GridASP

Users

SP

Portal system

AP

System Manager

Cluster managed by LSF, SGE, PBS, Condor

RP

ISVs for Life sciences, Automotive, CAE, etc.

Application License

Application Manager

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Payment for use of the application license

AP (Application Provider)

Users

Payment for the service

SP (Service Provider)

Use of the applications

Use of the resources

Result of the service

RP (Resource Provider)

Payment for use of the resources

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Globus and GridASP are installed on the management node.

Cluster

GridASP
Globus
cluster management tool

Management node
Load info
Job execution

Compute nodes
Cluster

Resource node

Application Pool
Deployment Description

Deployment Manager
Resource DB
Application DB

Deployment Description

AP
Application Manager
Application Package

(1) Upload
(2) Request Installation
(3) Searches DBs
(4) Notice & Confirm
(5) Transfer
(6) Installation
(7) Register
(8) Official

RP
System Manager

Cluster
Management node (Deployment Engine)

Resource node
Resource node
Resource node

Ex.
<package>
<name>app</name>
<url type="rpm">
http://...
</url>
<config></config>
</package>
Real World  Anonymous World

Users (1) Authentication
Ex. Smith

(3) Encryption
Real ID
Anonymous ID

(4) Transfer

(5) Decryption
Data

Secret key
Shared key cryptosystem
Secret key

Ex. user12

Real World
Anonymous World

GSI (Globus)

Users (Bio-, pharma.)

SP (Grid Portal)

AP (application vendors)

RP (AIST super clusters)