DiGiCOR

Flexible and Dense High Performance 2U

A Journey with ASUS ESC4000 G4X

Company Profile

DiGiCOR is an Australian technology company that works with many IT consultants and channel partners to provide IT infrastructure and communication systems for various sectors. One of its respected partners is an IT consultant that serves the Australian Defence Force with cutting-edge solutions for information and communications challenges on the battlefield. The consultant also delivers intelligent business systems, systems integration, information management, business process automation, security and support to corporate and government enterprises. The consultant has a strong team of over 150 technical staff across Canberra and Melbourne. Both DiGiCOR and the consultant are Australian-owned and operated private companies that are at the forefront of ICT innovation. They uphold their values of respect, excellence, agility and professionalism in everything they do. DiGiCOR is dedicated to protecting and serving its community.

Challenges

Before discovering the ASUS ESC4000 G4X High Performance 2U, the client faced significant challenges in their infrastructure. They sought a system that offered a compact footprint while also having the capability to support more than two A100 GPUs and other Add-On AOCs within a single system. The goal was to find a balance between density and performance without compromising on either.

Solutions

- The client was introduced to the ASUS ESC4000 G4X High Performance 2U, configured with:
- 2 Intel© Xeon© Gold 5220R Processor 24-Core 2.2GHz 35.75MB Cache (150W)
- 512 GB of DDR4 2933 ECC RDIMM RAM
- 960GB of SSD
- 3 NVIDIA A100 80GB PCI-e Passive per system
- A robust 5-year warranty

Building Our Solution

About ASUS ESC4000 G4X High Performance 2U:

The ASUS ESC4000 G4X is a high-performance 2U accelerator server designed for versatility and efficiency. Some of its key features include:

- Powered by the latest 2nd Gen Intel Xeon Scalable processors.
- Support for a 165W CPU with 16 DIMMs.
- A flexible choice of versatile accelerators.
- Maximum of 8+2 expansion slots in a 2U server.
- Expandable storage with faster transfer speed, including one M.2 slot with 2280 size SSD support.
- High power-efficiency with a 1+1 redundant 1600W 80 plus (platinum level) power supply.
- User-friendly design for easy server maintenance, featuring a tool-less chassis design.
- Fully integrated remote server management with ACC IT management platform and ASMB9-iKVM module support.
- Smart thermal design for energy efficiency, reducing fan power consumption by up to 20%.
- Two hot-plug, hot-swap fan designs for full redundancy protection and thermal efficiency.

ASUS ESC4000 G4X

Form Factor: 2U Rack server

CPU: Dual Socket P (LGA 3647) 1st and 2nd Gen Xeon® Scalable Processor Family (205W)

RAM: Up to 2048GB DDR4 2933 RDIMM / LRDIMM / LRDIMM 3DS

PCIe:

- Front : 1 x PCIe x8 slot (Gen3 x8 link, LP, HL) for RAID/HBA card
- Rear : 8 x PCIe x16 slots (Gen3 x16 link, FH, FL) for dual-slot GPU cards / 1 x PCIe x16 slot (Gen3 x16 link, LP, HL) / 1 x PCIe x8 slot (Gen3 x8 link, LP, HL)

Networking: 2 x 1GbE LAN ports (RJ45, Intel I350-AM2)

Drive: 2 x 3.5" or 2.5" internal HDD cage / 1 x M.2 socket (SATA or Gen3 x4 link, up to 2280 module)

PSU: High power-efficiency with 1+1 redundant 1600W 80 plus (platinum level) power supply

Recommended Configuration

- 2x Intel© Xeon© Gold 5220R Processor 24-Core 2.2GHz 35.75MB Cache (150W)
- 512 GB 2933 MHz DDR4 ECC RDIMM 1.2V RAM
- 2x 1 480G 2.5" Enterprise SATA SSD
- Broadcom MegaRAID 9361-8i SAS 8-port 12Gb/s, 2GB Cache, RAID 0,1,5,6,10,50,60
- Qlogic QLE2742 32Gb Dual Port FC HBA, PCIe Gen3 x8, SR LC multi-mode optic
- 10GB PCI-E solution with 2 port RJ45
- 3x NVIDIA A100 80GB PCI-e Passive
- 5 Year NBD warranty

Outcome

After implementation, the client experienced immediate and impressive results. The performance of the ASUS ESC4000 G4X met or even exceeded their expectations. The system's flexibility and density profile were particularly notable, making it an ideal fit for their needs. The implementation process was described as "easy without issue," underscoring the system's user-friendliness and the service provider's efficiency.

Client Feedback

- **Reason for Purchase:** The primary motivation was the system's design, which offered optimal density and the ability to support the A100 GPUs.
- **Factors Influencing Purchase:** Price, features, ease of use, and density were the main factors that influenced the decision to invest in the ASUS ESC4000 G4X.
- **Benefits Experienced:** The system's performance was on par or even better than anticipated.

- **Achieving Business Goals:** The ASUS ESC4000 G4X backed theoretical promises with practical outcomes, aiding in achieving business objectives.
- **Useful Features:** The system's flexibility and density profile were highlighted as its most beneficial features.
- **Recommendation:** For those considering the ASUS ESC4000 G4X, the message is clear: *"Will deliver good result."*

Conclusion

The ASUS ESC4000 G4X High Performance 2U, configured by the service provider, proved to be a transformative solution for the client. It addressed their challenges head-on, delivering exceptional performance, flexibility, and density. With its seamless implementation and the backing of a trusted service provider, the client found a solution that truly delivered on its promises.

For more information about DiGiCOR and to view its work, please visit *digicor.com.au*

For more information about ASUS in Business, reach out to us:

Marco Vargas
Commercial Channel Manager - OP BG
NSW
0416 922 300
Marco_Vargas@asus.com

Ninos Varde
Commercial Channel Manager - OP BG
NSW
0424 503 336
Ninos_Varde@asus.com

Matt Nelson
Industrial Business Manager – OP BG
NSW
0404 559 290
Matt_Nelson@asus.com

Raymond Hoac
MINI PC and IOT Product Manager - OP BG
QLD
0407 148 490
Raymond_Hoac@asus.com

Jack Cheng
Senior Technical Product Manager - OP BG
QLD
0400 641 616
Jack_Cheng@asus.com