Savings (%) field	Recommended is 30%
Deduplication Settings (%) field	Recommended is 0%

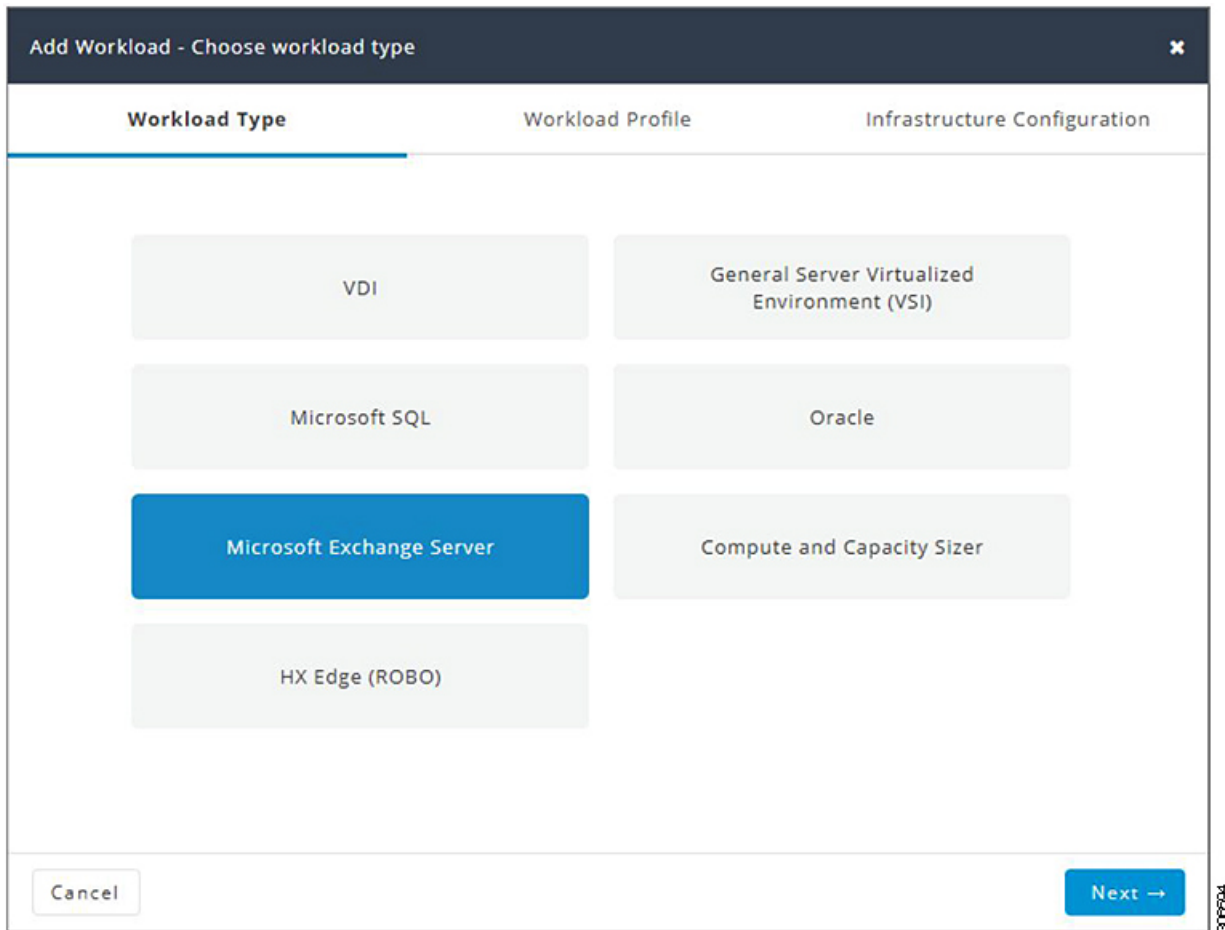
UI Element	Description
Enable Remote Replication? check box	Choose to enable remote replication. You can now set Workload placement, and site failure protection as follows: Primary Workload Placement drop-down list <ul style="list-style-type: none"> • Site A • Site B Site Failure Protection (% Workload) —Recommended is 100.

Step 5 Click **Save**.

Add Microsoft Exchange Server Workload

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** page, select **Microsoft Exchange Server** (shown as follows). Click **Next**.



Step 3 On the **Workload Profile** page, you can choose to enter the values manually or you can import them from a file.

UI Element	Essential Information
Workload Name field	Enter a name for the Workload.
Workload Input Type	<p>Download the Microsoft Exchange Workload modeling spreadsheet from Microsoft Exchange 2013 Server Role Requirements Calculator.</p> <p>Important Ensure that the Microsoft Exchange 2013 Sizing Calculator is filled out properly, refer to the Configure the Microsoft Exchange 2013 Server Role Requirements Calculator.</p> <p>Upload the completed <i>.XLSM</i> spreadsheet to process workload inputs.</p>
vCPUs field	Total number of cores required for all the MS Exchange Servers after accounting for system overhead. Intel E5-2630 v4 is used as the reference CPU for core count.
vCPU Overprovisioning Ratio field	Total number of vCPUs that can be packed per core.

UI Element	Essential Information
Total RAM (GB) field	The total RAM required for all guest VMs, after accounting for system overhead.
Effective User Capacity (GB) field	This value depends on the Dedupe or Compression savings. You can change the Deduplication and compression savings on the Infrastructure Configuration Page.
DB IOPS field	Average 16KB IOPS, with 100% random 60/40 read/write ratio.
Log IOPS field	Average 32KB IOPS, with 100% random 60/40 read/write ratio.
Maintenance IOPS field	Average 64KB IOPS, with 100% random 60/40 read/write ratio.
Future Growth (%) field	Specify percentage to allow for future growth of the environment for Physical Cores, RAM, and Effective User Capacity.

Click **Next**.

Step 4 On the **Infrastructure Configuration** page, complete the following fields.

UI Element	Essential Information
Cluster Type button	<ul style="list-style-type: none"> • Normal • Stretch - The Stretch Cluster provides a high-availability cluster for data of high importance. This cluster is spread across two geographic regions and will be available even if one site goes down completely for any reason, such as a natural disaster.
Data Replication Factor field	RF3 is recommended for better availability.
Performance Headroom (# of nodes) field	Number of nodes of Fault Tolerance. Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of node failure.
Compression Savings (%) field	By default is set to 15%. The allowed range is 0-50%
Deduplication Settings (%) field	By default is set to 15%. The allowed range is 0-70%

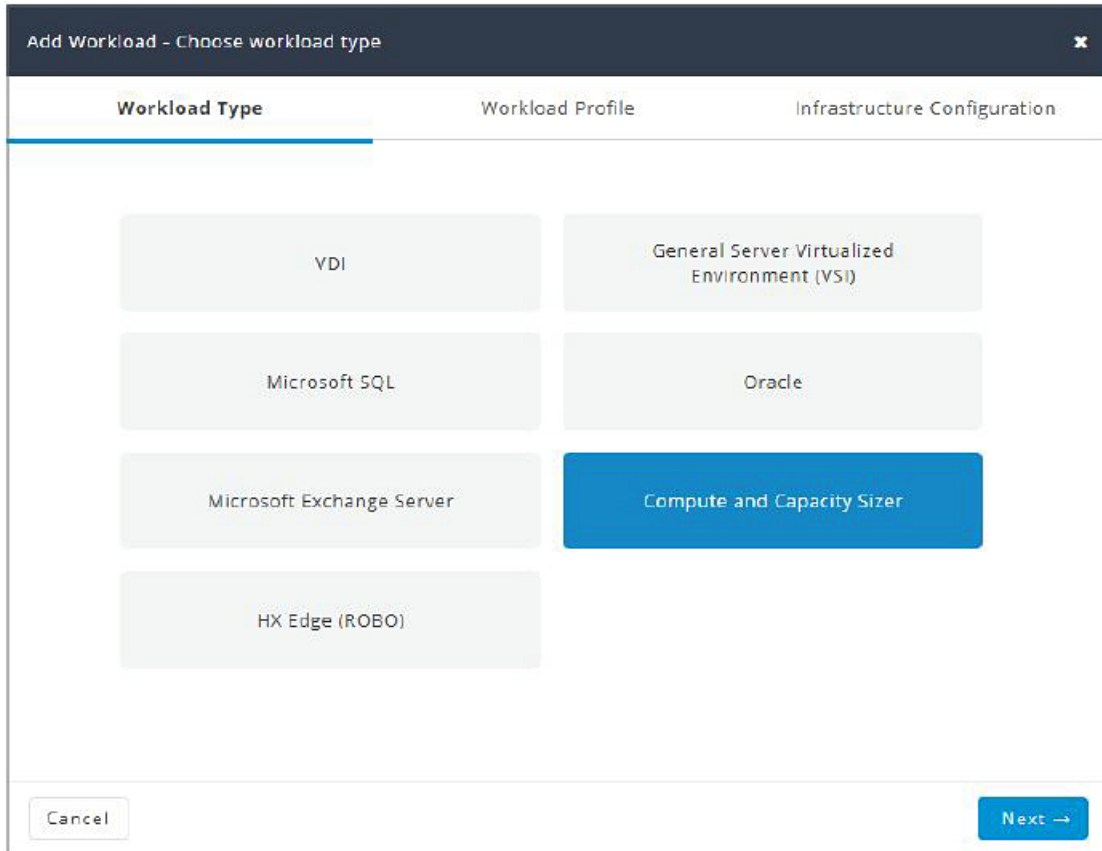
Step 5 Click **Save**.

Add Compute and Capacity Sizer (RAW) Workloads

To add the Compute and Capacity Sizer Workloads:

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** tab, select **Compute and Capacity Sizer** (shown as follows). Click **Next**.



Step 3 On the **Workload Profile** page, you can choose to enter the values manually or you can import them from a file.

UI Element	Description
Workload Name field	Enter a name for the Workload.

UI Element	Description
Workload Input Type button	<ul style="list-style-type: none"> • Manual—To use default values, choose this option. • File—You can import the values from a CSV file. The CSV file can be downloaded from the HxProfiler. The File option provides users with the following options: <ul style="list-style-type: none"> • 30-day summary from the HX Profiler tool. (The CSV file can be downloaded from the HX Profiler tool for a 30-day duration period.) • RV Tools Output
CPU Unit field	<ul style="list-style-type: none"> • Cores by default • Clock
Total vCPUs field	<p>Default is 2 vCPUs.</p> <p>The total number of cores required for all the guest VMs after accounting for system overhead.</p>
CPU Overprovisioning Ratio field	<p>Default is 1 vCPU.</p> <p>The total number of vCPUs that can be packed per core.</p>
Total RAM (GB) field	<p>Default is 128 GB.</p> <p>The total RAM required for all guest VMs after accounting for system overhead.</p>
Effective User Capacity (GB) field	<p>Default is 1000 GB.</p> <p>This value depends on the dedupe or compression savings. You can change the deduplication and compression savings on the Infrastructure Configuration page.</p>
Future Growth (%) field	<p>Specify the percentage to allow for future growth of the environment for Physical Cores, RAM, and Effective User Capacity.</p>

Click Next.

Step 4 On the **Infrastructure Configuration** page, complete the following fields.

UI Element	Description
Cluster Type button	<ul style="list-style-type: none"> • Normal • Stretch - The Stretch Cluster provides a high-availability cluster for data of high importance. This cluster is spread across two geographic regions and will be available even if one site goes down completely for any reason, such as a natural disaster.
Data Replication Factor field	RF3 is recommended for better availability.
Performance Headroom (# of nodes) field	Number of nodes of Fault Tolerance. Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of a node failure.
Compression Savings (%) field	By default set to 0%. The allowed range is 0-50%.
Deduplication Settings (%) field	By default set to 0%. The allowed range is 0-70%.

Step 5 Click **Save**.

Add HyperFlex Edge (ROBO) Workload

To change the default values, click **Customize**.

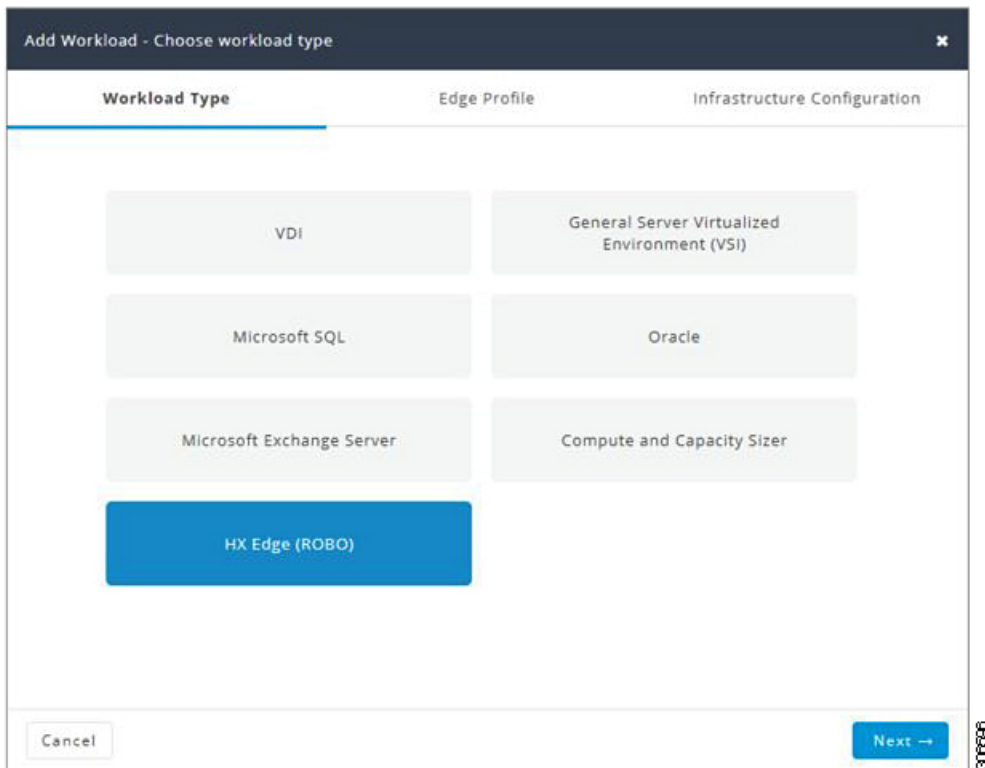


Attention The recommended values are based on performance tests and should be changed with care.

To add a HyperFlex Edge (ROBO) Workload:

Step 1 Click the + icon under **Workloads**.

Step 2 On the **Workload Type** page, select **HX Edge (ROBO)** (shown as follows). Click **Next**.



Step 3 On the **Edge Profile** page, complete the following fields:

UI Element	Description
Workload Name field	Enter a name for the Workload.
VM Type drop-down list	Choose from a list of predefined resource consumption values: <ul style="list-style-type: none"> • Small • Medium • Large • Custom—If the predefined resource consumption values in the templates listed do not meet the requirements, select the Custom option to enter profile values on the Infrastructure Configuration page.
Number of VMs field	Enter the number of VMs.
VM Compute Profile Depending on the VM Type you choose, the recommended values will change.	

UI Element	Description
vCPUs field	<ul style="list-style-type: none"> • Small—2 vCPUs • Medium—4 vCPUs • Large—8 vCPUs
vCPU Overprovisioning Ratio field	Recommended value for all VM Types is 4. The total number of vCPUs that can be packed per core.
RAM (GB) field	<ul style="list-style-type: none"> • Small—8 GB • Medium—16 GB • Large—32 GB
VM Storage Profile Depending on the VM Type you choose, the recommended values will change.	
Average 8K Storage IOPS field	<ul style="list-style-type: none"> • Small—50 IOPS • Medium—100 IOPS • Large—200 IOPS
User / Application Data Size (GB) field	<ul style="list-style-type: none"> • Small—50 GB • Medium—100 GB • Large—750 GB
OS Image Size (GB) field	Recommended is 20 GB. Size of the OS image for the VM.
Number of Snapshots field	Recommended is 5 snapshots
Working Set Size (%) field	Recommended is 10%

Click **Next**.

Step 4 On the **Infrastructure Configuration** page, complete the following fields.

UI Element	Description
Data Replication Factor drop-down list	Caution Edge workload is supported only with RF 2.
Performance Headroom (nodes) drop-down list	Enter the number of nodes used for Fault Tolerance. Recommended is 1 node. Setting Performance Headroom adds additional nodes to the cluster to ensure that there is enough performance bandwidth in case of a node failure.

UI Element	Description
Compression Savings (%) field	Recommended is 20%
Deduplication Savings (%) field	Recommended is 10%

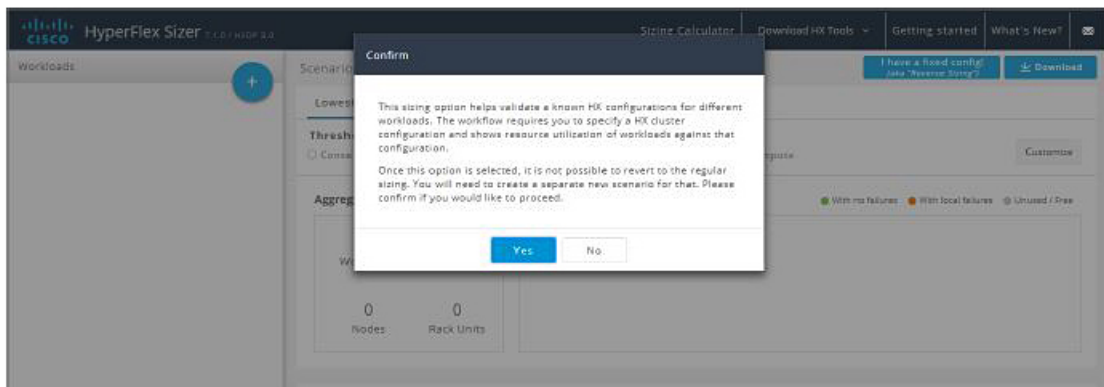
Step 5 Click Save.

Fixed (Reverse) Configuration Sizing

Fixed Sizing (also referred to as "Reverse Sizing") is a workflow that starts with a fixed configuration and helps validate whether a given set of Workloads will run on it or not. In the case of Regular Sizing, the workflow helps identify the cost-optimal HX configuration for a set of Workloads.

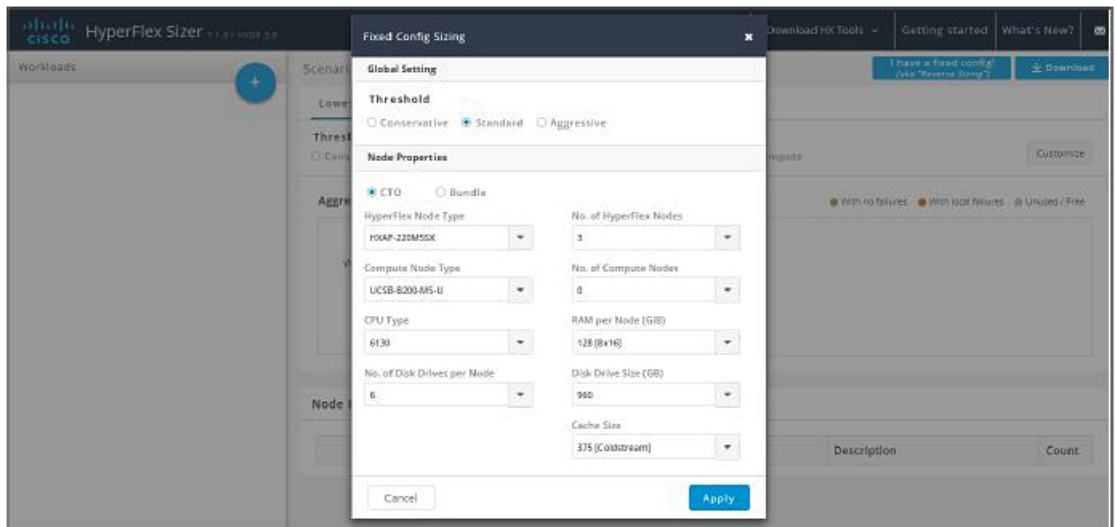
To add a Fixed Configuration Sizing workflow:

Step 1 Create a new Scenario, then click I have fixed config (aka "Reverse Sizing"). Click Yes to confirm (shown as follows).

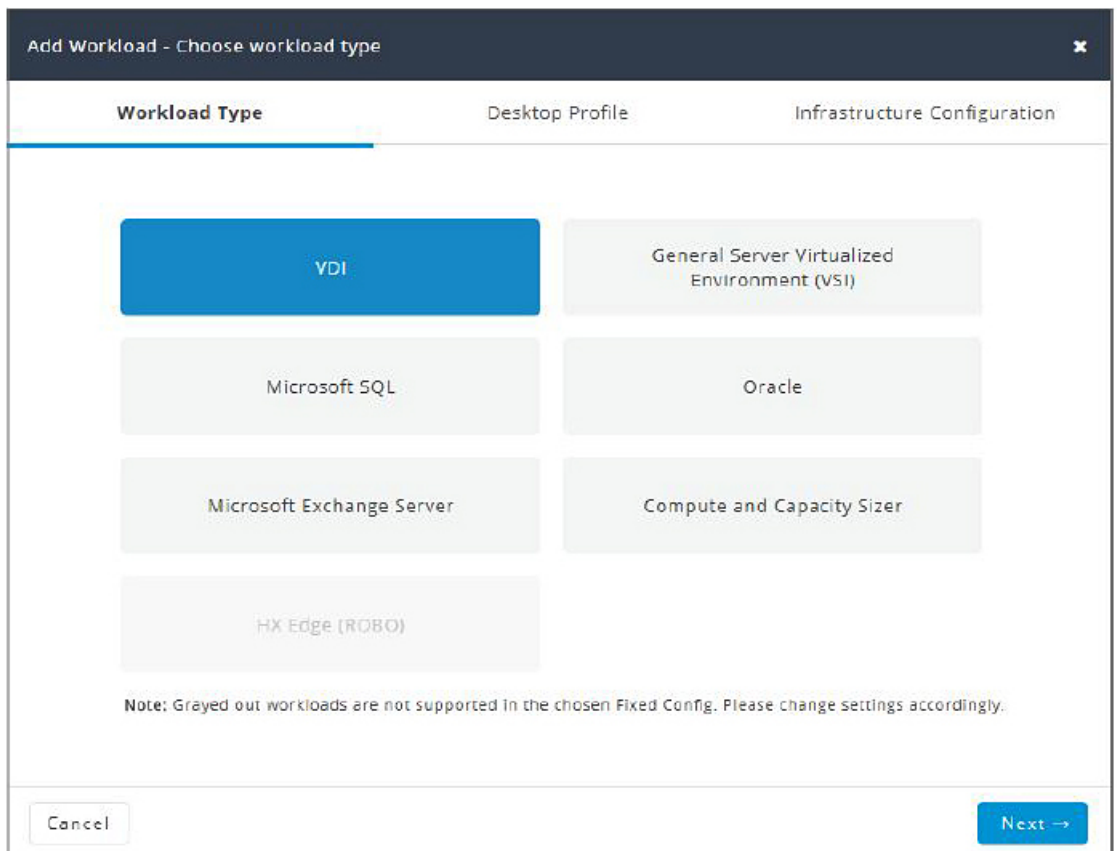


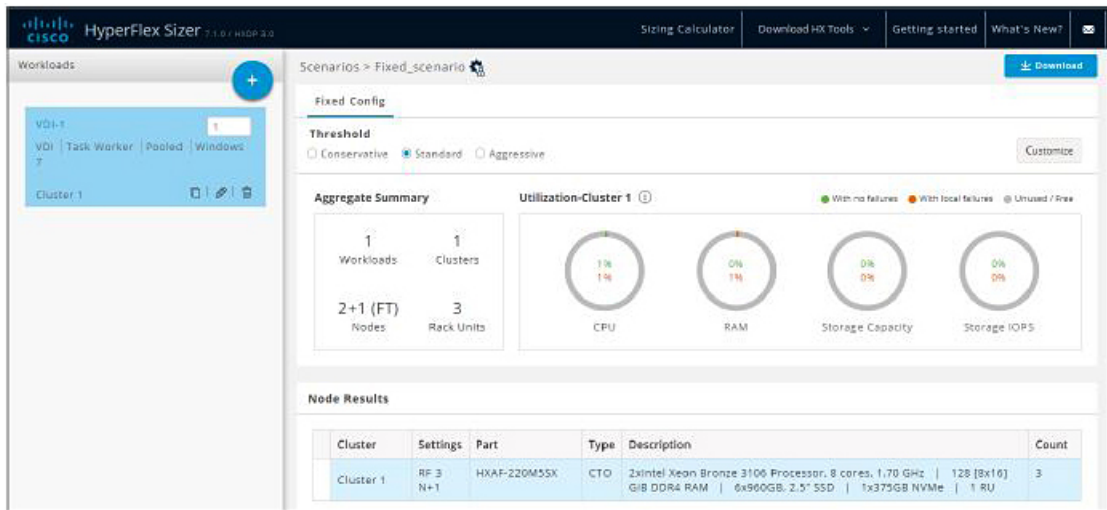
Note Once you have changed to a fixed configuration (Fixed Sizing), you cannot revert back to Regular Sizing.

Step 2 The Fixed Config Sizing tab appears with options to select the HyperFlex node and the Compute node (shown as follows). Make your selections, then click Apply. The Scenario page reloads.

**Step 3**

Click the + icon under **Workloads**, which prompts a dialogue box with the various Workload types supported (shown as follows). Any greyed-out Workloads are not supported for the chosen fixed configuration. This setting can be changed by selecting the Customize button on the Scenario page.





The other Workloads can be added to the Fixed Configuration Sizing based on the clustering of those Workloads that can be placed into one cluster. The standard clustering formats include:

[VDI], [VSI, DB, ORACLE], [RAW], [EXCHANGE], [ROBO]

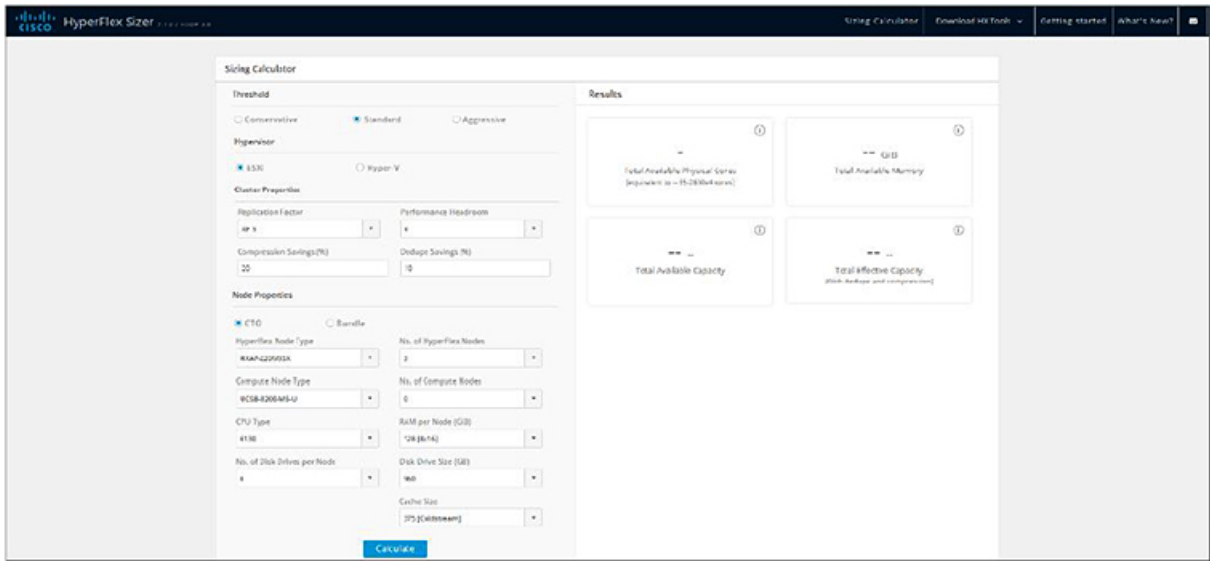
Note For Fixed Configuration Sizing, the Stretch Cluster and Replication are not supported.

Sizing Calculator

The Sizing Calculator is a tool that calculates the effective resources available after reserve and overhead reductions for a given node configuration.

To use the Sizing Calculator:

Step 1 Select the required configurations and click the Calculate button, shown as follows.



Step 2 Click Download Report (shown as follows) if you want to download the Sizing Calculator report.

