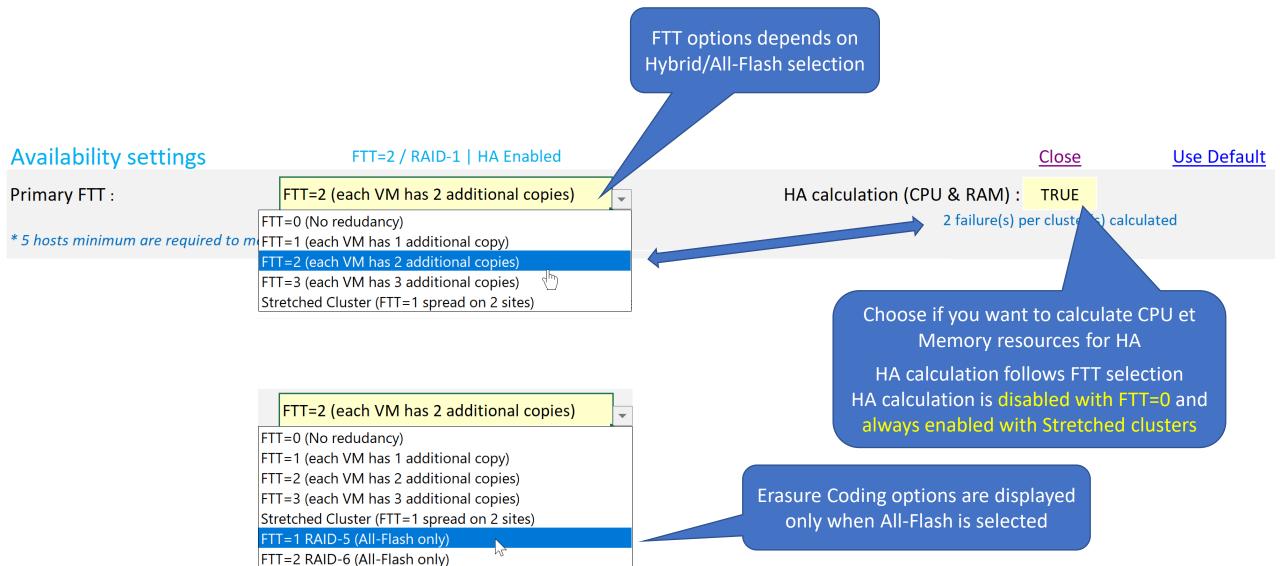


# Availability settings



#### Availability settings — Stretched Cluster

SFTT option appears only if Stretched Cluster is selected AND vSAN version selected is v6.6 (minimum)

Availability settings

Streched Cluster | SFTT=1 (each VM has 2 copie

Close

1-site failure capacity calculated

**Use Default** 

Primary FTT:

Stretched Cluster (FTT=1 spread on 2 sites)

HA calculation (CPU & RAM): TRUE Enforced on Stretched Clusters

Secondary FTT:

SFTT=1 (each VM has 2 copies per site)

Virtual SAN Stretched Cluster - Minimum Bandwidth to Witness

Minimum Bandwidth between Witness and each Data Site

2 Mbps

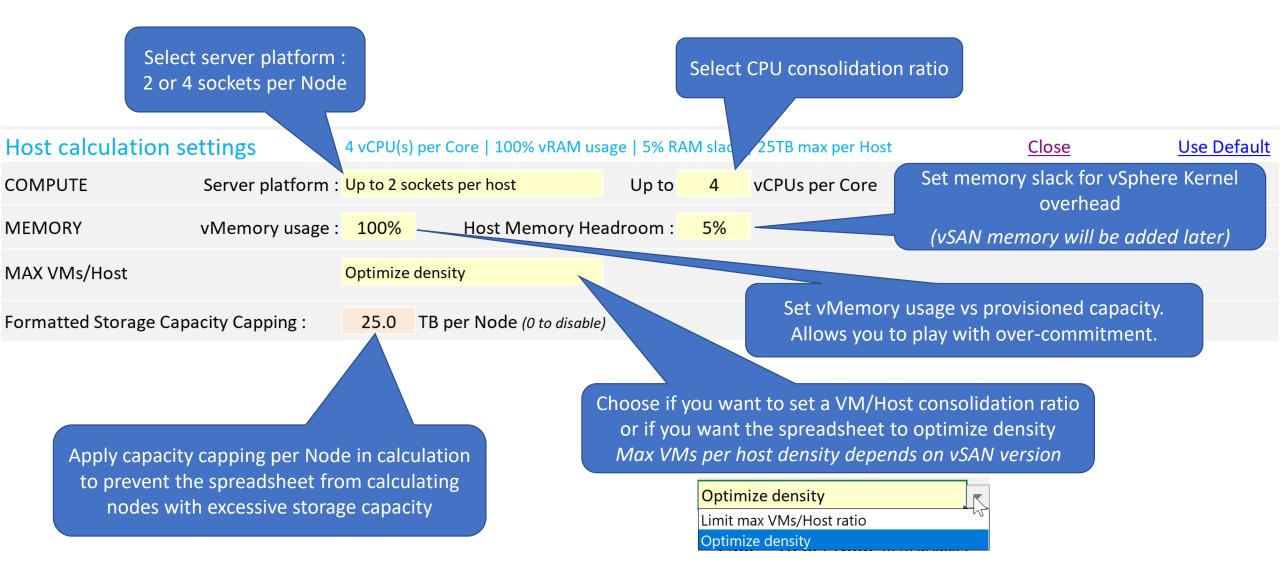
See Tech Paper

A Enabled

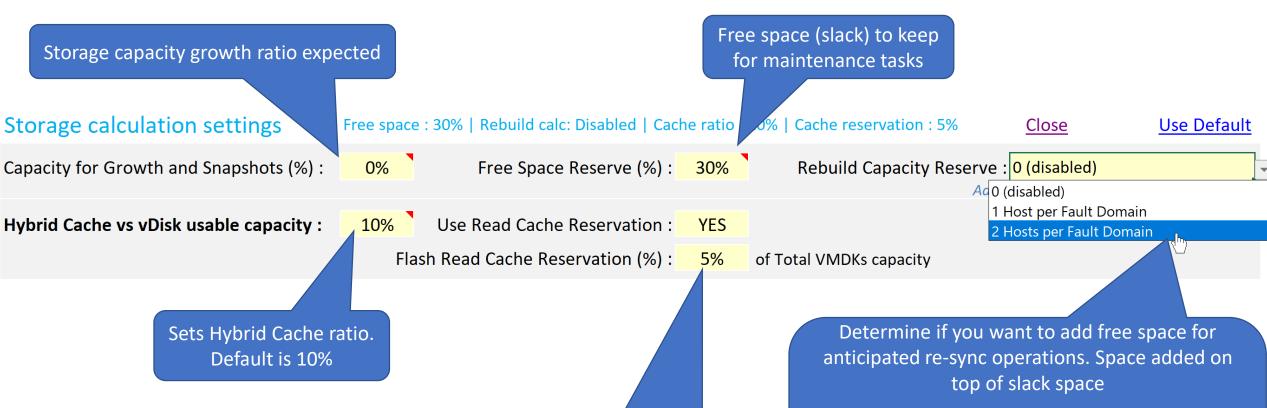
Calculates minimum bandwidth to witness. Does not consider stripping in storage policy (stripping option not available in this spreadsheet)

<sup>\* 6</sup> hosts minimum are required to meet this policy.

#### Host calculation settings



# Storage calculation settings — Hybrid



This option shows up only if "Use Read Cache Reservation" is YES

top of slack space

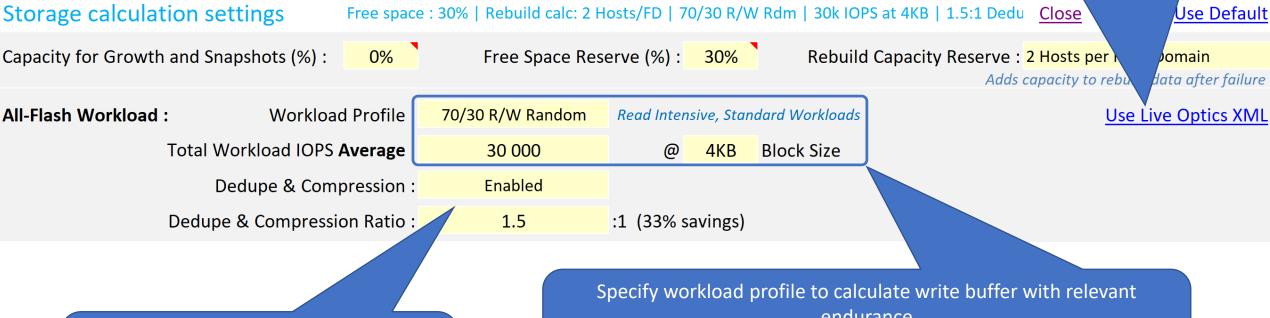
Max rebuild calculation option is based on FTT selected previously

If enabled, this option can force calculation to add more hosts in cluster to satisfy resync

requirements

#### Storage calculation settings — All-Flash

Click here to switch to workload profile settings reported by Live Optics



Enable or disable Dedupe and Compression. Dedupe ratio must be set manually (use this option at your own risk)

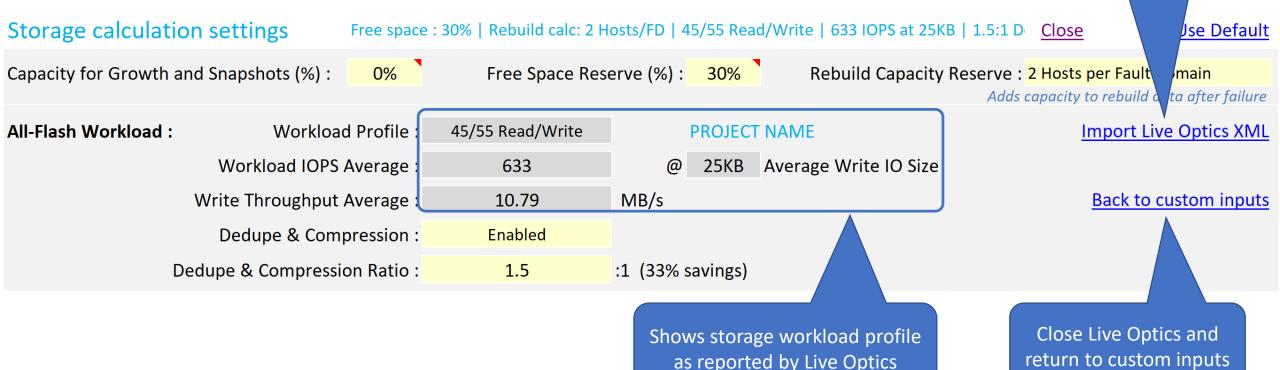
endurance

These settings are used for write buffer endurance calculation only Performance-based calculation is not performed in this spreadsheet!

## Live Optics Import

Available with All-Flash calculation only

Runs an Explorer window to open a Live Optics output using **XML** format

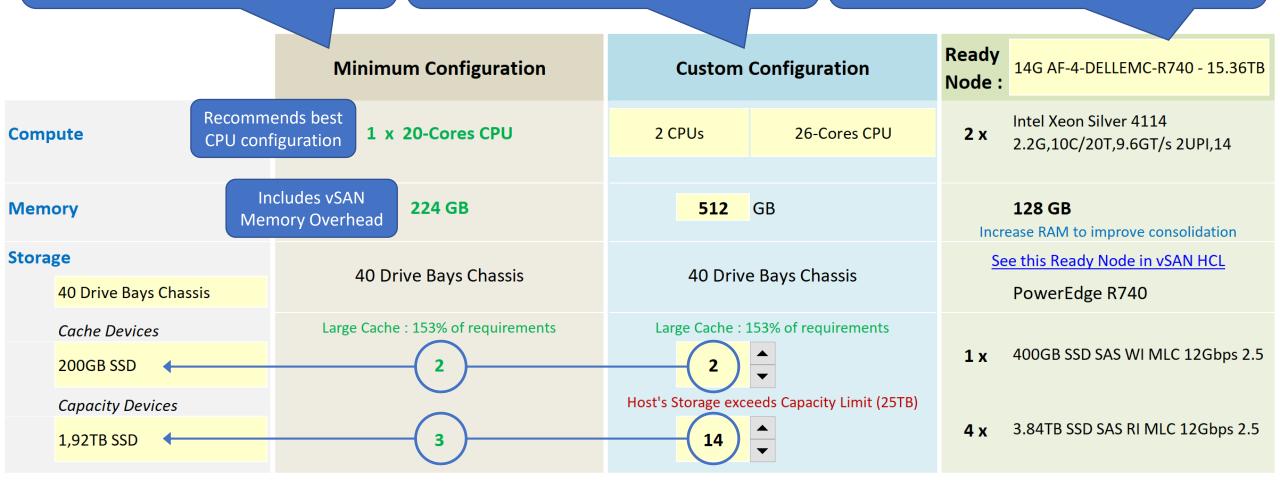


## Compare server configurations

Suitable hardware configuration to meet CPU, RAM and Storage capacity requirements

Hardware configuration defined by the user.
Uses same chassis and devices as Minimum configuration

Calculates cluster using a Dell EMC Ready Node configurartion published in the vSAN HCL



## Cluster summary view

Show calculation details

**Cluster Summary** 

**Show details** 

#Hosts Required	7 Hosts	7 Hosts	8 Hosts
<b>Total CPU Cores</b>	<b>84 Cores</b> 108% of requirements	<b>364 Cores</b> 467% of requirements	<b>160 Cores</b> 213% of requirements
<b>Total Memory</b>	980 GB 101% of requirements	<b>3584 GB</b> 354% of requirements	1024 GB 109% of requirements
Flash Cache Capacity	2.8 TB 700% of requirements	<b>5.6 TB</b> 1400% of requirements	3.2 TB 800% of requirements
Storage Capacity	28 TB 105% of requirements	<b>70 TB</b> 169% of requirements	<b>122.88 TB</b> 208% of requirements

Total vDisks capacity in GiB (base 2) has been converted into TB (base 10) to match storage devices industry standard

#### Cluster summary - Details

Hide details

Extra Storage capacity:

%achievements against requirements

**Details showing** resources allocation

**63.79 TB** 51.91% of Total Capacity

CPU Overhead ratio depends on Space Efficiency features

Base: 10%

Erasure Coding: +2%

Dedupe: +3%

Cluster Summary **#Hosts Required** 7 Hosts 7 Hosts 8 Hosts Clusters required: 1 Cluster 1 Cluster 1 Cluster HA capacity calculated: 2 Hosts 2 Hosts **Total CPU Cores 84 Cores** 108% of requirements **364 Cores** 467% of requirements **160 Cores** *213% of requirements* Cores for VMs @ 4vCPUs/Core: **50 Cores** 13.74% of total Cores 50 Cores 59.52% of to **50 Cores** 31.25% of total Cores HA CPU capacity: **20 Cores** 23.81% of total Cores **20 Cores** 5.49% of total Cores 17 Cores 10.63% of total Cores vSAN max overhead (13%): 8 Cores 9.52% of total Cores 8 Coles 2.2% of total Cores **8 Cores** 5% of total Cores 286 Cores 78.57% of total Cores Extra CPU capacity: 6 Cores 7.14% of total Cores 85 Cores 53.13% of total Cores 3584 GB 354% of requirements **Total Memory 980 GB** 101% of requirements **1024 GB** 109% of requirements vRAM usage @ 100% allocation: 600 GB 61.22% of total RAM 600 GB 16.74% of total RAM 600 GB 58.59% of total RAM 5% Memory added for slack: **32 GB** 3.27% of total RAM **32 GB** 0.89% of total RAM **32 GB** 3.13% of total RAM Total HA Memory capacity: **253 GB** 25.82% of total RAM 253 GB 7.06% of total RAM **211 GB** 20.61% of total RAM **127 GB** 3.54% of total RAM **93 GB** 9.08% of total RAM Total VSAN Memory overhead: **82 GB** 8.37% of total RAM **2572 GB** 71.76% of total RAM Extra Memory capacity: **13 GB** 1.33% of total RAM **88 GB** 8.59% of total RAM Flash Cache Capacity 2.8 TB 700% of requirements **5.6 TB** 1400% of requirements **3.2 TB** 800% of requirements Total Cache required: **0.4 TB** 14.28% of Total Cache 0.4 TB 7.14% of Total Cache 0.4 TB 12.5% of Total Cache Extra Cache capacity: **2.4 TB** 85.72% of Total Cache **5.2 TB** 92.86% of Total Cache **2.8 TB** 87.5% of Total Cache **Storage Capacity 70 TB** 169% of requirements **122.88 TB** 208% of requirements **28 TB** 105% of requirements Formatting & Dedupe Metadata: **2.02 TB** 7.2% of raw capacity **5.04 TB** 7.2% of raw capacity **8.85 TB** 7.2% of raw capacity 7.8 TB 30% Configured **34.21 TB** 30% Configured Free Space Reserve: **19.49 TB** 30% Configured Redudancy Overhead Factor: **3.00x** FTT=2 / RAID-1 **3.00x** FTT=2 / RAID-1 3.00x FTT=2 / RAID-1 Capacity needed for vDisks: **3.58 TB** 5.37 TB with 1.5:1 Dedupe **3.58 TB** 5.37 TB with 1.5:1 Dedupe 3.58 TB 5.37 TB with 1.5:1 Dedupe Capacity for Future Growth (0%): **0 TB** 0 TB with 1.5:1 Dedupe **0 TB** 0 TB with 1.5:1 Dedupe **0 TB** 0 TB with 1.5:1 Dedupe Space required for Redudancy: **7.16 TB** 10.74 TB with 1.5:1 Dedupe 7.16 TB 10.74 TB with 1.5:1 Dedupe **7.16 TB** 10.74 TB with 1.5:1 Dedupe Space required for Swap Files: 1.29 TB 0.64 TB with RAID-1 1.29 TB 0.64 TB with RAID-1 1.29 TB 0.64 TB with RAID-1 Rebuild capacity: **4.81 TB** 2 Hosts **4.81 TB** 2 Hosts **4.01 TB** 2 Hosts

**Understand** how capacity is calculated

**28.64 TB** 40.91% of Total Capacity

1.35 TB 4.83% of Total Capacity