CU's PSoft SDM – One Year Later

Session #26218

March 23, 2009

Anaheim, California

Your Presenters

- Stephanie Herrick
  - Project Manager/Tech Lead
  - Cornell University
- Ashley Silverburg
  - Chief Data Architect
  - Phytorion, Inc.

Overview

- Cornell University has now implemented a full set of Data Marts to support Student Administration (CC, AD, FA, SR, SF) according to our EDW strategy. One year after implementation, we will revisit with you our successes, our challenges, our responses and our new initiatives.

Agenda

- Project Deliverables
- Challenges
- Responses
- Successes
- Demonstration
- Q&A

Cornell University

- Main Campus in Ithaca, NY
- Founded 1865
- Both a State & Private Institution
- Undergrad enrollment 13,515
- Graduate enrollment 5,932
- Faculty members 2,633
- Staff employees 11,236

Clock Tower & Sage Chapel taken from Cornell's Statler Hotel

Phytorion, Inc.

- Full enterprise data warehouses
- Area-specific data marts
- Operational & Strategic content
- Integration of any source systems
- Fully customized approach, or
- Packaged data marts

Cornell ERP Environment

- PSoft
  - Campus Community
  - HR, Payroll, Benefits
  - Contributor Relations
  - Student Admin (AD, FA, SR, SF)
- Legacy/Non-PSoft
  - Finance (future - Kuali), Research Admin, etc.

Cornell Data Delivery Environment

- Cornell Enterprise Data Warehouse (EDW)
- Incremental Data Mart development
  - Use Kimball Methodology
  - Leverage existing infrastructure
  - Partner internal and external resources
  - Deliver marts to support new operational applications
  - Use a “business questions to be answered” approach

Cornell Data Delivery Environment

- Servers: Solaris & Windows (plans to migrate to Linux – June ‘09)
- RDBMS: Oracle 10g R2 using RAC (plans to migrate to 11g – June ‘09)
- ETL Tools:
  - Psoft marts use Cognos DataManager v8.4
  - DMTools
  - Legacy marts use PL/SQL, Korn Shell Scripts, etc.

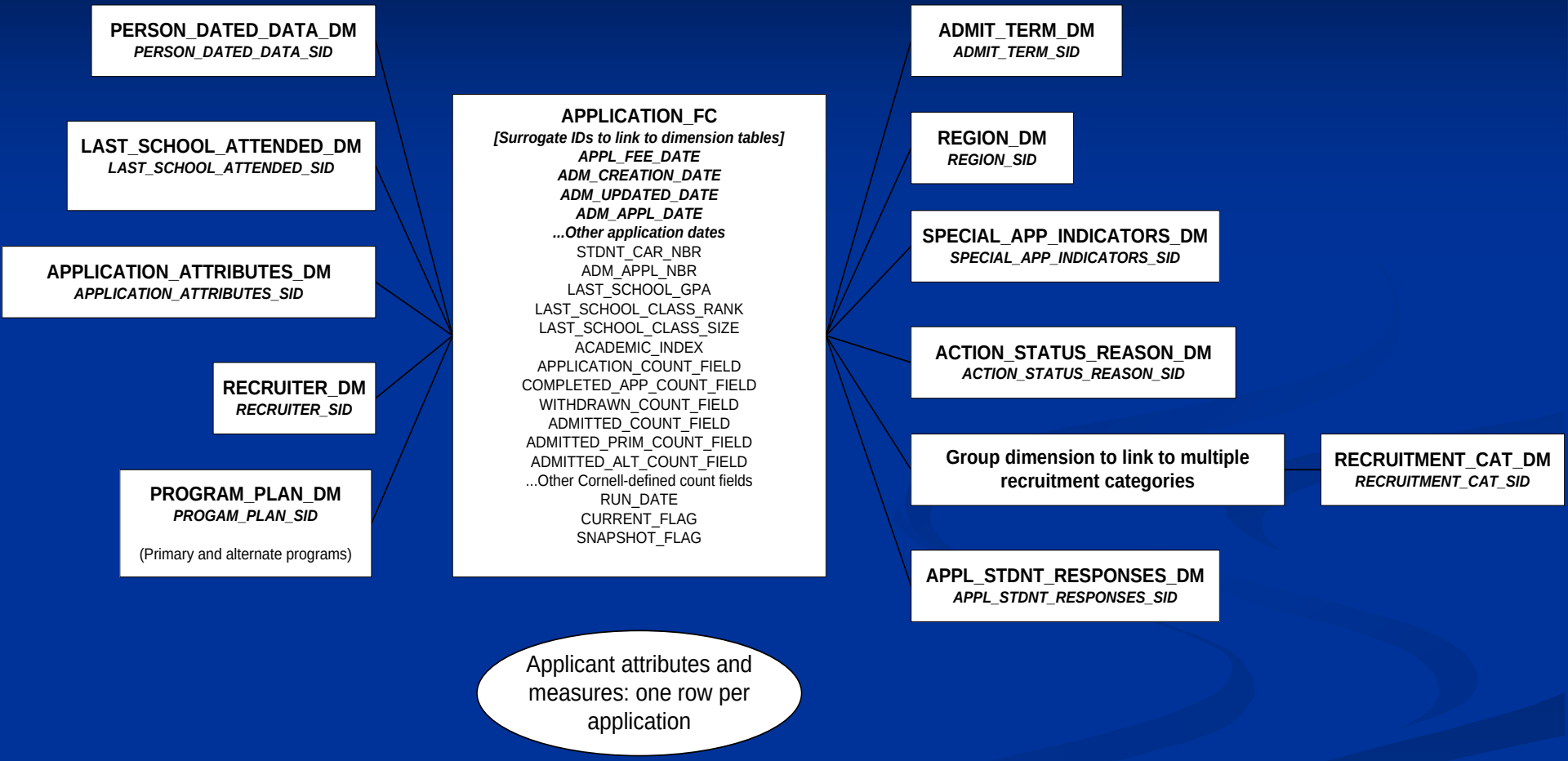
Cornell Data Delivery Environment

- Reporting:
  - Hyperion/Brio 8.3.2
  - CU Dashboard
  - OBIEE (Discovery)

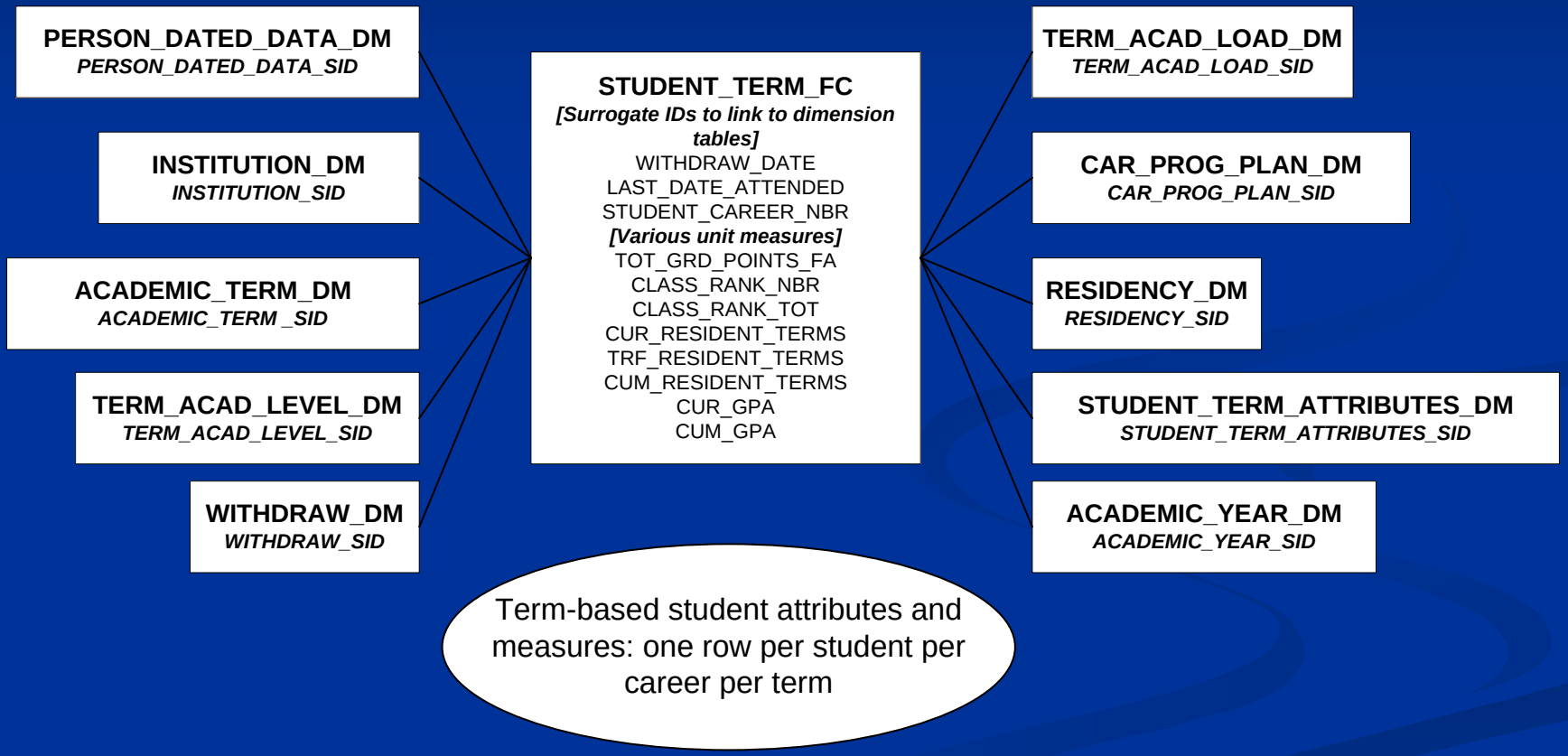
Who is this person next to me?

- How did we get here?
- RDS
- STARS Cross-functional
- EDW
- Recruitment – data training
- Custom vs Product

Project Deliverables



Project Deliverables



Project Deliverables (prior to HEUG ‘08)

- Campus Community
- Admissions Recruitment
- Admissions Applicant
- Student Records (Course & Class, only)
- Financial Aid

Project Deliverables (after HEUG '08)

- Campus Community
  - *Service Indicators (1 model)*
- Student Records
  - *Advisors (2 models, 2 reports)*
  - *Degree and Honors (2 models, 1 report)*
  - *Enrollment and Grades (6 models, 4 reports)*
  - *Milestones (1 model, 1 report)*
  - *Students (5 models)*
  - *Student Groups (4 models)*
  - *Terms, Programs and Plans (10 models, 8 reports/extracts)*
  - *Transfers and Test Credits (4 models, 1 report)*

Project Deliverables (after HEUG '08)

- Student Financials *(8 models, 5 reports)*
  - *Credit History*
  - *GL Interface*
  - *Items/Item Lines*
  - *Student Accounts*
- Financial Aid *(4 models)*
  - *PELL Disbursement & Origination*
  - *Student Loans/PNotes*

Cornell Challenges

- Managing user expectations
- Developing a support structure
- Load time & availability

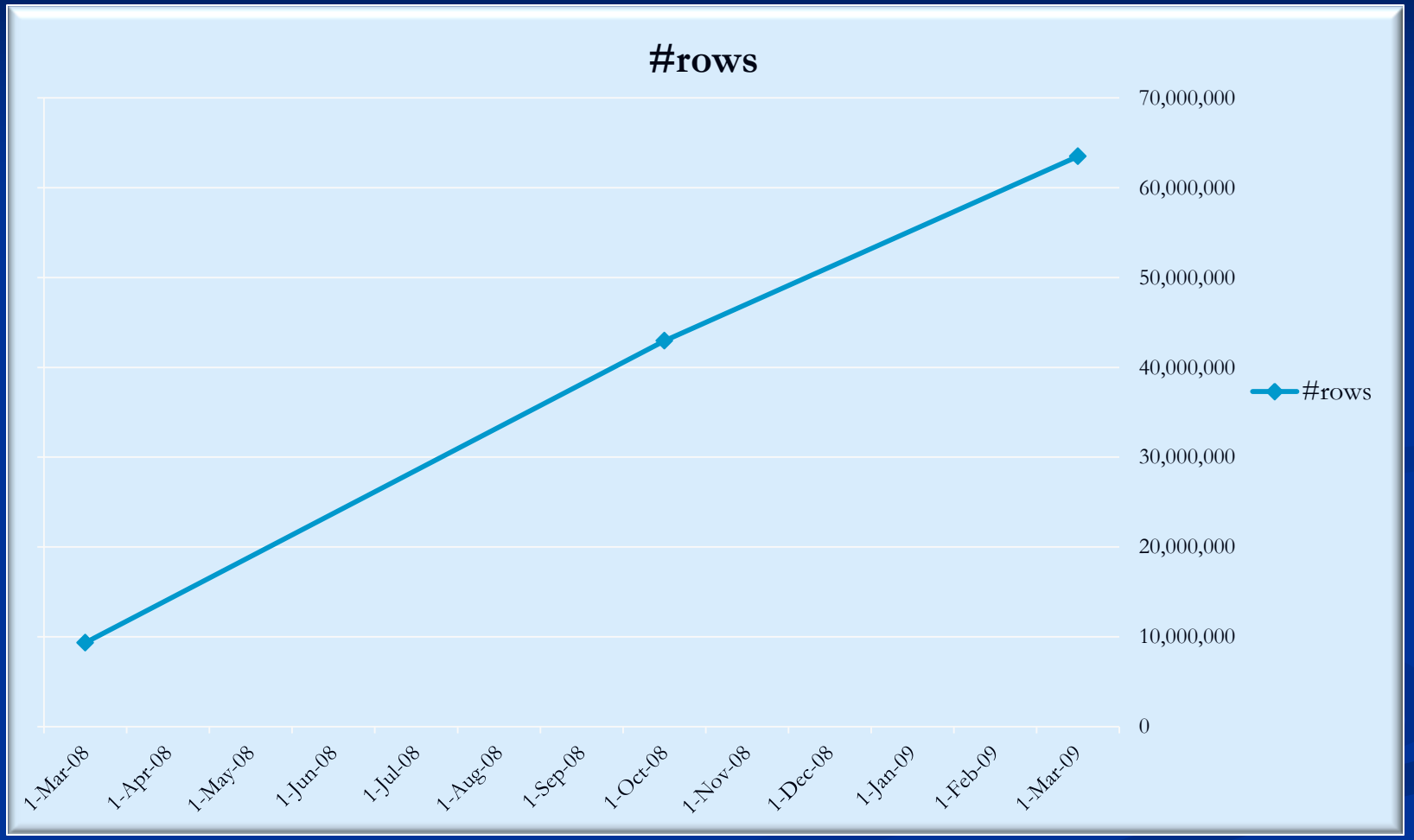
Cornell Challenge–User Expectations

- Managing User Expectations
  - Simultaneous implementation with the transactional system
  - Using star schemas to support operational reporting
  - Effect of Change

Cornell Response - Support

- FDG (Functional Developer Group)
- Data Delivery Liaison
- TDWI presentation – Sandbox Pilot

Cornell Challenge – Load Time

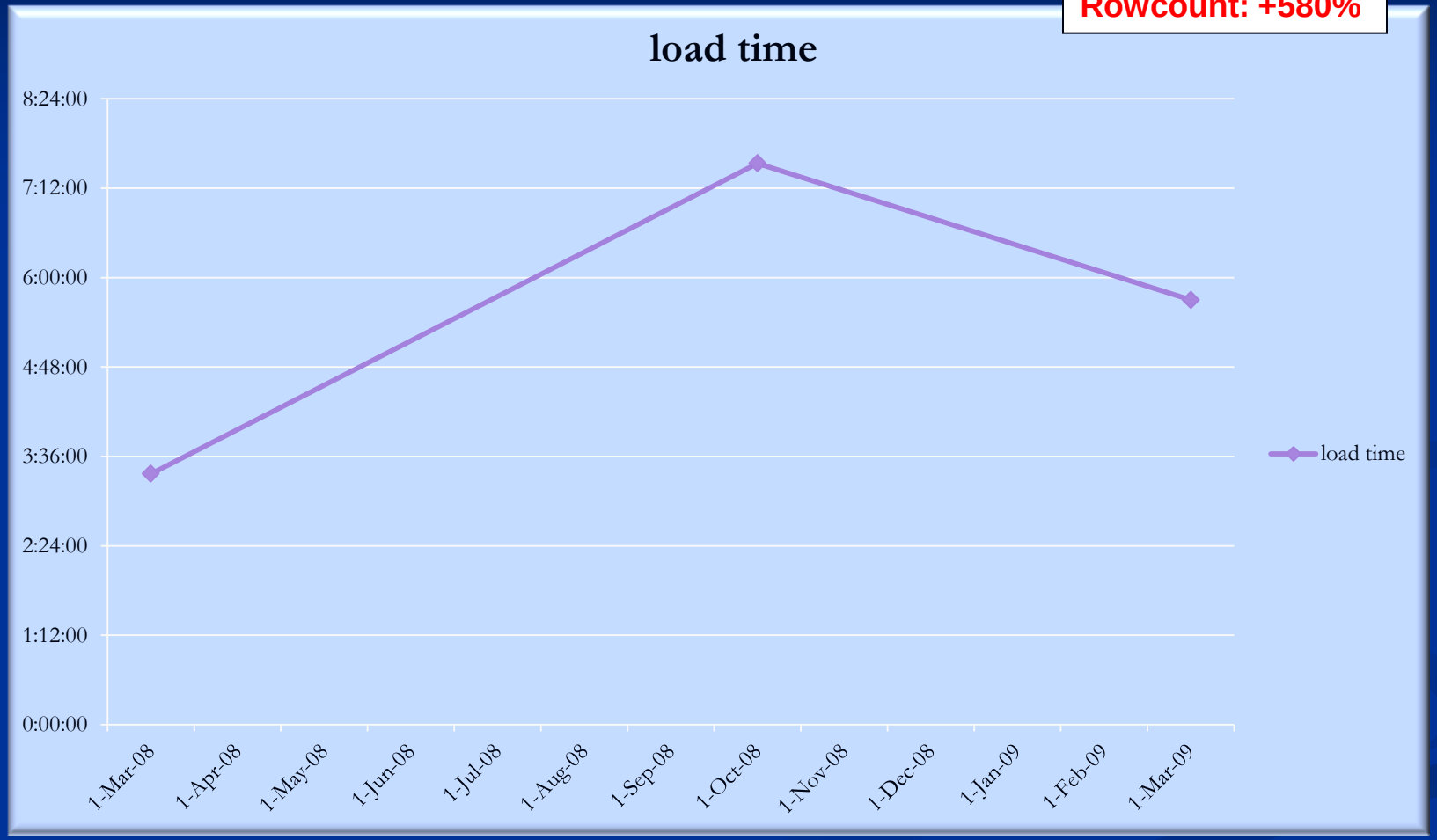


Cornell Response – Load Time

- Retreat
  - Parallelism in jobs
  - PAE/Buffer sizes
  - Partitioning
  - Upgrade to DataManager 8.4
  - Indexing on source data
  - Future: Linux, 11g, additional partitioning, conditional jobsteps

Cornell Response – Load Time

Rowcount: +580%



Successes

- Volume of deliverables
  - Implement production data mart of over 300 tables
  - Adapted to fit Cornell Project Plan
  - Parallel development made ongoing operational support possible

Successes

- Custom vs “Off-the-shelf” approach
  - Adapted deliverables to CU DMTools environment
  - Responsive to JINT requirements, CU Mods
  - In line with overall EDW strategy

Successes

- Partnership:
  - Continuous collaboration and issues/risk management
  - Pre-implementation on-site visits
  - Smooth handoff of ownership

Demonstration

Questions?

Thank You!

- Stephanie Herrick
  - Project Manager, Information Systems/Data Delivery
  - Cornell Information Technologies, Cornell University
  - E-mail: *sph1@cornell.edu*
- Ashley Silverburg
  - Chief Data Architect
  - Phytorion, Inc.
  - E-mail: *ashley.silverburg@phytorion.com*

This presentation and all Alliance 2009 presentations are available for download from the Conference Site

Please provide your feedback at http://www.heug.org/p/su/rd/sid=283

Presentations from previous meetings are also available