Dave Lambert
President & CEO, Internet2
Thank you, Program Committee!

Don E. McLaughlin (Chair)  Lucy Lynch
Edward Aractingi           Iara Machado
Thomas Barton              Thomas McDermott
Carl Brandt                Chris Misra
Marianne Chitwood          Kim Owen
Nick Cross                 Alex Sadeghi
Terry Doub                 Anil Srivastava
Darleene Heath            Litsa Varonis
Sally Jackson             Rodney Wilson
John Killebrew            Ann Zimmerman
George Laskaris
Thank you, sponsors!
ROSE AWARD

David Lassner
Vice President for Information Technology & Chief Information Officer, University of Hawaii
2010 Rose Award Winner and 2012 Rose Award Committee Member
Named in honor of Richard Rose (1947–2007), this annual award honors:

- **K20 educators or technologists** who have had a demonstrable impact on the K20 community by extending the reach of advanced networking, content and services to the broadest education community
- **Leaders** who bring together diverse communities around common goals and projects
- **Individuals** with significant accumulated accomplishments in the Internet2 K20 community
Jim has worked tirelessly to include the K-20 community in all aspects of CENIC. He has had a hand in many important projects that extend to the educational community and beyond, reaching underserved areas throughout California through their communities’ anchor institutions.

His foresight in anticipating the importance of reaching these institutions with broadband capabilities predated the development of current national and state-level efforts by at least a decade—and proved pivotal in their implementation.
President’s Leadership Award background

Given for exceptional leadership and service exemplifying the essence of Internet2 membership, enabling services and achievements beyond the scope of any individual institution benefiting the national and global research and education community.
Awardee: RL Bob Morgan

Activities Bob has played a major role in leading, guiding, or creating: Internet2, Internet2 Middleware Initiative, NSF Middleware Initiative, InCommon (co-chair, InCommon TAC), Shibboleth, CAMP/Advance CAMP, IETF (Idapext, SASL, PKIx, TLS), Internet Society, eduPerson, Directories, MACE (Grouper, Signet, Directories), OASIS (Security Services, SAML), OpenSAML.org, Network Applications Consortium (NAC), TERENA (TF-EMC2, REfed)
TRANSFORMING THE RESEARCH AND EDUCATION COMMUNITY

Mary Sue Coleman
President, University of Michigan
Chair, Internet2 Board of Trustees
THE INTERNET2 COMMUNITY: FROM EMPOWERMENT TO TRANSFORMATION

Molly Corbett Broad
President, American Council on Education (ACE)
The Internet2 Community: From Empowerment to Transformation

Spring 2012 Internet2 Member Meeting

Molly Corbett Broad, President

April 24, 2012
Arlington, VA
The Beauty of Internet2

• Helps individuals and organizations become more innovative and creative

• Drives new alternatives through collaboration
Internet2
The whole equals the sum of its parts.
A New Competitive Landscape

India
• Population of 1.2 billion
• GDP rose by an average of 7% each year since 1997

China
• Population of 1.3 billion
• GDP rose 10% each year for last 30 years

Source: CIA World Factbook.
New Workforce Demands

Unemployment Rate by Educational Attainment 2010

- No HS Diploma: 15%
- HS Graduate: 10%
- Associate Degree: 7%
- BA or Higher: 5%

Source: Bureau of Labor Statistics, January 2011
Jobs in Today’s (and Tomorrow’s) Workforce Require More Education

Percentage of Workforce by Education Level

<table>
<thead>
<tr>
<th>Education Level</th>
<th>2018</th>
<th>2002</th>
<th>1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Dropout</td>
<td>11%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>30%</td>
<td>28%</td>
<td>30%</td>
</tr>
<tr>
<td>Some College / Associate's</td>
<td>12%</td>
<td>27%</td>
<td>29%</td>
</tr>
<tr>
<td>Bachelor's &amp; Higher</td>
<td>32%</td>
<td>33%</td>
<td>5%</td>
</tr>
</tbody>
</table>

When there is unmet need, there is opportunity…
A Different Approach to Learning

Fun Fact

The occurrence of babies named Harmony has increased 47% since 2000.*

*According to Social Security Administration data
Bringing New Ideas Together to Transform Institutions
THE MOVE TO SERVICES: THE VISION FOR NET+ SERVICES

Shel Waggener
Associate Vice Chancellor for IT and CIO, University of California - Berkeley, and Senior Vice President NET+ Services, Internet2
Above-Campus Services
Shaping the Promise of Cloud Computing for Higher Education

Bradley Wheeler CIO VP & CIO Indiana University

EDUCAUSE Review, Nov/Dec 2009

Illustration by Randy Lyhus ©2009
A (short) history of IT

- Technology advancement – Innovation
- Higher ed test bed of the newest things
- Central IT agrees to purchase and support
- Deployment is long and expensive
- Department level adoption is “complex”
- Industry innovates to eliminate complexity
- Central IT again out of touch with “latest technology”
- *Process starts over…*
Amazing time of change

#1 Funding Models

#2 Pedagogy & Online

#3 Globalization

#4 Technology Leap
Funding Models: Research universities affected at all levels

- We have been through the most serious recession since the Great Depression—which has lasting global economic effects.
- The US federal fiscal deficit is large.
- States have large structural deficit, long queue of underfunded “mandates” (K-12, infrastructure, pensions).
- Global investment in higher education is increasing.
Pedagogy & Online: It’s an online world

Forecast for online-only enrollment

Source: Eduventures
Graph by Nadya Batson
Globalization: The higher ed world is getting smaller
Technology Leap: Explosive change

- Costs of startup are dropping
- Cycle times are plummeting
- Cloud—access without planning
- Connecting everyone with every bit of data
"The cloud, mobility and the shift to social. These three things together are creating a revolution…"

— Marc Benioff, chief executive of Salesforce.com, in his onstage conversation with conference co-moderator, Tim O'Reilly, at Web 2.0
Higher Ed IT – Are we ready?

What does higher education IT need to do differently to leverage these trends?
Everyone tries to solve problems, but ultimately we are just pulling against one another
Collaboration vs cooperation

“Collaboration is not the same as cooperation. Collaboration requires alignment around a common goal. Collaboration is about doing something together. Collaboration only lasts as long as the alignment around common purpose lasts.”

—James Hilton, University of Virginia
The Internet2 NET+ Approach

Coordinate existing Internet2 “beyond” and network initiatives

• Develop technical and business models for above-the-network services
• Leverage the network, middleware initiatives and federated authentication within a unified services organization

Develop new programs with third-party vendors exploring:

• Alternative specifications
• Interoperability requirements
• Service-level definitions
• Business services and pricing models
# Internet2 NET+ Services: Four phases

<table>
<thead>
<tr>
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<th>Service Validation</th>
<th>Early Adopter</th>
<th>General Availability</th>
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</thead>
<tbody>
<tr>
<td>Trial phase for development from concept to early service. Limited expectation of production pilot from “as is” state</td>
<td>Member CIOs as steering committee. Proof of concept, tuning of service, and development of business model.</td>
<td>Capped number of participating institutions. Business model finalized. Master contract developed.</td>
<td>Full availability to target community. Contracts signed and service level agreements in place.</td>
</tr>
</tbody>
</table>
Domains for collaboration

- Individuals
- Departments
- Schools
- Campuses
- Institutions

Challenge vs Value

Slope of Retreat

Creative Commons 3.0 k – Credit Bradley Wheeler, IU
Experience yields improvement

Creative Commons
3.0 k –
Credit Bradley Wheeler, IU
Essential tool for the new normal

- Achieve more…
- Serve our mission…
- Favorable economics (over time)…
- Align institution to external environment…

www.internet2.edu/netplus
netplus@internet2.edu
• Provide access to Dell’s datacenters through the Internet2 Network to allow better use of Dell services

• **John Mullen**  
  VP and General Manager  
  NA Public Business Group

*Multiple cloud services*
INTERNET2 NET+
NEW SERVICE ANNOUNCEMENTS

Jerrold Grochow
Vice President for NET+ Services (Interim),
Internet2
It’s been a busy six months!

- Working with *Service Validation* and *Early Adopter* programs
- Exploring opportunities with *vendors* inside and outside our community
- *Growing* the Internet2 NET+ Services organization and establishing processes

*This Session: Announcements!*
Types of NET+ Services

- **IaaS-PaaS**
  Infrastructure and platform services

- **SaaS**
  Software for academic, administrative, infrastructure needs

- **Communications as a Service**
  Helping us communicate and collaborate

- **Other Services**
  Services of interest and value to the community
Types of NET+ Services

- **Designed Service**
  Customized for the Internet2 community

- **Special Offering Terms**
  Available to Internet2 community

- **Co-Marketing**
  Discount to the Internet2 community

- **Community Providers**
  Service of, by, and for the community
Enables users to securely store and share content via multiple devices and applications

Announcing: General Availability of Designed Service

Presentation: **Wednesday@10:30a (Workgroup@3:00p)**

Jon Herstein, Vice President, Customer Success
• Providing “community cloud” services designed for the use cases of higher ed

• Announcing: Expanded Service Validation for IaaS-PaaS Services for administrative applications

• Talk to HP in the Alexandria Room Today

• Larry Singer, Vice President, State and Local Government and Education, HP
Virtual data center services

- Savvis cloud services tuned for higher ed
- Announcing: Service Validation with universities for IaaS-PaaS services
- Florida State, University of New Mexico sponsoring
- Presentation: New Services, Today@4:30p
- Doc Holiday, Sales Manager, Government and Education
• Provide access to Dell’s datacenters through the Internet2 Network to allow better use of Dell services

• Announcing: Service Validation for Big Data Storage, Hadoop as a Service, Next Generation Learning Platform

• Clemson is sponsor; interest from IU, PSU, UVa

• Visit them at the Dell meeting space all day
Providing collaboration services

- Adobe Connect service for a fixed monthly fee
- Announcing: Will be available for Early Adopters
- Case Western Reserve University is sponsor; 38 others
- Presentation: **New Services, Wednesday@1:15p**
- Randah McKinnie, Principal Product Manager, Adobe Connect
Hosted PBX and SIP trunking

- Aastra to host a Broadsoft platform dedicated to R&E
- Level3 to provide SIP trunking with local and LD options
- Announcing: Available for Early Adopters
- Tulane is sponsor
- Tony Shen, President and CEO, Aastra; Craig Curpach, Director, Level3 Government Markets
Another service within the InCommon family

Two-factor authentication service integrated with InCommon identity

University of Maryland – Baltimore County is sponsor

Announcing: Will be available for Service Validation

Providing a new level of security
• Partnership with EDUCAUSE to evaluate Courseload eReader and McGrawHill eTexts under a new pricing model

• 50 university Proof-of-Concept underway for Fall Semester 2012
Lecture capture via the cloud

- D2L Capture as a service over the Internet2 Network with InCommon identity
- Announcing: Will be available for Early Adopters
- Tulane is sponsor
- Presentation: **New Services, Wednesday @1:15p**
- Jeff McDowell, VP Market Development
SeeVogh multi-point video collaboration over the Internet2 Network with InCommon identity

- Announcing: Will be available for Early Adopters
- UMBC sponsoring
- Presentation: **New Services, Wednesday @ 1:15p**
- Phillippe Galvez, President and CEO
Administrative systems in the cloud

- RevenueVision and CapitalVision as a service over the Internet2 Network with InCommon identity
- Announcing: Will be available for Early Adopters
- UMBC is sponsor; GMU, Florida A&M, Univ of West Florida
- Presentation: New Services, Wednesday @ 1:15p
- Tom Strange, President and CEO
Providing streamlined access to Amazon AWS Services

Announcing: Will be available for Early Adopters

Discount to Internet2 member schools and connector members

John Charles, Chief Operating Officer

Partnering with a regional network
• DuraCloud service over the Internet2 Network with InCommon identity

• Announcing: Will be available for Early Adopters

• UVa is sponsor; IUPUI, Rice, MIT

• Presentation: **New Services, Today @ 4:30p**

• Mike McPherson, AVP and Deputy CIO, University of Virginia

**Curating research data in the cloud**
Partnering with a regional network

- Providing MeritMail Collaboration Suite, MeritList Manager, Merit WebConnect, other services
- Announcing: Will be ready for Early Adopters
- Schools currently using: University of Michigan, Wayne State, Kansas State, Michigan State
- Don Welch, President
“Big data” analytics

- Explore Microsoft’s Azure compute cloud and new MS capabilities to researchers working with “big data”
- Announcing: Strategic projects starting up with 12 universities and Internet2
- Rob Curtin, Chief Applications Officer (Education)
## Internet2 NET+ Services: Fall 2011

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## Internet2 NET+ Services: Winter 2012

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<td>Comodo</td>
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# Internet2 NET+ Services: Spring 2012

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| Microsoft          | Courseload - McGrawHill (eText)  
CENIC  
CenturyLink-Savvis  
Dell  
Duo Security  
HP-SHI | Aastra  
Adobe  
Desire2Learn  
DuraSpace  
Evoghi  
Level3  
Merit Network, Inc.  
Solution Design Group | Box  
Comodo |
Internet2 NET+ Services providers

Infrastructure-as-a-Service
Software-as-a-Service
Communications-as-a-Service
Other Services

HP + shi
merit NETWORK
Dell
AASTRA
DUO
Level(3)
DURASPACE
SDG
THE SOLUTION DESIGN GROUP, INC.
CenturyLink
Business
box
Microsoft
Adobe
evoGH Inc.
cenic
Desire2Learn
Thanks to YOU!

Service Validation Participants & Early Adopters

and many more…
Today’s NET+ Sessions

- NET+ General Update: 3:00p Salon J
- NET+ New Services IaaS/PaaS: 4:30p Salon J
- HP: Alexandria Room
- Dell Meeting Space
Internet2 NET+

Essential tool for the new normal

NET+ is your service
Participate in Service Validation and Early Adopter programs

netplus@internet2.edu
www.internet2.edu/netplus
THANK YOU