Cloud computing voor bibliotheken

Annette Dortmund
Product Manager
OCLC
Agenda

• Changing Perceptions of Cloud Computing
• Cloud Computing for Libraries
• Beyond a mere Cloud Concept for Library Management Services
Cloud Computing - a major trend

- Cloud Computing
- Web Analytics and Business Intelligence
- Semantic Tech
- Enterprise 2.0
- Mobile Cloud Computing
- Semantic Web
- Singularity
- Location-based computing
- Natural Language Processing
- Open source software
- Augmented Reality-ARML
- Dynamic Scripting Languages
- RFD/SPARQL
- Micro-Targeted Advertising
- Wearable Computers
- Microblogs
- XML
- APIs
- Ontologies
- 802.11n
- Mash-Ups
- E-Paper
- Virtual Reality/Communities
- Microformats
- E-Readers
- Cloud-based Gaming
- RFID/RFID Dust
- Wikis
- Vertical Search
- REST
- Vertical Search
- 3D/Holographic Displays
- Mobile Computing
- Today – 2 years
- 2 - 4 years
- 5 years and out

© Outsell 2010
A style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies.

-Gartner Group
A style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies.

-Gartner Group

Simple: Web-based applications with shared data and services.
Why cloud computing is different

“Unlike most innovations that started in the enterprise and went to the consumer, this innovation started with consumers and is now coming to the enterprise.”

-Geoffrey Moore

“Core Content and the Cloud”

http://www.youtube.com/watch?v=0swJCYLH2Ck
Why Cloud Computing for enterprises?

Subscribe to high quality services for as long as needed
Save costs on IT infrastructure & management
Improve service quality (performance, availability, ...)
Improve visibility and accessibility of the service
Focus on core business, grow, innovate
Collaborate, Aggregate & Share
Data & Services
...

Data & Services
Challenges connected with Cloud Computing

- Data security & privacy, data ownership & exit options
- Scalability, Reliability and Performance of the Service
- Interoperability with external Services
- Compliance with legal standards (national, EU & international), lack of appropriate standards

http://blog.marinetelecom.net/2009/10/
“If you think that you know better than ‘the cloud’, you don’t.”

- Geoffrey Moore

“Core Content and the Cloud”

http://www.youtube.com/watch?v=0swJCYLH2C
IT strategy cloud computing (Sept 2010)

- Remove technical, structural, organisational and legal barriers
  - data integrity and security
  - service availability
  - service interoperability
  - legal issues / contract templates

- Increase public acceptance of cloud based solutions

- Leverage economic potential, especially for the public sector and smaller and medium-sized businesses

Minimum security requirements for cloud solution service providers, including:

- ID and rights management, Emergency management, Interoperability, Data protection and compliance, Cloud certification

Libraries and Cloud Computing
Changing demand
Changing collections
Libraries and Cloud Computing

- Libraries are doing more than ever
- Libraries are changing rapidly
- Cost & time requirements are exploding
- Cloud computing has helped other industries
- Libraries have been building “cloud” services for 40 years (cataloging, resource sharing, online reference...)
- Cloud based library services could bring the power of library cooperation to core library services
- Libraries will be freed to focus on innovation
Why Cloud Computing for enterprises libraries?

Subscribe to high quality services for as long as needed

Save costs on IT infrastructure & management

Improve service quality (performance, availability, ...)

Improve visibility and accessibility of the service

Focus on core business, grow, innovate

Collaborate, Aggregate & Share
   Data & Services

...
What if...

- ILS
- OPAC
- Circulation
- Cataloging
- Users
- Print
- Vendors
- Library
- Self Service
- National/Global System
- Consortial System
- Cataloging Utility
- Acquisitions
- A to Z List
- ERM
- Resolver
- Institutional Repository
- Meta-search
- Data
- Users
- Suppliers
- Partners
- Electronic Vendor
Resulting Workflows

- Library
- Data
- Suppliers
- Partners
- Users

- Identification & Selection
- Acquisition
- Accession & Description
- Discovery
- Access, Circulation, & Delivery
- Deaccession & Preservation

Library Users

Suppliers

Partners

Data

Discovery

Access, Circulation, & Delivery

Deaccession & Preservation

Identification & Selection

Acquisition

Accession & Description
Key principles of a cooperative platform

**Collaboration**: Share data and services with other libraries & partners in a controlled way

**Data richness**: Offer data pools and integrated workflows for all purchased, licensed and digital content

**Openness**: Support interoperability between cloud based solutions, with library-developed or 3rd party applications / services through APIs, incl. exit options

**Extensibility**: Platform can be extended by applications, provided by supplier, libraries or partners
Architecture

Tool / Application Layer
- Circ
- Acq
- Licences
- Metadata
- Corporate Intelligence
- Resource Discovery
- ...

Service Layer
- Circ
- Acq
- Licences
- Metadata
- ...

Data Layer
- Bibl. Data
- Licences
- User data
- Transactions
- ...

...
Towards a Service Platform

Tool / Application Layer
- Circ
- Acq
- Licences
- Metadata
- ...

Use Tools / Applications

Service Layer
- Circ
- Acq
- Licences
- Metadata
- ...

Integrate Services

Data Layer
- Bibl. Data
- Licences
- User data
- Transactions
- ...

Sync Data
With such an architecture - a platform concept -, libraries can develop their own custom applications for library management activities.

In addition, they can expose and share those applications as Web services on the platform for other libraries to use.

They can innovate collectively.
The cloud concept leads to a platform and apps concept for library management services and to collective innovation.
OCLC Web-scale Management Services

- Time Schedule for OCLCs Web-Scale Management Services
  - US is in early adopter phase since July 2010
  - BIBSYS agreed to be the first large European early adopter
  - Roll-Out into other European markets starting from mid 2012 / 2013 (current time schedule)
  - Stepwise introduction of services
“For 25 years of library automation, we’ve had a choice of *brand*, and now we have a choice of *kind*."

-Marshall Breeding
“...companies distinguish themselves through defining different futures for their library customers.”

— Marshall Breeding
SCELC Colloquium
11 May 2010
Thank You!

Questions?

annette.dortmund@oclc.org