Demo Consolidation

Server Performance and Simulation Report

Prepared for: Interact

Version 1 • Generated 7 August 2026

Interact DC

https://interactdc.com

Executive Summary

Analysis of **716** source servers compared against **3** target configurations.

Target	Energy Reduction	Server Consolidation	Estate Grade
Dell PowerEdge R7725 – AMD Epyc 9965 – 1024GB RAM	73%	87% (716 → 90)	C → A+
HPE ProLiant DL380 Gen12 – Intel Xeon 6990E+ – 1024GB RAM	54%	79% (716 → 148)	C → A+
HPE ProLiant DL380 Gen11 – Intel Xeon Gold 6544Y – 768GB RAM	8%	41% (716 → 424)	C → A

Target Comparisons

Dell PowerEdge R7725 (AMD Epyc 9965)

Dell PowerEdge R7725 – AMD Epyc 9965 – 1024GB RAM

73% ENERGY REDUCTION	**73%** CARBON REDUCTION
87% SERVER CONSOLIDATION	**Increase 44.9%** CORE COUNT – CURRENT VS NEW
Decrease 71.1% TOTAL MEMORY – CURRENT VS NEW	C → A+ ESTATE ENERGY GRADING

Physical Server Consolidation

Current	New	% Physical Server Consolidation
716	90	87%

Core Count – Current vs New

Current	New	% Core Change
23852	34560	Increase 44.9%

Total Memory – Current vs New

Current	New	% Memory Change
319426 GB	92160 GB	Decrease 71.1%

Energy Efficiency Ratings

Source Average Rating	Target Rating
C	A+

HPE ProLiant DL380 Gen12 (Intel Xeon 6990E+)

HPE ProLiant DL380 Gen12 – Intel Xeon 6990E+ – 1024GB RAM

54% ENERGY REDUCTION	**54%** CARBON REDUCTION
79% SERVER CONSOLIDATION	**Increase 257.4%** CORE COUNT – CURRENT VS NEW
Decrease 52.6% TOTAL MEMORY – CURRENT VS NEW	C → A+ ESTATE ENERGY GRADING

Physical Server Consolidation

716 Current	**148** New	**79%** % Physical Server Consolidation

Core Count – Current vs New

23852 Current	**85248** New	**Increase 257.4%** % Core Change

Total Memory – Current vs New

319426 GB Current	**151552 GB** New	**Decrease 52.6%** % Memory Change

Energy Efficiency Ratings

C Source Average Rating	A+ Target Rating

HPE ProLiant DL380 Gen11 (Intel Xeon Gold 6544Y)

HPE ProLiant DL380 Gen11 – Intel Xeon Gold 6544Y – 768GB RAM

8% ENERGY REDUCTION	**8%** CARBON REDUCTION
41% SERVER CONSOLIDATION	**Decrease 43.1%** CORE COUNT – CURRENT VS NEW
Increase 1.9% TOTAL MEMORY – CURRENT VS NEW	C → A ESTATE ENERGY GRADING

Physical Server Consolidation

716 Current	**424** New	**41%** % Physical Server Consolidation

Core Count – Current vs New

23852 Current	**13568** New	**Decrease 43.1%** % Core Change

Total Memory – Current vs New

319426 GB Current	**325632 GB** New	**Increase 1.9%** % Memory Change

Energy Efficiency Ratings

C Source Average Rating	A Target Rating

Source Analysis

Total servers: **716** • Total cores: **23,852** • Total memory: **319,426 GB**

Vendor	Model	CPU	Qty	Grade	Cores/Server	Memory (GB)
HPE	Synergy 480 Gen11	Intel Xeon Gold 6548N	24	A+	64	1,024
HPE	Synergy 480 gen10 plus	Intel Xeon Platinum 8362	14	A+	64	1,024
HPE	ProLiant DL380 Gen10	Intel Xeon Platinum 8280	4	A+	56	768
HPE	ProLiant DL385 Gen11	AMD Epyc 9654	3	A+	192	1,536
HPE	Synergy 480 Gen10	Intel Xeon Platinum 8268	80	A	48	1,154
HPE	Synergy 480 Gen10	Intel Xeon Platinum 8268	46	A	48	768
HPE	Synergy 480 Gen10	Intel Xeon Platinum 8268	7	A	48	512
HPE	Synergy 480 Gen10	Intel Xeon Gold 6248R	7	A	48	768
Dell	PowerEdge R840	Intel Xeon Platinum 8280	3	A	112	3,073
DELL	PowerEdge R640	Intel Xeon Gold 6230	110	B	40	383
HPE	ProLiant BL460c Gen10	Intel Xeon Gold 6248	55	B	40	512
HPE	ProLiant DL360 Gen10	Intel Xeon Platinum 8168	28	B	48	512
HPE	ProLiant DL380 Gen10	Intel Xeon Gold 6226R	8	B	32	191
DELL	PowerEdge R640	Intel Xeon Platinum 8268	5	B	48	640
DELL	PowerEdge R640	Intel Xeon Gold 6248R	3	B	48	768
DELL	PowerEdge R630	Intel Xeon Processor E5-2660 v4	32	C	28	128
DELL	PowerEdge R730	Intel Xeon Processor E5-2697A v4	8	C	32	512
DELL	PowerEdge R730	Intel Xeon Processor E5-2680 v3	4	C	24	64
DELL	PowerEdge R730	Intel Xeon Processor E5-2640 V4	4	C	10	32

Vendor	Model	CPU	Qty	Grade	Cores/Server	Memory (GB)
HPE	ProLiant DL380 Gen9	Intel Xeon Processor E5-2650 v4	90	D	24	256
DELL	PowerEdge R640	Intel Xeon Bronze 3204	22	E	12	32
DELL	PowerEdge R620	Intel Xeon Processor E5-2667	57	F	12	16
DELL	PowerEdge R320	Intel Xeon Processor E5-2403	42	F	4	32
IBM	System X3650 M2	Intel Xeon Processor E5520	30	F	8	4
IBM	System X3550 M3	Intel Xeon Processor E5607	18	F	4	12
HPE	ProLiant DL380p Gen8	Intel Xeon Processor E5-2609 v2	7	F	4	8
DELL	PowerEdge R620	Intel Xeon Processor E5-2690	4	F	16	64
HPE	ProLiant DL380p Gen8	Intel Xeon Processor E5-2640	1	F	12	125

Methodology

Energy Efficiency Measurement

Server energy efficiency is provided using **ITEEsv** (IT Equipment Energy Efficiency for Servers) as per ISO/IEC 30134-4

Efficiency Grades

Servers are graded on a scale from **A+** (most efficient) to **F** (least efficient) based on their normalised ITEEsv score. Grades factor in CPU architecture generation and performance, core count, memory configuration, and measured benchmark performance.

Consolidation Analysis

Server reduction percentages are calculated using Interact DC's machine-learning model, which analyses workload characteristics, CPU and memory performance ratios, and efficiency metrics to determine optimal consolidation ratios for each target configuration.

Assumptions

- Unless provided per host, server utilisation rates are applied uniformly across the source estate
- Consolidation will be sized based on maintaining current assumed, or provided, utilisation
- A server utilisation rate of 25% (assumed platform default) was applied to this report

About Interact DC

Interact DC provides data centre intelligence tools that help organisations understand, optimise, and future-proof their IT infrastructure. Our platform combines hardware benchmarking data with machine-learning models to deliver actionable insights on energy efficiency, sustainability, and cost optimisation.

This report is generated based on analysis of provided server specifications. Actual energy consumption may vary based on workload, environment, and alterations to configuration. All estimates use Interact DC's machine-learning model.

Report generated on 7 August 2026 12:13 • Simulation: Demo Consolidation • Version 1 • ID: 76691626-9cf6-48e7-8588-97b926eecc7b

interact. Powered by Interact DC