

Access Services

IaaS

*Nimbus,
Eucalyptus,
OpenStack,
OpenNebula,
ViNe, ...*

PaaS

*Hadoop,
Dryad,
Twister,
Virtual
Clusters,*

HPC User Tools & Services

*Queuing
System,
MPI, Vampir,
PAPI, ...*

Additional Tools & Services

*Unicore,
Genesis II,
gLite, ...*

User and Support Services

*Portal,
Tickets,
Backup,
Storage,*

Management Services

Image Management

*FG Image
Repository,
FG Image
Creation*

Experiment Management

*Registry,
Repository
Harness,
Pegasus
Exper.
Workflows, ...*

Monitoring and Information Service

*Inca,
Grid
Benchmark
Challenge,
Netlogger,
PerfSONAR
Nagios, ...*

Dynamic Provisioning

*RAIN: Provisioning of IaaS,
PaaS, HPC, ...*

FutureGrid Operations Services

Security & Accounting Services

*Authentication
Authorization
Accounting*

Development Services

*Wiki, Task
Management,
Document
Repository*

Base Software and Services

OS, Queuing Systems, XCAT, MPI, ...

FutureGrid Fabric

Compute, Storage & Network Resources

Development & Support Resources

Portal Server, ...