

UC Research Computing Group

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UCRCG

■ MISSION

To promote information exchange, discussion and collaboration among its members leading to an enhanced research computing (RC) and cyber-infrastructure (CI) for UC, its campuses and national laboratories.

■ GOALS

- Share knowledge and information
- Recommend "best practices"
- Promote UC collaborations
- Leverage synergies
- Pursue RC and CI funding opportunities

MEMBERS

- LBL - Tammy Welcome, Gary Jung
- LLNL - not represented (at this time)
- UCB - David Greenbaum, Ann Dobson
- UCD - Morna Mellor, Dave Zavatson
- UCI - Frank Wessel, Harry Mangalam
- UCM - not represented (at this time)
- UCLA - Bill Labate
- UCR - Bob Grant, Russ Harvey
- UCOP - David Walker
- UCSB - Elise Meyer
- UCSC - Brad Smith, Ed Boring
- UCSD - David Hutches
- UCSF - Heidi Schmidt

CURRENT STATUS & PERCEPTIONS OF CI

- Silo'ed resources
 - Single campus access
 - Difficult to collaborate
 - Multiple, single points of failure
- Few economies-of-scale exist
 - Hardware
 - Software
 - Labor

PROJECTS UNDERWAY

- Prototype UC-wide workspace
 - Using federated-identities
 - Share documents and white papers
 - Job openings among members
- Virtualized CI
 - Enabling technology
 - Resources - compute, storage, other
 - UCLA-Grid as a UC prototype
- IT Guidance Committee Interactions

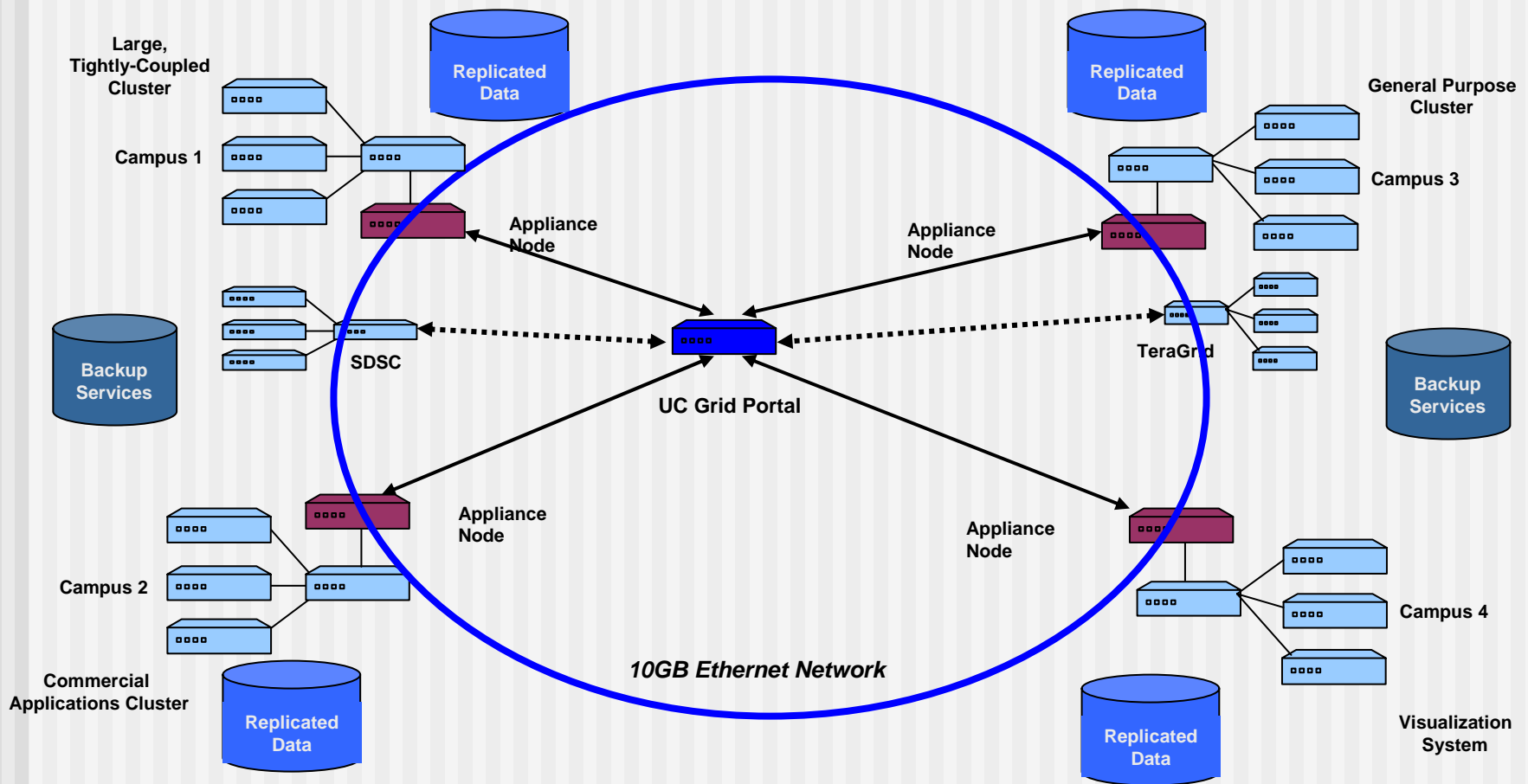
OPPORTUNITIES

- Open Source Software
 - Easy set-up, packaged development
 - SDSC's "Rocks"
 - UC "sourceforge.net"
- COTS Hardware
 - Promote successful configurations
 - SDSC's "Data-Central"
- Research infrastructure
 - Centralized system administration
 - Tailored-recharge services
 - Grant-writing assistance
 - Industry partnerships

OPPORTUNITIES

- Resource sharing = synergistic & cost effective
 - Trusted identity
 - Robust service
 - Discoverable resource
 - Location of the resources
 - Leveraged combinations
- Collaborations
 - UCLA-UCI, CA Institutes - Cal2, SDSC-UCHRI, etc.
 - Deploy common development strategies
 - Example: UCLA Grid Portal

VIRTUALIZED CI: PROTOTYPE FOR A UC-WIDE MODEL



CHALLENGES

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- Software, hardware installations / implementations
 - Obtaining central funding to provide/enhance services
- Data
 - Storage, movement, backup and archive
 - Respond to high-end research computing needs
- User awareness
 - Outreach, website, surveys, seminars
 - Non-Traditional sciences units
 - Communicating best-practice principles, synergies, liaisons