July 27, 2004

Agenda
GGF12 Schedule (We need to put agendas for 5 meetings)
Logical Operator Discussion.

Attendees
Darren
Fred
Andreas
Subir
Anuj
Saga
Steve

Action Items:
(Darren) Agendas for GGF12 to be circulated for next week.
(Andreas) GridForge Tracker document for the group.
(Steve) Chicken and Egg problem email.
(Andreas) Example of 3-tier Job Request to list.
(Naregi) Example of JSDL for their R&D Job Submission.
(Darren) Process Topology from Chris at Platform
(Steve) Inheritance Mechanism and what issues are involved.
(Andreas) Logical Operators and what to do with it.
(Darren) Review and polish Specification.
(Subir) Cadence Examples to Use JSDL.
(All) Examples for JSDL and Logical Expressions.

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Ideas for the GGF Meetings

Sessions 1-4 - Working session
- Divide up the Document and Cooresponding XSD/XML into four manageable sessions.

Session 5
1. Practical Uses of JSDL
2. Examples of JSDL
3. What people would like to see added to JSDL
4. Demo of JSDL in an Actual product.

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Logical Operator Discussion
- Defined explicitly, or
 - This allows for grouping and other operators besides AND and OR.
- implicitly define the operators
 - All things are AND(ed) together unless there are duplicate tags then they are OR(ed)

Explicit (Condor):

Requirements = (CPU == INTEL && CPUSPEED >= 1000Mhz) || (CPU == SPARK && CPUSPEED >= 500Mhz)

Order = (CPUSPEED + MEMORY)

Implicit:

CPU == INTEL
CPU == SPARK
CPUSPEED >= 1000Mhz
CPUSPEED >= 500Mhz

Do these mean the same?

<OR>

```
  <alternative name="isDBX_Installed" priorty=1>
    <Resource name=intel>
 <CPUArch>cpu:INTEL</CPUArch>
 <CPUSpeed>1000Mhz</CPUSpeed>
    </Resource>
    <Software>
      <Library name=pacLibrary></Library>
    </Software>
  </alternative>
  <alternative name="isDBY_Installed" priority=2>
    <Resource name=spark>
 <CPUArch>cpu:SPARK</CPUArch>
 <CPUSpeed>500Mhz</CPUSpeed>
```

```
    </Resource>
  </alternative>
</OR>
```

Here is another option.

```
<requirement name="ConfigureDatabases" operations="Install">
                <alternative name="isDBX_Installed" priority="2">
                  <checkItem checkVarName="DBX_Check" />
                </alternative>
                <alternative name="isDBY_Installed" priority="2">
                  <checkItem checkVarName="DBY_Check" />
                </alternative>
                <alternative name="isDBZ_Installed" priority="1">
                  <checkItem checkVarName="DBZ_Check" />
                </alternative>
        </requirement>
```

http://www.w3.org/Submission/2004/SUBM-InstallableUnit-DD-20040712/

What Logical Operators do we want to support:
OR, AND, XOR

[Text Slide C]

Condor Example

```
Requirements = other.Architecture == "INTEL" &&
(other.OpSys == "RH 6.2" ||
other.OpSys == "Solaris 2.6") &&
other.MinPhysicalMemory >= 200 &&
other.OutboundIP == TRUE;
```

```
<Resource name="core">
  <CPUArch>INTEL</CPUArch>
  <MinPhysicalMemory>200</MinPhysicalMemory>
  <Extends name="OutboundIP">true</Extends>
</Resource>
<OR>
  <Alternative>
    <Resource basedOn="core">
      OpSys == "RH 6.2"
    </Resource>
  </Alternative>
  <Alternative>
    <Reasource basedOn="core">
      OpSys == "Solaris 2.6"
    </Resource>
  </Alternative>
</OR>
```

```
<Resource name="core">
  <CPUArch>INTEL</CPUArch>
  <MinPhysicalMemory>200</MinPhysicalMemory>
  <Extends name="OutboundIP">true</Extends>
  <OR>
    <Alternative>
       OpSys == "RH 6.2"
    </Alternative>
    <Alternative>
```

```
      OpSys == "Solaris 2.6"
    </Alternative>
  </OR>
  <OR>
    <Alternative>
      <DISCSPACE=1024MB</>
    </Alternative>
    <Alternative>
      <DISCSPACE=2045MB</>
    </Alternative>
  </OR>
</Resource>
```

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Another Logical Expression option.

```
<Resource name="core">
  <CPUArch>INTEL</CPUArch>
  <MinPhysicalMemory>200</MinPhysicalMemory>
  <Extends name="OutboundIP">true</Extends>
  <OpSys>
    <Alternative>RH6.2</Alternative>
    <Alternative>Solaris</Alternative>
  </OpSys>
</Resource>
```

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