



Shining a Light on Cloud Concerns

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What is Cloud Computing?

Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five essential characteristics, three service models, and four deployment models.

On-demand self-service. A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service's provider.

Broad network access. Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, laptops, and PDAs).

Resource pooling. The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. There is a sense of location independence in that the consumer generally has no control or knowledge over the exact location of the provided resources but may be able to specify location at a higher level of abstraction (e.g., country, state, or datacenter). Examples of resources include storage, processing, memory, network bandwidth, and virtual machines.

Rapid elasticity. Capabilities can be rapidly and elastically provisioned, in some cases automatically, to quickly scale out, and rapidly released to quickly scale in. To the consumer, capabilities available for provisioning often appear to be unlimited and can be purchased in any quantity at any time.

Measured Service. Cloud systems automatically control and optimize resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service.

**Information
Security**

**Regulatory
Compliance**

Service Levels

Vendor Issues



**Are local
services really
more secure
than the
cloud?**

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4



**Does
where
your
data are
stored
really
matter?**

A close-up photograph of a hand typing on a laptop keyboard. The keys are dark with white characters. In the center of the keyboard, there is a small, surreal scene of two people standing on the keys, holding up a large screen or document. The background shows a laptop screen with a blue interface. The text "Is the service safer if it's on-premise?" is overlaid in yellow.

Is the service safer if it's on-premise?

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6



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“The Interwebz are dangerous”

Identity and Access Management

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8

PII

HIPAA

Regulatory Compliance

PCI-DSS

FERPA

Export control



INTERNET PRIVACY

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10



Is this your data center,
or...

... is this?

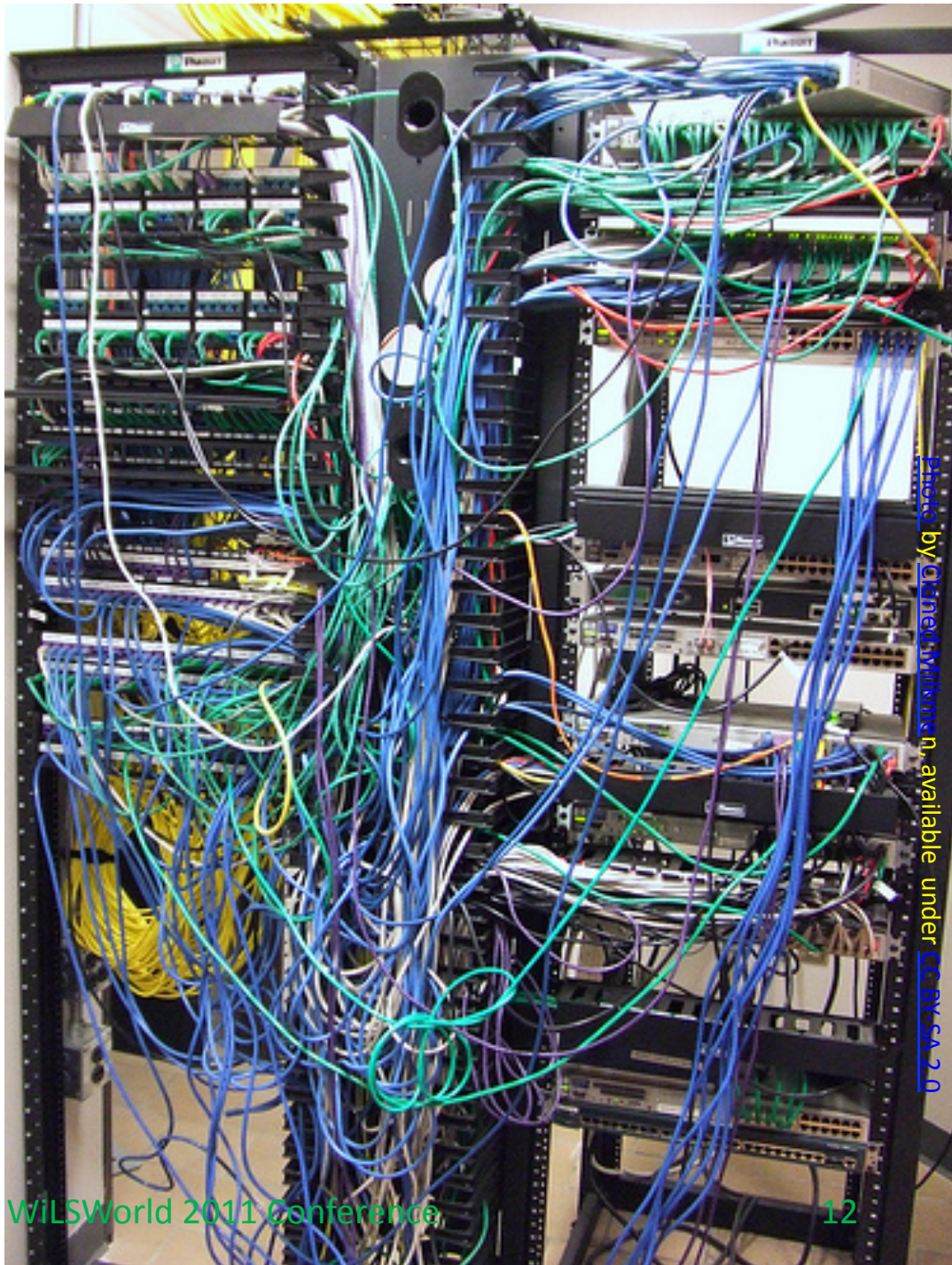
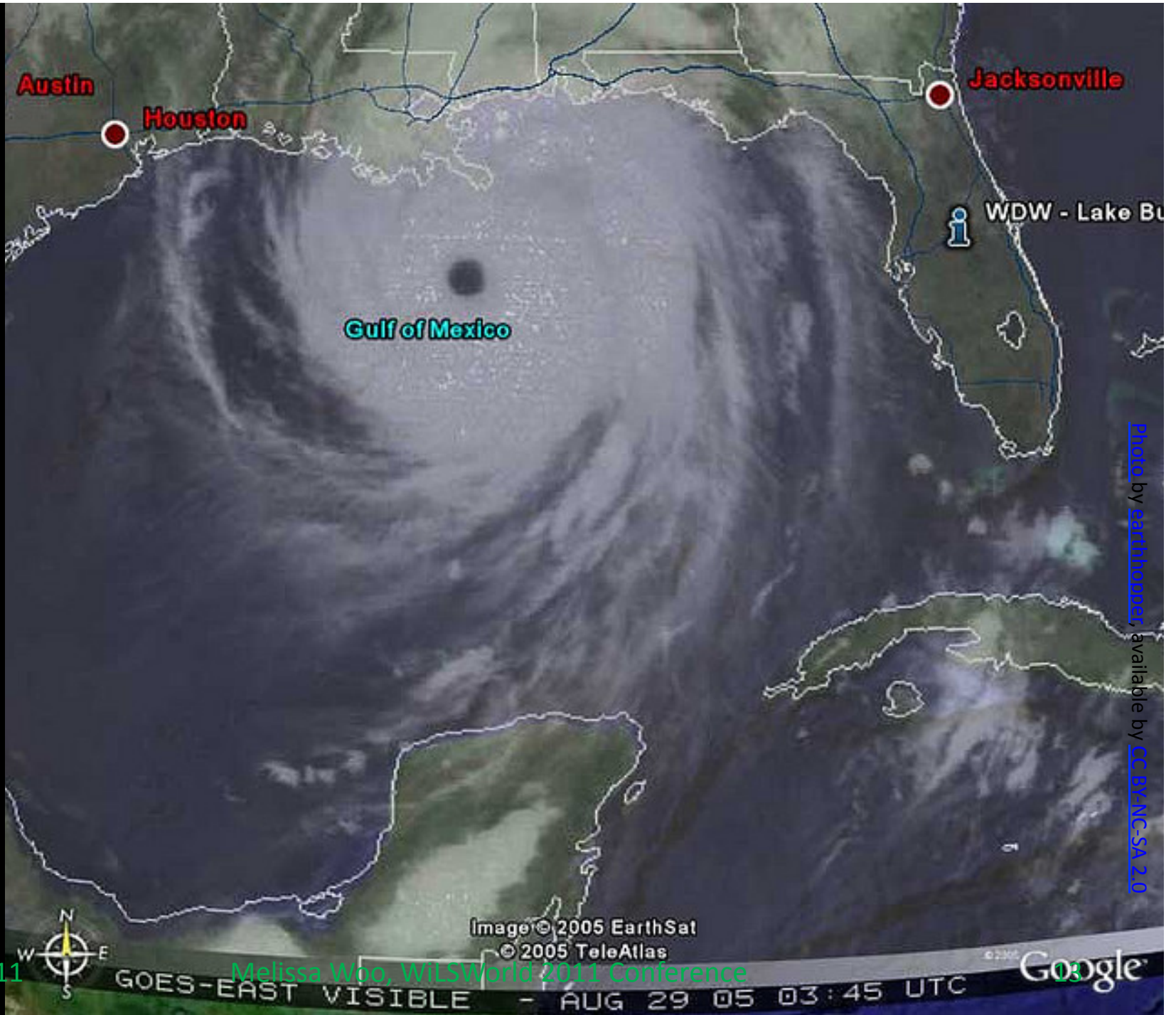


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Disasters Happen



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Vendor Issues

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How portable is the data?

Uncontrollable costs

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Vendor Lock-in

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“Operator, I need an exit”

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Library Concerns

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20

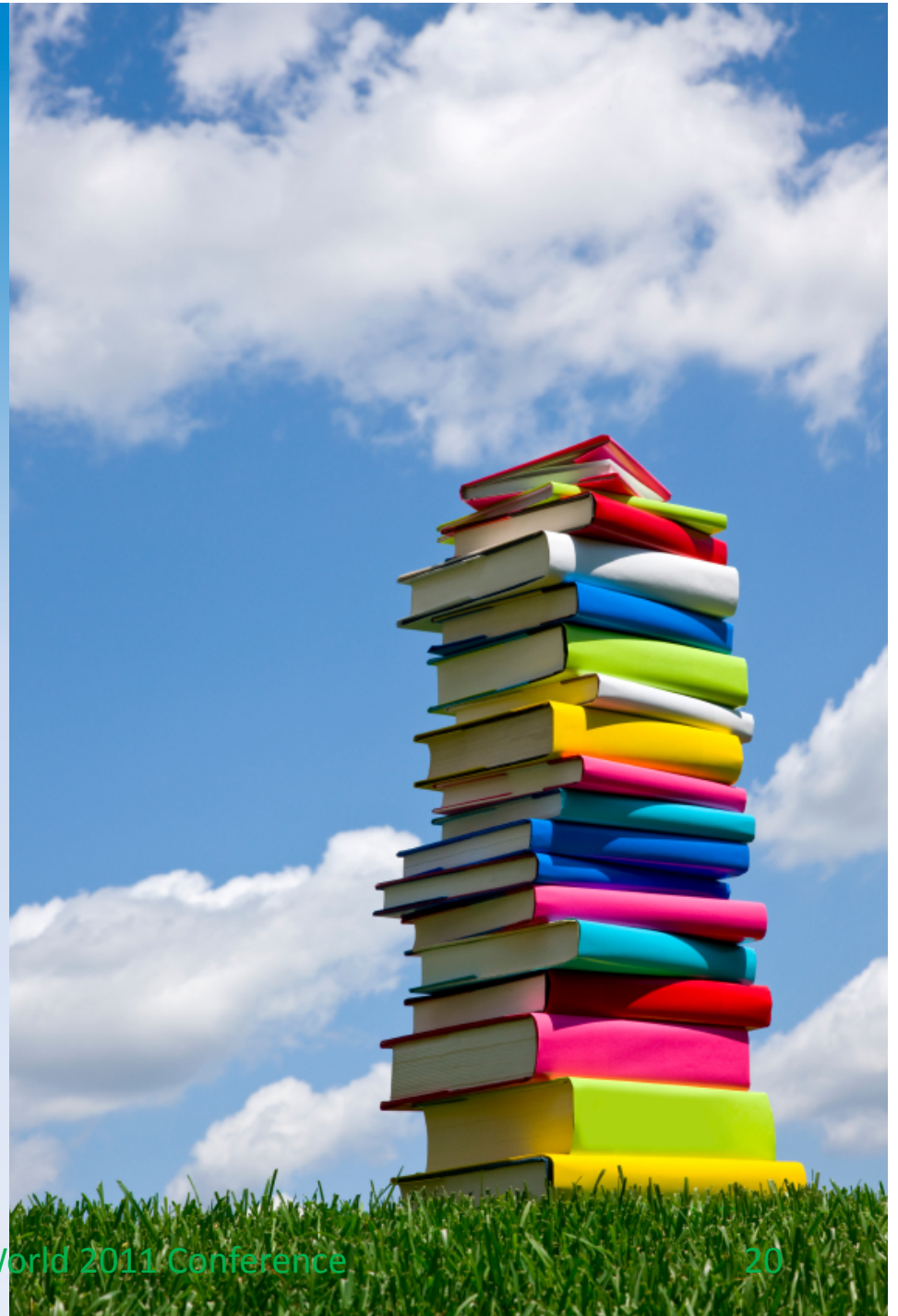


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Archives and Records

Data management

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Open? Sustainable?

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Patron Privacy



Integrating Services

Impact on Staff



Questions



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27

The background of the slide is a bright blue sky filled with soft, white, fluffy clouds. Two open books are floating in the air. One book is on the left, tilted slightly upwards and to the right, with its pages fanned out. The other book is on the right, tilted slightly upwards and to the left, also with its pages fanned out. The pages of both books appear to be a light cream or yellowish color.

Thank you!

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