

Gateway to HPC Simplicity

PRIMERGY HPC Gateway

ISC13, Leipzig

Take advantage from a complete HPC offering



PRIMERGY Server, Workstation



ETERNUS Storage

Cluster Management & Operation

FUJITSU
HPC Cluster Suite

FEFS

Gateway

Cent OS



ISV and Research Partnerships

ANSYS

DS
SIMULIA

MSC Software

ESI GROUP

CD-adapco

LSTC

Altair

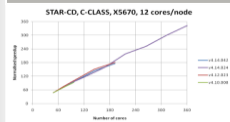
Exa

MASSIMA

PreDiCT Initiative

Open Petascale Libraries Network

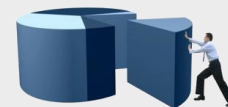
Consulting and Integration Services



Sizing,
design



Proof of
concept



Integration into
customer environment



Certified system
and production
environment



Complete assembly,
pre-installation and
quality assurance



Ready to
Operate
at delivery

Ready-to-Go

Fujitsu HCS – the total solution approach



Make IT Dynamic – Business Efficiency for HPC Solutions

- Optimal system configuration based on application needs, immediate system readiness and faster deployment
- Simplifies HPC usage and management for both current and potential users of HPC (“out-of-the-box” operation)

HPC Cluster Suite

- Deployment (based on Fujitsu SVIM and Fujitsu CDM)
 - Integrates ServerView supplied drivers to the CDM repository
- Cluster Management
 - Node configuration
 - Monitoring and Alerting
- Comprehensive software coverage
 - Flexible choice of Workload Manager
 - Libraries, Compilers
 - Support for Parallel File Systems

Value Add / Differentiation by Fujitsu

HPC Gateway - Integrated intuitive interface

- Provides simplicity in using the HPC Cluster and Application
 - Use resources more effectively
 - Broaden HPC and process reuse
 - Share and exchange data more widely

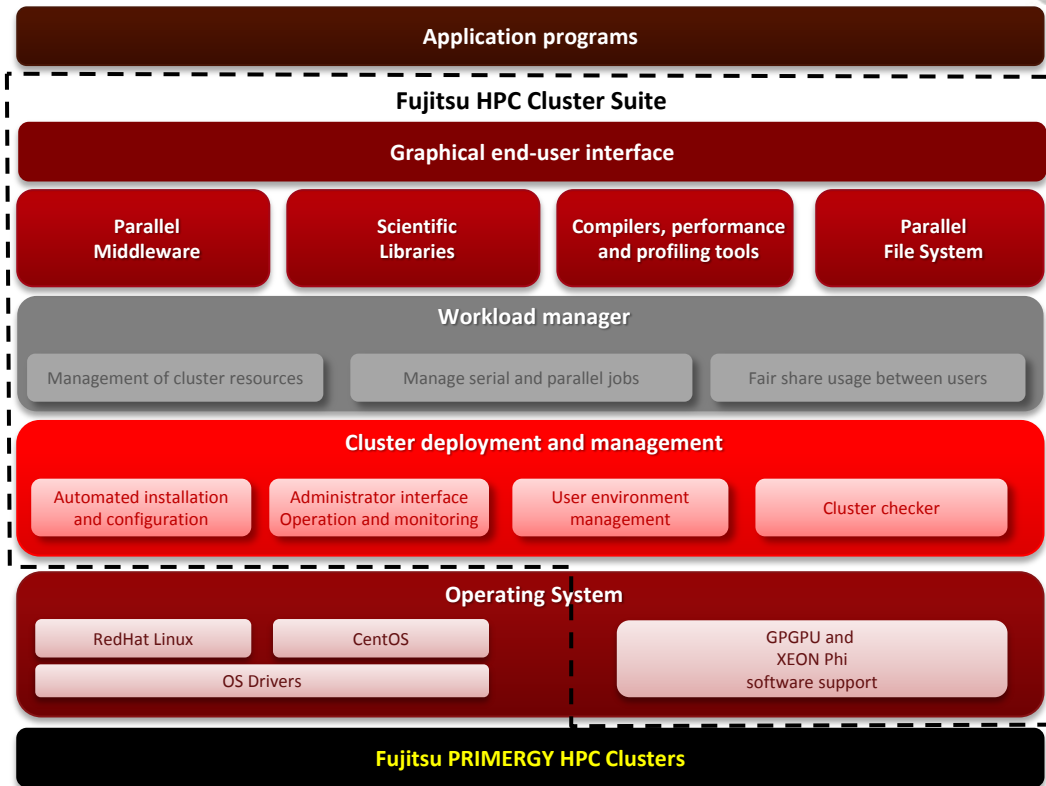
FEFS - optional Parallel File System

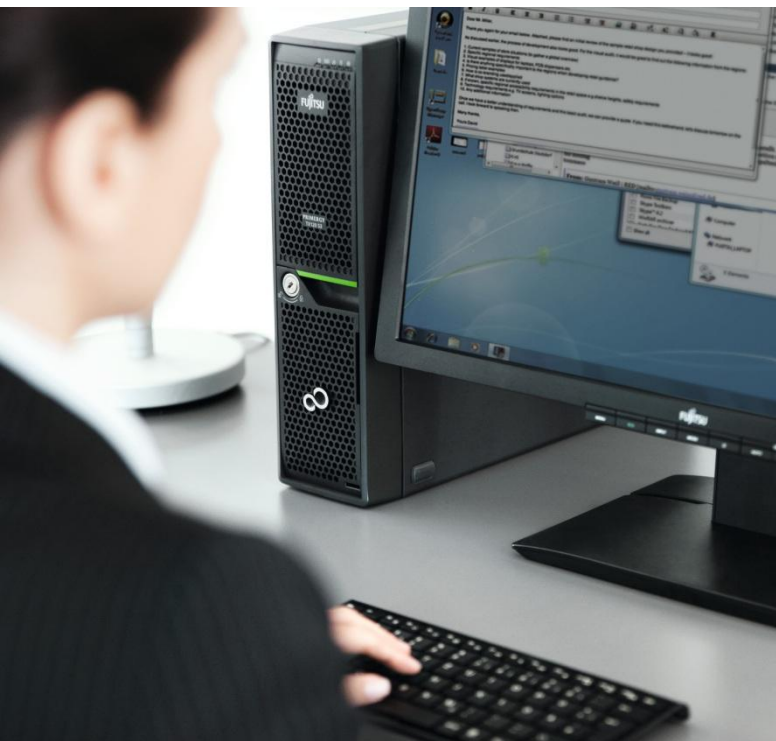
- Single file namespace across all nodes
 - Increases Storage performance
 - Required in large or high load I/O configurations
- Fujitsu Exabyte File System – FJJ developed (Lustre based)**

The Fujitsu HPC Cluster Suite (HCS)



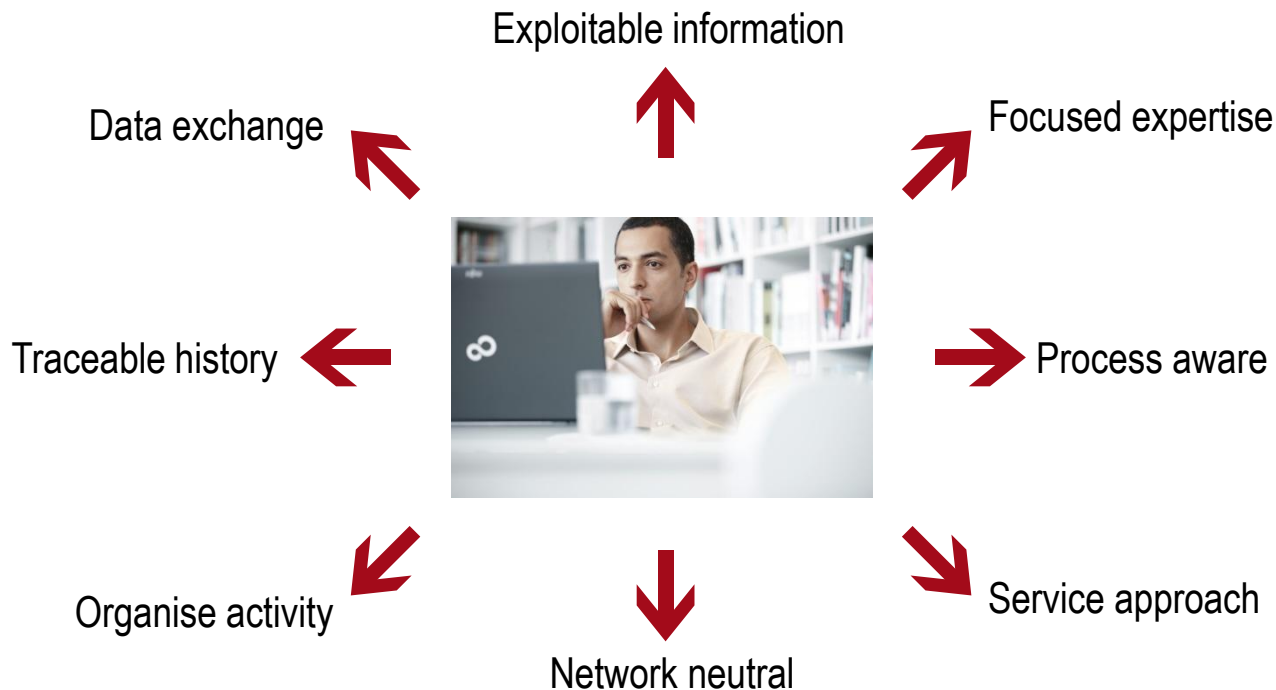
- Comprehensive software stack for managing Fujitsu PRIMERGY HPC clusters
 - Easy-to-use cluster management
 - Popular workload managers
 - General HPC Open Source Software
 - Highly scalable parallel file system
 - Graphical end-user interface for simplified usage
- Alliance with leading ISVs
- Fully validated HPC solution





Obtain **better value**
from HPC investments.

Find and apply HPC
knowledge in **new ways**.



Driving the need for a complete and simplified HPC environment

Delivering HPC Simplicity – Bringing Answers



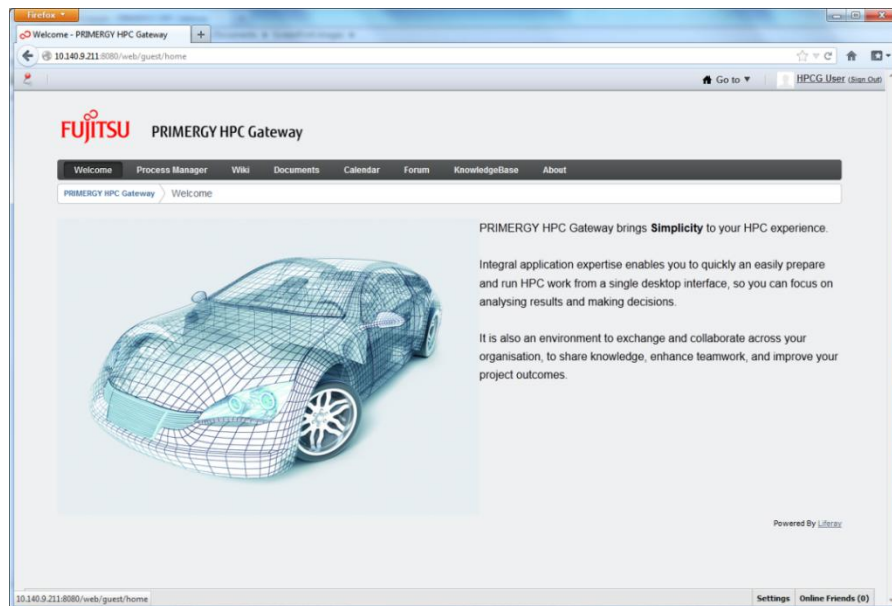
Integral Application Expertise.

Intuitive cluster desktop
Tuned application processes
Easy application on-boarding



PRIMERGY HPC Gateway introduction

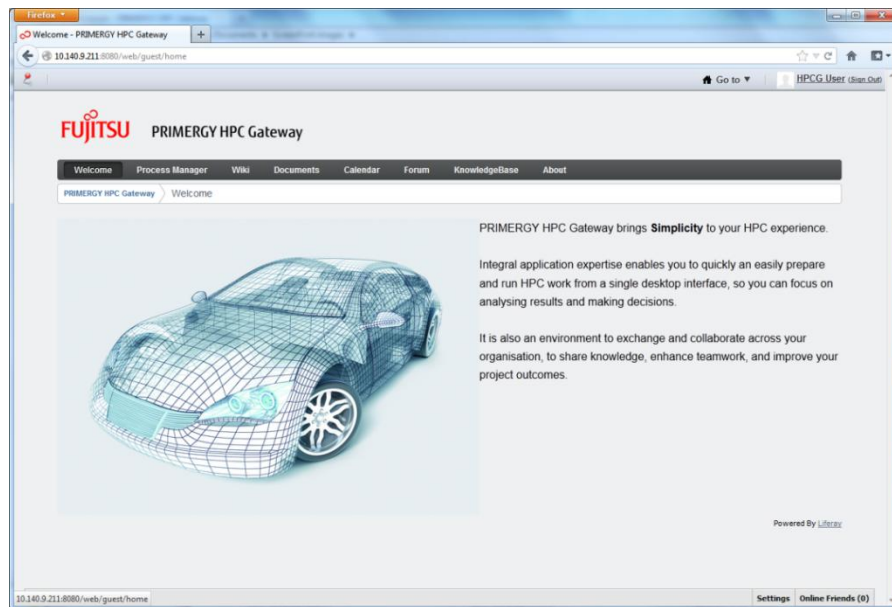
Central user environment in FUJITSU Software HPC Cluster Suite



- User interface component of the FUJITSU Software HPC Cluster Suite
- Intuitive web environment incorporating application workflows, direct simulation monitoring, data access and collaboration
- Delivers value in **simplifying** HPC end-use and integrating application **expertise**, to tune business processes and better manage projects

PRIMERGY HPC Gateway introduction

Central user environment in FUJITSU Software HPC Cluster Suite



“ The **simplicity** of web access, the **expertise** from agile application workflows and **clarity** of active reporting to tune your business processes and better manage project outcomes. ”

Gateway Application Catalogue

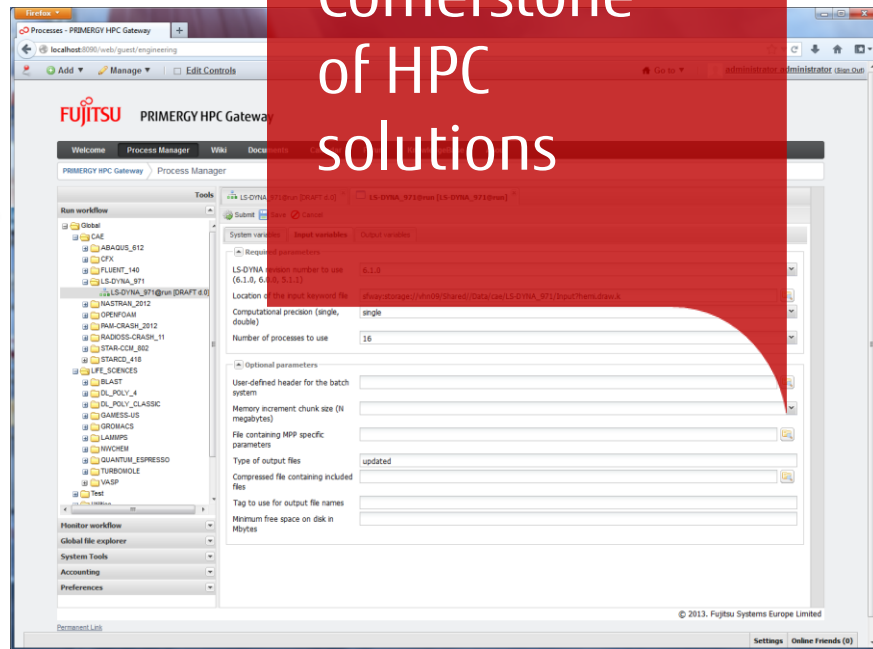
Access key applications from main verticals



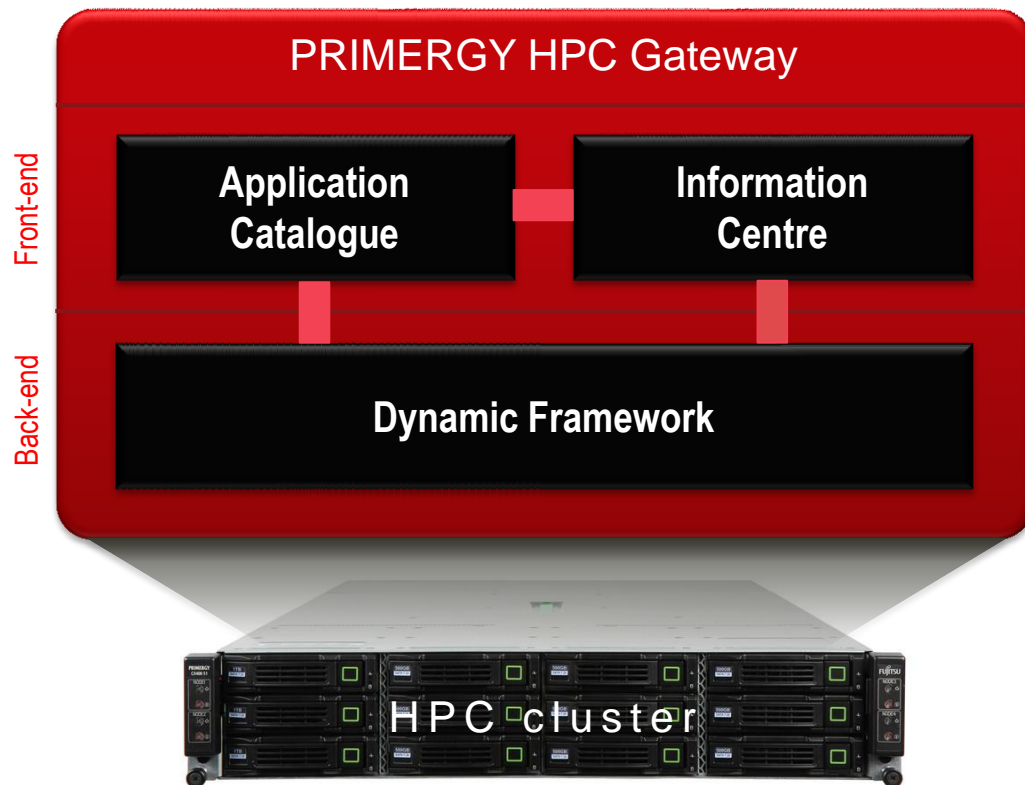
Application process expertise captured
with designed-in workflows

Solution extended with self
application on-boarding

Cornerstone
of HPC
solutions



Gateway to your cluster



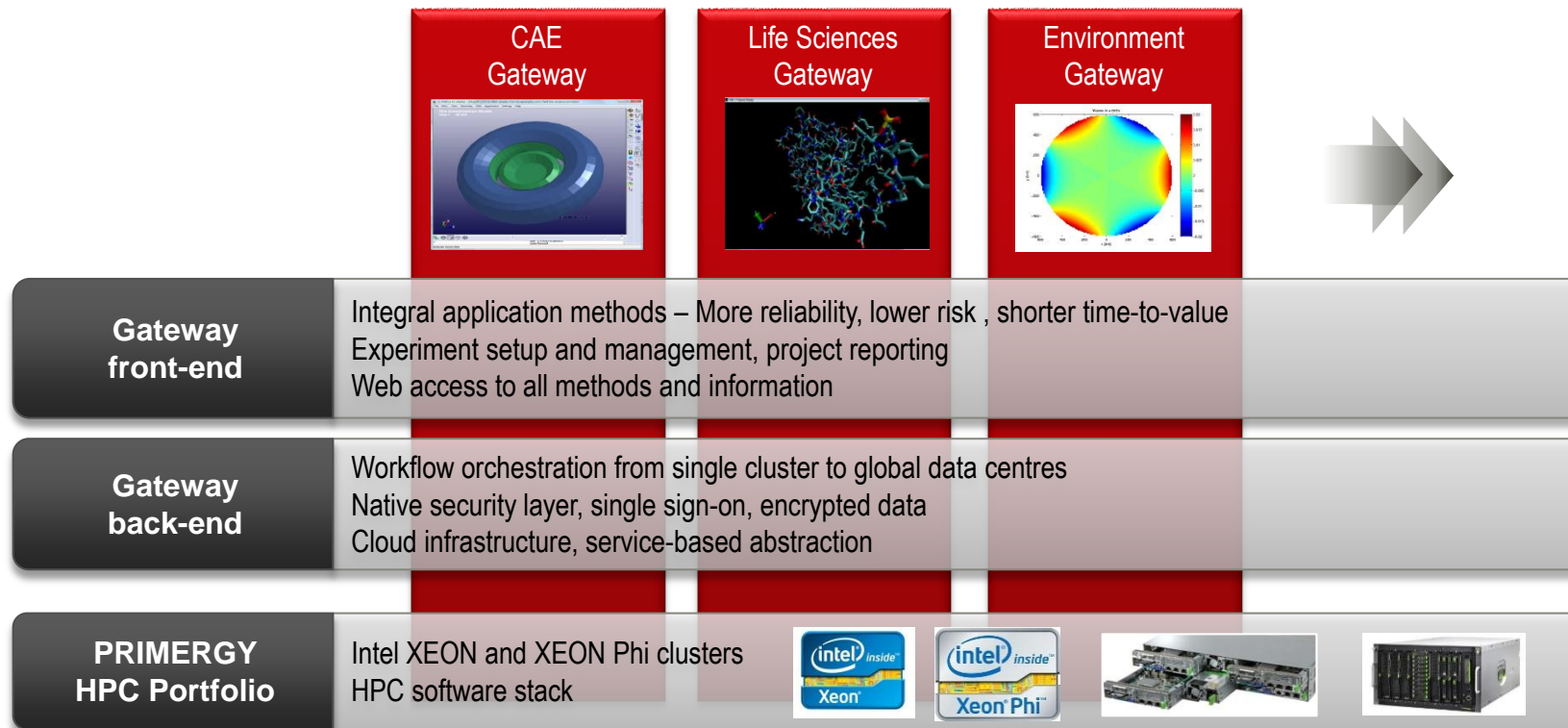
Integral expertise with domain focus

- Process execution and monitoring
- System and application reporting

Single sign-on to whole HPC environment

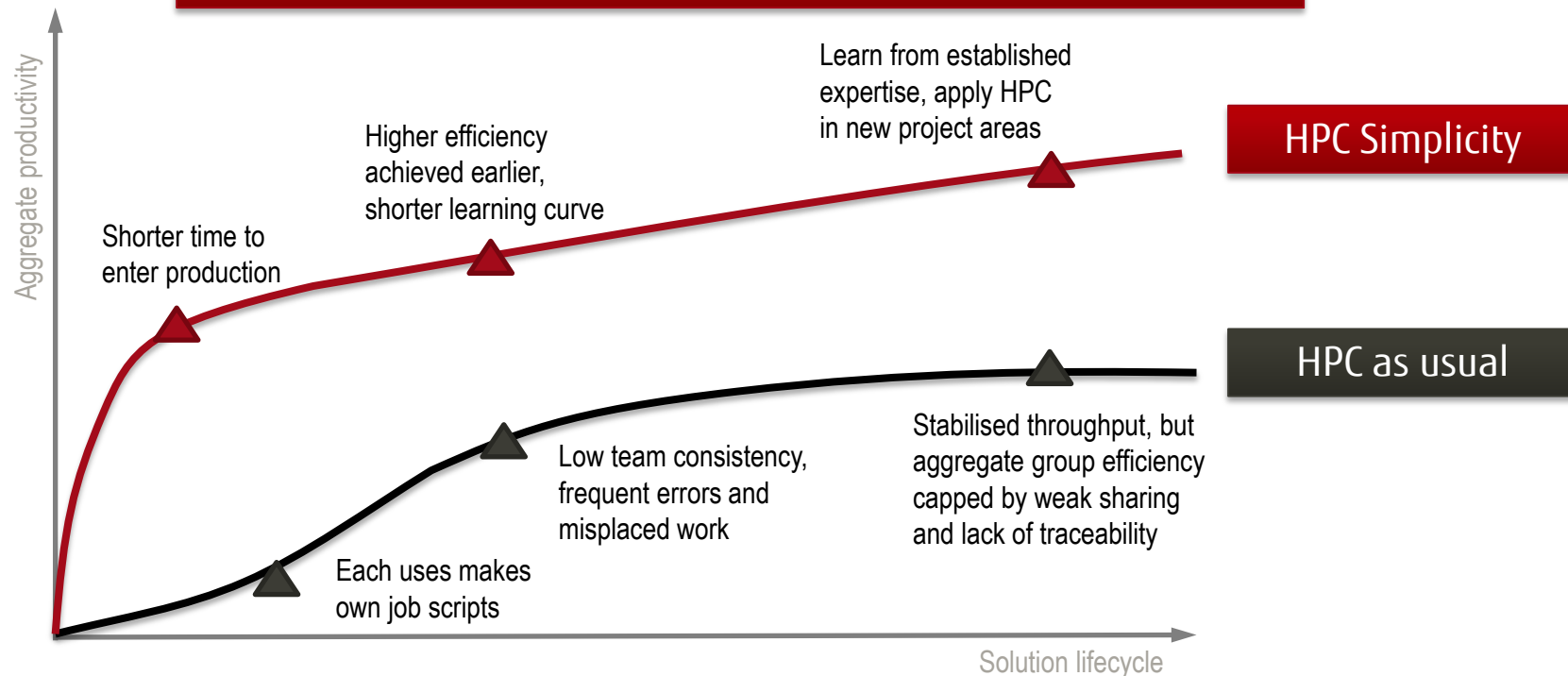
- Global orchestration and dataflow
- Native security layer

Building out Gateway solutions



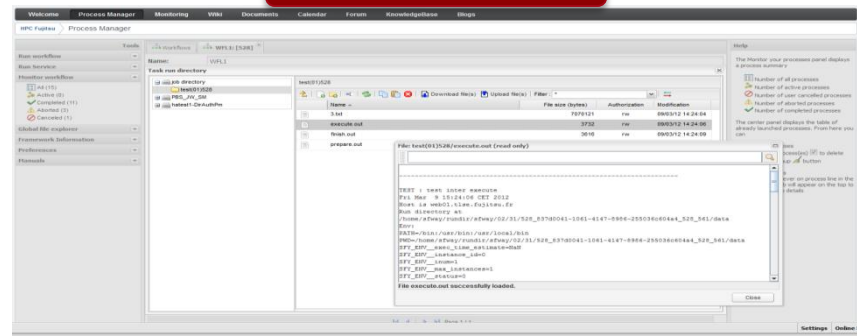
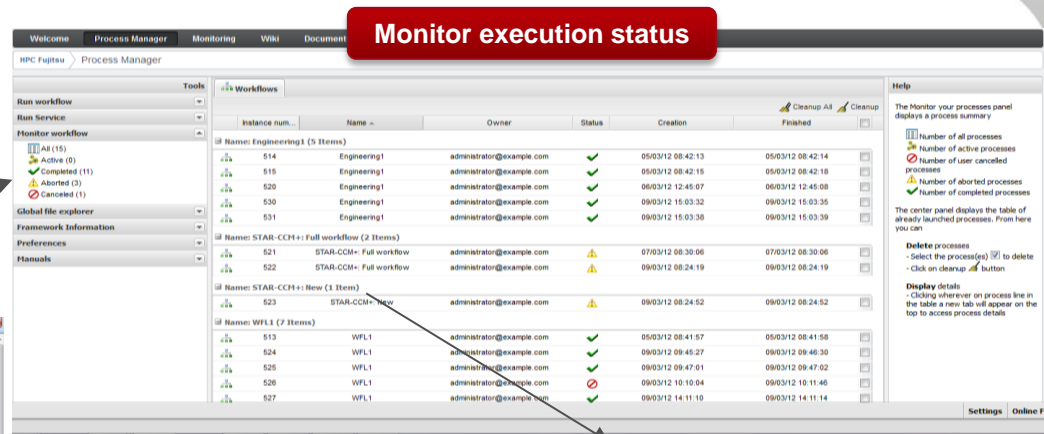
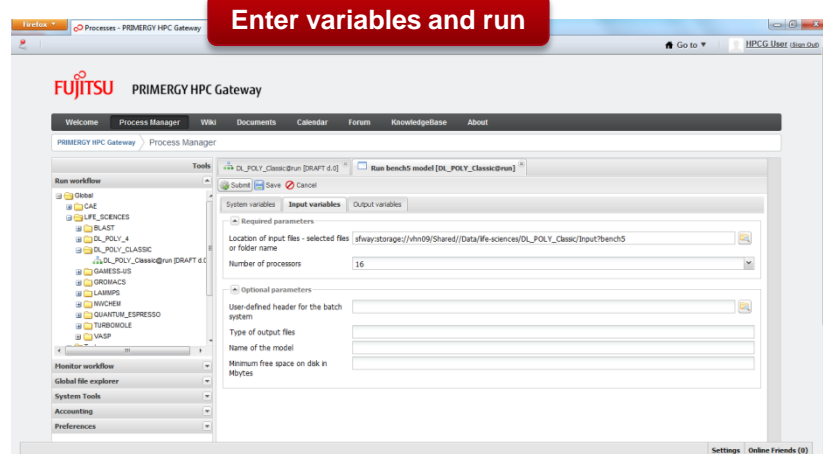
Lifecycle advantages of HPC simplicity

Benefits continue grow after initial system deployment

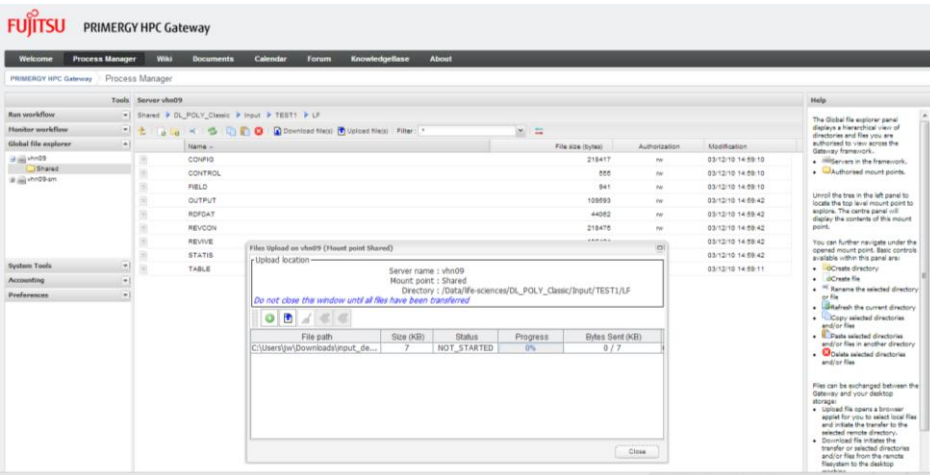


Running workflows / simplified use of HPC resources

- Just add parameters and run applications
- Monitor run status
- View execution status results



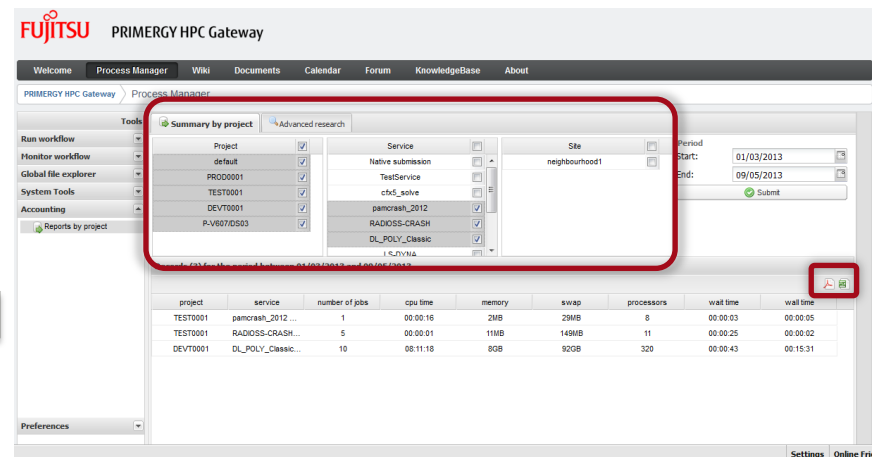
Review results and project usage



- View data from any mount location (temp space, project space, archive space)
- Move data between locations or upload/download to/from an external location



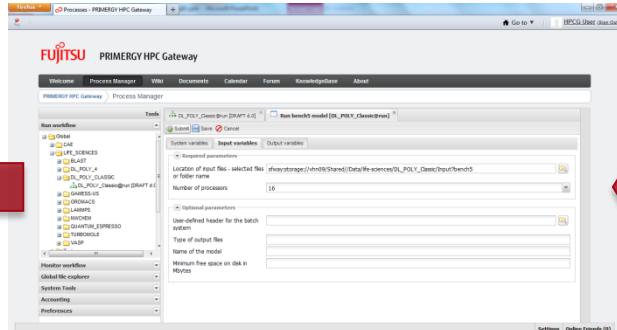
- Report usage by Project, application, user
 - Filter and search consolidated accounts
- Export data for external analysis and report creation



Automated Application Workflows (advanced)

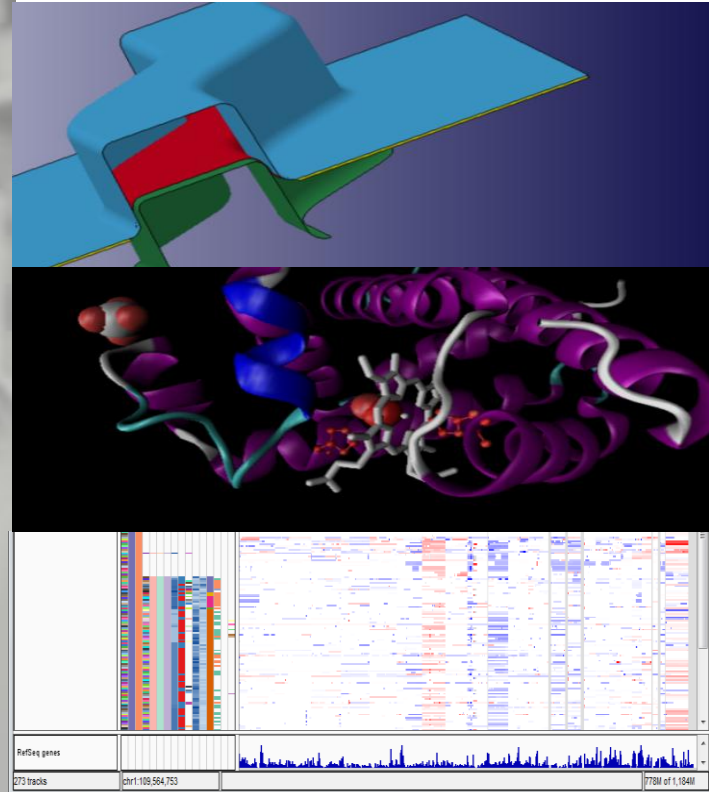
- Standardised best-practice methods
 - Encode business processes as structured automated workflows
- Higher transfer reliability
 - Implicit dataflow, optimized for large data volume
- Focus on research and analysis
 - Eliminate low-level actions, increase user productivity,
- Faster decisions
 - Programmed post-processing, filtering and reporting

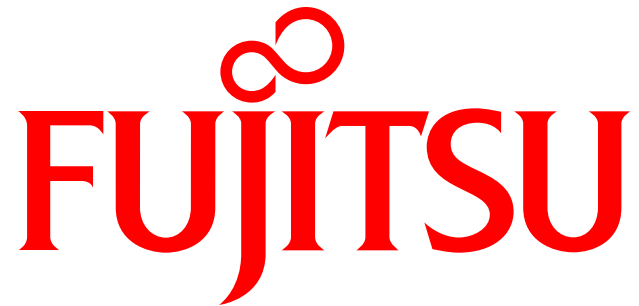
Usable with minimal learning
Shareable optimal methods
Scalability transparent to user



Your Gateway to HPC Simplicity

- Access expertise in application methods without the IT pain
- Direct visibility on processes and experiments
- Traceability for assured and secure operations
- Scalable and Agile resources usable from single view





shaping tomorrow with you