

Desktop Access to Remote Resources



An International HPCC/HPCN Community Activity to establish Interoperability Standards

JavaGrande BoF, SC98, Orlando, FL

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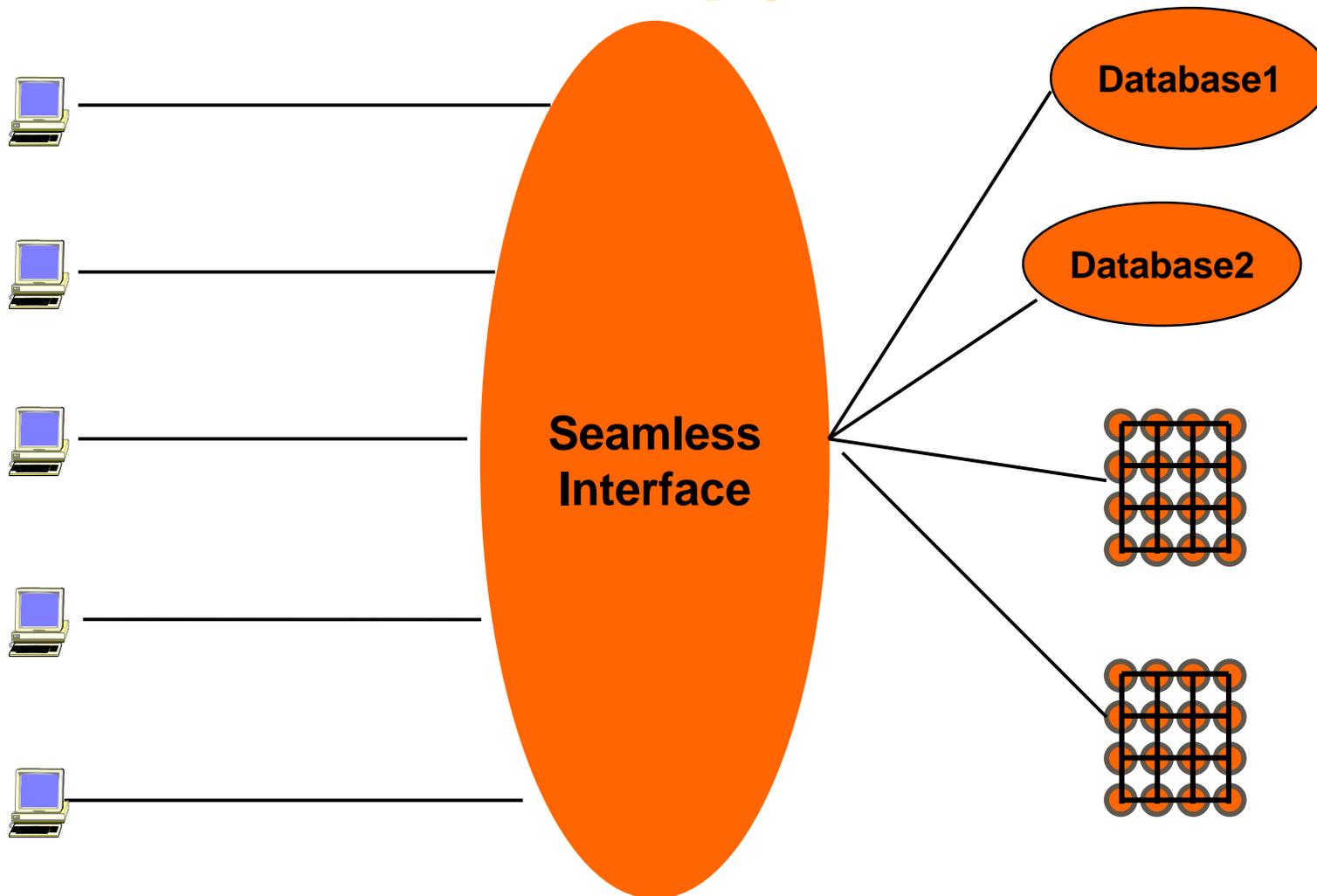
Motivation for Datorr

Why desktop access?



- Very many machines, platforms, Operating Systems
- Though a good/necessary thing, using them in changing environment becomes difficult for users.
- Goal:
 - Enable Uniform or seamless access to general backend compute, communication and information resources
 - Hide details and satisfy "majority of" customers

Seamless Interface



What is Scope of Datorr



- Desktop
 - Workstation UNIX/MS, WWW Browsers
 - PalmPilot, Pager :-)
- Remote Resources in multi-tier systems
 - compute/communication resources:
 - supercomputers, workstations, PC's
 - Data Resources:
 - databases, information services
 - compute/communication services

Some Cosmic Issues



- We are roughly defining properties and methods of those distributed objects associated with computing services -- these include jobs and resources
- This could lead to Java frameworks for computing services
- We need to start with key basic objects and services and use these to build other more complex entities and capabilities

Goals at SC98 and beyond



- Expose Datorr to Community for participation
- Outline Datorr process, which must be open to succeed!
- Involve more users and supercomputing centers to determine what are the requirements
- Describe the current status and procedure for participation

Datorr Process



- Identification and documentation of existing relevant projects
- Set of meetings leading to agreement on common standards
- International community input such as SC98 BoF
- Preliminary documents (on web) leading to (draft) final proposed standards
- Selected community projects e.g. reference implementations

Datorr Activities



- 1st International Workshop on Desktop Access to Remote Resources (Oct. at ANL)
- What happened at the meeting:
 - Analyzing requirements and identify services for desktop access --Architecture, User issues, Security
- Next meeting Sandia, Albuquerque
 - February 99
- Target date for draft proposal SC99 with appropriate broad discussion

Workshop Activities: Details of Datorr Process

- What is the current state?
 - What projects are out there?
 - What are their goals?
 - What can we reuse?
- Where do we have to expand/focus?
- Most importantly workshop participants agreed that it was indeed useful to define common interoperable interfaces
- Mailing List datorr@mcs.anl.gov
- <http://www-fp.mcs.anl.gov/~gregor/datorr>
- Proceedings of first workshop available

Contents of Proceedings

- 18 Existing Projects surveyed covering metacomputing, distributed scheduling, seamless interface, particular tools and technologies in areas such as resource management/monitoring/collaboration/security
 - Will expand! Add your project!

<http://www-fp.mcs.anl.gov/~gregor/datorr>

<http://www-fp.mcs.anl.gov/~gregor/datorr/report/datorr-report.html>

<http://www-fp.mcs.anl.gov/~gregor/datorr/report/datorr-security.html>