$500 Power Savings Per Node (4 Years)

SUPERMICRO®

Data Center Optimized

Lowest Power per Node for Data Centers

Idle	50% Load (Est.)	100% Load	Software & CPU Configuration
45W	95W (113W*)	170W (202W*)	LINPACK, Xeon® E5-2620, 2.00GHz, 6C, 95W
45W	130W (155W*)	233W (275W*)	LINPACK, Xeon® E5-2660, 2.20GHz, 8C, 95W

FatTwin™ F627R3-FT
4-Node, Front I/O

SYS-6027TR-DTRF

SYS-6027TR-HTRF+

SYS-6017R-TDLRF

SYS-6017R-TDF

- **Power Efficient and Cost Optimized**
- **Up to 135W CPUs Supported**
- **Data Center Optimized Server Solutions Drive Next Generation Data Centers**

** Turbo Mode Enabled*

80 PLUS PLATINUM

We Power the Cloud

See how Supermicro servers provide ***$500 Power Savings*** *per node over 4 years !*
To learn more about our DCO and FatTwin™ power savings, see the Supermicro "Data Center Power Savings" White Paper:

www.supermicro.com/DCO_white_paper

Case Study

A case study involving 10,000 server nodes was developed to demonstrate the large TCO savings from Supermicro FatTwin™ server solutions as a replacement for competitive servers. Five Supermicro servers were compared with two competitive systems.

The components including 2 Intel® Xeon® E5-2630 2.3GHz 6-Cores Max TDP 95W, 8 Hynix 16GB DDR3-1600 2Rx4 ECC REG 1.50V, 1 Intel® SSD 320 Series 300GB SATA 2.5" 3Gb/s, and Red Hat Enterprise Linux. The BIOS settings and the test environments were identical for all the servers in this case study. All systems were run at room temperature (21°C) utilizing the high performance LINPACK (HPL) software program. The peak power levels of each system were determined under maximum LINPACK loading and the power usage for each system was continuously monitored during each test run using power meters. The power per node is shown in ***Figure 1*** for each of the seven systems tested.

Using the competitive H2312WPJR system as a baseline, the TCO savings for the Supermicro Systems were then calculated for a four-year estimated lifetime under the assumption of PUE = 1.5 and $15 per watt saved (calculated in the "Data Center Power Savings" White Paper) for a 10,000 node implementation. The results are shown in ***Figure 2***.

	Power Savings per Node	TCO Savings per Node	TCO Savings per 10K Nodes
FatTwin™ Redundant Power	**35W**	$525	$5,250,000
2U Twin Redundant Power	**27.5W**	$412.5	$4,125,000
2U Twin^2 Redundant Power	**24.5W**	$367.5	$3,675,000
1U Single Power	**29W**	$435	$4,350,000
1U Redundant Power	**16W**	$240	$2,400,000
H2312WPJR	**0W** Savings	$0	$0

Figure 2: TCO Savings per Node (4 Years) compared to H2312WPJR for Supermicro Systems

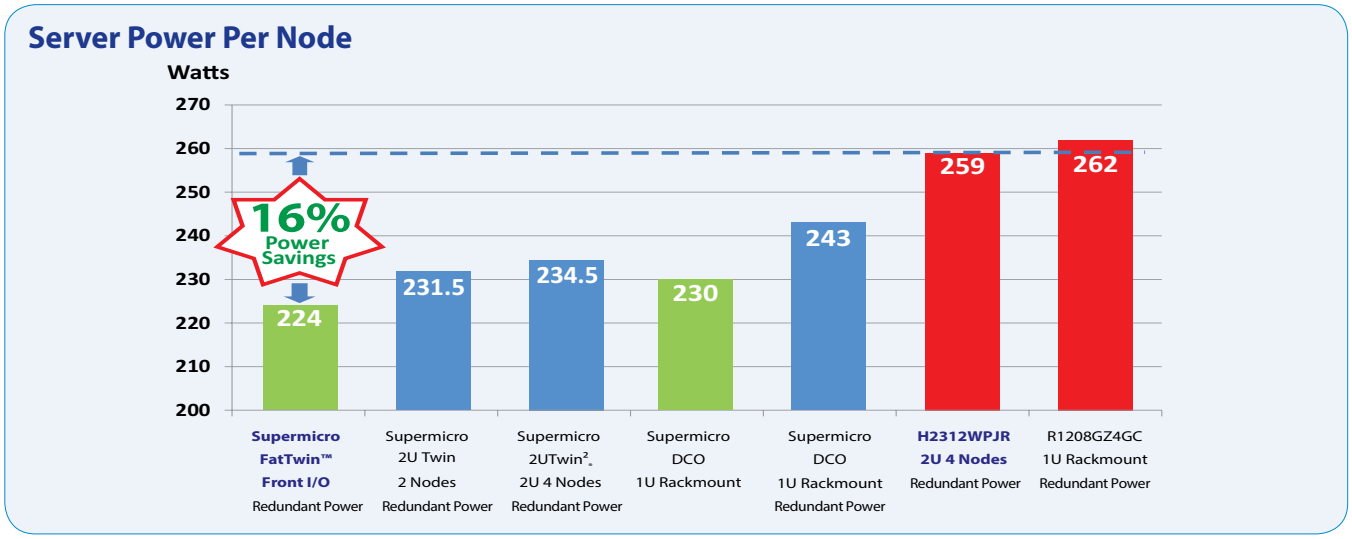
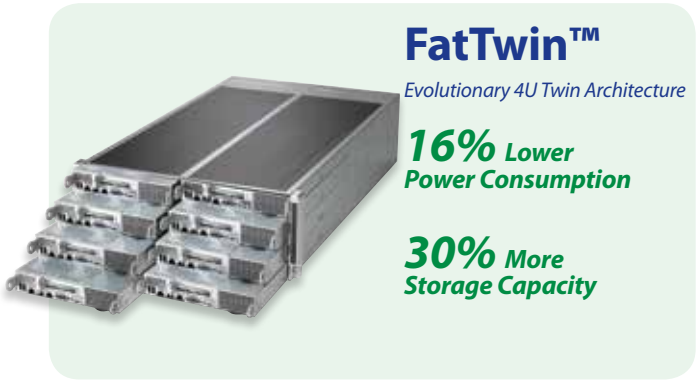


Figure 1: Server Power per Node



Conclusions

Based on this case study, five Supermicro server systems each outperform a competitor's 2U 4-node server and 1U mainstream server systems in terms of power efficiency. The Total Cost of Ownership (TCO) savings during a 4-year server lifetime is substantial, saving up to $5,250,000 over the competitive 2U 4-Node server for a 10,000 node deployment. These savings from the Supermicro systems are clearly significant and highly attractive for data center customers.

Contact your Supermicro sales representative for more information

www.supermicro.com