



Moving Infrastructure to the Cloud: Campus Success Stories

R. David Vernon, Jefferson Burson, Bob Winding, Bob Flynn, and Sara Jeanes
Cornell University, Harvard University, University of Notre Dame, Indiana University, and Internet2

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- Lightning Intros from Each Presenter
- Panel Session (Get your questions ready!)

Cornell University

- R. David Vernon
 - Associate CIO - Cornell Information Technology
 - Cloud initiative at Cornell started about 18 months ago
 - We created a Cloudification service to help campus transition from on premise servers to cloud servers using a consistent, secure, and modern set of practices. This is a free service for our campus.
- The big challenges in any cloud initiative are more about culture and change than about technology. The technology is exciting and empowering if you can get past the fear and resistance.

Harvard University

- Jefferson Burson
 - Director of IT Network Strategy
 - Network Group's focus on developing a network integration strategy for cloud-hosted services that is secure, multi-tenant, and works with multiple cloud providers
 - Harvard network as Internet-facing front-end to cloud IaaS
- Harvard University IT goal of moving 100% of all new applications and 75% of all existing applications to the cloud over the next three years
 - Multi-pronged migration strategy leveraging DevOps and AWS as primary cloud IaaS
 - Re-platforming
 - Lift and Shift
 - SaaS
 - Significantly reduce on-prem datacenter presence, improve delivery effectiveness

University of Notre Dame

- Bob Winding
 - Lead Architect
 - Notre Dame Cloud First is moving 80% of centrally managed services to the cloud by the end of 2017
 - So far, 53% of services have been migrated, half as SaaS and half IaaS
 - We've shifted on-prem backups and file systems to AWS and migrated a wide variety of applications running on half a dozen platforms
 - Half of the central IT staff has gone through some level of AWS training and departments are both migrating and support systems in AWS
 - We've begun to work with researchers to create an environment in GovCloud for research involving export controlled data
 - The process of moving Banner and our document management system is underway

Indiana University

- Bob Flynn
 - Manager, Cloud Technology Support
 - Enterprise applications and infrastructure are redundant and backed up across 2 geographically disparate data centers (7 and 12 years old)
 - IU has taken an Opportunistic Cloud posture
 - Broad SaaS adoption (Box, Canvas, GAFE, O365, Qualtrics, etc.)
 - Targeted application development at PaaS layer
 - CaaS experimentation on prem
 - Broad IaaS/PaaS experimentation in distributed IT
 - We are figuring out how to roll out NET+ AWS and Azure in a way that balances user flexibility with enterprise security and compliance requirements while minimizing the impact on administrative resources

Our Panel

- R. David Vernon
 - Associate CIO - CIT Services, Cornell University
- Jefferson Burson
 - Director of IT Network Strategy, Harvard University
- Bob Winding
 - Lead Architect, University of Notre Dame
- Bob Flynn
 - Manager, Cloud Technology Support, Indiana University



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Value of a Cloud initiative

Dave Vernon

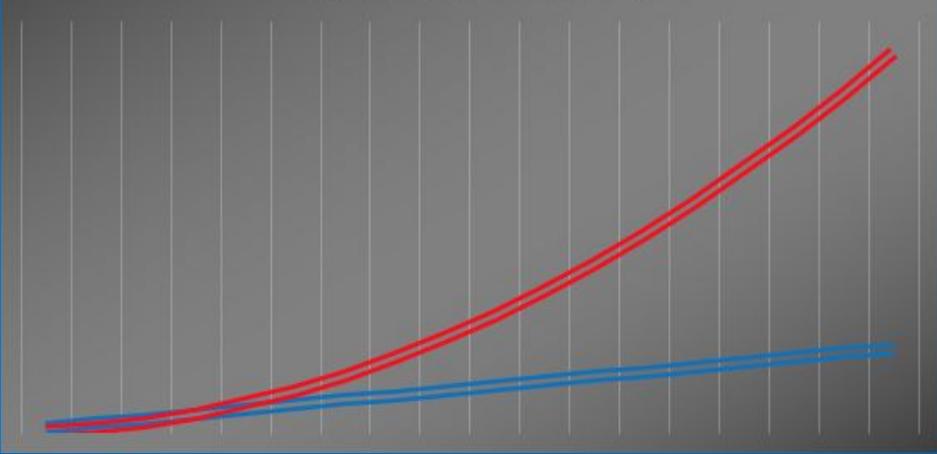
Associate CIO, Cornell Information Technologies

- When planning a cloud initiative consider the larger value to the institution vs that of one off migrations.
- Upfront investment = long term value. In the beginning, you will be paying more for resources. The value comes when you can begin to rightsize your local services.

Cost and feature delivery trends in Cloud platforms vs what we can deliver in on premise data centers

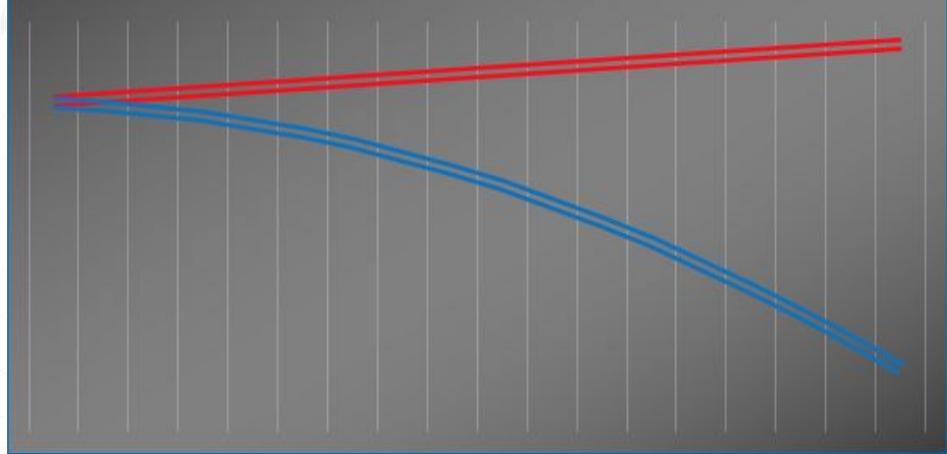
FEATURE DELIVERY

datacenter features cloud features



COST TREND

datacenter cost cloud cost



feature delivery



cost trend

