Moving to the Cloud: Challenges and Opportunities for Libraries and Vendors

Matti Shem-Tov
President & CEO, Ex Libris Group

The National Academic Library and Information System Foundation
FORUM 2013 ◆ Sofia, Bulgaria ◆ May 15, 2013
About Ex Libris

Global leader of cloud-based library management solutions

- 5,300+ customers
- Top universities & National Libraries
- 81 countries
- 530 employees
- 2013 revenues: ~$100M
Large, Globally Diversified Customer Base

Source: The Times Higher Education – World University Rankings 2012-2013
Where is “Cloud Computing” on the hype cycle?

“Crossing the Chasm” (Technology Adoption Life Cycle), by Geoffrey Moore
In the past 3-4 years, Ex Libris has been transitioning its software business from on-premise, perpetual license to cloud-based subscription model.
Building a Successful SaaS Company

More than just Technology; It’s the DNA of your Company

SaaS DNA

Business Model
- Financial Model
- Key Metrics
- Subscription Pricing
- Sales Organization
- Legal & Contracting

Technology
- Architecture
- Development Method
- APIs & Integration

Operational Structure
- Customer Success
- Service Level Agreement
- Cloud Operations
- Data Privacy & Security
Building a Successful SaaS Company

More than just Technology; It’s the DNA of your Company

SaaS DNA

Business Model
- Financial Model
- Key Metrics
- Subscription Pricing
- Sales Organization
- Legal & Contracting

Technology
- Architecture
- Development Method
- APIs & Integration

Operational Structure
- Customer Success
- Service Level Agreement
- Cloud Operations
- Data Privacy & Security
Single Tenant vs. Multi-Tenant Architecture

1. Customized code for each tenant
   - Tenant 1
   - Tenant 2
   - Tenant 3

   Instance 1
   Instance 2
   Instance 3

2. Tenants using same software code on separate instances
   - Tenant 1
   - Tenant 2
   - Tenant 3

   Instance
   Instance
   Instance

3. All tenants using a single software version running on a single instance
   - Tenant 1
   - Tenant 2
   - Tenant 3

   Instance

4. All tenants using a single software version and can scale-out across multi-instances
   - Tenant 1
   - Tenant 2
   - Tenant 3

   Tenant Load Balancer

   Instance
   Instance
   Instance
SaaS Model Demands High-Velocity Operations

- **R&D Cycle**
- **Sales Cycle**
- **Delivery Cycle**

**TRADITIONAL SOFTWARE**

- Go-to-Market: 6 months
- Customer Acquired: 12 months
- Solution Delivered: 18 months
- 24 months

**SaaS**

- R&D Cycle
- Sales Cycle
- Delivery Cycle

Ex Libris Ltd., 2013 - Internal and Confidential
Transforming How You Build Apps

• Agility is key
• Release cycles reduced to weeks
• Tools for cloud ops and support (“service readiness”)
• “Hardware Efficiency” is now the vendor’s problem
• Continuous Automatic Testing
• Engineers interact more closely with end-users
• R&D must deal with SaaS Platform (provisioning, metering etc.)
• Leveraging usage data to guide development
Building a Successful SaaS Company

More than just Technology; It’s the DNA of your Company

**Business Model**
- Financial Model
- Key Metrics
- Subscription Pricing
- Sales Organization
- Legal & Contracting

**Technology**
- Architecture
- Development Method
- APIs & Integration

**SaaS DNA**

**Operational Structure**
- Customer Success
- Service Level Agreement
- Cloud Operations
- Data Privacy & Security
Make Customer Success a Strategy

Build a Customer Success team (not “Customer Service”)

Customer Service & Cloud Operations under same Executive VP

Establish a 24x7 Hub / Response Center for “System Down”

Transition to Knowledge-Centered Support (KCS)

“If you leave your customer’s success to chance, you are giving up control over your own success”

- Geoffrey Moore
Ex Libris Data Centers Worldwide

# of customers hosted in each data center

- Chicago: 1,222
- Amsterdam: 141
- Singapore: 2
Privacy laws, particularly in Europe impact the cloud

Source: Global Data Protection and Privacy Heat map - Forrester 2012
Building a Successful SaaS Company

More than just Technology; It’s the DNA of your Company

**Business Model**
- Financial Model
- Key Metrics
- Subscription Pricing
- Sales Organization
- Legal & Contracting

**SaaS DNA**

**Technology**
- Architecture
- Development Method
- APIs & Integration

**Operational Structure**
- Customer Success
- Service Level Agreement
- Cloud Operations
- Data Privacy & Security
Running a SaaS Company Requires New Business Thinking

- Large upfront revenue
- Higher short-term revenue
- Volatile: re-build every quarter

- Small upfront revenue
- Higher long-term revenue
- Predictable: recurring revenue
Cloudonomics - 6 “C” of Cloud Finance

Learn the lingo

Committed Monthly Recurring Revenue (CMRR)
In-Production Revenues
Signed Contract Revenues
MINUS Churn

Churn
Opposite of Retention
Key to Renew

Customer Acquisition Cost (CAC) Ration
Sales & Marketing Spend
Payback Length

CMRR Pipeline

Customer Life Time Value (CLTV)
NPV of Recurring Streams
MINUS Acquisition Costs

Cash Flow
NOT Revenue Recognition

Read: Top 10 laws of Cloud Computing by Bessemer Venture Partners

© Ex Libris Ltd., 2013 - Internal and Confidential
Committed Monthly Recurring Revenue (CMRR) is the Key Metric for Growth

• “Bookings”: misleading in a SaaS business
  - Over-emphasis on services revenue
  - No sense of the predictability of future revenues

• CMRR: health of a SaaS business
  - Metric focused around the recurring revenue in a normalized time period
## There Are Many Ways to Price in the Cloud

### Free Usage
- **Freemium**
  - Free basic level
  - Premium upgrades

### Per Unit
- **Per Meter**
  - Pricing per unit of measure (storage, downloads, bandwidth)

### Payment Type
- **Monthly Subscription**
  - Customers pay a monthly amount

### Ad-Based Revenue
- **Revenue from advertisers not users**

### Per Transaction
- **Discrete transaction units that can be easily measured and tracked**

### Revenue Share
- **A share of revenue generated via the service provided**

### Related Services Charged
- **Free app use with charge on related services or virtual goods**

### Per User/Device
- **Customers pay for each user/device using the product or service**

### License Fee
- **A large upfront payment for the license**
Subscription Pricing

Customer Break-Even Point
Perpetual vs. Subscription

- Industry benchmark is equal cost to customer in 3-4 years
- The higher the switching costs, or more sticky the application, the closer to 3 years

**Perpetual**

<table>
<thead>
<tr>
<th>Year</th>
<th>SW License</th>
<th>Maintenance at 18%</th>
<th>Total Yearly Cost</th>
<th>Cumulative Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$300,000</td>
<td>$54,000</td>
<td>$354,000</td>
<td>$354,000</td>
</tr>
<tr>
<td>Year 2</td>
<td>---</td>
<td>$54,000</td>
<td>$54,000</td>
<td>$408,000</td>
</tr>
<tr>
<td>Year 3</td>
<td>---</td>
<td>$54,000</td>
<td>$54,000</td>
<td>$462,000</td>
</tr>
<tr>
<td>Year 4</td>
<td>---</td>
<td>$54,000</td>
<td>$54,000</td>
<td>$516,000</td>
</tr>
</tbody>
</table>

**Subscription**

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Subscription</th>
<th>Total Yearly Cost</th>
<th>Cumulative Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$154,000</td>
<td>$154,000</td>
<td>$154,000</td>
</tr>
<tr>
<td>Year 2</td>
<td>$154,000</td>
<td>$154,000</td>
<td>$308,000</td>
</tr>
<tr>
<td>Year 3</td>
<td>$154,000</td>
<td>$154,000</td>
<td>$462,000</td>
</tr>
<tr>
<td>Year 4</td>
<td>$154,000</td>
<td>$154,000</td>
<td>$616,000</td>
</tr>
</tbody>
</table>
Ex Libris as a SaaS company

Global leader of cloud-based library management solutions

Over 1000 institutions in the Ex Libris cloud
Our solutions deployed as cloud-based services

Technical Core

- Multi tenancy
- Improved security
- Improved sharing
- Automatic upgrades
- Highly elastic performance
- Minimal local effort (browser)

Business Core

- Lower TCO
- No initial investment
- Subscription cost model
- Accelerates time to value
- Frees technical staff to create new services
Multi-Tenancy – Why Should You Care?

One Version
No customer is left behind when the software is updated

Painless Upgrades
Vendor-managed updates (they are “automatic”)

Disaster Recovery
Simple matter of economies of scale

Ironclad Security
Stronger security than on-premise

Limitless Scalability
Ample excess capacity available to whoever needs it

Stronger Collaboration
Shared resources, data, reports, templates, etc.

Aggregated Analytics
Easy benchmark against peers

Faster Innovation
New features in weeks not years

Vendor is Responsible
Customizations & Integrations must work in the new version
System Management & Administration: Before and After Moving to the Cloud

**Server, network and DBA**
- O/S management
- Oracle upgrades
- Back-ups
- Disaster recovery
- Test environments
- Security infrastructure

**Application**
- Service packs
- Version upgrades
- Client deployment
- Test application environment

**Support and service calls**
- Under the hood diagnostics
- Implementing proposed fixes and testing solutions
- Capacity planning & tuning
- Liaison between local server/app teams and Ex Libris
- Logging & tracking service calls

- **Logging-debugging**
- **Firewall**

- **Command line**
- **Configuration and customization**

**Green = cloud managed**
**Purple = changed**
**Blue = unchanged**
Thank You

matti.shemtov@exlibrisgroup.com