



# ANSYS Fujitsu Appliance

## HPC Clusters for SMEs built on Simplicity & Expertise



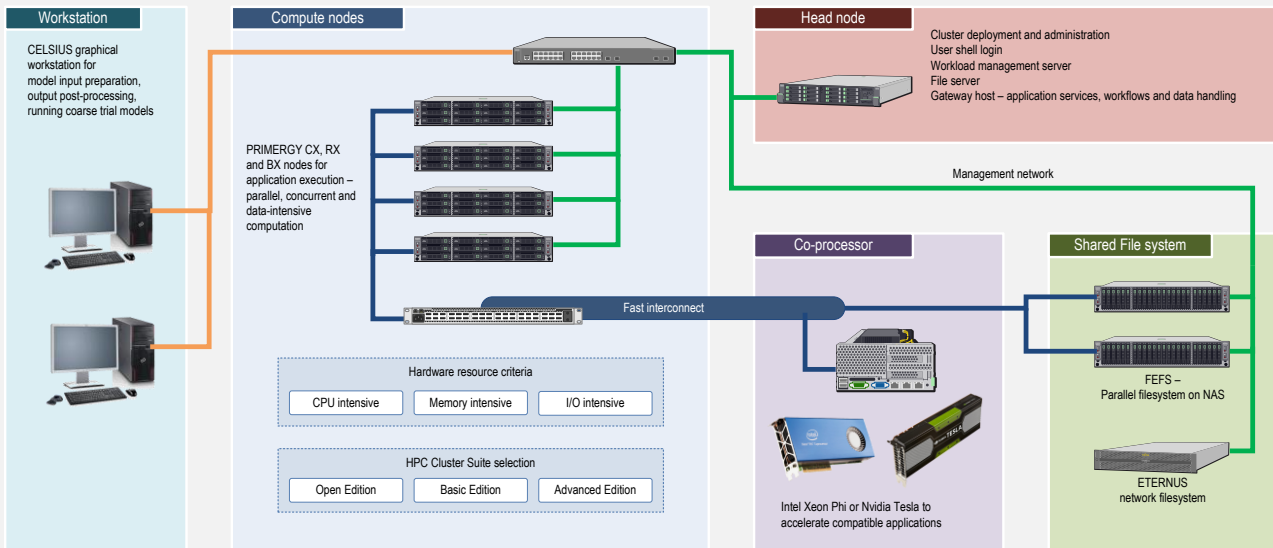
- Packaged HPC clusters assuring productivity at first login for ANSYS CFD users
- Designed for increased workload intensity driven by model growth and new optimisation studies
- Simplified end-to-end process from acquisition to production use

Appliance Objectives	Appliance Markets
<ul style="list-style-type: none"> <li>■ Stimulate need – easier HPC access, integrated software environment.</li> <li>■ Mitigate risk – validated configuration, assured productivity, streamlined delivery &amp; support, Try&amp;Buy.</li> <li>■ Confirmed performance – demonstrated workloads, price/performance-optimised configurations.</li> </ul>	<ul style="list-style-type: none"> <li>■ Companies using only workstations to run ANSYS solvers.</li> <li>■ Existing users of small to medium HPC Clusters.</li> <li>■ Branch offices of larger organisations with local HPC compute resources.</li> <li>■ Applications are ANSYS Fluent and CFX.</li> </ul>

Value Proposition	Risk Reduction
<ul style="list-style-type: none"> <li>■ End-to-end risk reduction from a simplified process of acquisition to production.</li> <li>■ Expanded software license through wider adoption of HPC and more intensive workloads.</li> <li>■ ROI multiplied through higher sustained user productivity, broader accessibility and lower acquisition costs.</li> </ul>	<ul style="list-style-type: none"> <li>■ Reference configurations tuned for real ANSYS workloads ensure more predictable and effective performance, minimising selection time &amp; effort while removing uncertainties in a do-it-yourself approach.</li> <li>■ A streamlined support channel assures higher sustained service levels.</li> <li>■ Greater confidence to deploy HPC on new projects and for users with more diverse skill levels.</li> </ul>

User Challenges		
We want to expand our use of simulation	<b>We lack IT hardware and a clear support infrastructure</b>	Appliance provides a streamlined acquisition and support process to remove obstacles and reduce risk. Appliance is delivered fully assembled for immediate service on production workloads.
	<b>We lack IT expertise and a line to associated support</b>	Appliance user working environment is simplified and efficient, combining intuitive cluster web interface and preset application installation and setup. End-users require little or no IT expertise to be fully productive at first login.
	<b>Overall cost of acquisition and operation is unclear</b>	Appliance configuration is tuned for best price-performance. Support packages and processes are clearly defined to ensure clarity and predictability of both product and service elements.
We want to adopt or expand our HPC infrastructure	<b>Like to see evidence of technical benefits for our simulation workloads</b>	A Try&Buy Appliance is available to directly assess simulation benefits on the customers’ workload. These are reinforced through published studies on outcomes from both scalable models and ensemble processes (optimisation, robust design) for particular verticals and workloads.
	<b>Insufficient time and expertise to specify the hardware configuration</b>	Appliance design is based on complete and continuous evaluation of ANSYS application performance on various cluster configurations. Components are fully integrated and balanced to avoid bottlenecks. Suggested configurations are provided to ensure adequate capacity at different workload levels and project volumes.

## Fujitsu Hardware Map



## ANSYS Fujitsu Appliance baseline

- Optimised for ANSYS workloads
- Best-practice system setup
- Application expertise built-in
- Streamlined support
- Inclusive pricing
- Run immediately



<b>Head node</b>	FUJITSU Server PRIMERGY RX2540 M2 1 x Intel® Xeon® Processor E5-2620v4 8C/16T 2.10GHz 20MB
<b>Shared storage</b>	12x HD SAS 12G 1TB
<b>Compute nodes</b>	4-in-2U Scale-Out FUJITSU Server PRIMERGY CX2550 M2 in one CX400 M1 housing 2x Intel® Xeon® Processor E5-2697Av4 16C/32T, 2.60 GHz, 40 MB 8x 16GB DDR4-2400 R ECC 1x IB HCA 56Gb 1 port FDR per node
<b>Local disk</b>	1x SSD SATA DOM 6G 64GB
<b>Fast interconnect</b>	InfiniBand 36 ports FDR switch 56Gb/s
<b>Software stack</b>	FUJITSU HPC Cluster Suite (HCS) Advanced Edition FUJITSU HPC Gateway Advanced Edition Altair PBS Professional batch resource manager

## Fujitsu Customer Services

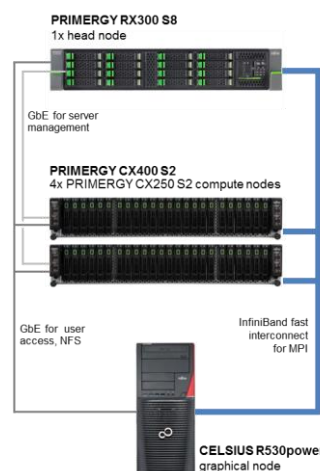
**Support Services** – A single point of contact (SPOC) service provided by either Fujitsu or its Channel partners. Service charge is a fixed percentage of total system price. Avoids customer filtering application from system hardware/software issues.

- First-call response for all incidents related to the system, including possible application queries. The SPOC will forward the issue to relevant supplier for resolution.
- Issues with model preparation and interpretation should be directed by the customer to ANSYS.

**Installation Services** – Provided by Fujitsu and its Channel partners. Installation charge is a fixed man-day fee depending on system size.

- Project meeting / Project management
- Cluster assembled and delivered ready for operation, including pre-installation of ANSYS software (excluding license key)
- Basic cluster installation of the cluster and integration into the existing infrastructure and network.
- Necessary adjustment of the cluster configuration
- Integration and test of the operating process
- Run acceptance tests, including the application with user models, and complete approval process.

## Fujitsu Try & Buy Offer – On-premise ANSYS trials



- A 4-node cluster to place at user site for proof of concept trial
- Free-of-charge for a fixed period (1 month)
- All logistics handled by ict GmbH, Fujitsu subsidiary and HPC Competence Center
- System ready-to-use including Fujitsu HPC Gateway and pre-built packages for ANSYS Fluent & CFX
- ANSYS software pre-installed with 30-days evaluation license
- Placement can be requested by ANSYS sales teams, Fujitsu channel partners & direct salesforce.

### Contact

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