

신기술발표2

# 클라우드 기반 차세대 도서관 통합관리 서비스

홍준표(엑스리브리스(주) 대표이사)

제56차 국공립대학 도서관·정보학 학술세미나



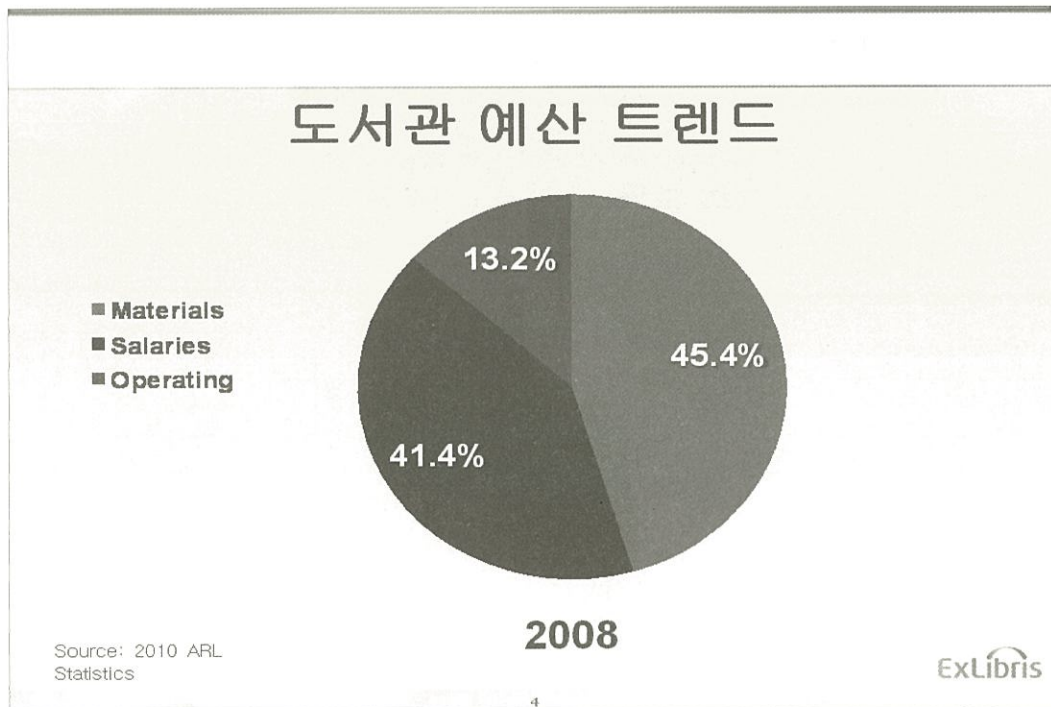
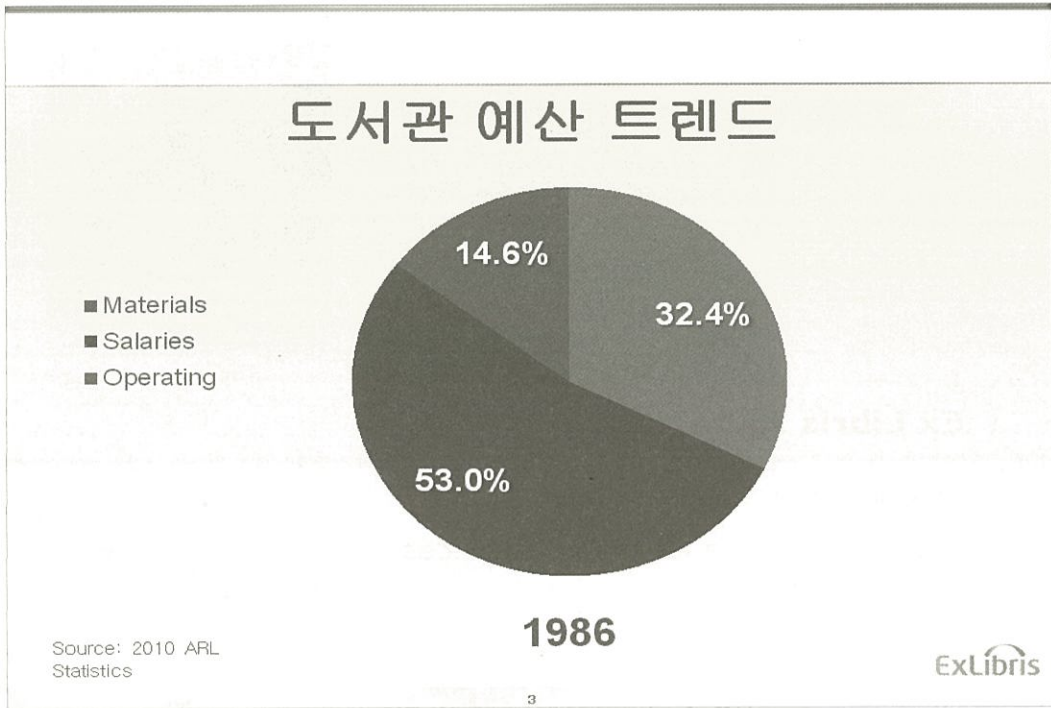
## Ex Libris Alma

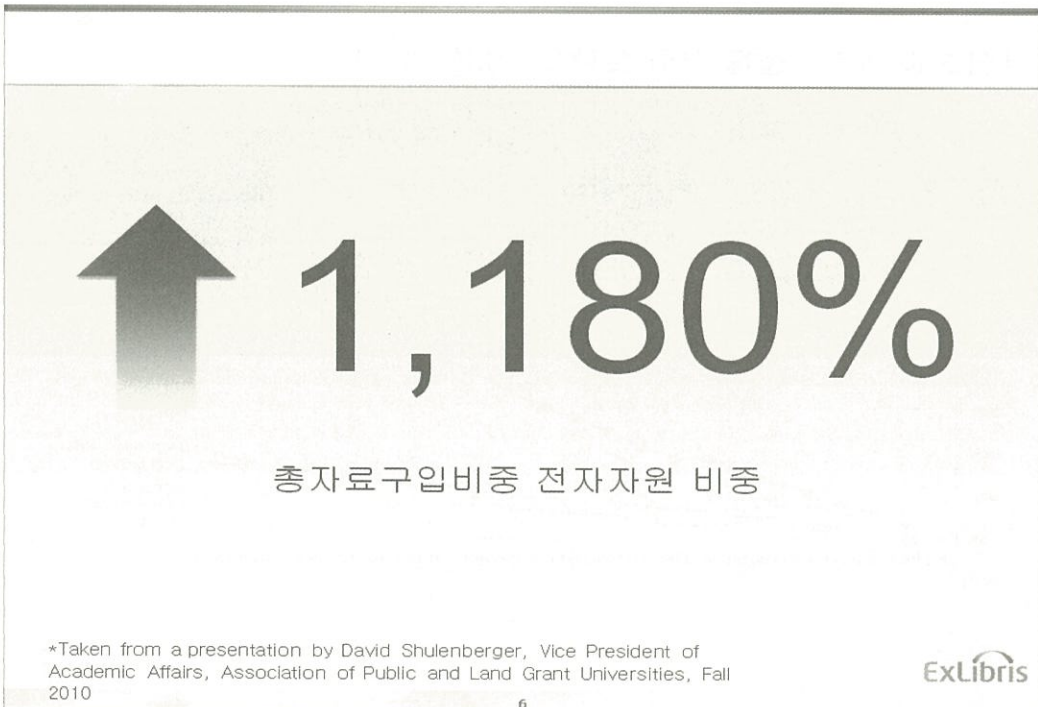
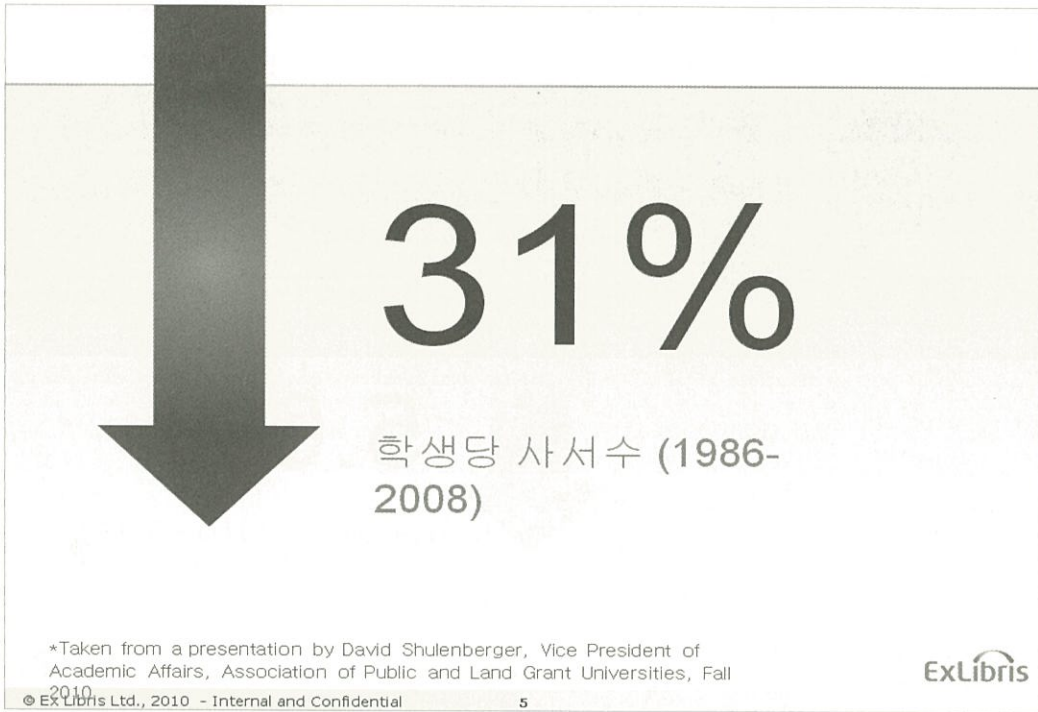
차세대 도서관 통합 관리 서비스  
= Web-scale management services

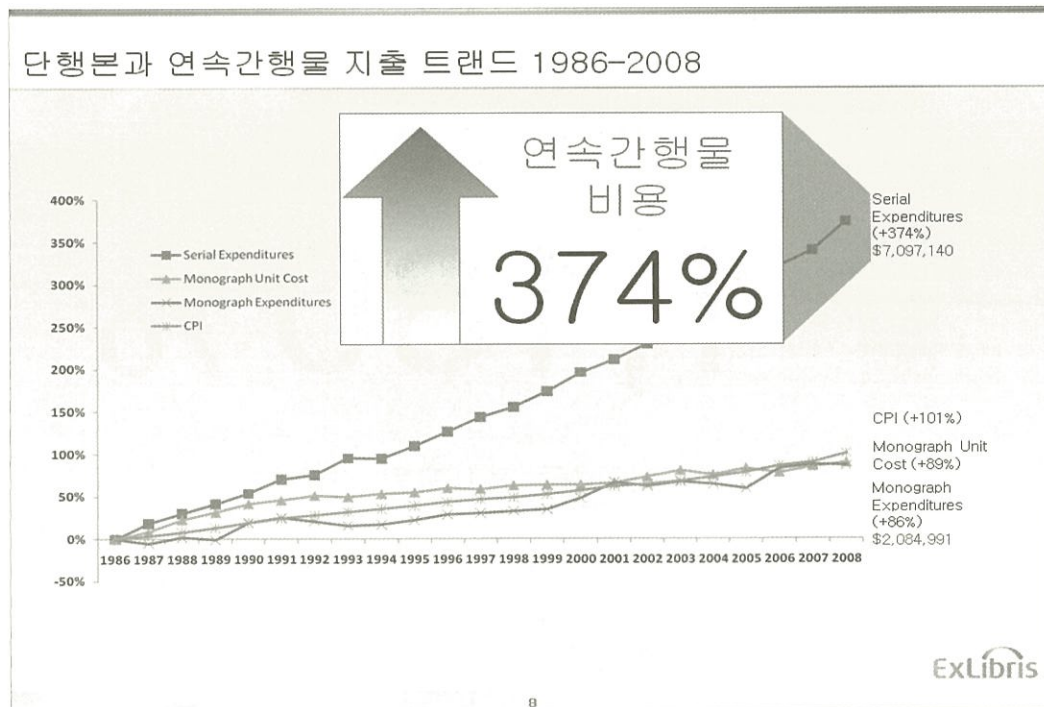
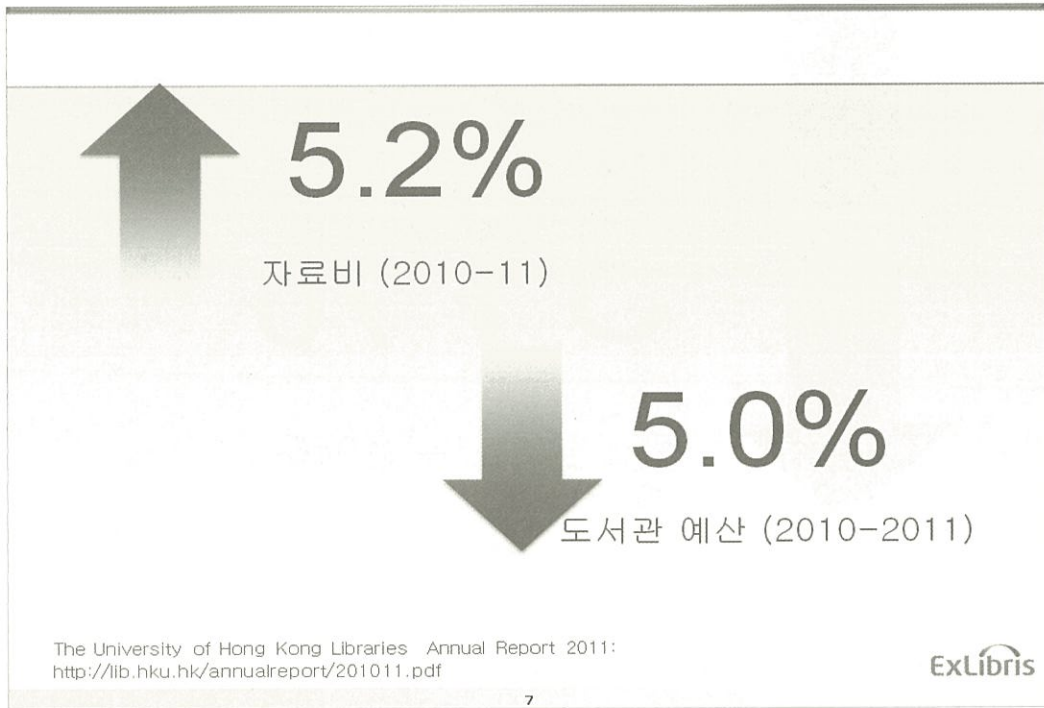


## 발표 내용

- 도서관 환경 트렌드
- Alma 소개









# Boston College

58%

5년간 한번도  
대출되지 않은 자료

38%

10년간 한번도  
대출되지 않은  
자료

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↓ 43%

대학전체 예산에서 도서관이  
차지하는 비율 (3.7% → 2.1%)

\*Taken from a presentation by David Shulenberger, Vice President of  
Academic Affairs, Association of Public and Land Grant Universities, Fall  
2010

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## 변화의 바람

Ownership → Access

Selection → Fulfillment

Just-in-case → Just-in-time

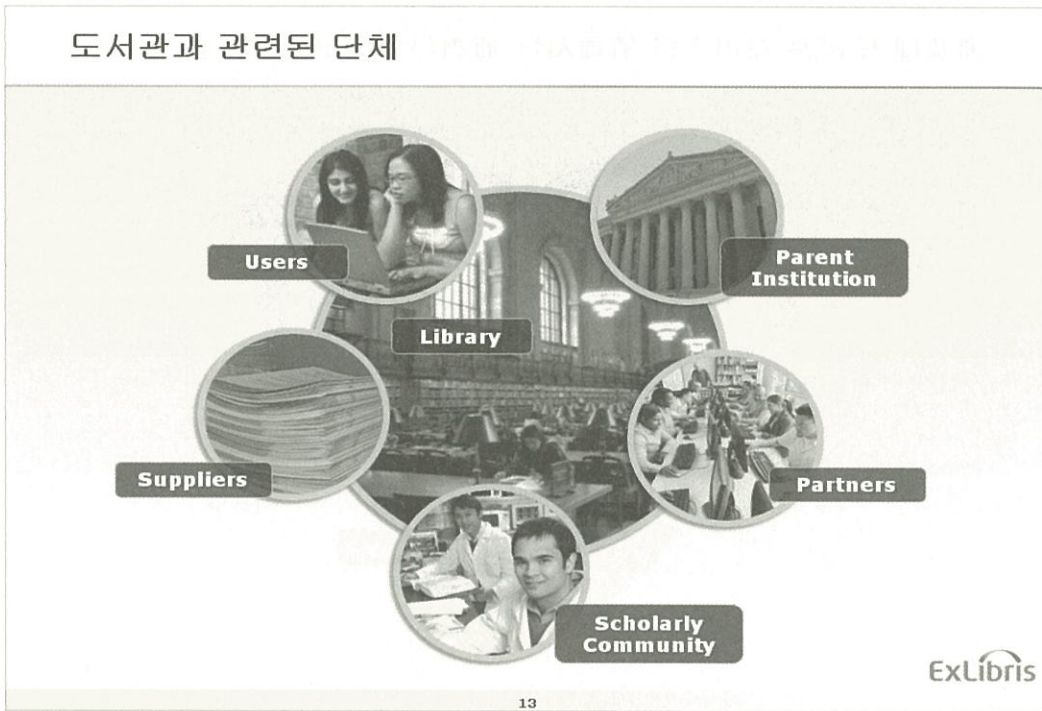
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The bridge to knowledge

## The Goal

차세대 도서관 서비스

### 도서관과 관련된 단체

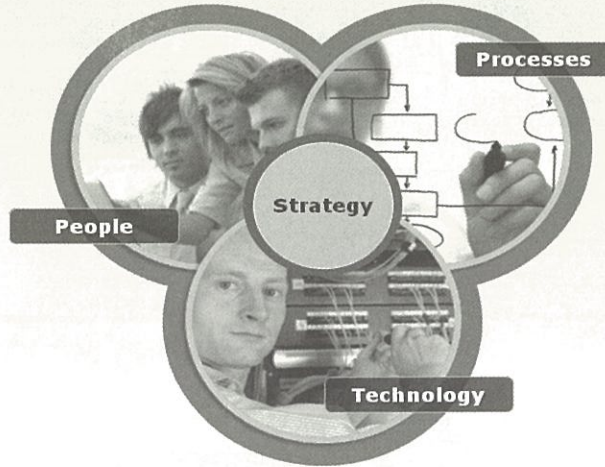


### 차세대 도서관 서비스의 방향





## 차세대 도서관 서비스를 위해서는 패러다임의 변화가 필요



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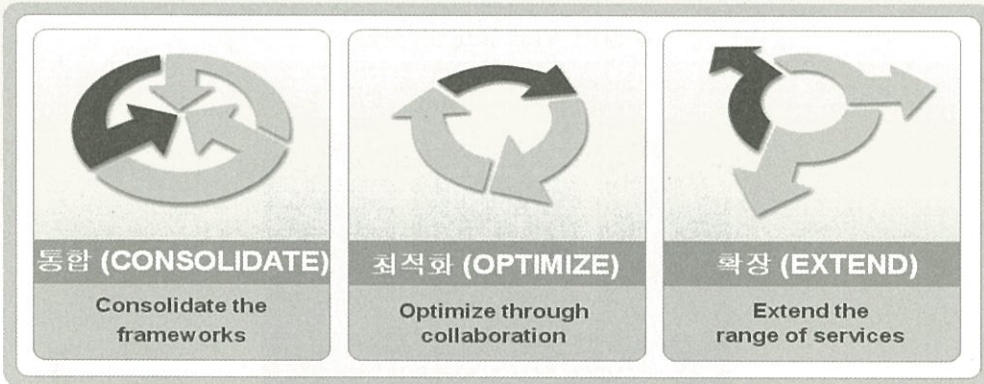
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## How to Get There

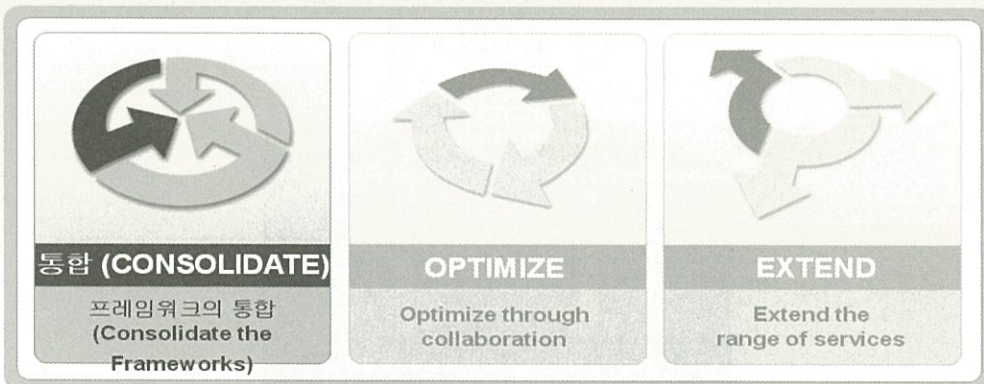
전략과 솔루션

## 전략 - 통합 자원 관리 (Unified Resource Management)



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## 전략 - 통합 자원 관리 (Unified Resource Management)

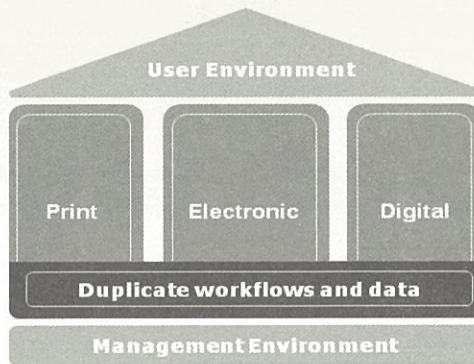


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## 프레임워크의 통합



포맷 기반의 수직적 시스템에서 서비스 기반의  
수평적 워크플로로 전환



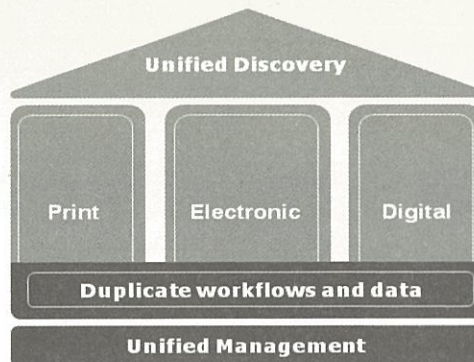
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## 프레임워크의 통합



포맷 기반의 수직적 시스템에서 서비스 기반의  
수평적 워크플로로 전환



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## 프레임워크의 통합



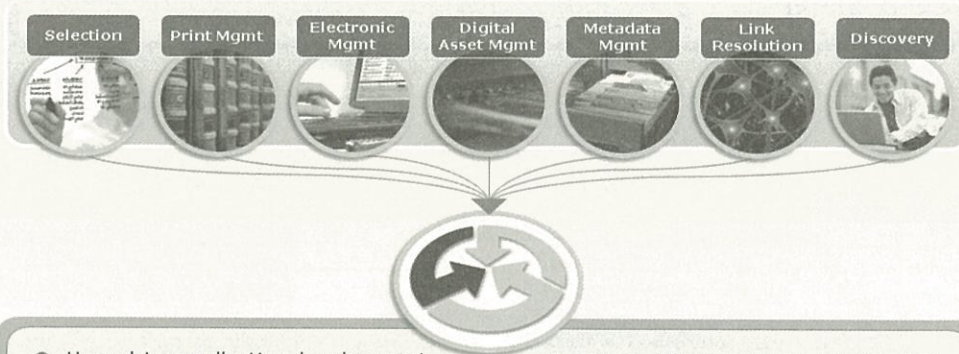
포맷 기반의 수직적 시스템에서 서비스 기반의  
수평적 워크플로로 전환



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## 프레임워크의 통합 사례



- User-driven collection development
- Cross-format selection
- Combined acquisition and activation
- Multi-format metadata management
- Digitization on demand
- Usage-driven evaluation & renewal
- Overlap analysis – P, E, & D
- Unified fulfillment – P, E, & D
- Legal deposit of digital materials

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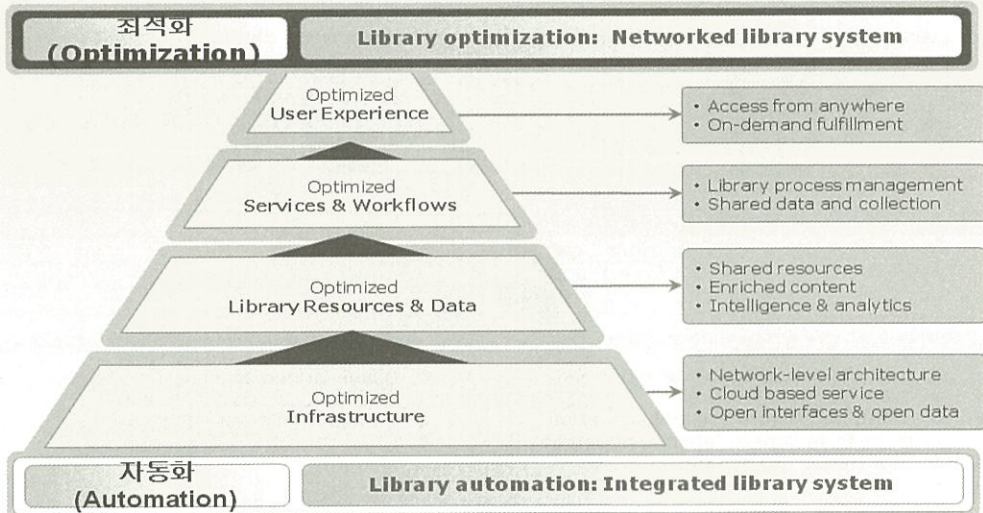
## 전략 - 통합 자원 관리 (Unified Resource Management)



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## 전략 - 협업을 통한 최적화 (Optimization)




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### 최적화된 인프라 - 네트워크가 도서관 서비스를 변혁

**기술적 측면**

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



**비즈니스 측면**

- Lower TCO
- No initial investment
- Subscription cost model
- Accelerates time to value
- Frees technical staff to create new services

**Alma의 기본 서비스 모델은 클라우드 기반**

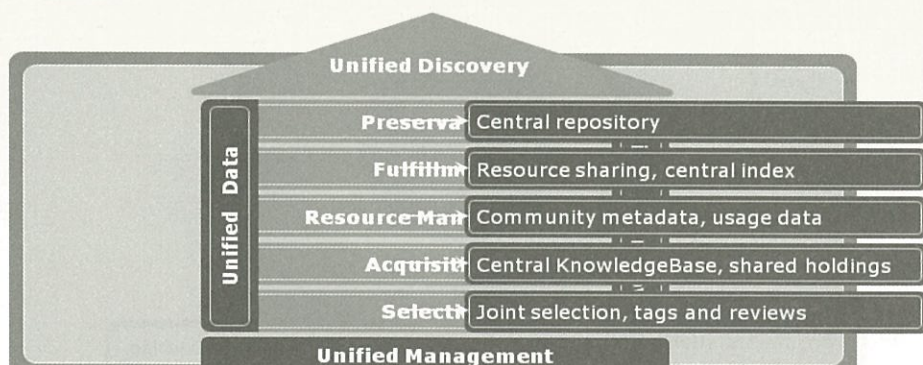
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### 협업을 위한 인프라

협업은 대학의 모든 전략 개발, 특별히 서비스 기능 레벨의 기본이 되어야 한다. **(Collaboration should undergird all strategic developments of the university, especially at the service function level.)**

*-No Brief Candle*



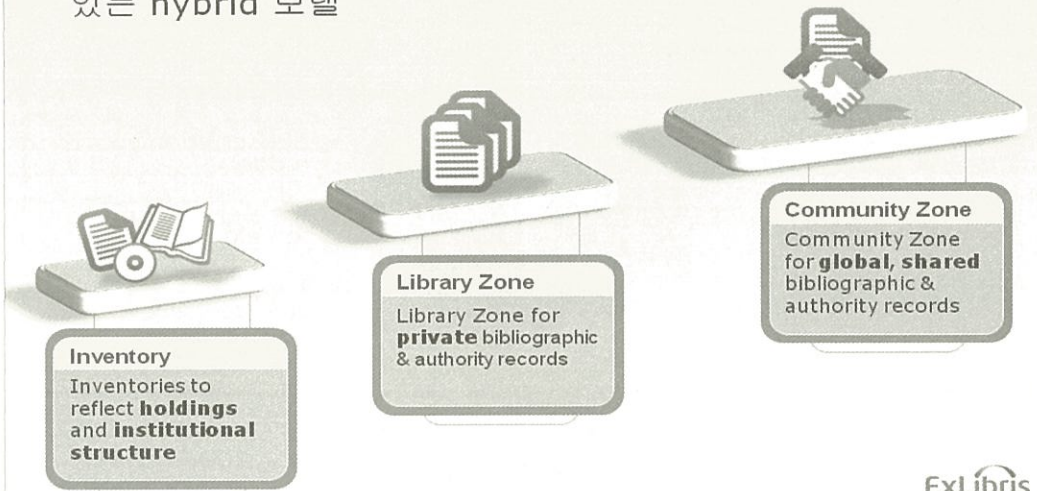
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### 협업을 통한 메타데이터 관리

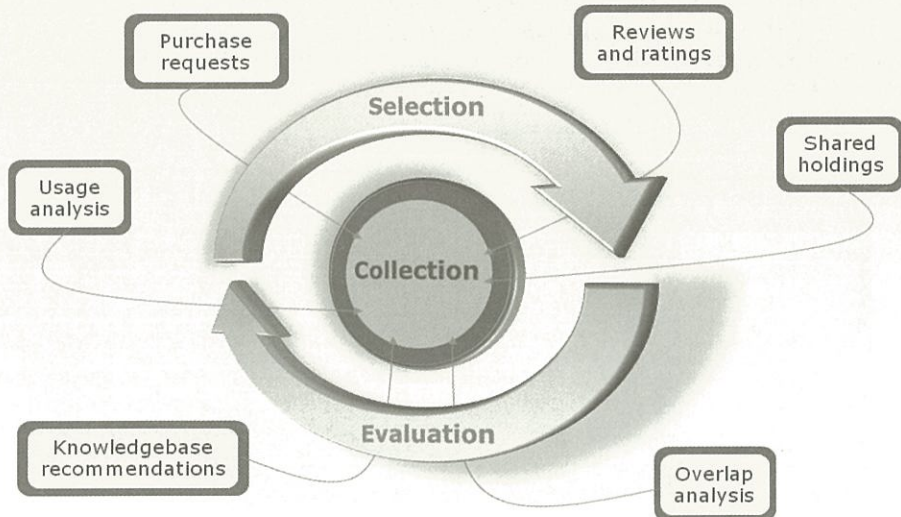


글로벌 공유와 로컬의 요구를 모두 충족시킬 수 있는 hybrid 모델



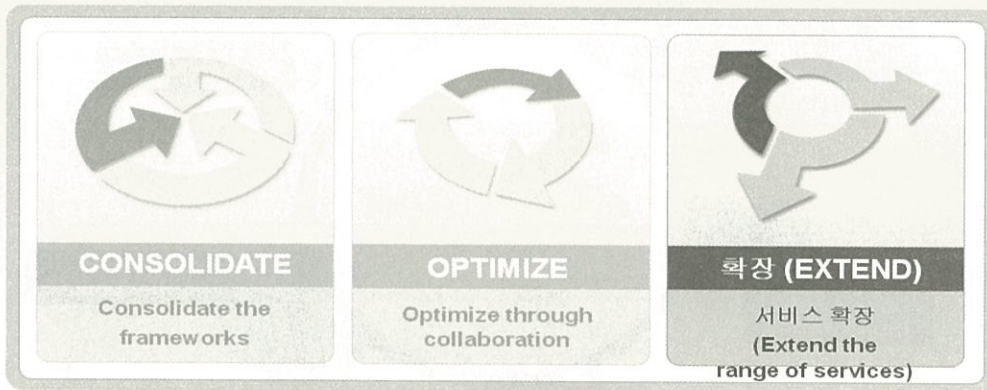
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### 스마트한 장서 개발 (Collection Development Intelligence)



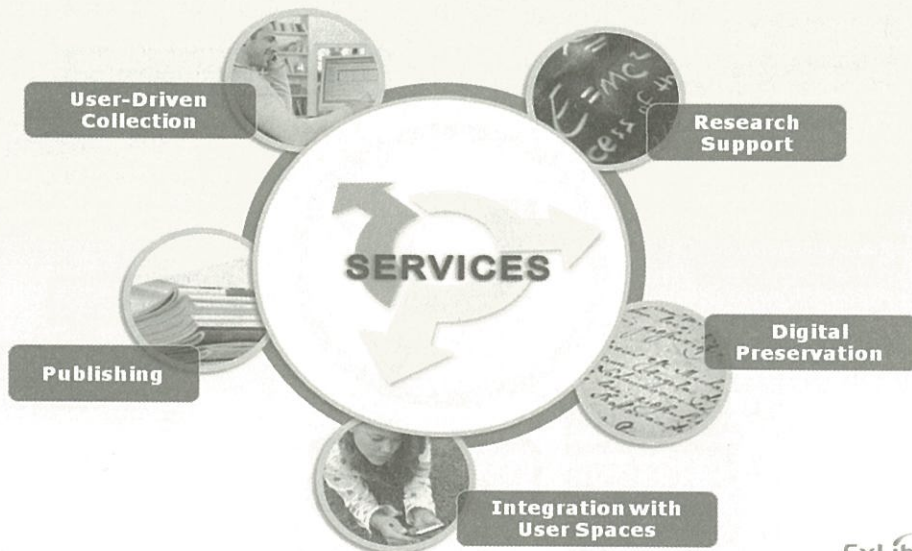
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## 전략 - 통합 자원 관리 (Unified Resource Management)



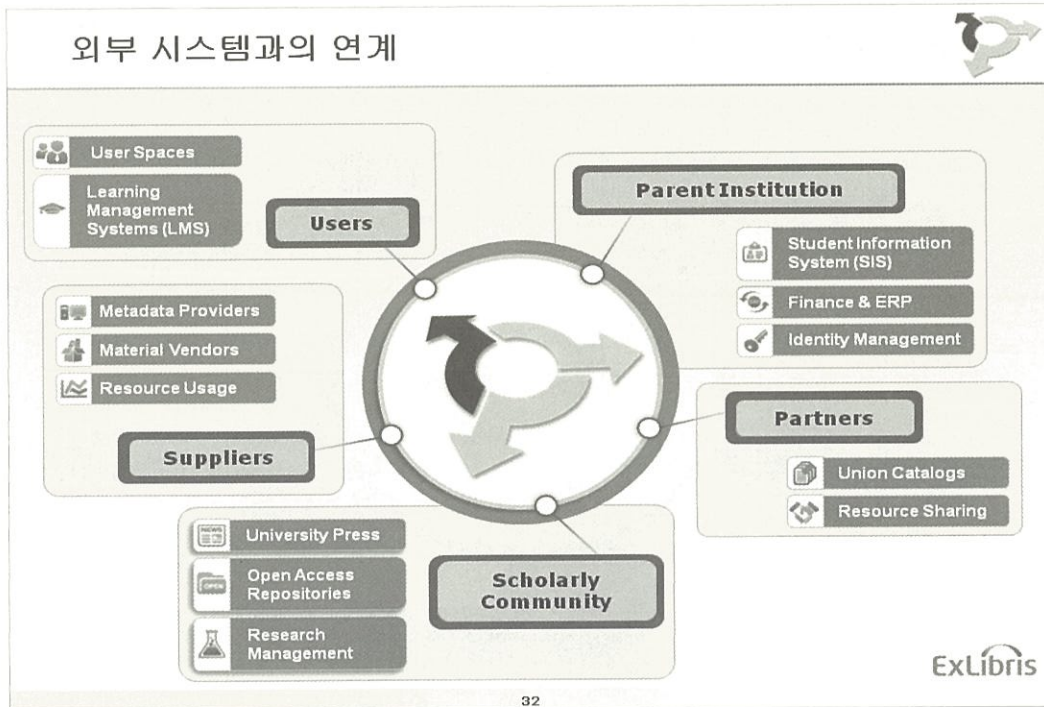
ExLibris

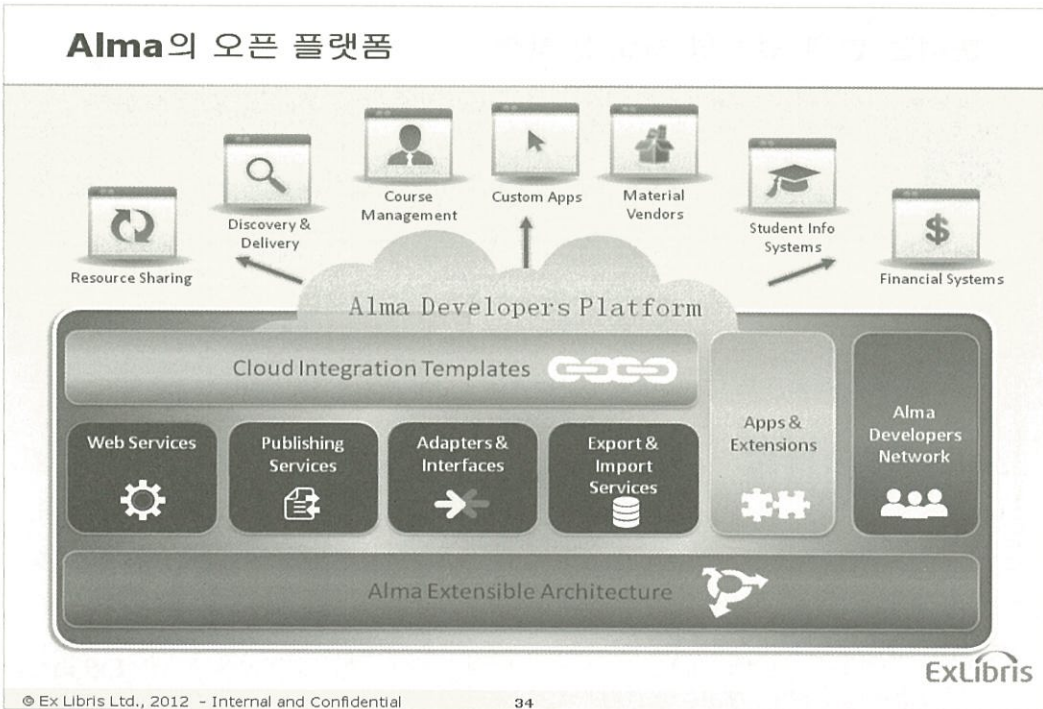
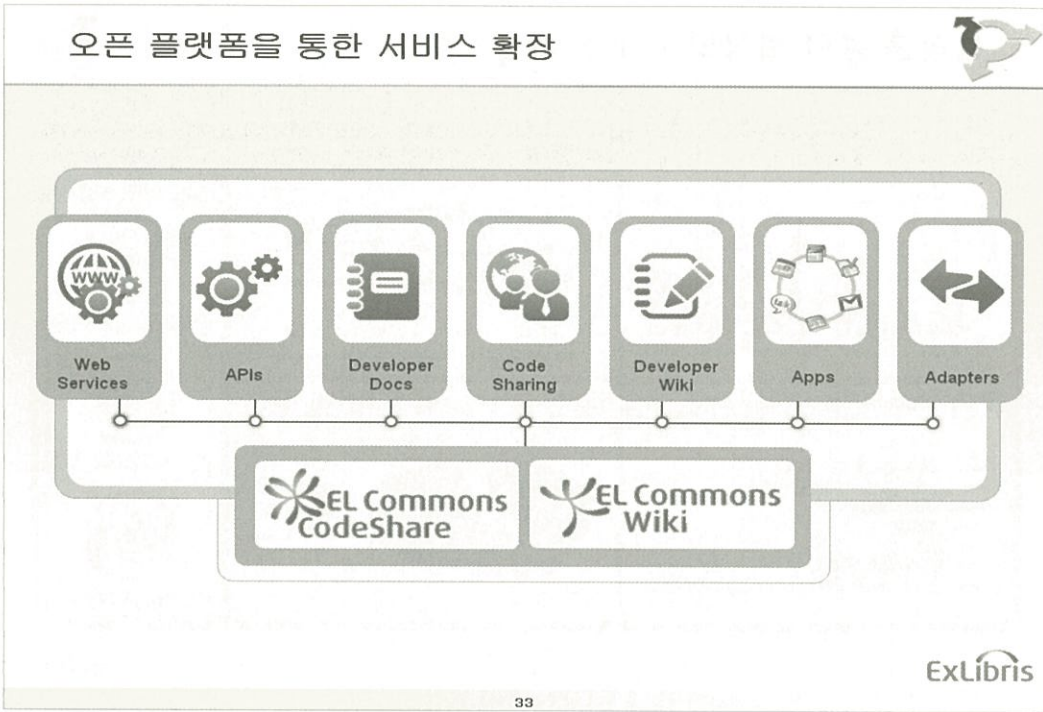
## 도서관 서비스 확장



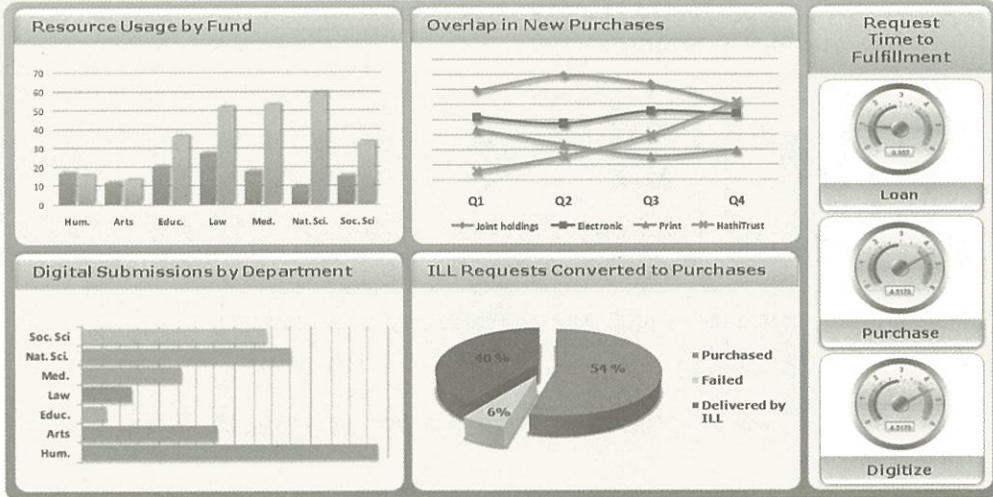
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### 분석을 통한 최적의 서비스 확장



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### 분석을 통한 최적의 서비스 확장



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**PPV or PDA Model?**  
 향후 이용률 증감 전망은?  
 타 도서관과 비교한 우리기관의 위치는?

| Month | Institutions Like Me | Other Institutions |
|-------|----------------------|--------------------|
| Jan   | 15,000               | 10,000             |
| Feb   | 25,000               | 12,000             |
| March | 30,000               | 13,000             |
| Apr   | 35,000               | 14,000             |
| May   | 45,000               | 15,000             |
| Jun   | 30,000               | 15,000             |
| Jul   | 25,000               | 12,000             |
| Aug   | 28,000               | 10,000             |
| Sep   | 30,000               | 10,000             |
| Oct   | 30,000               | 10,000             |
| Nov   | 30,000               | 10,000             |
| Dec   | 30,000               | 10,000             |

- Automatic triggers of business processes
- Predictive modeling and simulation
- What-if decision support
- Analysis and monitoring of operational performance
- Extraction and reporting of transaction level data

■ Institutions Like Me  
 ■ Other Institutions

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**전략 - 통합 자원 관리 (Unified Resource Management)**

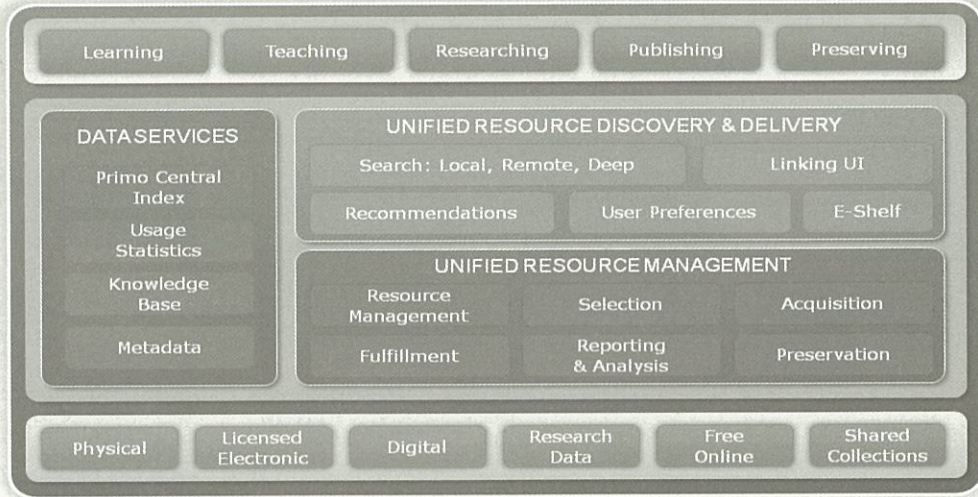
**CONSOLIDATE**  
 Consolidate the frameworks

**OPTIMIZE**  
 Optimize through collaboration

**EXTEND**  
 Extend the range of services

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## 차세대 도서관 서비스 개념도



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## 엑스리브리스 Alma

**Ex Libris Alma**는 자료 유형에 관계없이 통합 관리를 가능하게 해 주고, 협업을 통한 효율성을 극대화함으로써 도서관이 새로운 부가가치 서비스를 제공할 수 있게 도와줍니다



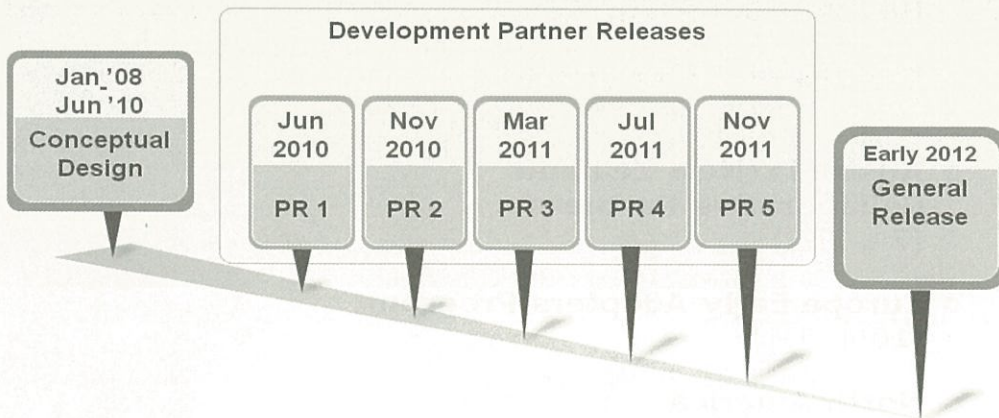
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### Alma 개발 현황

### Alma 개발 현황



## 매월 Alma 기능 업그레이드

The image displays three overlapping screenshots of the ExLibris Alma login interface, illustrating monthly feature releases. Each screenshot shows the login form with fields for 'User Name' and 'Password', a 'Login' button, and technical requirements. The releases are:

- Alma May release:** Includes a decorative graphic of flowers and a bird.
- Alma June release:** Includes a decorative graphic of a bird and flowers. A note states: "Alma Login Address is due on April 23 between 02:00-06:00 EDT during which the system might be down for a short time. To learn more, visit: <http://documentation.alma.com>".
- Alma July release:** Includes a decorative graphic of butterflies and a bird. A note states: "Alma Login Address is due on April 23 between 02:00-06:00 EDT during which the system might be down for a short time. To learn more, visit: <http://documentation.alma.com>".

ExLibris logo is visible in the bottom right corner of the page.

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## 전세계 파트너들과 함께 개발

- 
- **Development Partners**  
(미국과 유럽의 4개 기관)
  - **Worldwide focus groups**  
(60여개 기관)
  - **Australia/New Zealand Collaborative Partners**  
(7개 기관)
  - **Europe Early Adopters Program**  
(10여 기관)
  - **North America Early Adopters Program**  
(10여 기관)

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개발 파트너

|  |  |  |
|--|--|--|
|  <p><b>BOSTON COLLEGE</b></p> | <p>Background</p> <ul style="list-style-type: none"> <li>◦ Boston, MA, USA</li> <li>◦ ~7M items</li> <li>◦ Current systems: Aleph, Verde, DigiTool, SFX, MetaLib, Primo</li> </ul>                   | <p>Key Areas of Collaboration</p> <ul style="list-style-type: none"> <li>◦ Course reading workflows</li> <li>◦ Reporting and analysis tools</li> <li>◦ Digital collection management</li> </ul>              |
|  | <p>Background</p> <ul style="list-style-type: none"> <li>◦ Leuven, Belgium</li> <li>◦ ~4M items (11 institutions)</li> <li>◦ Current systems: Aleph, Verde, DigiTool, SFX, MetaLib, Primo</li> </ul> | <p>Key Areas of Collaboration</p> <ul style="list-style-type: none"> <li>◦ Inter-institutional relationship management</li> <li>◦ Metadata mgmt. policies</li> <li>◦ Consortial service provision</li> </ul> |

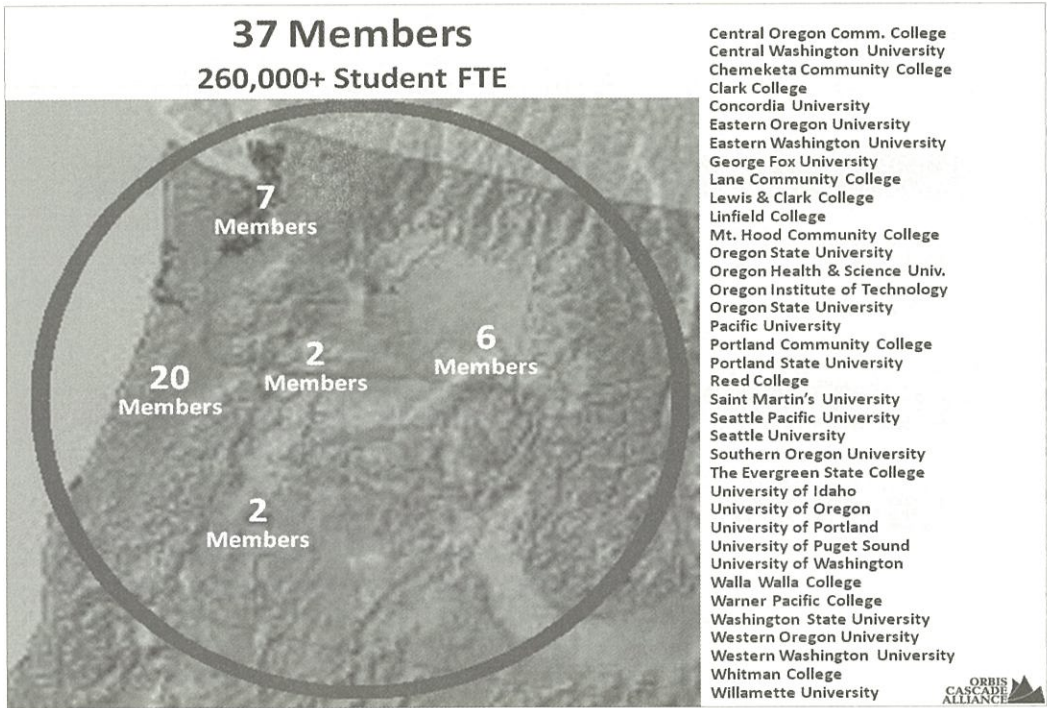


개발 파트너

|  |   |   |
|--|---|---|
|  <p><b>PRINCETON UNIVERSITY</b></p> | <p>Background</p> <ul style="list-style-type: none"> <li>◦ Princeton, NJ, USA</li> <li>◦ ~14M items</li> <li>◦ Current Systems: Voyager, Meridian, SFX, Meta Lib</li> </ul> | <p>Key Areas of Collaboration</p> <ul style="list-style-type: none"> <li>◦ Cataloging workflows</li> <li>◦ Workflow streamlining</li> <li>◦ Institutional systems integration</li> </ul>      |
|  | <p>Background</p> <ul style="list-style-type: none"> <li>◦ West Lafayette, IN, USA</li> <li>◦ ~6.5M items</li> <li>◦ Current systems: Voyager, SFX, MetaLib</li> </ul>      | <p>Key Areas of Collaboration</p> <ul style="list-style-type: none"> <li>◦ Descriptive metadata for digital content</li> <li>◦ E-Research workflows &amp; systems interoperability</li> </ul> |

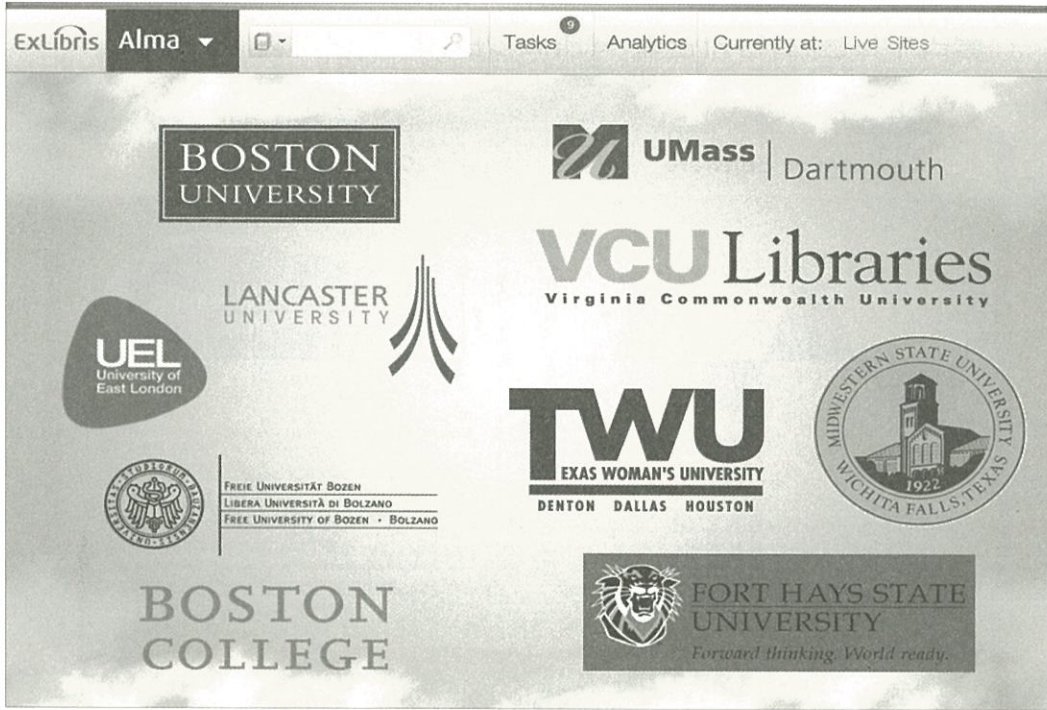






아시아 최초의 **Early Adopt Program Partner**  
(서울대학교)

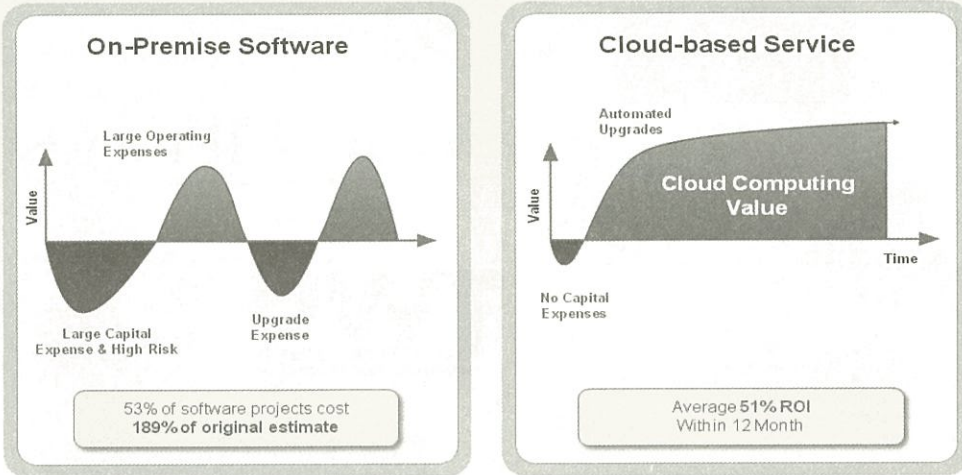




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차세대 시스템으로 왜 **Alma**를 선택해야 하는가?

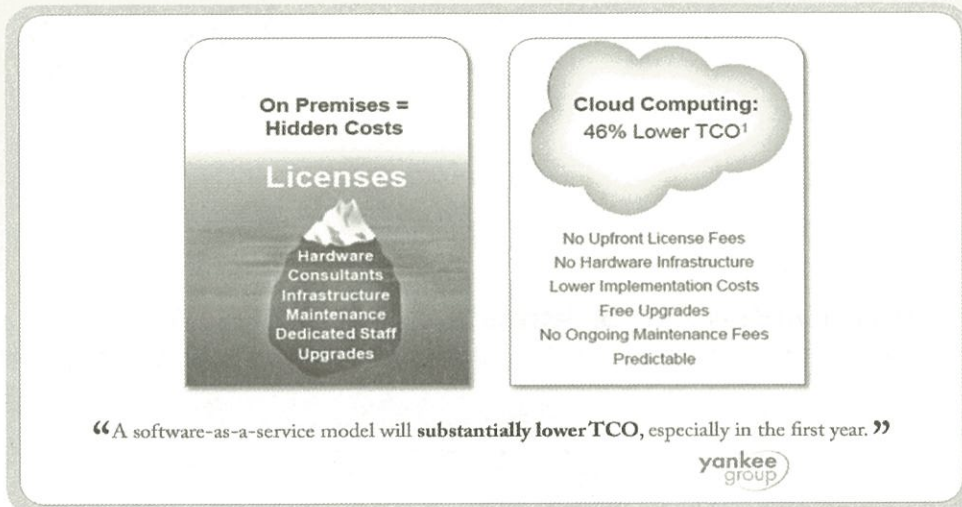
## 클라우드는 최단시간에 서비스 가치를 구현하게 함



<sup>1</sup> Standish Group, Chaos Report 2006  
<sup>2</sup> Third-Party CustomerSat Research on 3,500 Salesforce.com customers, December 2008

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## 클라우드는 총소유비용 (TCO) 절감을 가능하게 함



<sup>1</sup>Source: Yankee Group: Hosted vs. Premise based Sales Solutions: TCO and Trade Offs

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## 아시아 국가의 클라우드 준비 현황

### The Cloud Readiness Index

|             | Data Privacy | International Connectivity | Data Sovereignty | Broadband Quality | Government online services and ICT Privatization | Power Grid and Green Policy | Intellectual Property Protection | Business Sophistication | Data Center Risk | Freedom of Information Access | Cloud Readiness Index | Rank | Change since 2011 |
|-------------|--------------|----------------------------|------------------|-------------------|--|-----------------------------|----------------------------------|-------------------------|------------------|-------------------------------|-----------------------|------|-------------------|
| Japan       | 9.0          | 10.0                       | 5.6              | 7.6               | 7.9  | 7.8                         | 7.6                              | 8.4                     | 6.0              | 8.9                           | 78.8                  | 1    | ▲                 |
| Korea       | 9.0          | 8.0                        | 6.2              | 9.0               | 9.1  | 7.1                         | 5.9                              | 6.9                     | 7.4              | 7.7                           | 76.3                  | 2    | ▲                 |
| Hong Kong   | 7.5          | 7.4                        | 7.6              | 7.6               | 8.4  | 5.7                         | 7.9                              | 7.1                     | 8.0              | 8.7                           | 75.9                  | 3    | ▲                 |
| Singapore   | 4.5          | 9.2                        | 8.1              | 6.3               | 9.5  | 5.7                         | 8.7                              | 7.3                     | 6.4              | 7.1                           | 72.8                  | 4    | ▲                 |
| Taiwan      | 7.0          | 7.5                        | 5.9              | 6.1               | 8.8  | 7.1                         | 7.1                              | 7.5                     | 6.5              | 8.9                           | 72.4                  | 5    | ▲                 |
| New Zealand | 9.0          | 1.3                        | 8.1              | 5.4               | 7.8  | 8.3                         | 8.3                              | 6.6                     | 7.1              | 8.9                           | 70.8                  | 6    | ▲                 |
| Australia   | 7.5          | 2.7                        | 7.3              | 6.0               | 8.2  | 7.5                         | 7.6                              | 6.7                     | 5.6              | 8.6                           | 67.7                  | 7    | ▲                 |
| Malaysia    | 7.5          | 4.6                        | 5.6              | 3.7               | 8.2  | 6.2                         | 7.0                              | 7.1                     | 6.2              | 6.9                           | 63.0                  | 8    | ▲                 |
| India       | 6.0          | 8.4                        | 4.7              | 2.4               | 6.3  | 3.3                         | 5.0                              | 6.1                     | 3.1              | 7.6                           | 52.7                  | 9    | ▲                 |
| China       | 4.0          | 5.0                        | 3.5              | 3.5               | 6.6  | 4.5                         | 5.7                              | 6.2                     | 5.1              | 7.1                           | 51.2                  | 10   | ▲                 |
| Indonesia   | 6.0          | 4.8                        | 2.1              | 2.2               | 5.7  | 4.9                         | 5.1                              | 6.0                     | 3.1              | 7.2                           | 47.1                  | 11   | ▲                 |
| Philippines | 2.5          | 4.6                        | 4.3              | 2.3               | 5.5  | 3.8                         | 4.0                              | 5.9                     | 3.6              | 7.5                           | 46.0                  | 12   | ▲                 |
| Thailand    | 3.0          | 2.8                        | 1.5              | 5.9               | 5.5  | 4.8                         | 4.4                              | 6.0                     | 3.6              | 7.4                           | 44.9                  | 13   | ▲                 |
| Vietnam     | 5.0          | 3.2                        | 3.9              | 2.2               | 5.9  | 3.8                         | 3.6                              | 5.3                     | 5.4              | 6.6                           | 44.9                  | 13   | ▲                 |

Asia Cloud Computing Association report, 2012

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## Alma는 최적화된 도서관 서비스 제공



- ▶ 도서관 서비스 확장
- ▶ 도서관 가치 극대화
- ▶ 이용자 experience 향상

- ▶ 자원 활용의 최적화
- ▶ 협업을 통한 업무량 감소
- ▶ 간소화된 워크플로우를 통한 생산성 향상



- ▶ 통합으로 인한 시스템 가치 향상
- ▶ 총소유비용 감소
- ▶ 단순 서버 운영이 아니라, 정보를 활용한 부가가치 창출 기여

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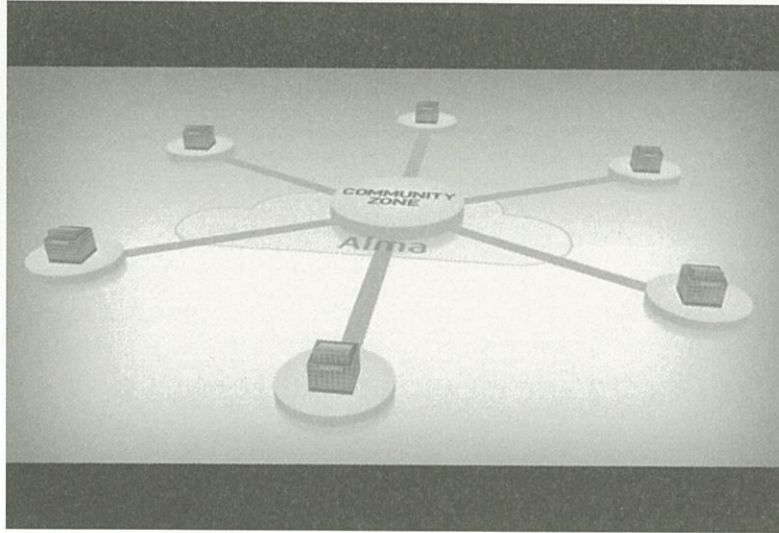
### 총소유비용 (TCO) 감소 및 ROI 극대화

|                  |                             |  |                                     |                                    |                               |
|------------------|-----------------------------|--|-------------------------------------|------------------------------------|-------------------------------|
| <b>Reduce IT</b> | <b>Minimize Admin</b>       | <b>Decrease Complexity &amp; Silos</b> | <b>&gt;30%</b>                      | <b>&gt;10%</b>                     | <b>&gt;10%</b>                |
|                  |                             |  |                                     |                                    |                               |
| <b>100%</b>      | <b>&gt;50%</b>              | <b>&gt;40%</b>                         | <b>Increase Productivity</b>        | <b>Optimize Collection Usage</b>   | <b>Extend Services</b>        |
| Cloud service    | Ease of use and integration | Unified Resource Management            | Optimized workflows & sharable data | User-driven collection development | Collaborative & Open platform |

### Alma의 특징점

|   |  |  |
|---|--|--|
| <b>통합 시스템<br/>(Unified by Design)</b><br>Single solution (not collection of services)       | <b>오픈 데이터 정책<br/>(Open Data Policy)</b><br>Customer ownership and open reuse               | <b>다양한 워크플로우<br/>(Rich Workflows)</b><br>Reflecting best-of-breed practices            |
| <b>파워풀한 분석 툴<br/>(Analytics-Driven)</b><br>Data-driven decision making                      | <b>로컬과 글로벌 데이터<br/>(Shared and Unique Data)</b><br>Hybrid model - local and community zone | <b>업무 중심<br/>(Task-Oriented)</b><br>User-centric - pull (search) & push (notification) |
| <b>다양한 포맷 지원<br/>(Multi-Format Support)</b><br>Multi-format metadata & inventory management | <b>디스커버리 스탠다드 지원<br/>(Discovery Neutrality)</b><br>Freedom and open standards              | <b>컨소시엄 기능 지원<br/>(Flexible Consortia)</b><br>Efficient management                     |

## Alma 비디오



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