



Cornell University Center for Advanced Computing



David A. Lifka, PhD
lifka@cac.cornell.edu



Cornell University in Brief

History, Rankings & Research Expenditures

- Founded 1865
- 41 Nobel laureates
- 7/10 grad engineering programs currently ranked top 10
- \$3.1 billion revenues
- \$796 million research expenditures

Cornell University main campus in Ithaca

- 9,642 faculty & staff; 21,131 students

Weill Cornell Medical College in NYC & Qatar

- 5,276 faculty & staff; 1,269 students

Building \$2 billion campus in NYC > “Cornell Tech”

- 2013-2017 first CS students at Google Chelsea
- 2014 break ground on 12-acre Roosevelt Island site
- 2017 first buildings to open for 300 students
- Over next 20 years expand to 2000 students





Cornell CAC: Focused on Service

Consulting

- Assist with new faculty start-up packages
- Benchmarking & performance analysis
- Proposal development & participation
- Custom programming, debugging, parallelization & optimization
- Development and support for scientific workflows
- Custom training > live & web-based
- Strategic partnerships > vendors, national CI, researchers

Computing

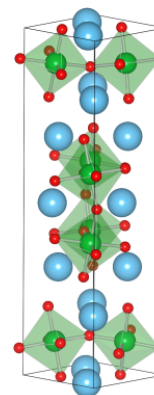
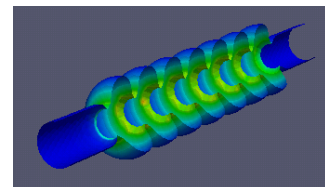
- High-performance computing
- Cloud computing

Data storage and management

- Scalable disk storage & archival storage
- Database resources

National cyberinfrastructure partnerships

- NSF XSEDE – *Extreme Science and Engineering Discovery Environment*
- NSF TACC Stampede – *Enabling, Enhancing, and Extending Petascale Computing*
- NSF STCI University of Chicago – *Managing Cloud Usage Allocation and Accounting*

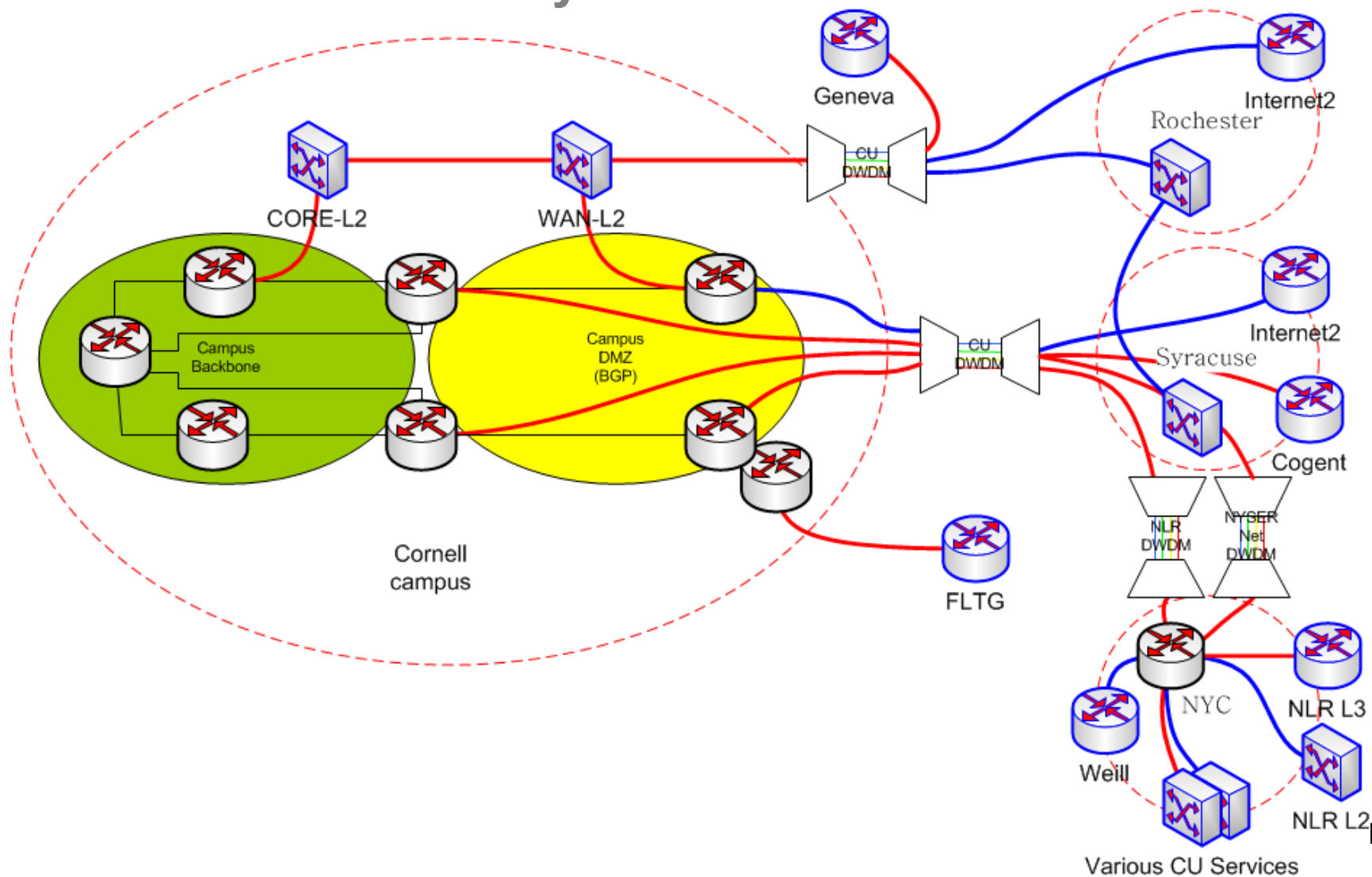


red cloud





Internet2 Connectivity



Cornell Solutions Benefiting from Globus Online



- **Research Archival Solution** (launched July 1st)
 - Disk-based archival solution > ~\$100 TB/year
 - Globus Online is the only interface
 - Globus Connect Multiuser important capability
 - Secure Archival Solution for Medical College this fall



- **red cloud** and **red cloud** secure
- IaaS:



- SaaS:

