

CloudCamp Chicago 2013

Thursday, February 21, 2013 from 5:30 PM to 10:00 PM (CST)
Chicago, United States



From Clouds to Observatories

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University of Chicago*

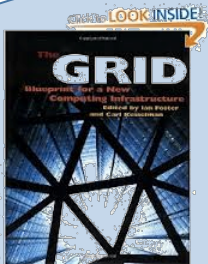
6/20/13



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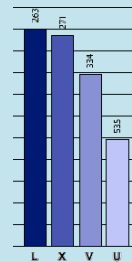
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Cloud Computing: Looking Back



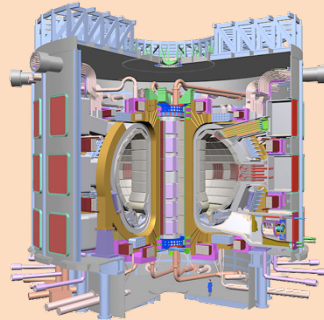
Enabler

Using remote resources



Enabler

Environment ownership
Isolation



The Need

Environment ownership
On-demand processing

Cloud Computing: Looking Forward

Cloud computing



On-demand, elastic outsourcing

Continuous Data Acquisition



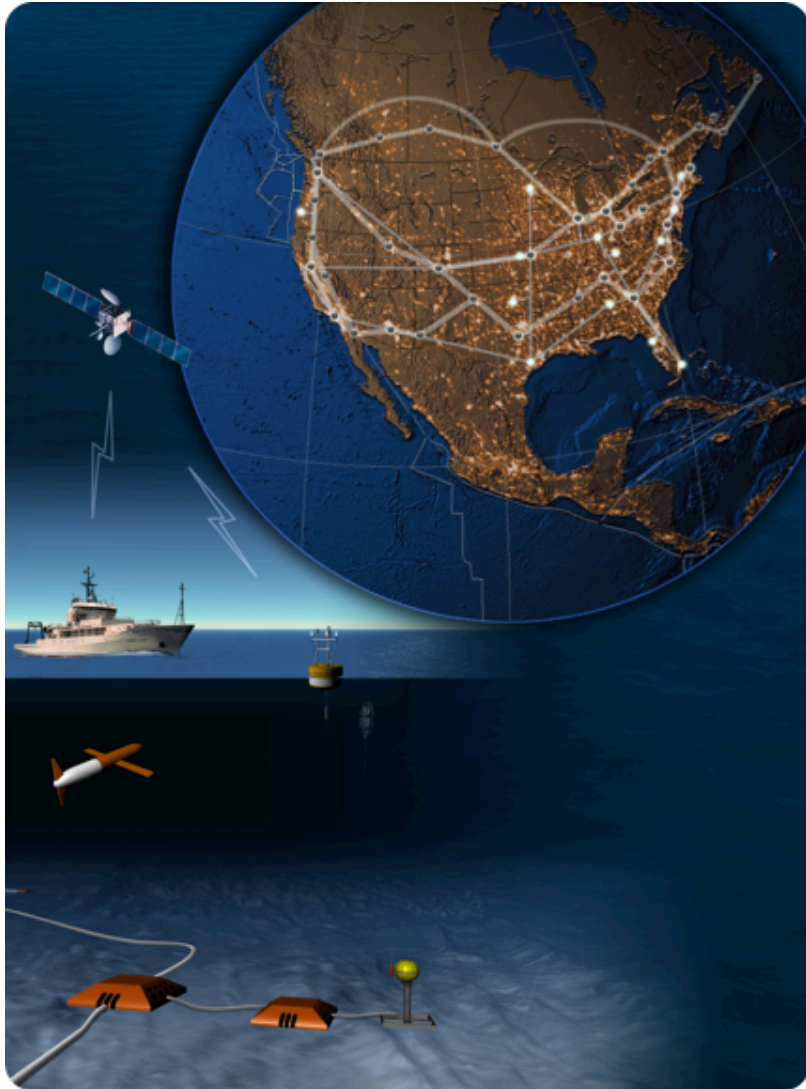
Cheap and reliable “sensing devices”

Event-based data processing



Observatories

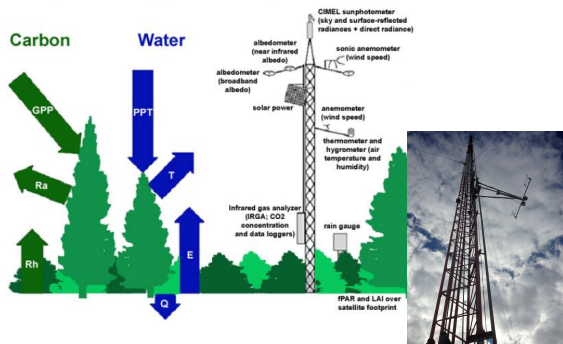
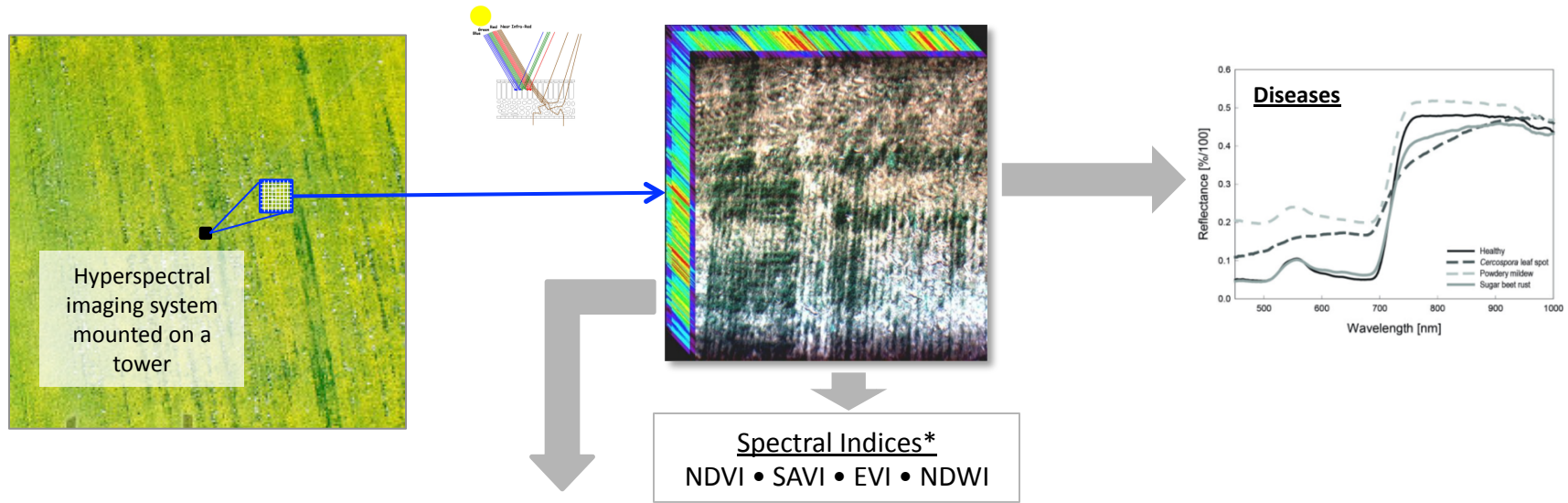
Ocean Observatory Initiative



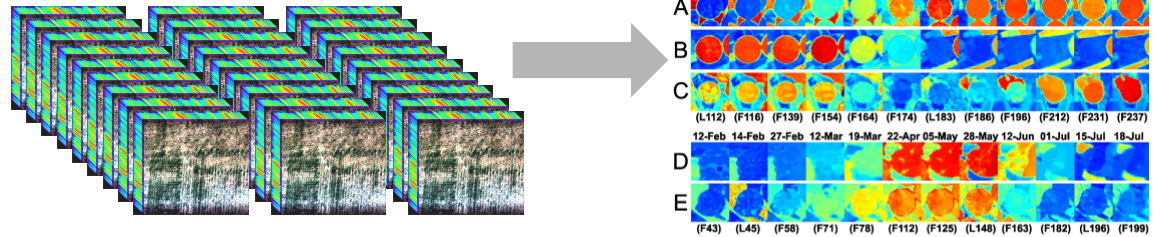
- Towards Observatory Science
- Sensor-driven processing
 - An “always-on” service
 - Real-time event-based data stream processing capabilities
 - Highly volatile need for data distribution and processing
- Nimbus team building platform services for integrated, repeatable support for on-demand science
 - High-availability
 - Auto-scaling
- From regional Nimbus clouds to commercial clouds



Modeling Crops



Multi-Temporal Hyperspectral Cubes and Spectral Index Images

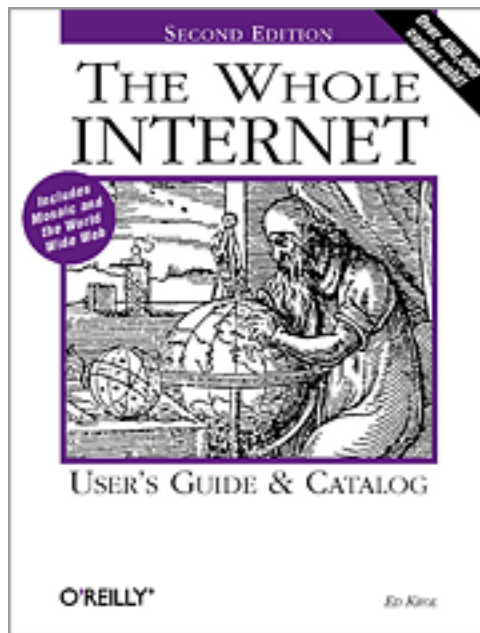


application images courtesy of Yuki Hamada, ANL

Joint project with Pete Beckman, Nicola Ferrier, Yuki Hamada, Rao Kotamarthi, Rajesh Sankaran and others (ANL)

... and many other projects in flood management, urban metabolism & urban planning, water security, weather forecasting, seismology, etc.

Parting Thoughts



Maturing Innovation:
the cloud



Mature Innovation:
the Internet

**Talk to us about the
University/Industry Cloud and
Autonomic Center
at University of Chicago...**

6/20/13



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