Secure, Scalable and Cost-effective Engineering Simulation on Cloud

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ANSYS, Inc.

Realize Your Product Promise ®

ANSYS technology enables you to **predict with confidence** that your products will **thrive** in the real world.

Engineering enterprises continue to operate in an increasingly complex business environment *

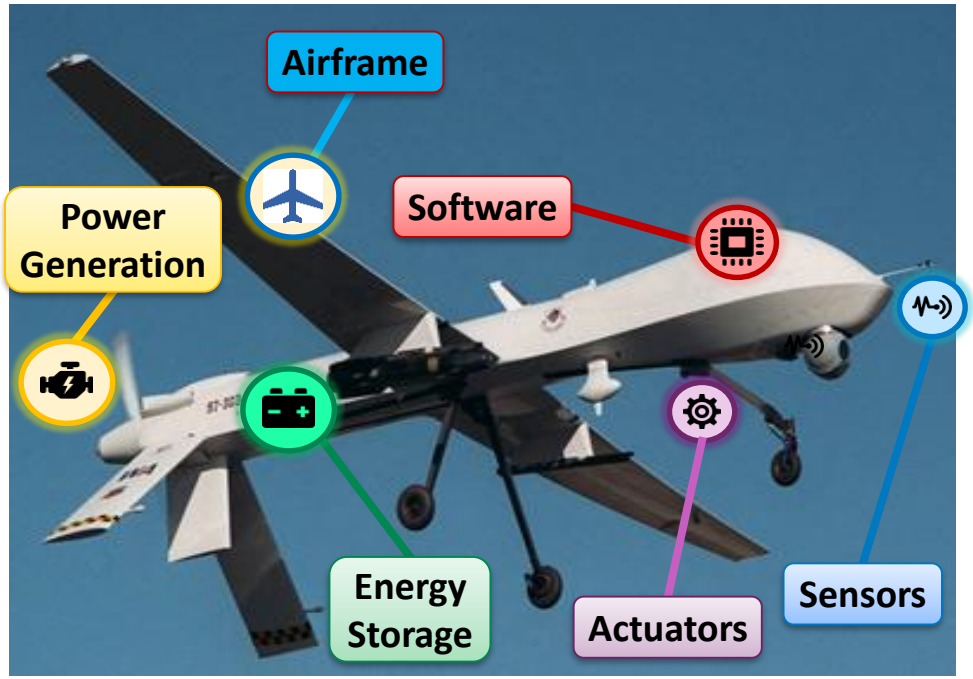
Product Complexity

Enterprise Complexity

Process Complexity

* *Winning with Complexity, Operations Capabilities that Drive Profitable Growth, PwC Strategy& Report*

Products are increasingly more instrumented and interconnected

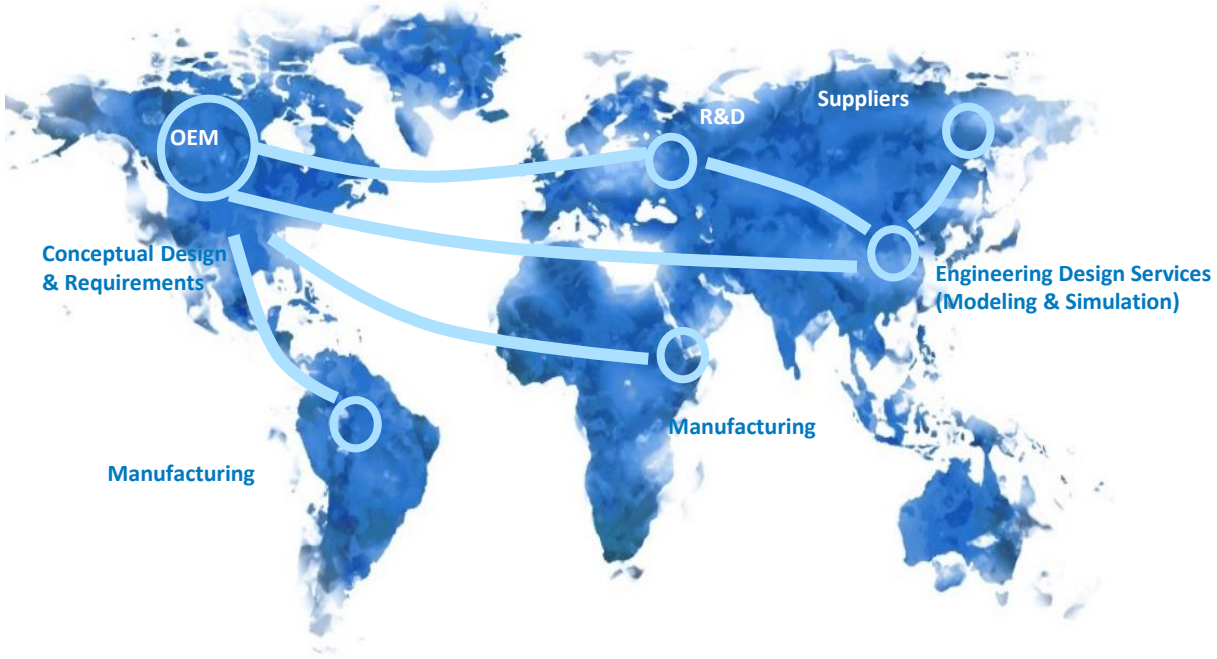


215% increase in average number of components since year 2000
500% increase in software lines of code (SLOC) in aerospace in the past decade

Systems Behavior | **Upfront Simulation** | **Faster & Accurate** | **Flexible**

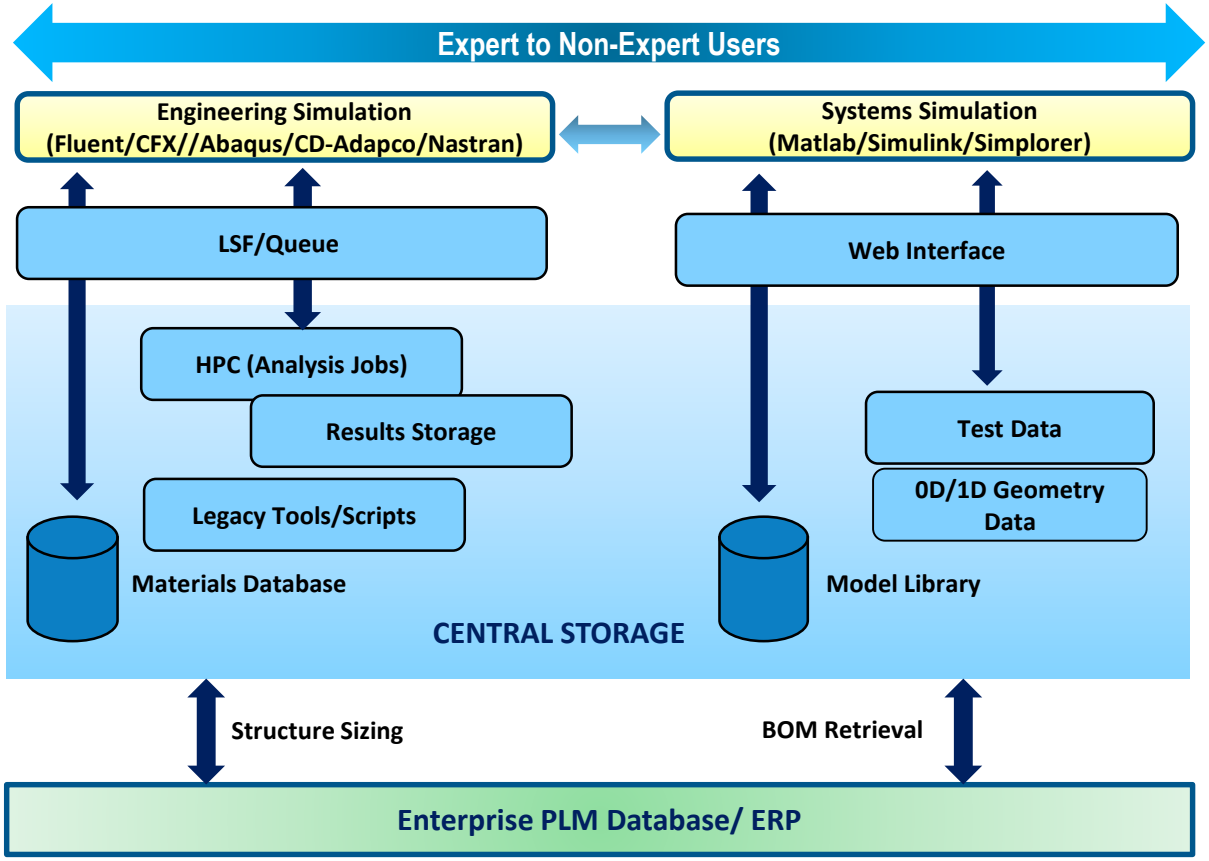
Increasing global footprint of engineering, partner network and suppliers

Globalization of Engineering



Collaboration | **Extend Enterprise** | **Consistency** | **New Initiatives**

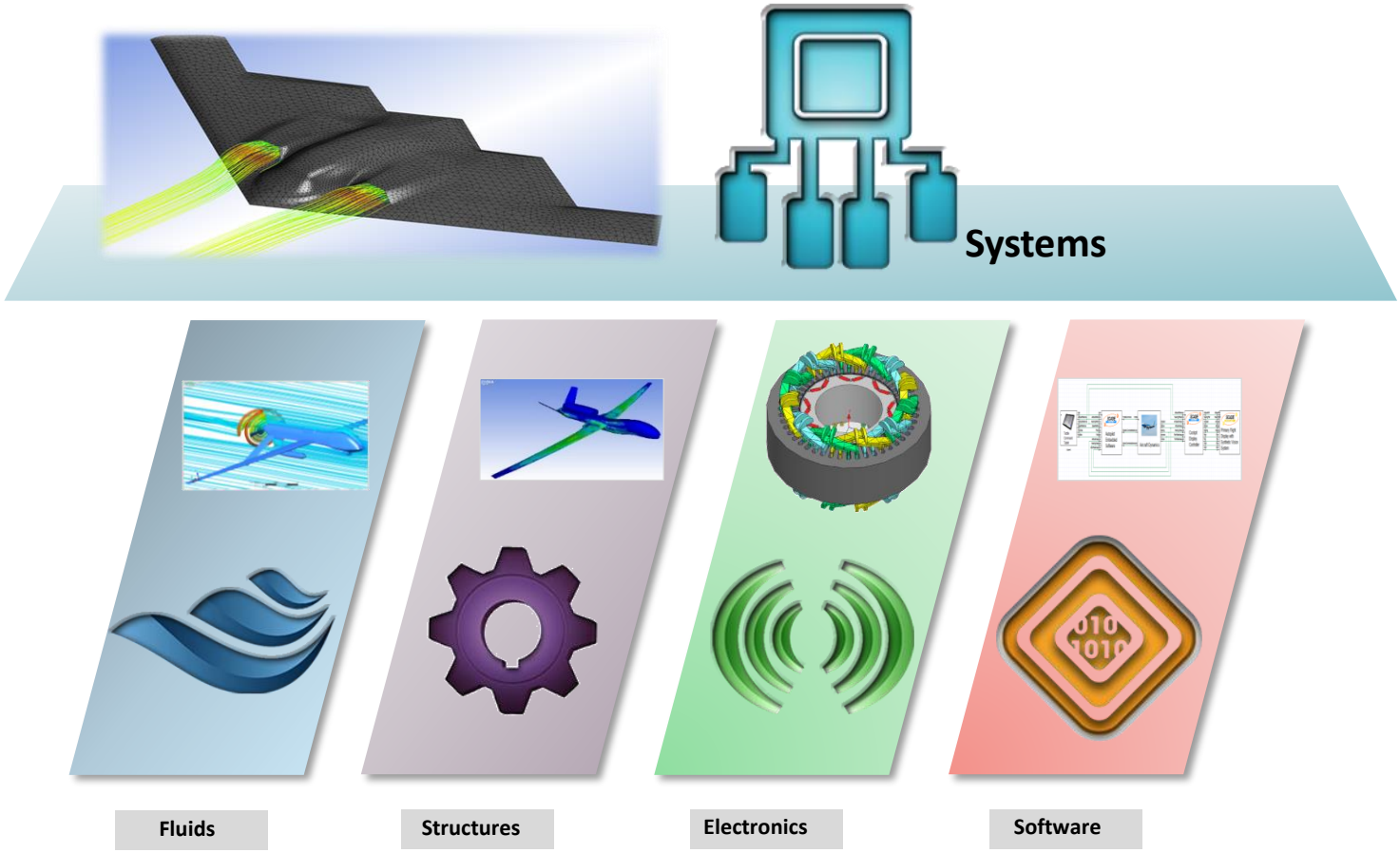
Complex engineering workflows, distributed teams, and multitude of tools and data limit enterprise responsiveness



Resource Utilization | Interoperability | Manage Process | IP Security

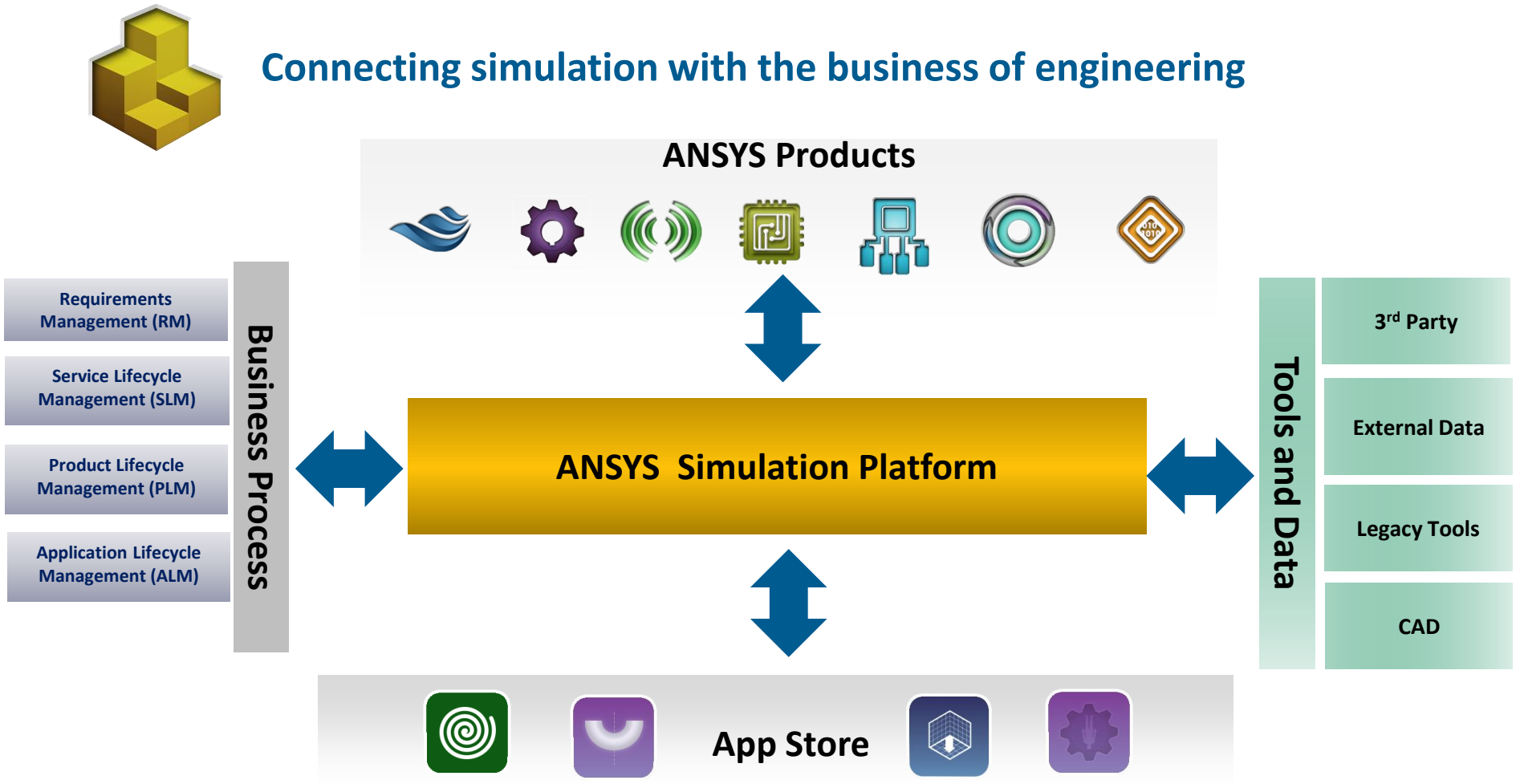
How to manage increasing complexity of an engineering enterprise?

ANSYS provides best-in-class simulation across all disciplines to create complete virtual prototypes



ANSYS Simulation Platform: Built on an open and sustainable architecture that adapts to your engineering needs and IT strategies

Connecting simulation with the business of engineering



Adapts and grows with your evolving IT infrastructure

NVIDIA

intel

DELL

hp

CRAY THE SUPERCOMPUTER COMPANY

FUJITSU

lenovo FOR THOSE WHO DO.

Hewlett Packard Enterprise

DELL

sgi

Tested and Certified
amazon web services Partner Network
ADVANCED TECHNOLOGY PARTNER

Microsoft Azure

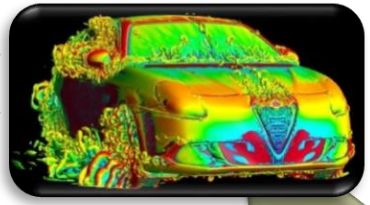
NIMBIX supercomputing made super human™

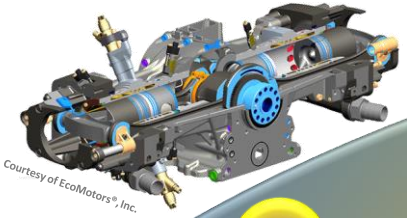
Google Cloud Platform

CPU 24|7

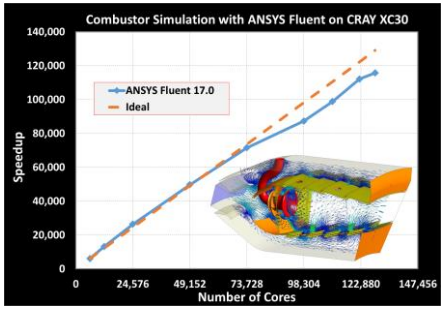
ANSYS

Provides HPC solutions at every scale

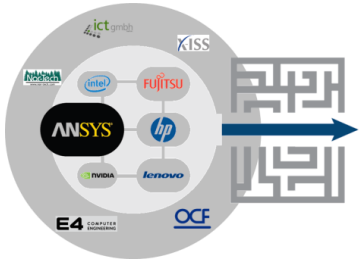




Scalability on supercomputers



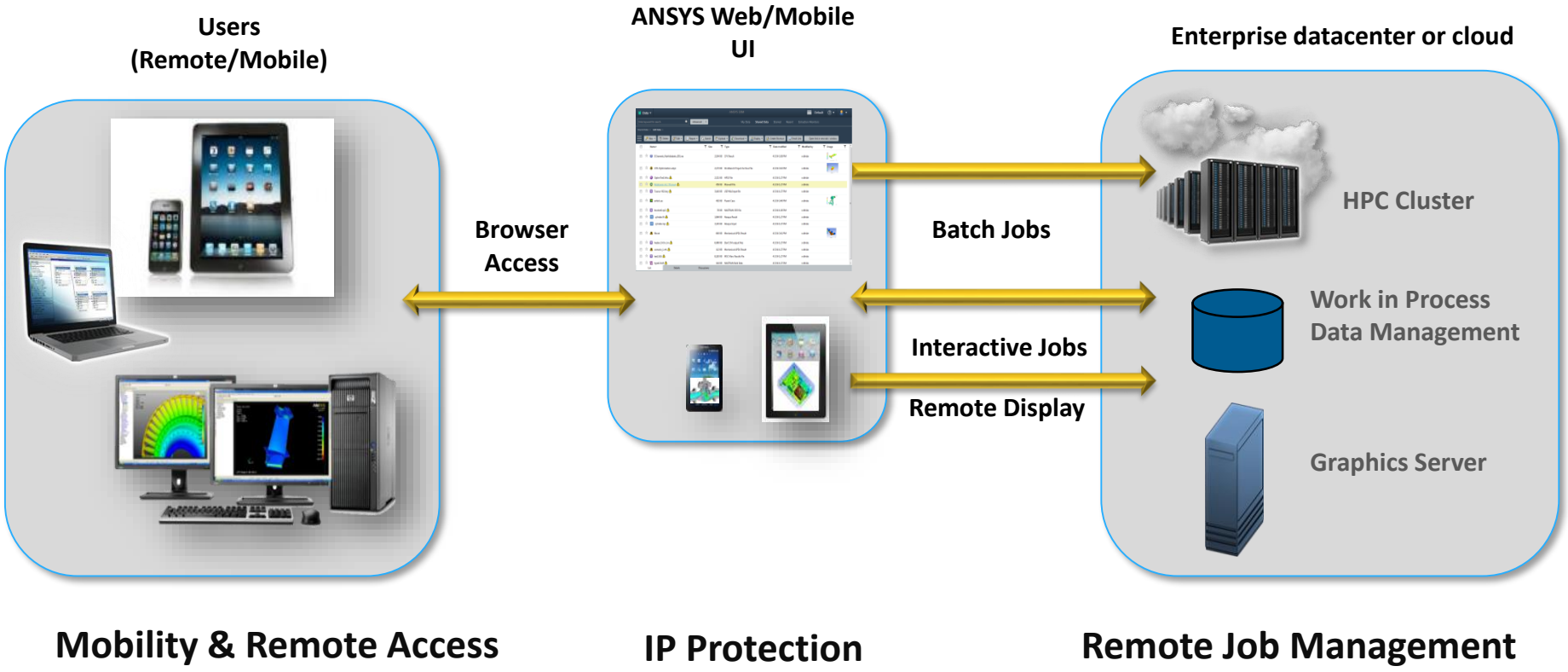
HPC cluster appliances



Efficiency on multi-core workstations

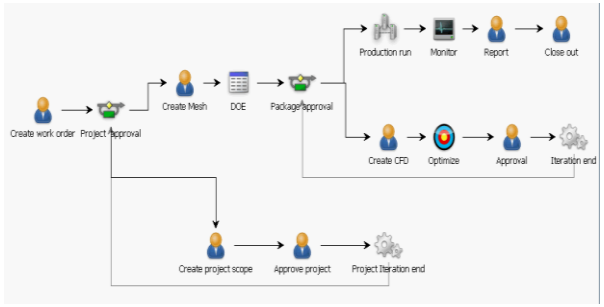
Portal for simulation deployment on in-house compute clusters

Open Platform: Supports ANSYS and 3rd Party Applications

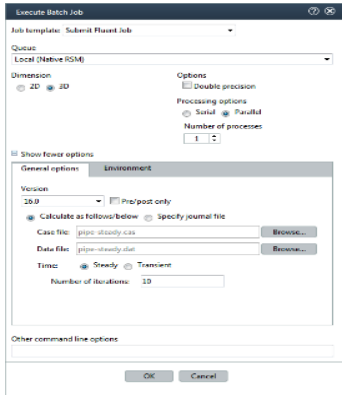


Integrated Data Management and Job Submission

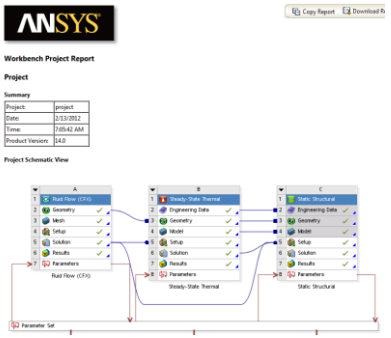
Workflow Mgmt.



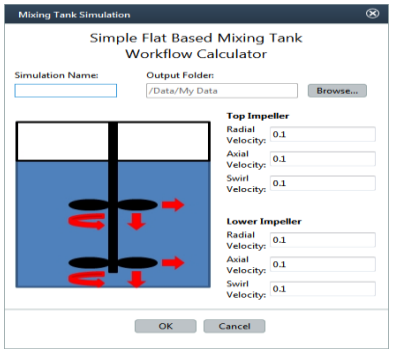
HPC Access



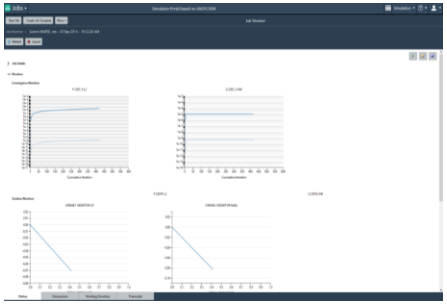
Simulation Report



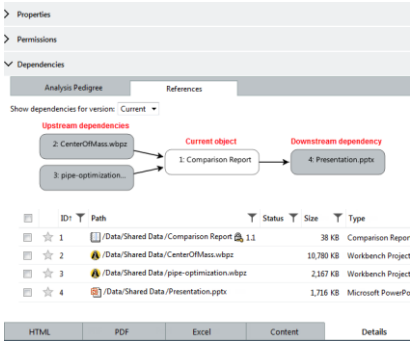
Process Automation



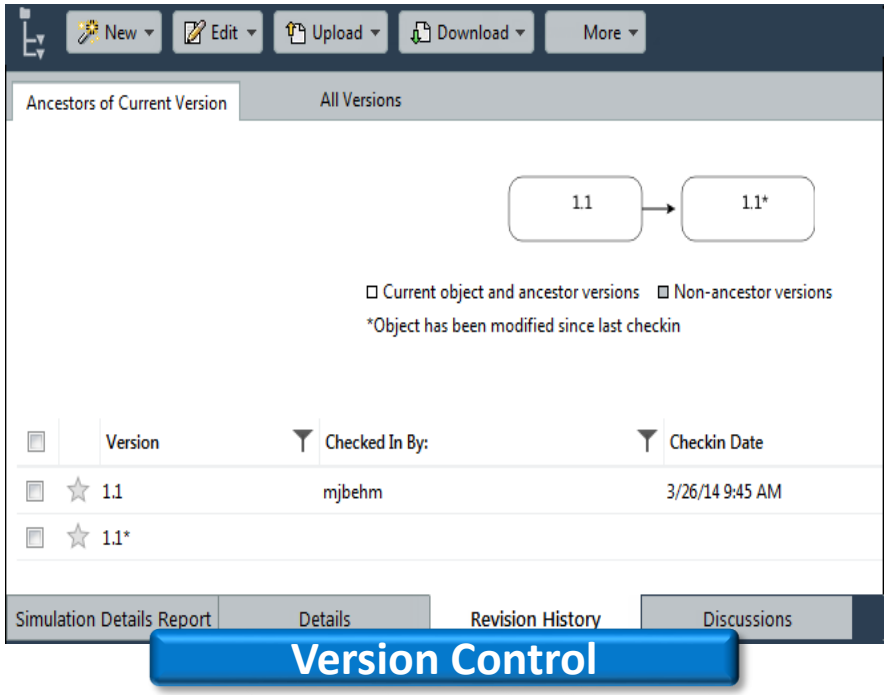
Job Monitoring



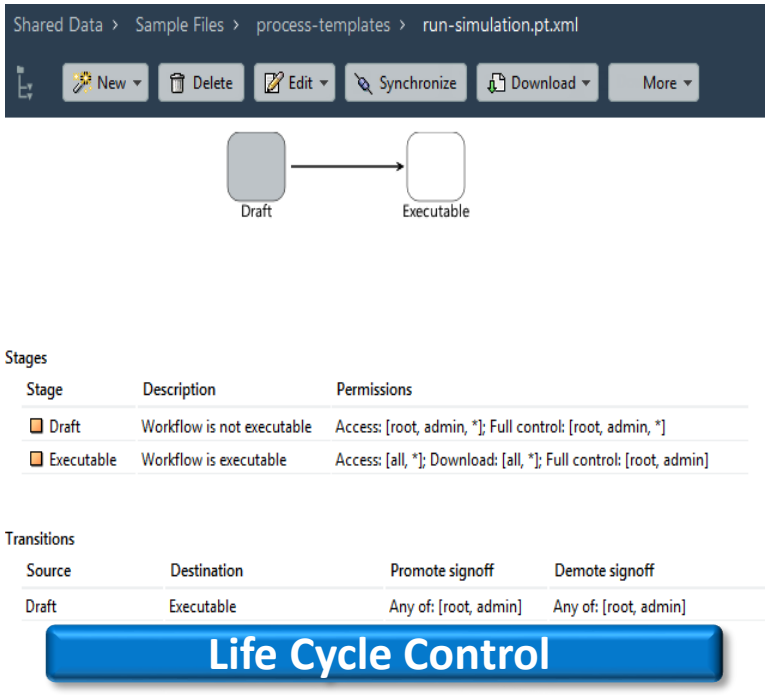
Dependencies



Protects your enterprise IP



Version Control



Life Cycle Control

- Check-in/Check-out capability tracks Revision History
- Robust security model
- Manage the project Life Cycle with controlled access based on Life Cycle Stage

Elasticity

Agility

Device Independence

Infinite Resources

End User

Global Access

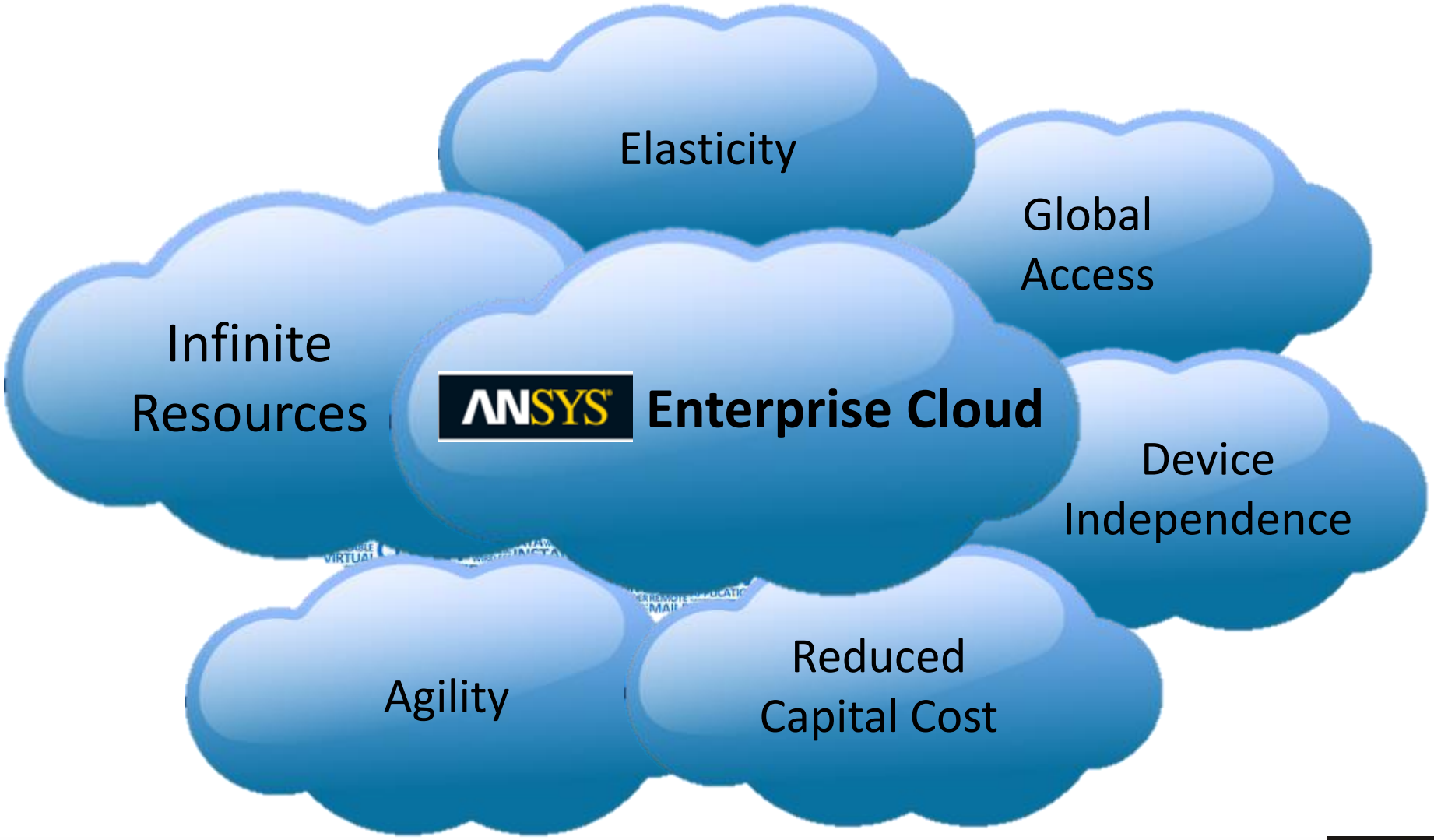
Executive

IT

Reduced Capital Cost

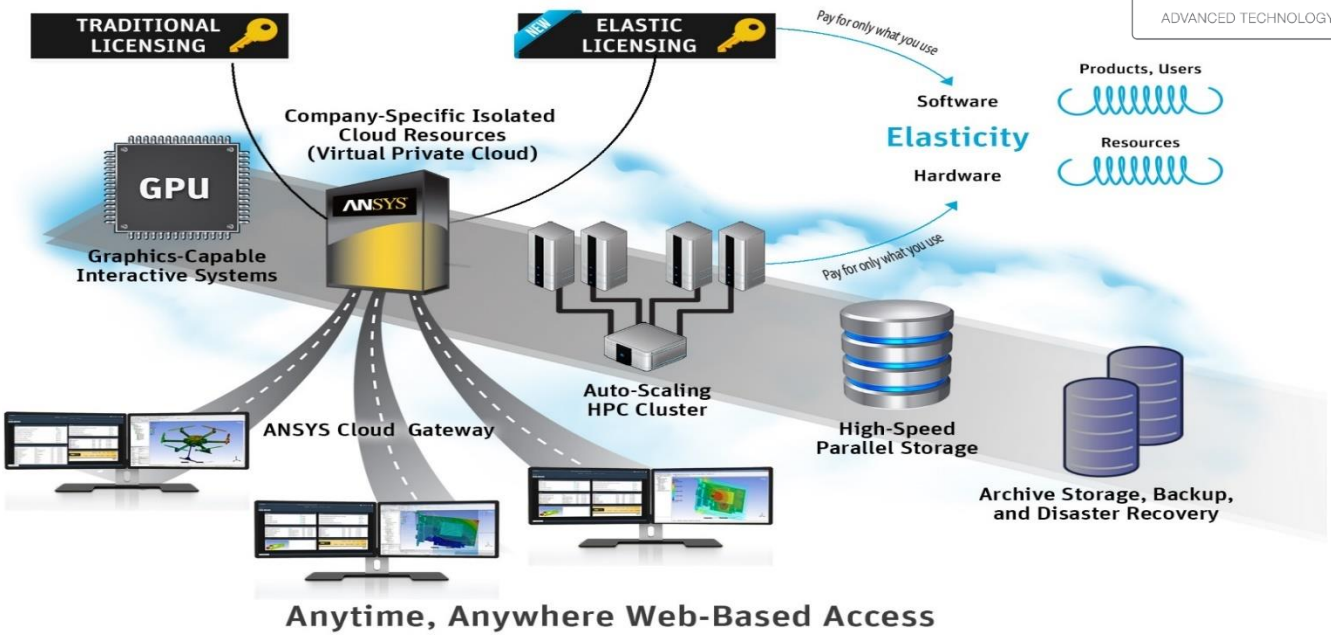
Reduced Maintenance

Centralized Deployment


Elasticity
Global Access
Infinite Resources
ANSYS Enterprise Cloud
Device Independence
Agility
Reduced Capital Cost

ANSYS Enterprise Cloud

A Single-Tenant Simulation Platform on the Public Cloud



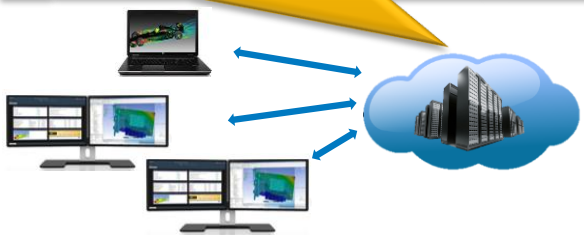
Key ANSYS Technology

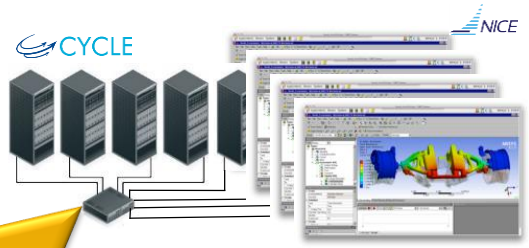
- Single-tenant, virtual private cloud in the public cloud (today AWS)!
- Auto-scaling HPC cluster technology
- Remote rendering technology delivering high-end workstation experience in the cloud

Move the Entire Simulation Workload to the Public Cloud

Agility

- Expand resources in days, not months
- Add new users on-demand and easily
- Start with a specific project and grow organically
- Add other regions for global reach





Elasticity

- Get as much HPC as you need, when you need, and pay for only what you use
- Bid for unused compute resources (Spot instances)
- Usage-based licensing of virtually every ANSYS product
- Scale up and down both compute and interactive GUI resources to meet your workload variability

Unlimited HPC

Enterprise Cloud – A highly secure solution

- Centralized management of data
- Distributed security responsibility
  - ANSYS
  - Amazon Web Services
  - Customer IT (or Managed Service Provider)

A simulation platform to manage complexity of your engineering enterprise

*) available through ANSYS Cloud Service Partners

*) except for Semiconductors, Embedded Software, and some 3rd party royalty products

Thank You!

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