

How can we reach the exascale?

- An approach with sustaining technologies -

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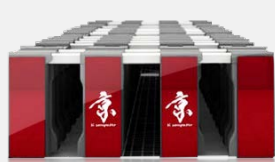
Fujitsu Limited
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Fujitsu's Mission and Portfolio

Provides HPC solution for every aspect

Petascale Supercomputer

Fujitsu developed all key components
SPARC chips, Tofu interconnect,
and software stacks



K computer
Developed with RIKEN



**PRIMEHPC
FX10**

x86 Clusters by PRIMERGY

Fujitsu supports latest standard technologies
x86 CPU, MIC, and GPGPU etc.



**PRIMERGY
CX400**

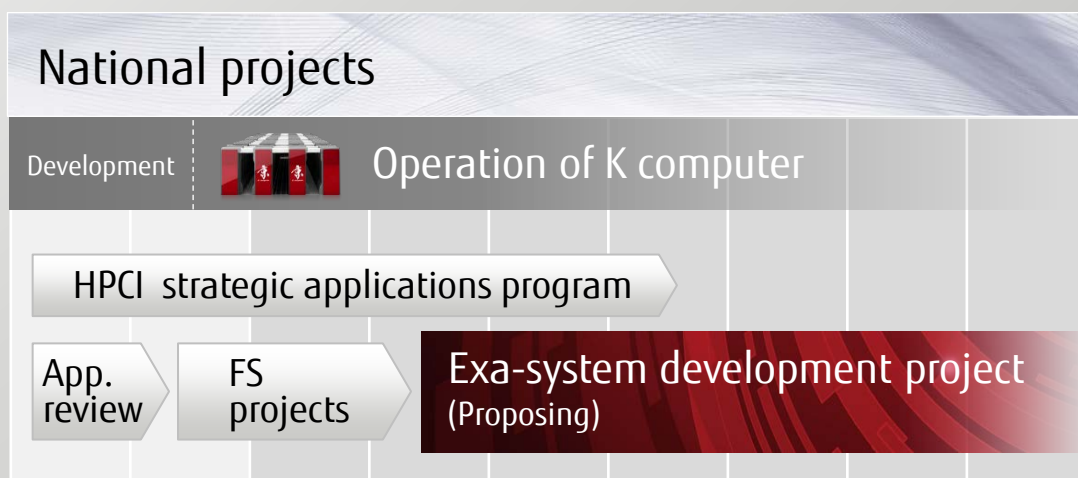
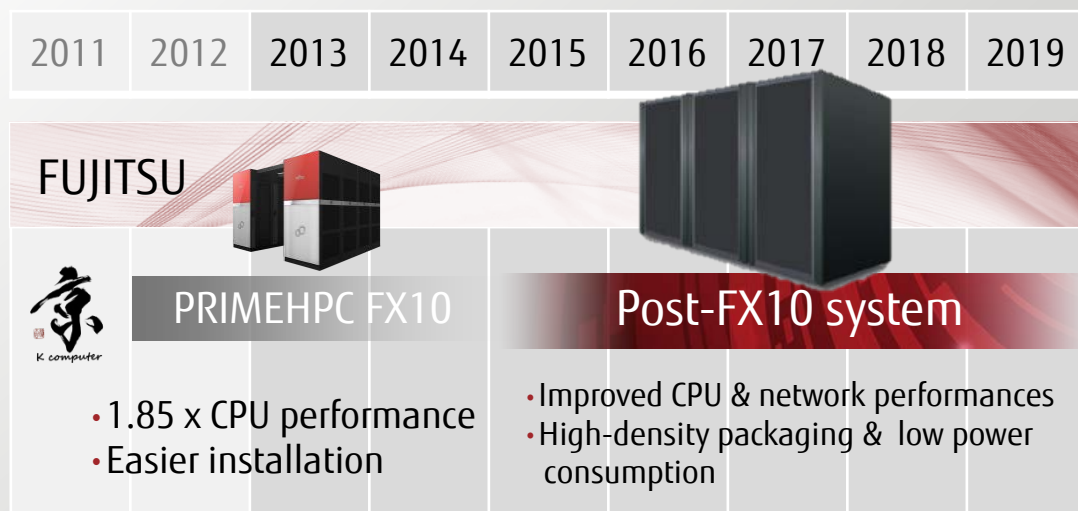


**BX900/BX400
RX200/RX900**

- Comprehensive single system image HPC environment
- SPARC64 CPUs, x86 platforms, and software stacks
- Higher performance with environmental friendliness, usability, and reliability

Road to Exascale Computing

Product roadmap and researches



■ K computer and PRIMEHPC FX10 in operation

- Many applications running and being developed for science and industries

■ Post-FX10 system under development

- CPU and interconnect will inherit K computer architectural concept

■ Effort in R&D for future exascale systems

- Higher performance and lower power consumption technologies for HW and SW (**CPU, interconnect, and software stacks, etc.**)
- Proactive participation in national projects

Fujitsu's Approach

Target architecture

Applications to solve social and scientific challenges

Highly efficient multi-core CPU

Highly scalable interconnect

Inherits K computer architecture

Accompanies de facto standards

Power saving

Revolutions by co-design

Fruits of K computer

Applications

High performance & reliable CPU

System software

Storage system

Highly scalable interconnect

■ State-of-the-art architecture extendable to future technology evolutions

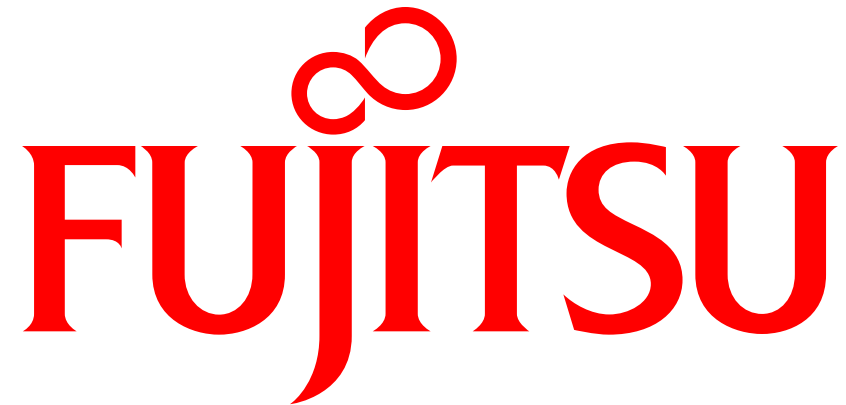
- Inherits the advantages of K computer
- Interchangeable with technologies of commodity systems

■ Co-design architecture, system software, and a diversity of applications



$10^{16} \times 100$

An approach with sustaining technologies



shaping tomorrow with you