Why Standards?

- To enable the creation of **interoperable** Grid systems
  - Protocol standards
  - Policies
- To enable the creation of **portable** Grid tools and applications
  - API standards
Engagement

- **GGF**
  - GridFTP, GSI, OGSI, OGSA-DAI, Auth callout, OGSA
- **IETF**
  - Proxy credential format
- **W3C**
  - WSDL 2.0
- **OASIS**
  - WSRF, WSN
- **Other**
  - GLUE schema
Implementations (GT4)

- WSDL, SOAP, WSRF, WS-Notification
  - Java, C, Python
- WS-Security, with X.509 proxy certs
- XACML
- GridFTP
- Combination is proving incredibly powerful
- Others that I am forgetting

- Come to workshop this afternoon!
TeraGrid, Open Science Grid

- Both are pushing hard on the deployment of large-scale interoperable Grid systems
  - Very practically oriented
- Emphasis is primarily on use of common open source software
  - Globus Toolkit, in particular, but several other components as well
- Common policies are a major concern
  - E.g., CA policies
Experiences

● Positive
  ◆ Community engagement in OGSI/WSRF improved quality and broadened adoption
  ◆ GridFTP, GSI: multiple implementations
  ◆ CA policy standards

● Less positive
  ◆ Interoperability remains elusive
  ◆ Influence of commercial standards wars

● Overall
  ◆ Open software has so far been far more important than open standards