Carson Block Consulting Inc.
Technology Vision. Technology Power. Your Library.

http://www.carsonblock.com

DAZL REPORT

ARIZONA STATE LIBRARIES

PHOENIX, AZ

©2012 Carson Block Consulting Inc.

Carson Block

Library Technology Consultant

August-September 2012

Table of Contents

Introduction 3
Scope of Work 4
Research Notes 5
Executive Summary 6
Brief History of Library eBook Development Projects 8
Select Timeline of Library eBooks development Projects 9
Key Technological Elements of the eBook Systems in this Report 10
Key Findings: Douglas County Libraries, Colorado 11
E-Book Comparison Pricing for Douglas County Libraries 12
Technical Findings Image 1: DCL eContent Server Farm Layout 14
Technical Findings Image 2: DCL eContent Server Farm Layout 15
Key Findings Image 3: Block Diagram of DCL Development Timeline 16
Key Findings: Marmot Library Network, Colorado 17
Key Findings: Califa Library Consortium 19
Tech Finding Image 4: Califa Configuration 21
Miscellaneous Technical Findings: VuFind and Adobe Content Server 25
Key Findings: Content and Collections Development 28
Key Findings: Technical Services 31
Key Findings: Project Costs and Budget 32
Douglas County Project – Estimated Costs 33
Califa Project — Estimated Costs 35
Colorado Library Consortium (CLiC) - Projected Project Costs 37
Anythink (Clearview Library District, Colorado) – Estimated Project Costs 38
Key Findings: Emerging Issues/Lessons Learned 39
Key Recommendations 40
Simple Discussion Framework 42
Step One: Define your Project 42
Step Two: Consider Content 43

Step Three: Consider how to Deliver your Project 45
Appendix A: Interview Questions 47
Appendix B: Process Flowchart 49
Appendix C: Letter of Introduction 50
Appendix D: Rough Annotated Bibliography 52

Introduction

The Arizona State Library has secured LSTA funding to pursue a project designed to provide access to eBooks and perhaps other eMaterials to residents of the state. Aimee Fifarek, Technologies & Content Senior Manager for the Scottsdale Public Library, has been appointed as project manager for the effort. As of July 2012, the project, called DAZL (Digital Arizona Library), is in active stages of planning. Planning is currently scheduled to continue throughout the remainder of 2012, with plan completion scheduled just prior to the ALA midwinter conference in Seattle in January 2013.

The working concept for the DAZL project is to use an existing project as an inspiration to create a system that would best provide eMaterials to Arizonans. Part of the process is to understand and build on the successes of the "Douglas County Model" – a system created by the Colorado library to purchase eBook content directly from publishers and offer that content to loan to patrons through the library's technology systems. The DCL model is built upon several technology systems, including Adobe Content Server (to enforce Digital Rights Management and loan rules) and VuFind as a discovery layer.

The current planning process calls for several simultaneous efforts, including investigations into technology, collection development, and governance. The technology effort will proceed with two sequential efforts: a technological environmental scan, followed by work on the needed technological systems.

This scope of work describes the technological environmental scan.

Scope of Work

The technology consultant performed an environmental scan of current, specific library-initiated eBook projects (including Douglas County in Colorado and projects inspired by DCL including the Califa Group project in California, and other, lower-profile projects) to produce this report on the state of the major public-library eBook projects currently in existence or in motion.

The report will:

- Identify the key technological elements of the Douglas County model
- Identify technological resources supporting the Douglas County model
- Determine which technological elements are mission critical or optional
- Provide a snapshot of known current public library and private entities following the Douglas County model
- Identify strategies, successes and challenges experienced by those using or testing the Douglas model in these terms:

- What's working
- What's not working
- Key decisions in the planning process (including options that were considered and rejected)
- Budgets
- Legal issues

- Additionally, the consultant will gather and report collection development policies, plans or statements from those willing to share
- Make key recommendations based on the data gathered for the report.

Research Notes

The Douglas County Model is complex, little understood and still in constant development. This document is organized to place the most relevant information at the front, in bullet form, to aid in navigating the major concepts.

In all, the consultant conducted more than 10 hours of interviews with those closest to the Douglas County Model, and more than 40 hours researching and gathering information from public and private sources. The majority of the information in this report is ether not published or compiled elsewhere, and was kindly made available by request in the spirit of informing the Arizona Department of Libraries about experiences, scope and scale of current eBook projects. Interviews and information sources include leadership and staff at Douglas County Libraries, The Colorado Library Consortium (CLiC), The Marmot Libraries, Califa in California, Anythink (the Rangeview Library District, Colorado) and the Quipu Group (a technology consulting firm assisting Califa). Appendices include transcripts and highlights of those meetings to provide fuller information, including a number of interesting viewpoints and nuances in this new approach to offering digital materials to library patrons.

Executive Summary

The 2011 OCLC "Perceptions of Libraries" study says the book remains the brand of the library. From the perspective of the public, libraries equal books. The study also classifies eBooks as books. What happens when libraries can't get eBooks?

As the world of publishing increasingly shifts to digital formats, public libraries are facing a profound challenge threatening the fundamental public service mission of each institution as well as the public good served by libraries as a whole. Simply put, public libraries have nearly infinite choices to obtain and loan physical materials, and less than a handful of viable commercial options for eBooks. As well, the costs involved in commercial eBook options are markedly higher than physical materials, changing the economics of delivering library materials to patrons.

In response, several libraries across the country have taken content and access matters into their own hands. Douglas County Libraries and the Marmot Library Network in Colorado, the Califa consortium in California and others are proving that it is indeed possible for the library to, in essence, create and an entirely new stream of content for the enrichment and enjoyment of library patrons.

The projects featured in this report are borne from different motivations and carried out in different manners:

- **Douglas County's approach includes three primary elements: ownership of digital materials** (eBooks are most often leased instead of sold), **addressing the costs of digital materials** (which tend to be higher for libraries than the costs of physical materials) and **improving user experience** through seamless integration of eMaterials into the library electronic catalog.
- **Marmot's driver is proof-of-concept to provide options for member libraries**. Access to digital content – and not necessarily through ownership – is central to Marmot's approach. A seamless user experience and affordable content costs are also considerations.
- **Califa's driver is greater good for California libraries**. They are a "let's throw it against the wall and see what sticks" kind of group and they are crowdsourcing as many aspects of their project as possible, and view all elements as flexible in pursuit of success.

Consistently, the people behind each project share some characteristics -- including enthusiasm, optimism, and a feeling of empowerment. Faced with one of the greatest challenges to libraries, these people are doing something about the problem – marking successes, learning from failure, and sharing the results freely with others in pursuit of improving library services for all. In one sense, taking a stand and moving in this direction may be the most significant impact of all.

The projects featured here have also been subject to criticism from those peering behind the headlines and asking probing questions. The raw costs, especially when starting a project up from scratch, can be substantial. The pieces of the technology chain require special and enduring attention, with the open-source components in particular being a challenge. The quality of the content available ranges from excellent to items many libraries would not otherwise seek out. With no major publishers represented in these projects, the circulation is relatively low. These thoughts lead many libraries to ask an excellent question: Is an eBook project worth pursuing?

To answer the question in Arizona, the consultant urges the committee to embrace the complexity of the information of this report, take a deep breath, and then find the simple answer. An eBook project is certainly within your grasp. The timing, with the current handful of projects in motion and sharing results, is perfect. Of primary importance is for you to identify Arizona's specific unique vision for eBooks (or eContent) and then use the information gathered in this report and elsewhere to make wise choices on your path to success. The path is indeed fresh, but it's no longer uncharted.

©2012 Carson Block Consulting Inc.

Brief History of Library eBook Development Projects

Following the explosive sales of eReaders during the winter holidays of 2009, patrons started asking their local public libraries for eBooks. Naturally, many patrons believed they could get library eBooks as easily as physical books. In reality, libraries had less than a handful of options for eBooks -- primarily via the vendor OverDrive. Additionally, the technology systems to deliver library eBooks were (and in many cases remain) less than perfect. For many libraries, patron demand and expectations for library eBooks was crushing.

Libraries across the country responded in various ways – some increased budgets allocated for eBooks; some purchased and circulating eReader devices pre-loaded with eBooks; and many libraries took steps to help patrons with eReader devices through direct technical support.

In Colorado, the Douglas County Libraries began forming another idea. What if the library acted in the role previously filled by distributors and vendors, and actually "published" eBooks in-house? Driven by the economics of library eBooks (essentially higher prices and loss of true ownership – commercial eBooks are mostly leased via vendors such as OverDrive).

In 2011, Douglas County Libraries Director Jamie LaRue launched an initiative to purchase eBooks directly from publishers and provide access through the library's web site. Key players at this early time (in terms of both philosophy and technology) included Joseph Sanchez (formerly of Red Rocks Community College, now at the Auraria College library in Colorado), DCL IT director Monique Sendze, and Jimmy Thomas (director of the Marmot Library Network). The first publisher to sign on to DCL's new idea was the Colorado Independent Publishers' Association (CIPA), pledging to sell 100 of their best eBooks to the library by June 2011. Other publishers soon signed on, and by December 2011 DCL had over 7000 eBooks to offer patrons.

This eBook technology approach, with pieces developed by DCL and the Marmot Library Network, closely mirrors commercial options for eBooks (using Adobe Content Server for Digital Rights Management) but uses an open-source discovery layer (VuFind) to integrate multiple sources of eMedia as well as traditional physical materials into a single interface for patrons. The discovery layer is used to improve the patron experience when closely tied with the library's Integrated Library System (ILS).

Developments to DCL's program have been frequent and ongoing since the start of 2012, including attempts to streamline negotiations with publishers. DCL contracted with Mary Minow of librarylaw.com to create a "Common Understanding for Purchasing Electronic Content" and shared the document with other libraries to use as basis for their own agreements.

Douglas County has placed a high priority on its project, and has allocated significant resources to its development. Since January 2012 , other libraries have adopted elements of the Douglas County Model and the Marmot/DCL VuFind platform including Wake County Public Libraries

(NC), Anythink (CO), and eiNetwork (PA), and the Califa Library Consortium (CA). As of Oct 2012, only DCL and Marmot have actually implemented the DCL model for ebooks, including the Adobe Content Server. Anythink, Wake County, and eiNetwork have implemented the same version of VuFind as a catalog discovery tool, but not (yet) the ACS component.

Select Timeline of Library eBooks development Projects

2006—Marmot first offers eBooks from OverDrive.

2009—DCL first offers eBooks from OverDrive.

2010—Marmot launches VuFind as catalog discovery layer

2011—January—DCL adopts Marmot's version of VuFind

2011—DCL enhances VuFind with Adobe Content Server

2011—March 19th, DCL and CIPA announce partnership. Goal is 100 eBooks acquired by June 2011.

2012 – January – DCL enhances VuFind with integration to OverDrive

2012—January—James LaRue and Mary Minow draft and release "Common Understanding for Purchasing Electronic Content." Marmot updates Ebook markets products and services survey and expands on work by DCL to identify publishers willing to sell ebooks directly to libraries.

2012—Marmot/DCL VuFind adopted by other libraries, including Wake County Public Libraries (NC), Anythink (CO), and eiNetwork (PA)

2012 – Califa announces it is launching an eBook model based on developments in Colorado.

7 May 2012—5 new publishers sign on w/DCL: Crabtree, Gareth Stevens, InfoBase Learning, Book View Café, Poisoned Pen Press

Oct 2012—Marmot has ordered or loaded ebooks from publishers (IPG, UC Press, Lerner, Gareth Stevens, Crabtree, Akashic); the Gutenberg Project (442 cataloged titles); and independent authors (Clifford Irving and John Morris).

Key Technological Elements of the eBook Systems in this Report

Systems of multiple servers and data storage configurations (generally approached as Storage Area Network, or SAN) are necessary to host an e-content delivery system based on the Douglas County Model. Current configurations (from Douglas and Califa) are depicted in the "key findings" section for each.

The systems use a mix of open-source and proprietary software.

The most significant piece of open-source software is VuFind (http://vufind.org/), which is used as a discovery layer for e-content. At Douglas, VuFind is used to integrate all available electronic content (including titles owned by Douglas and titles leased through vendors such as Overdrive and 3M's Cloud Library).

The most significant piece of proprietary software is Adobe Content Server (http://www.adobe.com/products/content-server.html), which currently is the de-facto standard for Digital Rights Management (or DRM) to protect digital editions from unauthorized use. There are other DRM methods available, but Adobe is recognized and trusted by publishers participating in the library eBook systems described in this report.

Although the code for open-source software has no cost, it's important to note that operating and developing open-source can have significant costs. Douglas County spent $100k in vendor fees for initial development of VuFind, and has hired a full-time programmer to continue in-house development. Douglas County Libraries find this investment worthwhile due to the flexibility and customization that VuFind offers.

Key Findings: Douglas County Libraries, Colorado

- The Douglas County Libraries near Denver Colorado are comprised of seven libraries and serve a population of about 300,000. It's the third largest library district in Colorado, and in one of the fastest growing counties in the nation.

- Some key information from Douglas (including basic technical documentation, sample vendor agreements, and more) is shared on the Evoke site: http://evoke.cvlsites.org/ The Evoke site is a collaboration of the Colorado State Library, Douglas County Libraries, the Marmot Library Network, the Colorado Library Consortium (CLiC), the Auraria Library, and the Colorado Alliance of Research Libraries (The Alliance) .

- The "Douglas County Model" is a giant step forward in the arena of electronic content for libraries to loan to patrons.

- At its core, the "Douglas County Model" is a solution aimed at addressing three primary factors: ownership of digital content, the economic differences in physical and digital materials for libraries (with costs for digital tending to be higher), and an improved user experience via seamless integration of digital content into the library catalog. The Director of the Douglas County Libraries, Jamie LaRue, pursued the project (with others) to address all three objectives. Key aspects for Douglas include:
    - Development of a seamless user-interface via the open-source software VuFind, which is used as a discovery layer to improve the often-confusing transitions between the library catalog and digital materials from a number of sources, including electronic materials owned by the library and materials leased from vendors such as Overdrive.
    - True ownership of the digital content, including the ability to sell the content later when the item would be removed from the library collection
    - Purchasing the content at a price similar to physical materials, including discounts from "list" price – typically 45%.
    - As of the writing of this report, costs of materials continue to be a primary objective for DCL's eBook effort. On 9/5/2012, LaRue shared a cost analysis with the consultant (reproduced below, from http://evoke.cvlsites.org/2012/10/02/new-douglas-county-libraries-e-book-price-comparison-report/), saying updated versions of would soon be featured regularly in a major library periodical (LaRue. 9/10/12 *The Visible hand of the Market.* http://americanlibrariesmagazine.org/e-content/visible-hand-market. American Libraries Magazine (Online): http://americanlibrariesmagazine.org/e-content/visible-hand-market.

E-Book Comparison Pricing for Douglas County Libraries

E-Book Comparison Pricing for Douglas County Libraries

		BOOKS		EBOOKS			
	Fiction (NYTimes)	**Ingram (library pricing)**	**Amazon (consumer pricing)**	**Overdrive (library)**	**3M (library)**	**Bilbary (consumer)**	**Amazon/Barn Noble (consumer)**
1	Fifty Shades of Grey	$ 9.41	$ 9.57	$ 47.85	$ 47.85	$ 9.99	$ 9.99
2	Fifty Shades Darker	$ 9.41	$ 9.57	$ 47.85	$ 47.85	$ 9.99	$ 9.99
3	Fifty Shades Freed	$ 9.41	$ 9.57	$ 47.85	$ 47.85	$ 9.99	$ 9.99
4	Gone Girl	$ 13.75	$ 13.94	$ 25.00	$ 25.00	$ 12.99	$ 12.99
5	Bared to You	$ 8.85	$ 9.00	*	*	*	$ 7.99
6	Sweet Talk	$ 14.82	$ 15.85	*	*	*	$ 12.99
7	Where We Belong	$ 15.39	$ 16.00	*	*	$ 12.99	$ 12.99
8	Stygian's Honor	$ 4.71	$ 7.99	*	*	*	$ 7.99
9	Time Untime	$ 14.29	$ 15.28	*	*	$ 12.99	$ 12.99
10	Slammed	$ 8.28		*	*	$ 7.99	$ 7.99
11	Black List	$ 15.39	$ 17.46	*	*	$ 12.99	$ 12.99
12	Light Between Oceans	$ 13.75	$ 15.00	*	*	$ 11.99	$ 11.99
13	Dream Lake	$ 8.84	$ 10.19	*	*	$ 9.99	$ 9.99
14	You don't want to Know	$ 13.75	$ 14.70	$ 21.99	*	*	$ 9.46
15	I, Michael Bennett	$ 15.39	$ 18.47	*	*	*	$ 12.99
	Non-Fiction (NYTimes)						
1	Wild	$ 14.27	$ 14.80	*	$ 25.95	$ 12.99	$ 12.99
2	Unbroken	$ 14.85	$ 16.20	$ 81.00	$ 81.00	$ 12.99	$ 12.99
3	The Amateur	$ 15.37	$ 16.77	*	*	$ 18.44	$ 9.99
4	Double Cross	$ 14.30	$ 15.49	$ 78.00	$ 78.00	$ 12.99	$ 12.99
5	Killing Lincoln	$ 15.40	$ 16.80	*	*	$ 12.99	$ 12.99
	Top 25 e-book best sellers						
5	Mockingjay	$ 9.89	$ 9.92	*	*	*	$ 9.99
7	Catching Fire	$ 9.89	$ 10.79	*	*	*	$ 9.99
8	Hunger games	$ 9.89	$ 8.67	*	*	*	$ 8.99
9	Fifty Shades Trilogy	*	$ 27.74	$ 89.97	$ 89.97	$ 29.99	$ 29.99
11	Deep Down	*		*	*	*	$ 1.99
12	Boy in the Suitcase	$ 13.20	$ 10.63	$ 1.99		$ 1.98	$ 1.99
15	Friends Forever	$ 15.40	$ 18.48	$ 84.00	$ 84.00	$ 12.99	$ 12.99
	8/26/12 issue NYTimes (print & ebook)						

* Not available to libraries

Sheet1 Sheet2 Sheet3

- Vision makes a difference. Jamie LaRue has provided clear, strong and consistent leadership throughout the project and has inspired his staff to do the same.

- People make a difference. The Director's vision, combined with the IT Director's skills combined to create enough of a successful proof of concept to then enjoin many other talented people into the process.

- The "Douglas County Model" is complex – there are many moving parts in constant motion and development in key areas including technical, collections, vendor relations, and others.

- The "Douglas County Model" can require a substantial investment, in terms of both cash and human labor. In published reports to date, the total amount of money and time required for the entire project is not often identified.
    - Through discussions with the consultant, Douglas County appears to have spent an estimated $785,000 on its eBook project to date. Please see the "Costs and Budgets" section for a breakdown of costs reported by DCL staff to the consultant. Library Director Jamie LaRue believes the actual project costs are lower than reflected in the consultant's cost breakdown, specifically in the lines reflecting the cost of project labor – LaRue considers the eBook project an institutional priority, and looks at some of the staff costs as a re-assignment of normal duties. LaRue emphasizes that new costs were modest in terms of the Douglas County budget, and as with other major initiatives, staff were re-purposed to support new priorities.
    - The Colorado Library Consortium (CLiC) estimated that a similar project to serve 25 member libraries would cost about $1 million dollars. Please see the appendices for a white paper on the idea from CLiC.
    - The Enki (named for the Sumerian god of crafts, mischief, water, intelligence and creation)eBook project created by the Califa group in California has a budget of $325,000. As of the publication of this report, the project was still in development. Califa estimates spending (or have allocated) at least $280,000 of their grant funding so far, and are confident that they will be able to provide a demonstration of the project at the California Association of Libraries conference in November 2012. Please see the "Costs and Budgets" section for a breakdown.

- Others have struggled trying to duplicate the Douglas County Model. Primary difficulties are centered on developing the open-source VuFind discovery layer. Despite the difficulties, Douglas County and Marmot remain committed to the system, saying the flexibility it offers is worth the investment of time and money required.

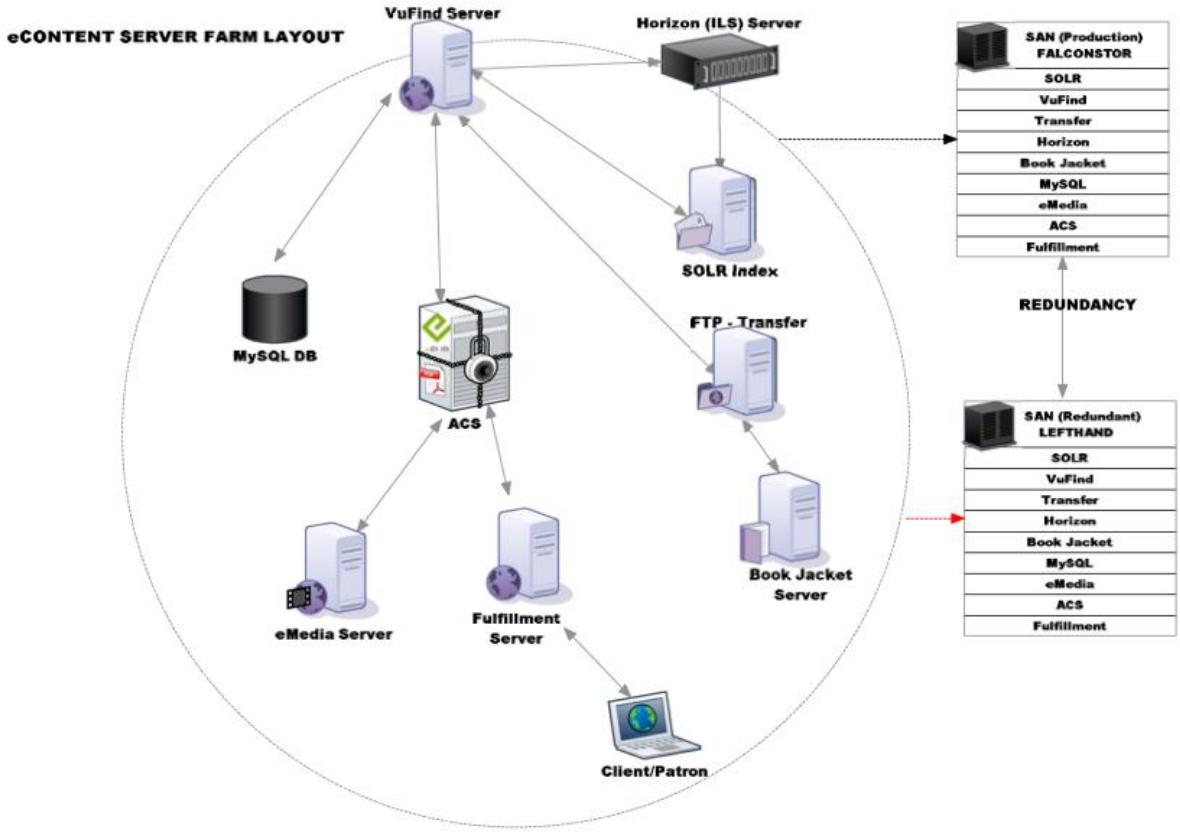
- Some elements of the Douglas County Model are essential to making library-owned or leased eBooks available to patrons, and others are optional. Understanding the elements and essential/optional elements are crucial to building a similar project. Each library or

organization may have a different view of what is essential and what is optional. For instance, ownership of content is a primary consideration for Douglas, but not for Marmot.

- Comparing the different projects (including Douglas County Libraries, Marmot, and Califa) is somewhat like comparing apples, oranges and elephants. When comparing approaches and costs it is important to remember that the specifics of each project are reflective of the vision and needs of each organization, and that vision and those needs do not necessarily transfer to other organizations.

Technical Findings Image 1: DCL eContent Server Farm Layout

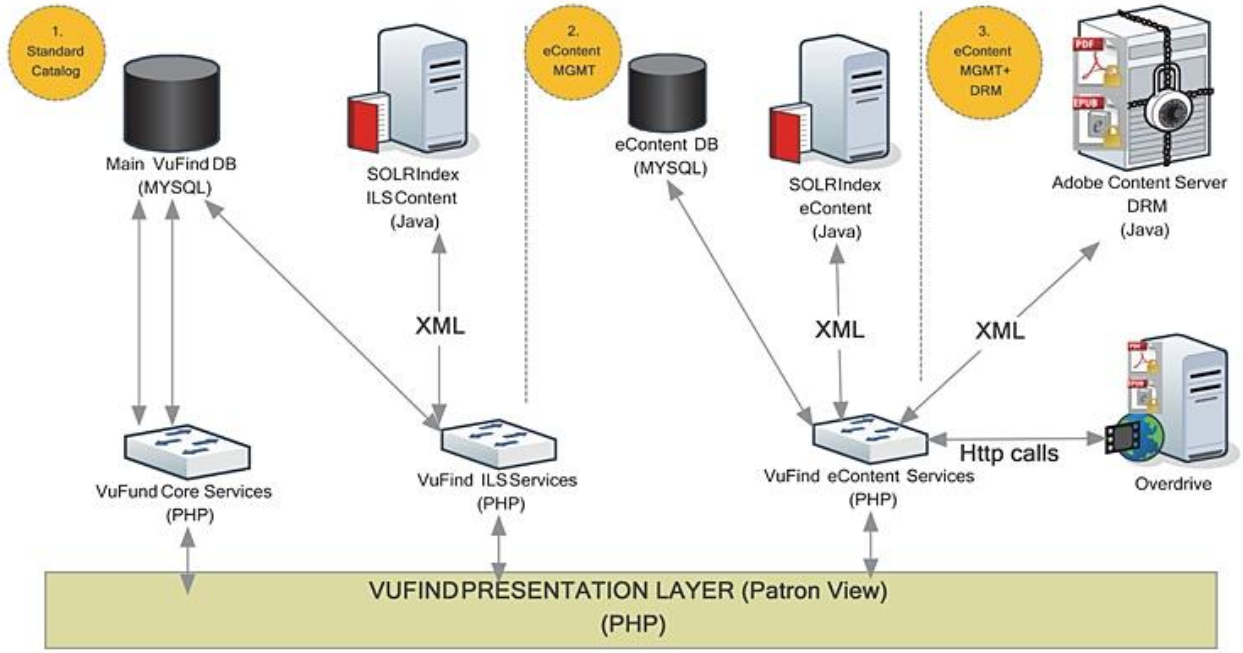
(From http://evoke.cvlsites.org/files/2012/03/eContent-Server-Farm-Layout3.pdf)



Technical Findings Image 2: DCL eContent Server Farm Layout

(From "The E-Book Experiment" by Monique Sendze, Public Libraries Magazine January/February 2012)

Figure 3. Douglas County Libraries VuFind E-Content Architecture Description



The software components of the Douglas County system include:

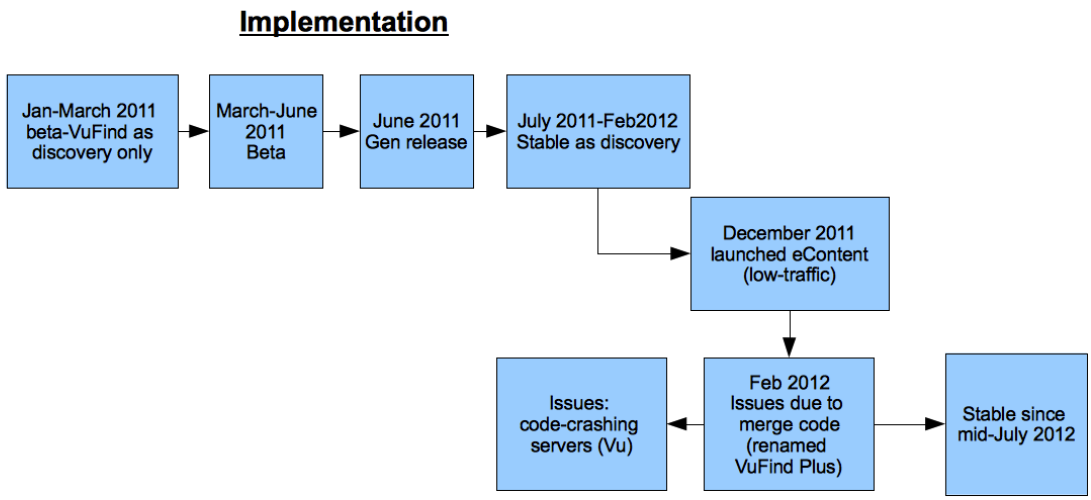
- ACS, which primarily handles DRM;
- VuFind––an open source discovery layer that interfaces with our integrated library system (ILS) to allow patrons to easily find titles they are most interested in. The base VuFind code has been heavily modified to handle e-content management. Many application programming interfaces have also been added to VuFind to enable additional products to be created on top of the VuFind platform such as our powerwall displays;
- an Android and IOS e-reader/mobile app; and
- an engine that provides Amazon-like recommendations.

The e-content delivery platform:

- handles the management of e-content with both unlimited usage and e- restricted usage;
- allows e-content to be viewed online from a DCL-developed, cloud-based HTML5 reading system in the browser application;
- allows e-content to be downloaded for offline usage;
- allows new e-content to be purchased;
- allows e-content to be searched so patrons can easily find titles that are of interest to them;

- includes various reports to help collection development staff purchase titles that are of interest to their patrons and weed titles that are no longer used; and
- handles the management of holds and checkouts for e-content to eliminate the need to manage the items within the library's ILS.

Key Findings Image 3: Block Diagram of DCL Development Timeline



Key Findings: Marmot Library Network, Colorado

- Marmot hosts an integrated library system, maintains a union catalog of 1.4m titles, and provides related services for 22 public, academic, and school libraries in Colorado. *(From the Marmot web site)*

- Most Marmot member libraries are located in central mountains and western portion of Colorado.

- Marmot and Douglas County Libraries are collaborating on open source VuFind development. "VuFind+" includes features for a multi-type consortium using Millennium, and for public libraries using Horizon, in particular the "Douglas County Model" for ebook ownership and circulation (see Evoke Task Force site at http://evoke.cvlsites.org/). Marmot VuFind demos are posted here. (http://helpdesk.marmot.org/wiki/index.php/Webex_End_of_Sprint_Sprint_Recordings) *(From the Marmot Web Site)*

- Marmot's driver is proof-of-concept to provide options for member libraries. Access to digital content – and not necessarily through ownership – is central to Marmot's approach. A seamless user experience and affordable content costs are also considerations.

- Like Douglas County, Marmot too is developing their project in a mostly closed environment. Marmot looks forward to developing examples for eBook vendors to follow and improve. As the options for eBook purchasing evolve and improve, Marmot will continue to evaluate where collection development resources can be most effectively utilized. Marmot believes the DCL model will remain important for independent content, local history, and other content not available from vendors.

- Marmot is one of two currently active libraries in the country offering library-owned eBooks to patrons.

- Marmot's ILS is Innovative Interfaces Inc. (III).

- Marmot and Douglas County Libraries started looking at offering eBooks to patrons around the same time. A common denominator between the two is programmer Mark Noble, who was a freelancer at the time, and developing VuFind as a discovery layer for Marmot. Mark developed the initial VuFind build for Douglas County, and as of the publication of this report is employed full-time by Marmot.

- Sharing the VuFind code base as part of a group development process proved to be difficult – when partners merged code, things would break for partners. This has led libraries to bring their VuFind development in-house. Code is still made available to partners to pick and choose from if they find it interesting and/or useful.

- Marmot recommends that libraries interested in VuFind development hire a staff member to perform the function.

- Marmot shares their VuFind code here: https://github.com/mdnoble73/VuFind-Plus

- Marmot provides customizations of its VuFund implementation for different member libraries.

- Marmot does not have a formal collection development policy for e-materials offered through its project, but does have a collection development philosophy.

- Marmot has a modest investment in ownership of eBook content – about $5k. To put this in perspective, Marmot libraries have purchased access to over 9,000 OverDrive titles in a shared collection as well as titles in individual member's OverDrive Advantage accounts

- Marmot hosts its own VuFind system and uses Douglas County's Adobe Content Server for content.

- Member library technical services staff play a significant role in acquiring and cataloging eBooks hosted by Marmot. The Marmot eBook Task Force, staffed by member libraries, meets every 2 weeks to share news in this dynamic arena, and to guide VuFind development by Marmot. This commitment of library staff time should not be overlooked.

Key Findings: Califa Library Consortium

- The Califa Library Group is a not for profit membership cooperative serving libraries and information organizations in California. Established in 2004 with LSTA funding from the California State Library, Califa collaborates with members and provides leadership for cooperative negotiations to help ensure that members receive quality information resources. With over 220 members, including most of the public libraries, Califa is the largest library network in California. Califa's membership includes all sizes and types of libraries – academic, research, public, school, corporate, medical, law, and special. A Board of Directors, elected by and from the membership, governs Califa, which is based in San Mateo, CA with an office in Los Angeles. *(From the Califa web site)*

- Califa shares information about it's eBook project here: http://califa.org/ebooks.php As of the publication of this report, it's most current project blog post is here: http://califaproducts.blogspot.com/

- Califa's driver is greater good for California libraries. They are a "let's throw it against the wall and see what sticks" kind of group and they are crowdsourcing as many aspects of their project as possible.

- The Califa eBook project has been named " Enoki" and as of the publication of this report is in active development. Project managers feel they are on target to provide a working demonstration of the system at the California Library Association conference in November 2012, showcasing a single library as use of the system.

- Key technology support (architecture design and VuFind development) for the Califa eBook project is outsourced to the Quipu Group LLC of Denver, Colorado.

- Califa spent approximately two months to find a suitable infrastructure host (http://www.hosting.com).

- Staff time costs were not available, but Heather Teysco estimates she spends 30-40% of her time on Califa's eBook project. Califa may need to dedicate or add a staff member in the future to meet the needs of the eBook project.
- Although Califa serves 220 member libraries in California, the scale of its eBook project is "opt-in" and will be offered to libraries who can partner (via cash, labor and other

resources) to bring content to their patrons. Currently Califa is developing its project with Contra Costa County Library and is working with Quipu for a connector to Carl.X

- Califa is interested in whether libraries can "do it themselves" and in the process address the some of shortcomings in current library eBook offerings. Considering that eBooks could become a major circulating item for libraries, Califa wants to explore ways to obtain and loan ebooks in a manner that is closely aligned with library objectives and sensibilities.

- After their first project is launched, Califa would like to investigate how it can offer the platform to smaller libraries in California. They also plan to be an outsourcer for the State of Kansas (where the state library has a system through AutoGraphics that they use for state library cards, which Califa will be setting up).

- Califa does not yet have a collection development policy for its eBook project. They plan to form a committee to address collection development issues.

- Legal advice from Mary Minow indicates that care should be taken in purchasing content – and as with physical materials the library should only purchase materials it deems acceptable for circulation. If the library later does not use an accepted weeding practice and removes content for arbitrary reasons, it risks a first-amendment challenge.

- As with other projects Califa has discovered that every aspect of the project requires substantial staff time, from the technical needs to "hand holding" with publishers to purchase and correctly format eBooks and metadata.

- Califa: The Quipu Group LLC:

    - The Quipu Group LLC is library technology firm located in Denver Colorado with a specialty in infrastructure, coding and ILS systems. Quipu has been hired by Califa to assist with the technical development of its eBook project. As well as describing and documenting technical development, Quipu aims to identify the number of staff needed to operate the technical pieces of the eBook system.

    - Quipu is currently not accepting any new eBook system consulting customers. Quipu wants to see the Califa project through to completion to have a complete picture of the resources necessary to support an eBook project.

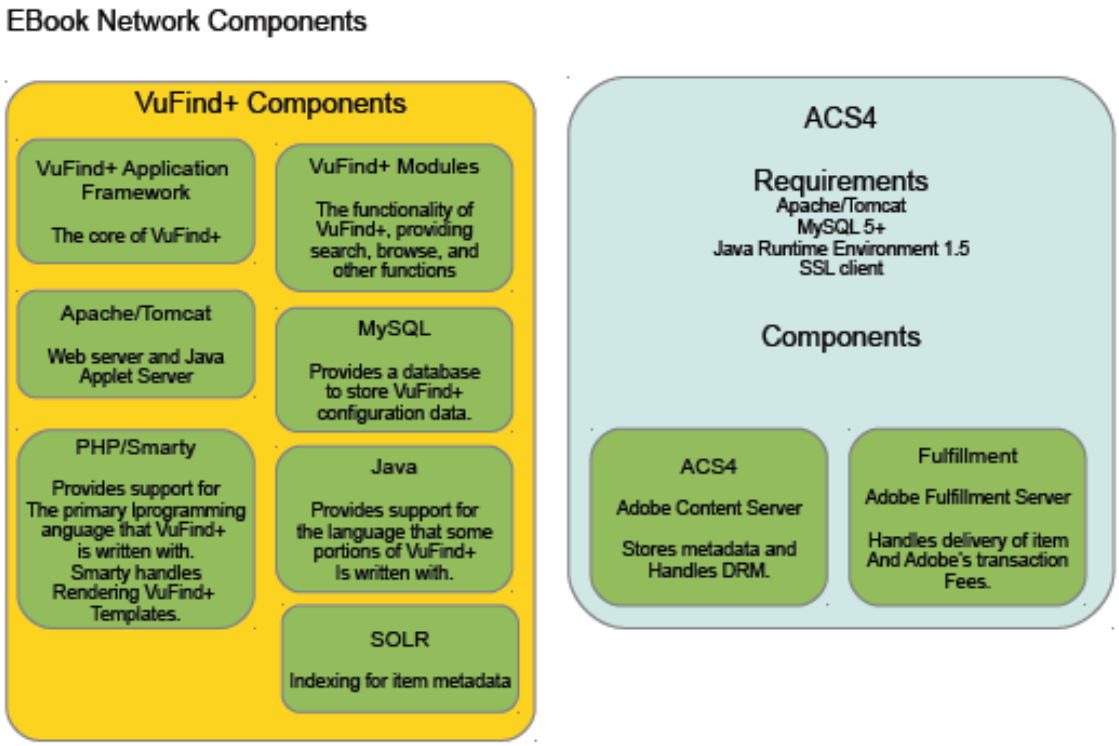
    - The Califa project represents a single discovery and eBook system to serve many potential customers. Quipu says it may have to investigate other open-source

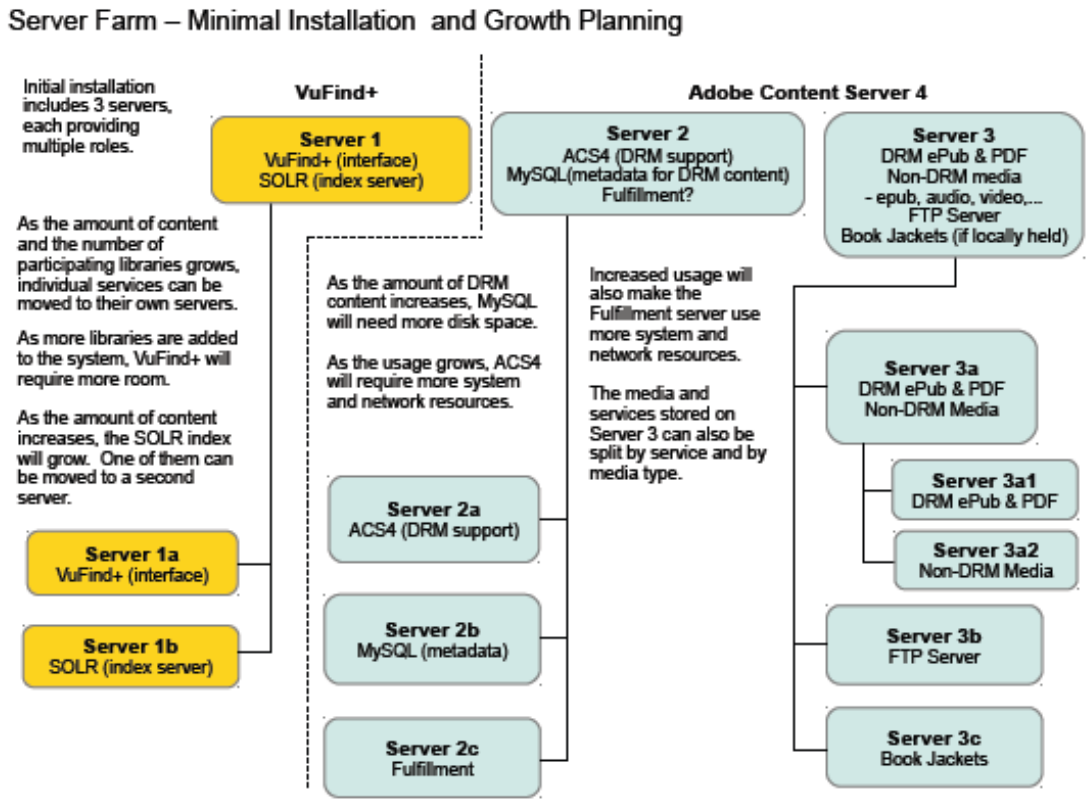
solutions (Evergreen and/or Koha) as middleware to bridge some ILS functions.

- Quipu has devoted a great deal of time to planning a scalable infrastructure to serve Califa's needs (please see the technical section).
- As of the publishing of this report, Quipu is building their first servers for the Califa eBook project.
- When the project is farther along, Quipu plans to mount a project wiki to document the process and to share information with others interested in the development of the Califa eBook project.

Tech Finding Image 4: Califa Configuration

(from the Quipu Group, Denver, Colorado)




Server Farm – Minimal Installation and Growth Planning
Initial installation includes 3 servers, each providing multiple roles.
VuFind+
Adobe Content Server 4
Server 1
VuFind+ (interface)
SOLR (index server)
Server 2
ACS4 (DRM support)
MySQL(metadata for DRM content)
Fulfillment?
Server 3
DRM ePub & PDF
Non-DRM media
- epub, audio, video,...
FTP Server
Book Jackets (if locally held)
As the amount of content and the number of participating libraries grows, individual services can be moved to their own servers.
As more libraries are added to the system, VuFind+ will require more room.
As the amount of content increases, the SOLR index will grow. One of them can be moved to a second server.
As the amount of DRM content increases, MySQL will need more disk space.
As the usage grows, ACS4 will require more system and network resources.
Increased usage will also make the Fulfillment server use more system and network resources.
The media and services stored on Server 3 can also be split by service and by media type.
Server 3a
DRM ePub & PDF
Non-DRM Media
Server 3a1
DRM ePub & PDF
Server 3a2
Non-DRM Media
Server 1a
VuFind+ (interface)
Server 1b
SOLR (index server)
Server 2a
ACS4 (DRM support)
Server 2b
MySQL (metadata)
Server 2c
Fulfillment
Server 3b
FTP Server
Server 3c
Book Jackets

Hosted Dedicated Servers with Custom Virtual Servers (2 Options)

3 Server Configuration

The hosting company provides 3 dedicated servers. We split those physical servers into virtual machines (VM). On the virtual machines, we run the various pieces of the eBook network.

The boxes to the right describe the required server specifications and the layout of the virtual machines.

2 of these servers have less disk space, while the 3rd has 4TB of disk space, to handle the storage of media files.

Server 1	Server 2	Server 3
48GB ram 2 4Core CPUs 2.8Ghz+ RAID5 1TB total HD	48GB ram 2 4Core CPUs 2.8Ghz+ RAID5 1TB Total HD	48GB ram 2 4Core CPUs 2.8Ghz+ RAID5 4TB Total HD
VM1 VuFind+	VM1 ACS	VM1 Media Storage
VM2 MySQL	VM2 Fulfillment Server	VM2 Bookjacket Server
VM3 SOLR	VM3 FTP Server	

NOTE: All server specifications are the minimum requirement. In all cases, it is acceptable to increase the memory, CPUs, or disk space. For example, the selected hosting company may not offer any servers with 4Core processors. But they might offer 6Core processors. Or they might only offer processors with speeds at 3.0Ghz or 3.2 Ghz.

Server 1	Server 2
48GB ram 2 4Core CPUs 2.8Ghz+ RAID5 4TB Total HD	48GB ram 2 4Core CPUs 2.8Ghz+ RAID5 4TB Total HD
VM1: VuFind+	VM1:ACS
VM2: MySQL	VM2: Fulfillment Server
VM3: SOLR	VM3: Media Storage
VM4: FTP Server	VM4: Bookjacket Server

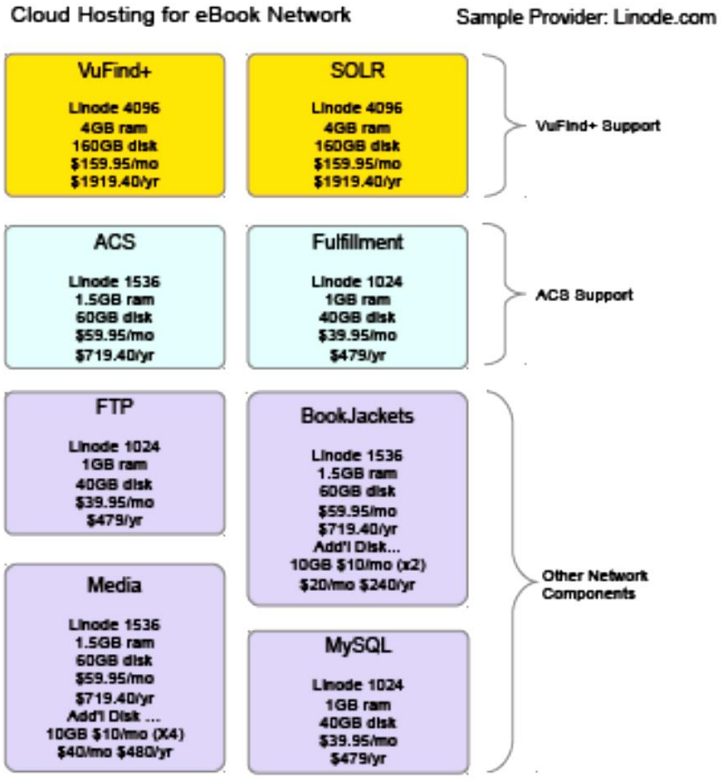
2 Server Configuration

The hosting company provides 2 dedicated servers. We split those physical servers into virtual machines (VM). On the virtual machines, we run the various pieces of the eBook network.

The boxes to the left describe the required server specifications and the layout of the virtual machines.

In this configuration, both servers are identical, each having 4TB of disk space. The additional disk space in this configuration gives us greater flexibility in the arrangement of the virtual machines.

Quipu Group, LLC. June 20th, 2012



Cloud Server Costs

Server	Monthly	Yearly
VuFind+:	$159.95	$1919.40
SOLR:	$159.95	$1919.40
Media:	$99.95	$1199.40
BookJackets:	$79.95	$959.40
ACS:	$59.95	$719.40
Fulfillment:	$39.95	$479.00
MySQL:	$39.95	$479.00
FTP:	$39.95	$479.00
Totals:	$679.60	$8155.20

Miscellaneous Technical Findings: VuFind and Adobe Content Server

- Systems of multiple servers and data storage configurations (generally approached as Storage Area Network, or SAN) are necessary to host an e-content delivery system based on the Douglas County Model. Current configurations (from Douglas and Califa) are depicted in diagrams below.

- Douglas County staff says the technical infrastructure supporting the DCL eBook model has been stable for a relatively short time – only since late July 2012. Prior to that date the platform was in various stages of development, with various difficulties that have mostly been attributed to VuFind.

- Problems for Douglas included the Apache server going down more than 4 times a day, to completely stable in mid-July 2012. Douglas County Libraries spent $35k and upgraded its server infrastructure, but discovered the problem with VuFind was not with the computing resources, but with the code. (Mark Noble speculates that some issues may be related to DCL's use of the Windows platform – Noble says the merged code caused no problems at Marmot on Linux).

- The ideal of sharing the code base of the open-source VuFind software with partners (including Marmot, eiNetwork, Wake County, and Anythink/Rangeview Library District) proved to be unsuccessful. When partners in the VuFind code base tried to merge code (in part for each partner to reap the benefits of code additions created by other partners) the system would "break." This led Douglas County Libraries and other partners to undertake their own individual approach to code development, somewhat diminishing one of the perceived advantages of open-source software.

- VuFind has a relatively small public library development base. Arguably, those using VuFind as part of the implementation of the Douglas County Model represent the largest public library development group for the platform.

- Mobile access is a piece of both Douglas County and Califa's approaches:

    - Douglas outsourced mobile app building to Bluefire (http://www.bluefirereader.com/) and spent $20k for development on the Apple (IOS) and Android platforms. Both platforms have native support from the Adobe Software Development Kit.

- Califa contracted with library mobile app developer Boopsie (http://www.boopsie.com) for mobile access. Boopsie's mobile products operate on all popular mobile device platforms.
- Most Marmot public libraries implemented Boopsie in 2011. By 2012 the mobile VuFind theme provided better online catalog and my account features, particularly with regard to ebook integration. Boopsie is still used by Marmot libraries as a mobile website app, but it is typically configured it to invoke mobile VuFind rather than Boopsie's native catalog discovery layer.

- In Douglas, the server components are owned by the library but located in a commercial network operations center in a setup known as co-locating or "co-lo." Douglas County Libraries had to re-engineer the server/application architecture to nail down the issues they were having. Several approaches to solve the stability issues were tried over a three week period, including separating VuFind, MySQL and Solr to individual servers and even moving from Windows to Linux.

- Douglas emphasizes the importance of the standard IT development process of "build-fail-re-build" in its approach to the eBook system. Experimentation and learning from mistakes resulted in stronger builds and better services.

- Even when describing a "nightmare" of four months of struggling with VuFind, Douglas says it is loyal to the platform – praising its flexibility in meeting the needs of the library.

- Douglas County Libraries' technical staff feel that in some ways they were forming VuFind into areas it was never intended to go by introducing a lot of overhead (via computer code) to reach their objective in adding eContent. " I think we should have built a separate eContent system, built APIs like Overdrive did and have those connect to VuFind, rather than trying to make VuFind the eContent management system that does everything. I would integrate eContent differently." "We kind of just hacked eContent into it. We should have scaled and architected it more appropriately. And that's what we will do in the future."

- Specific recommendations from Douglas technical staff for Arizona: "If they have competent developers, they could easily build a stand-alone eContent management system that works with ACS. For example, ACS comes with a sample store. You could expand on that and build APIs, then feed that API into VuFind. That would make it stable and independent as an avenue to manage Marc records the same way as you do w/physical content."

- Like other open-source software (such as Drupal), VuFind offers a great degree of flexibility for those with the resources to pursue its capabilities through the time, effort and other

resources required for development.

- VuFind is not a one-size-fits-all system. Each ILS requires its own customizations, and each version of each ILS requires its own customizations. Using VuFind requires an ongoing commitment and relationship between the library (via staff or vendor) and the software.

- The Quipu Group LLC is library technology firm located in Denver Colorado with a specialty in infrastructure, coding and ILS systems. Quipu has been hired by Califa to assist with the technical development of its eBook project. As well as describing and documenting technical development, Quipu aims to identify the number of staff needed to operate the technical pieces of the eBook system.

- Quipu is currently not accepting any new eBook system consulting customers. Quipu wants to see the Califa project through to completion to have a complete picture of the resources necessary to support an eBook project.

- The Claifa project represents a single discovery and eBook system to serve many potential customers. Quipu says it may have to investigate other open-source solutions (Evergreen and/or Koha) as middleware to bridge some ILS functions.
- As of the publishing of this report, Quipu is building their first servers for the Califa eBook project.

- When the project is farther along, Quipu plans to mount a project wiki to document the process and to share information with others interested in the development of the Califa eBook project.

- Anythink didn't report some of the VuFind problems experienced by other sites, but also has a simple implementation (they are not interfacing with ACS to offer content) and use the system primarily as a discovery layer for eBooks licensed through Overdrive.

- The project process (including the technical elements) at Douglas County Libraries continues to require a strong communications component, including multiple weekly meetings.

- Please see the appendices for additional nuance on the development struggles and triumphs at Douglas Libraries.

Key Findings: Content and Collections Development

- The Douglas County Model is unique in its emphasis on library ownership of the digital materials. In most cases, vendors of eBooks (such as Overdrive) and other electronic materials lease materials on a contractual basis.

- The publishers, authors and rights-owners selling content to Douglas County, Marmot, Califa, and others tend to be smaller presses or aggregators for self-publishing and vanity presses. No major publishers are yet represented in the Douglas County Model, including the "big six" (Hachette, Macmillan, Penguin Group, HarperCollins, Random House and Simon & Schuster).

- DCL currently does not have a formal or documented collection development policy for eBooks. "We will add whatever we can get."

- Currently, Douglas County is favoring quantity in collection strategy and hoping the cream rises to the top via user self-selection. The traditional notion of collection development began with a focus on quantity of titles. More recently, Douglas has been re-introducing traditional elements of collection development. In some cases, the sheer volume of available eBooks from vendors such as Smashwords (http://www.smashwords.com/) has made relevant search results difficult -- with the titles from a big distributor like Smashwords burying other publisher's offerings.

- For its purposes, the Douglas County Model classifies eContent into four channels:
    - The big six
    - The rest of commercial publishing, including independent and small presses (approx.. 600,000 publishers)
    - Local History
    - Self-publishing

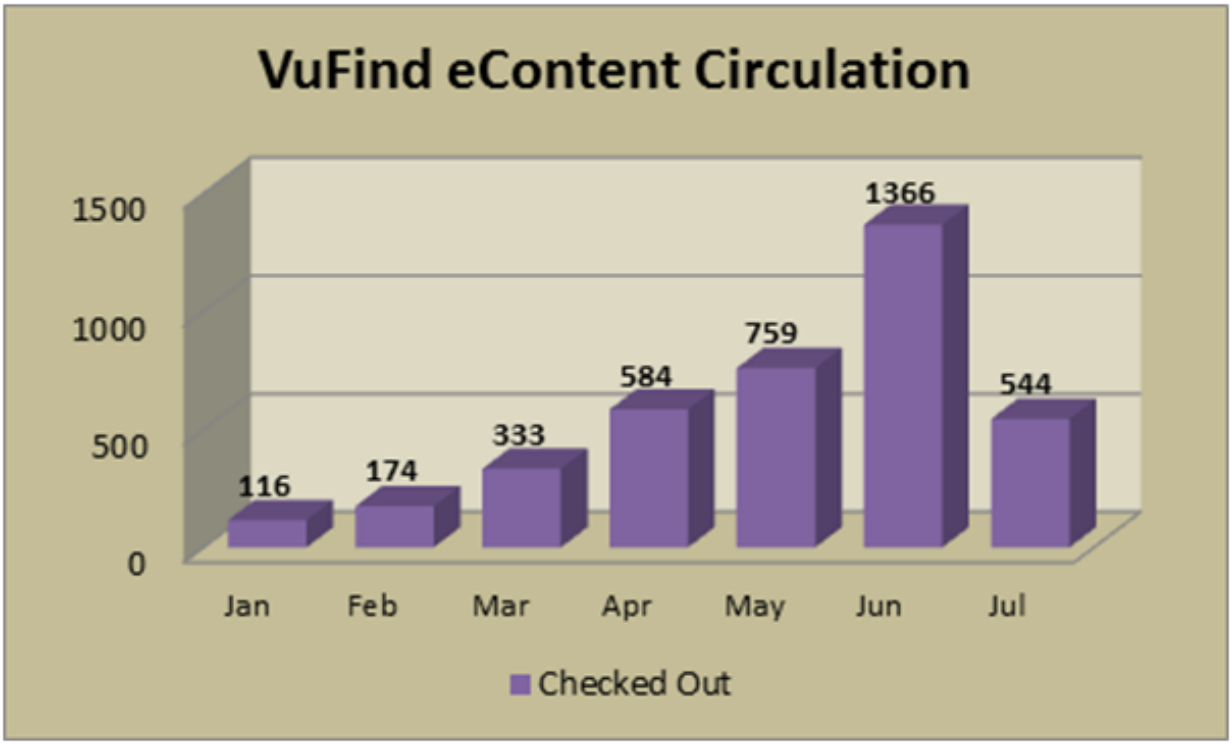
- Publishers that previously were unable to sell to libraries due to the cost of distribution are finding a new market with current projects including Douglas County and Califa
- Local history – where the content often already belongs to the library -- offers new publishing opportunities for libraries. Jamie LaRue: "This is so cool—we're receiving photos that we scan and both geo-locate and timestamp. You can look at the corner of Wolfensberger and Wilcox *(cross streets in Castle Rock, Colorado*) in an animated slideshow that goes from 1910 through today—the library is creating content no one else has—a whole new source of creation. That is way more interesting than the Big Six! To me, that's what will resonate with Arizona more than anything else, because unlike other folks they want to create and share content. Why not invest in a publishing platform, and then you're making content instead of just buying it. "

©2012 Carson Block Consulting Inc.

- When libraries take a role previously filled only by publisher, new opportunities are possible. Jamie LaRue: "One (local author) said 'I'm not sure I can give my book to the library.' I asked why? And we talked about a new deal through Amazon (and others) where the distributor pays you more for your book if they are the exclusive distributor for 90 days. Would giving books to the library interfere with that? What about giving the work a different ISBN—a 'Library Edition'—Go to the Bowker manual— sells ISBNS. If I buy 1000, it only costs me $1000, so suppose you're embedded in my self-publishing system, and I say the library will sell you a library-edition ISBN for $1, will you sell to the library? Then all of a sudden I've solved their distribution problem, created a new digital market and a new digital price."

- Douglas currently obtains content from these entities (including leased and purchased content):
- 3M
- ABDO
- Access Video on Demand
- Book View Cafe
- CIPA
- Crabtree
- Dzanc
- Freegal
- Gale Group
- Gareth Stevens
- California Press
- Infobase Learning
- Independent Publishers' Group
- Lerner
- Zinio
- Marshall Cavendish
- eNet Press
- OverDrive
- Poisoned Pen Press
- Rosen
- Smashwords
- Twilight Times
- Tyndale House
- Pubwest
- Akoshic

- Some statistics from Douglas County:
  - Nearly 9000 eBook titles as of 8/10/2012; more than 25,000 by 9/1/2012.
  - 8937 Videos
  - 175 magazines
  - Circulation – January – July 2012:



- Early on Douglas, encountered work and expense in negotiating with publishers for ownership rights for eBooks. Douglas estimates it spent $5k in legal fees to negotiate its first eBook agreement with the Colorado Association of Independent Publishers. Douglas now uses a blanket agreement (which they call a "Statement of Common Understanding") written by California lawyer and library law specialist Mary Minnow for $2k. If the rights owner doesn't accept the terms of the document, Douglas does not buy their content.

- Douglas has discovered that the publishers it is working with often do not have a full understanding of the world of e-publishing, and the library spends a great deal of time teaching publishers the system.

- Douglas decided getting content one author at a time wasn't optimum. Jamie LaRue decided Douglas needed to go after publishers for big chunks of content, and own content in bulk: ePub files by the 10s, 100s, 1000s. The problem with that is libraries need the files with matching ISBN info and cover art for each title. What often happens is that when buying in bulk, Douglas gets 490 ePubs and 510 cover-art files, and all out-of-order; nothing matches. Staff have to work to reconcile the data, and it became expensive in terms of staff time.

- DCL is currently trying to streamline purchases by developing an "Acquisitions Dashboard" to allow the library to shop for publishers and avoid purchasing duplicates. The dashboard will be designed to tie into the library's purchase order system.

Key Findings: Technical Services

- Most items in the Douglas County Model are not cataloged in a manner useable by a typical Integrated Library System (ILS). Douglas has developed draft-and-evolving guidelines and technical processes to create data handles for these items via full-text indexing, cross-walking to Marc from ONIX, and creating brief records.

- Douglas has developed metadata standards and processing guidelines for its project. The current version is available here: http://evoke.cvlsites.org/files/2012/06/ECONTENT-PROCESSING_4.pdf

- Douglas County reports difficulty in communicating the metadata standards and processing standards to other libraries.

- Two members of the technical services department work on together on eContent

- One staff member at Douglas spends an average of 20 hours a week on eContent. This excludes special problem solving efforts like a recent project of identifying problems with 3M titles from TLC. Time spent per week was higher in earlier stages of the project as Douglas researched and outlined strategies for accommodating non-MARC metadata.

- Another staff member currently spends about 4 hours per week on eContent due to other responsibilities. This is a rough estimate and as staff work through the issues and build tools to deal with the various forms of publisher data, this will most likely decrease. The process of adding eContent metadata to our catalog is going faster as time passes.

- Time spent includes:
    - Working with consultant and testing different versions of ONIX-MARC crosswalks
    - Sorting metadata received and reconciling with orders placed and eContent received
    - Creating translators for spreadsheet data, testing and tweaking
    - Importing records into Horizon and cleaning up/correcting records as necessary
    - Creating .csv files, as needed, containing ISBNs and associated collection codes

- Continual updates of the eContent processing guide which is critical to Douglas managing data consistently and accurately, and for maintaining documentation of the processes. Douglas also maintains an eContent tracking spreadsheet which is updated each and every time any publisher eContent records are added to the catalog.

Key Findings: Project Costs and Budget

- Douglas County Libraries have discovered that the project requires ongoing staff costs -- including the areas of technology development and relations with publishers of eBooks who often require assistance to understand some of the nuance in digital publishing and the mechanics of creating and selling digital books.

- Costs of eBook projects cited in various public sources are sometimes incomplete and not always reflective of total project costs. Complicating attempts to define project costs are due to the number of variables – no two projects are alike, and different libraries have different ways of classifying costs. For instance, determining actual staff costs can be difficult if the library considers labor allocated to the eBook project as a re-assignment of existing staff duties. Defining actual IT costs can be difficult if upgrades in hardware and operating systems to handle the eBook project are part of general upgrades.

- Actual project costs have also been difficult to determine due to the nature of this type of project – as with other project elements, costs are fast-moving and (understandably) somewhat reactive in a new area for libraries – essentially a "research and development" (R&D) process.

- Some cost elements are more reflective of a commercial environment than a public one. For instance, part of the Adobe model for its content server is a transaction fee (about 8-cents per transaction) on top of other software licensing fees.

- Since labor within Douglas County Libraries to work on the Douglas County Model is considered part of staff costs, the library could only estimate the impact of staff costs on the project. Douglas classified staff effort in the following categories:

    - Researching eBooks, technologies, publishing industry, self-publishing process, individual authors, etc.
    - First contact with publishers
    - Conferences
    - Webinars
    - Meetings with publishers (phone mostly)
    - Email follow-up (multiple with all publishers)
    - Process meetings with IT and Cataloging (both formal and informal)
    - Selecting from large spreadsheets (not efficient)
    - Talking to other libraries about the process
    - Researching ways of making the content more discoverable (reviews, lists, etc.)
    - Talking to branch staff about the project, the content and the process

Douglas County Project – Estimated Costs

(The consultant compiled the cost analysis below from interviews with project staff. Costs are based on numbers provided by Douglas County Libraries Staff. Some staff costs were not available at the time of report publication.)

Douglas County - Technology Startup Costs (Outsourced)		
VuFind Development	100,000.00	
Graphic Designer	500.00	
Mobile App Development	10,000.00	
Subtotal	**110,500.00**	
Douglas County - Technology Infrastructure Investment		
(Storage, Servers, ACS Licenses, Bandwidth)		
(Scalable Infrastructure currently at 30% of capacity)		
Subtotal	**75,000.00**	
Douglas County - Technology Staff Costs		
(Approx 1.0 FTE for VuFind Programmer)		
Subtotal		
Total IT Costs to Date		**102,500.00**
Douglas County - Legal Fees		
CIPA Agreement	5,000.00	
Statement of Common Understanding	2,000.00	
Subtotal	**7,000.00**	**7,000.00**
Douglas County - Other Labor Costs		
Collection Development and Acquisitions	56,000.00	
Management Staff	24,000.00	
Cataloging	35,000	
Subtotal	**115,000.00**	**115,000.00**
Douglas County - Content Costs		
2011	60,000	
2012	500,000	
Subtotal	**560,000**	**560,000.00**

©2012 Carson Block Consulting Inc.

Summary Estimated Costs: Douglas County Libraries

IT	**102,500.00**
Legal	**7,000.00**
Other Labor	**115,000.00**
Content	**560,000.00**
Grand Total	**$784,500.00**

Note on Douglas County Library costs: Through discussions with the consultant, Douglas County appears to have spent an estimated $785,000 on its eBook project to date. Library Director Jamie LaRue believes the actual project costs are lower than reflected in the consultant's cost breakdown, specifically in the lines reflecting the cost of project labor – LaRue considers the eBook project an institutional priority, and looks at some of the staff costs as a re-assignment of normal duties. LaRue emphasizes that ***new*** *costs were modest in terms of the Douglas County budget, and as with other major initiatives, staff were re-purposed to support new priorities.*

Califa Project — Estimated Costs

(The consultant compiled the cost analysis below from interviews with project staff. Costs are based on numbers provided by Califa. Some staff costs were not available at the time of report publication.)

Califa - Technology Startup Costs (Outsourced)		
VuFind Development (two sites/ILS; each site will require separate dev. costs)	25,000.00	
Adobe Content Server License	10,000.00	
Mobile App Development Development (Boopsie) (Incl. $30k for Adobe Mobile Sync)	50,000.00	
Subtotal	**85,000.00**	**85,000.00**
Califa - Technology Infrastructure Investment		
Hosting at hosting.com (1 year)		
Subtotal	**30,000.00**	**30,000.00**
Califa - Technology Staff Costs		
Califa has 3.0 FTE staff; estimates that 30-40% of one FTE devoted to eBook project		
Subtotal		
Total IT Costs to Date		**115,000.00**
Califa - Legal Fees		
Statement of Common Understanding (using DCL's version)	0.00	
Future legal costs due to Consortium-status		
Subtotal	**10,000**	**10,000.00**
Califa - Other Labor Costs		
Labor costs, including Collection Development and Acquisitions,	0.00	
Management Staff, and Cataloging will be the responsibility of each	0.00	
individual library.	0	
Subtotal	**0.00**	**0.00**
Califa - Content Costs		
2012	60,000	
Subtotal	**60,000**	**60,000.00**

©2012 Carson Block Consulting Inc.

Summary Costs: Califa

IT	**115,000.00**
Legal	**10,000.00**
Other Labor	**0.00**
Content	**60,000.00**
Grand Total	**185,000.00**

©2012 Carson Block Consulting Inc.

Colorado Library Consortium (CLiC) - Projected Project Costs

(Costs are projections performed by CLiC as part of their analysis of the Douglas County Model.)

Assuming services for 25 member libraries, CLiC estimated a project cost of almost $800,000.00. CLiC is not pursuing a project based on the Douglas County Model at this time.

Anythink (Rangeview Library District, Colorado) – Estimated Project Costs

(The consultant compiled the cost analysis below from interviews with project staff. Costs are based on numbers provided by Anythink. Staff costs were not available at the time of report publication. Please note that Anythink is not offering content via Adobe Content Server, so costs below are reflective of a modest installation of VuFind as a discovery layer for eContent.)

Anythink - Technology Startup Costs (Outsourced)		
VuFind Development (outsourced)	20,000.00	
Subtotal	**20,000.00**	**20,000.00**
Anythink - Technology Infrastructure Investment		
Server Infrastructure	**15,000.00**	
Consulting	**2,325.00**	
Subtotal	**17,325.00**	**17,325.00**
Anythink - Technology Staff Costs		
Anythink has 3.0 FTE staff; estimates that 30-40% of one FTE devoted to eBook project		
Subtotal		
Total IT Costs to Date		**37,325.00**

Key Findings: Emerging Issues/Lessons Learned

- Douglas County Libraries' staff members are actively examining issues around eContent. Some current and controversial conversations include:
    - Issues around self-published authors. Some say self-published works are "trash." Trash or treasure, self-publishing is changing the economy of publishing. In the past year, 16 of the top 100 bestsellers were self-published. Many established authors are moving away from traditional publishing models.
    - Many at Douglas County Libraries do not see VuFind as essential to their model. The central component (to ensure control over circulation limits) is Adobe Content Server. Many people forget that the discovery layer does not have to be VuFind, and that it is just an option for discovery.
    - Replicating the model: how can/should Douglas County Libraries host and promote from DCL? Douglas is happy with other projects that have spawned, but also feels that there is more for Douglas County Libraries to do to support the model in Colorado. Some at Douglas County Libraries feel it might be helpful if a large consortium took it over, but no one is capable yet.
    - What are the measures of success of the model?
    - There's a difference between a discount and a fair price. There's a consumer price, but Douglas really haven't defined what a fair price is. Douglas is concerned that buying power is being "sucked up" by exorbitant prices

- The issue of ownership looms large at Douglas. From the conversation with Rochelle Logan and David Farnan of Douglas County Libraries:
    - DAVID: ownership is way bigger than eBooks. That's a Supreme Court thing. If I buy a toaster, I can use it as intended, wear it as a hat, loan it to a friend—that's right of first sale. Libraries for centuries have operated on right of first sale, but suddenly content we don't own is more popular than content we do, so we have to stand up and enforce out right. The second part of ownership is integration. In terms of our model, we have to argue for integration into the discovery layer for our patrons. Otherwise we'll ends up with a ton of silos, and confused patrons.
    - CARSON: what is the argument you make to content owners that it is in their best interest to sell, rather than lease to libraries?
    - ROCHELLE: we tell publishers we buy eBook files, not "buy eBooks".

- Valerie Horton, Executive Director of the Colorado Library Consortium, says self publishing – through aggregators such as Smashwords – can arguably be compared to the old "Vanity Press."

- Searching in current implementations of VuFind needs further refinement. For instance, all fiction is lumped into the same category instead of being available in subcategories.

- Contracts with 3M's Cloud Library have sometimes been referred to as a "quasi ownership clause." The clause allows libraries to take these titles out of its system, but with the key dependency of the agreement of the publisher.

Key Recommendations From Consultant

- Begin with a clear and simple vision for your project. What works best for Arizona may match – or may vary – from the other projects. Current projects closely reflect the values of the sponsoring organization.

- Take care to define your stakeholders and your project measures. Who are you serving? What do you want to give them? How will you measure your impacts and successes, and determine your failures?

- Project objectives should also be clear and simple, with as few variables as possible. Even simple objectives in an eBook project will likely amount to a big job for all involved.

- Project scope should be defined in a precise manner. For instance, trying to connect the eBook project to multiple Integrated Library Systems is more ambitious by levels of magnitude than either connecting to a single ILS or making the project a stand-alone interface. Such a scope is possible, but it will have significant influence on the way you design and resource your project.

- Use the detailed experiences of others to make good choices. While there isn't a precise formula to follow, all of those contacted in this report have expressed an ongoing willingness to share their experiences even more deeply than reported here. Please note that the experiences recorded here are snapshot in time, and each organization is experiencing new developments almost daily.

- Excellent study and good project planning is a must. Although there are several components of the process that are straightforward (such as the choice of Adobe Content Server if AZ wants to engender trust from publishers) most of the other elements offer opportunities to entertain options.

- Take care not to underestimate the amount of time, cash and other resources that may be required. In almost every case, the effort or costs required for each project were higher than expected. Begin your project by erring on the side of overestimation.

- Include specific and strategic contingencies of money and time for your project. There are new developments daily and you should extend to yourselves the flexibility to take a new and better patch on the way to your ultimate goal.

- Arizona has the opportunity to do something new in the area of content. In the digital age, content is king, and those with the most desirable content are likely to prosper. The consultant recommends that Arizona carefully consider the role of content in its project and perhaps choose it as an area to take the concepts of an eBook project into new territory.

- To help the committee have a clear picture of the current processes and options, the consultant has prepared a simple chart – called a Discussion Framework -- showing the major elements used in projects to date. The committee can use the chart as a tool to explore its own eBook project.

- Give others the benefit of your experiences by sharing freely with the library community.

Simple Discussion Framework

The framework on the following pages is not intended to be all-inclusive or to replace proper project management techniques, but is suggested as one way to apply the elements in this report to a high-level discussion about possible approaches for Arizona in three steps:

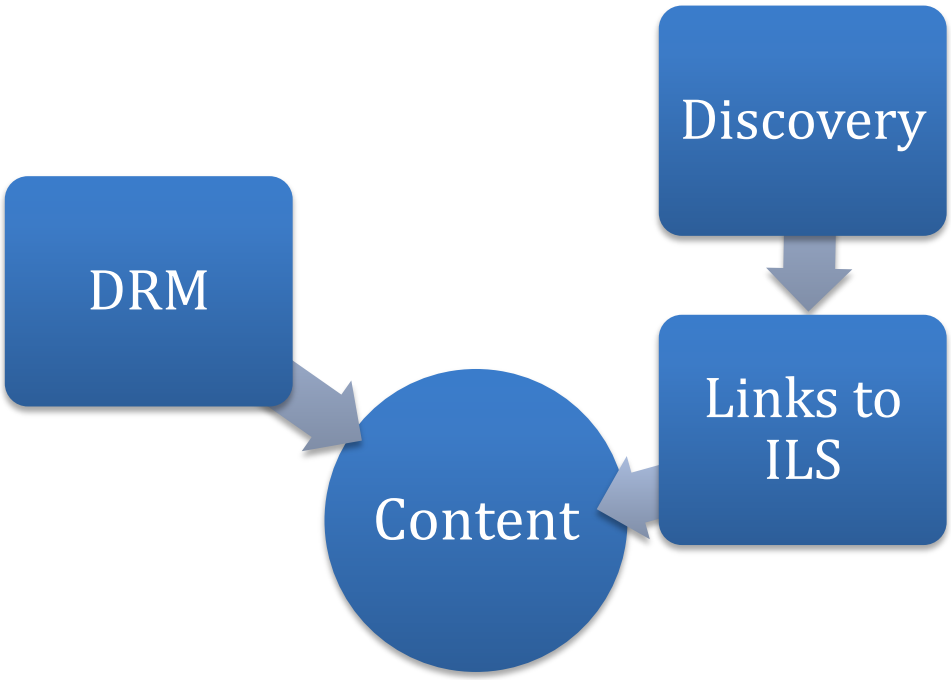
1. Define Your Project
2. Consider Content
3. Consider How To Deliver Your Project

Step One: Define your Project

Key Questions:

- What is your vision for the project?
- What impact or impacts do you desire?
- What are the impacts worth to you in terms of value?
    - What are the impacts worth -- in terms of value? Saving Money
    - Improving Access
    - Greater Convenience
    - Setting Precedent
    - Other?
- How will you measure?

Step Two: Consider Content



Key Concept: Other project elements exist to either support the project vision or the content offered by the project.

Key Content Question: What will you offer?

Options:
-Buy (DCL Model, etc.)
-Lease (Overdrive, etc.)
-Already Own (Local History)

Challenges:
-Availability
-Cost
-Quality

Rank: How important is this element to your project?

©2012 Carson Block Consulting Inc.

Step Three: Consider how to Deliver your Project

Key Concept: DRM and Discovery are support elements for the content.

Key Element: DRM

Options
-Adobe Content Server (Trusted by Publishers)
-Others

Challenges:
-Cost (Adobe)
-Acceptance (Others)

Rank: How important is this element to your project?

Key Element: Discovery

Options:
-VuFind (used by all projects to date)
-Others (untried)

Challenges:
-VuFind: investment of resources to develop
-Others (untried, unproven)
-Different ILS and different versions of ILS need code

Rank: How important is this element to your project?

Appendix A: Interview Questions

The following questions served as a guideline for interviews with those contacted for this report.

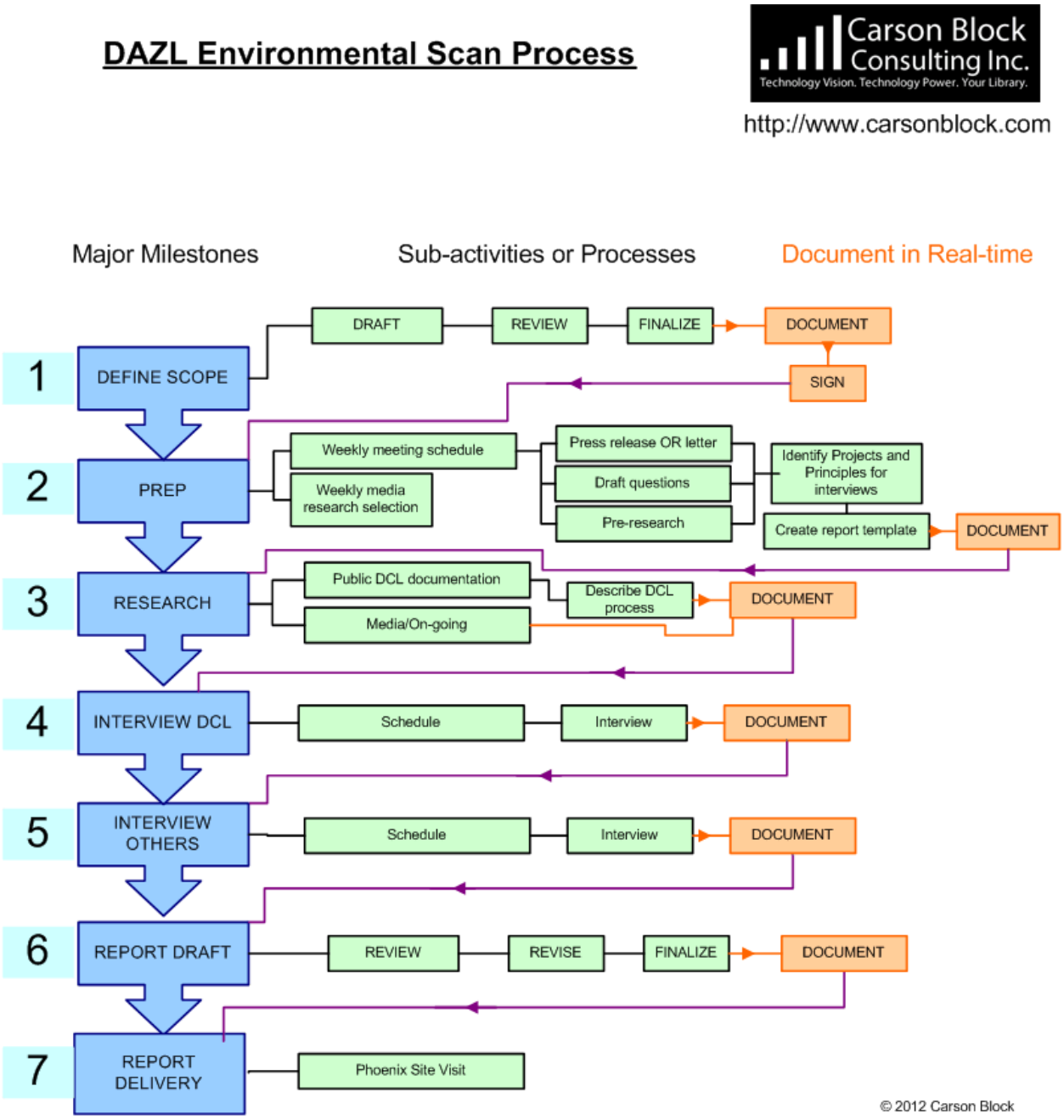
DAZL Interview Questions:

1. Please describe your library (system) and service area.
2. How many physical volumes/service area population/number of patrons/ number of branches/annual circ.?
3. How many eBook volumes do you have/do you plan to make available to patrons now?
4. What is your current/anticipated eBook demand for:
    a) Commercial vendors (Overdrive)
    b) Free options (such as Project Gutenberg)
    c) Your eBook project
5. What is your reason for starting an eBook or eMedia project? What is your vision? What are your drivers?
6. How did your vision emerge -- from a single source, or via a group/consensus process?
7. What is the scope and scale of your eBook project?
8. Where are you in your eBook project?
9. What type of content does your project have? Homegrown? Commercial? Other?
10. How is your approach using off-the-shelf technology vs. open source or homegrown?
11. Owning vs. Leasing content: Is it important for you to own or lease? Why?
12. How are you approaching DRM (Digital Rights Management) - via Adobe Content Server or by some other means?
13. What are/what will be your circulation policies for eBooks through your project?
14. What sort of agreements with publishers have you pursued?
15. What publishers are participating in your project?
16. How are you approaching collection development for your eBook project? Can you share any processes or policies with us?
17. What is your ILS?
18. How are you integrating/not integrating your project holdings into your ILS?
19. How are you approaching discovery?
20. How many actual or potential patrons are/will be served by your eBook project?
21. How is your eBook project staffed, and what roles are they serving?
22. How are you approaching project budget:
    - Startup costs
    - Ongoing costs
23. How much are you budgeting for:
    - Total
    - Technology
    - Content

- Staffing
- Training
- Promotion
- Legal
- Other

24. What have you experienced (pros and cons)?
25. Did you vary from the Douglas County model? If so, why?
26. What testing have you done? Technical? With patrons?
27. Have you explored any legal issues?
28. What technology or industry developments are you keeping track of to make good decisions about your eBook project?
29. What would you do differently?
30. How will you measure the success of your program?
31. Do you recommend others get in this game?
32. Do you have a project plan that you would be willing to share with DAZL?

Appendix B: Process Flowchart



Appendix C: Letter of Introduction

Laura Stone, Grants Administrator
Library Development Division
Arizona State Library, Archives and Public Records
602-926-3604
lstone@azlibrary.gov

Aimee Fifarek, Library Technologies & Content Senior Manager
Scottsdale Public Library
480-312-7060
afifarek@scottsdaleaz.gov
August 1, 2012

To Whom It May Concern:

The Digital Arizona Library project (DAZL) was initiated in the summer of 2012 to assess the feasibility of creating a state-wide delivery system eContent for the residents of the state of Arizona. The overarching goals of the project are to:

- Provide Arizonans with easy access to digital materials
- Provide Arizona's content providers with easy access to a distribution platform for their materials

The current timeline of the project is as follows:

- Fact-finding: now -11/21/2012
- Implementation Plan Development: 11/21/2012 – 1/25/2013
- Development of Beta System: 1/25/2013 – 9/1/2013

The Fact-finding phase had two main components: an Environmental Scan of existing eBook platform development projects; and an Internal Scan that will collect data and opinions from various stakeholder groups and address issues of governance and collection development. The purpose of the fact-finding efforts will be to develop a set of recommendations for the DAZL working group in the areas of:

- need and support for an Arizona-created eContent platform;
- effective technology platforms and practices for delivery;
- authentication and/or use measurement methodology;
- end user, content creator and library priorities;
- governance methodology;
- content collection policies;
- content priorities (book length fiction and nonfiction, music, spoken word, etc.) and acquisition strategies;
- end user, content creator and library training needs

The DAZL Working Group is made up of employees of the Arizona State Library Archives and Records Division, Maricopa County Library System, Pima County Library System, and Scottsdale Public Library, and is headed by Aimee Fifarek, Scottsdale Public Library Technologies & Content Senior Manager. The DAZL project is supported with funds from the Arizona State Library, Archives and Public Records, a Division of the Arizona Secretary of State, under the Library Services and Technology Act which is administered by the Institute of Museum and Library Services.

Appendix D: Rough Annotated Bibliography

Key to abbreviations and acronyms
DCL: Douglas County Libraries
Marmot: Marmot Library Consortium
DRM: Digital Rights Management

General info about DCL-Model

http://evoke.cvlsites.org/
This site is a repository and discussion group hosted by Colorado State Library dedicated to eBooks programs in libraries. Most of the content revolves around and is created by key players in the Douglas County Model project. The site features blog-like posts, important documents, and links to outside journal content,

http://evoke.cvlsites.org/files/2012/07/ColoradoeBookManifesto.pdf
This file is the "Colorado eBook Manifesto"—a one-page answer to the question, "what's this library eBook thing all about and why should I care?" By State Librarian Gene Hainer

http://evoke.cvlsites.org/resources-guides-and-more/dear-publisher-partner/
DCL Publisher-partner letter, outlining what DCL wants publishers to sell them, how they will use it, and how publishers benefit and are protected.

http://evoke.cvlsites.org/files/2012/03/CommonUnderstandingPurchaseEbooks2012Jan11.pdf
Common Understanding document for use in agreements with publishers as penned by Mary Minow of librarylaw.com (and James LaRue).

http://www.libraries.wright.edu/noshelfrequired/2012/05/07/douglas-county-libraries-adds-5-new-publishers-in-ebook-ownership-model/
7 May 2012—5 new publishers sign on w/DCL: Crabtree, Gareth Stevens, InfoBase learning, Book View café, Poisoned Pen Press

http://www.thedigitalshift.com/2011/12/ebooks/assured-about-security-more-publishers-agree-to-sell-ebook-files-to-douglas-county-libraries/
7 Dec 2011: After adopting Adobe Content Server, partnering with CIPA, and boldly pursuing contracts with numerous publishers, DCL now has nearly 7,000 eBook titles in its catalog. The number of titles is now approaching 7,000. Other publishers contracting with DCl as of December 2011 include the Independent Publishers Group, Marshall Cavendish Corporation, Gale Cengage Learning, Lerner Publishing Group, and ABDO Publishing Group.

©2012 Carson Block Consulting Inc.

Marmot
http://www.marmot.org/node/35
This site archives the Marmot library network annual newsletters containing information about the adoption of VuFind, Overdrive eBooks, and collaboration with DCL. More substantial VuFind documentation developed by Marmot is posted here:
http://helpdesk.marmot.org/wiki/index.php/Vufind_Documentation.

http://evoke.cvlsites.org/resources-guides-and-more/marmot-library-network-approach/
summarizes the Marmot implementation in a format suited to Evoke website readers.

EContent Documentation related to processes and procedures
http://helpdesk.marmot.org/wiki/index.php/EContent_Documentation

Marmot VuFind demos:
(http://helpdesk.marmot.org/wiki/index.php/Webex_End_of_Sprint_Sprint_Recordings)

Jamie LaRue
http://www.publiclibrariesonline.org/magazines/featured-articles/last-one-standing
This journal piece serves as an abbreviated manifesto written by LaRue to summarize the philosophy and business-logic behind the Douglas County Model. LaRue examines publishing trends including the rise of self-publishing, the increased costs, loss of ownership, disruptive user-interface and challenges in integrating multiple file-formats, among other pitfalls of outsourcing eContent management to companies such as Over Drive. He also discusses his solutions to some of the issues, such as direct negotiations with publishers and authors or the purchase or donation of eBooks for libraries, the ideas of Libraries as Publishers—creating and managing their own content, and the use of both open-source and proprietary platforms to accommodate DRM.

http://americanlibrariesmagazine.org/e-content/50-shades-red-losing-our-shirts-ebooks
An article by Jamie LaRue advocating for ownership of eContent based on the excessive expense of eBook leasing. LaRue compares the costs at Douglas County Libraries for the popular fiction title "50 Shades of Grey" in physical and digital copies, and compares the cost of the eBook for purchase by consumers to the cost for licensing to a library (library price is over 400% higher than retail), in order to convince readers of the validity of the argument that libraries should own, not lease, eBooks.

http://www.jlarue.com/talks/econtent2011.png
A helpful diagram from Jamie LaRue's website, describing, issues, partnerships, alternative library architecture, and next steps for dealing with eContent. Originally the slide is from a 2011 presentation given by LaRue in Boulder, CO.

http://www.jlarue.com/oclcslide.jpg
A helpful diagram from Jamie LaRue's website, detailing his take on the eBook issues, solutions and next steps. This diagram was presented as a slide during at OCLC 2012.

Joseph Sanchez
http://www.libraryjournal.com/csp/cms/sites/LJ/LJInPrint/MoversAndShakers/profiles2011/moversandshakersSanchez.csp

Bibliotheca and Monique Sendze
http://www.publiclibrariesonline.org/magazines/featured-articles/e-book-experiment
This article, written by Monique Sendze, summarizes the reasoning behind much of the DCL model. She discusses some of the issues surrounding ownership, ILL, user-interface, and limited discovery concerning libraries and eBooks at present. Also included is a brief technical overview of the VuFind platform. The article features useful graphics about print vs. digital circulation at Douglas County Libraries and a diagram of the eContent Architecture DCL employs.

http://www.infodocket.com/2012/06/19/bibliotheca-to-begin-commercializing-douglas-county-library-ebook-model-with-launch-of-ebook-division/
http://www.bibliotheca.com/1/index.php/ebooks

Bibliotheca (leader in RFID technology) hired Monique Sendze to head their eBooks department. She subsequently decided to remain with Douglas County Libraries, though her relationship with Bibliotecha remains cordial. Bibliotheca is developing a cooperative purchasing platform that will aggregate eBook purchases and provide secure DRM such that publishers can deliver content that integrates with library ILS systems. The planned launch will be in early 2013, with some components available earlier through collaboration with DCL.
http://www.bibliotheca.com/1/index.php/newsit/comunicati-stampa/455-bibliotheca-to-support-open-source-ebook-model

CIPA
http://www.libraryjournal.com/lj/home/889765-264/colorado_publishers_and_libraries_collaborate.html.csp
19 March 2011: "The Colorado Independent Publishers Association (CIPA) and the Douglas County Libraries have signed an agreement by which the association will sell ebooks to the library and the library will house the files on their own servers and be responsible for digital rights management."

http://www.cipacatalog.com/pages/Library-eBook-Partnerships.html
The purpose of the DCL/CIPA collaboration is to "identify and address legal and procedural issues involved in acquiring and loaning e-books from independent publishers" and "facilitate the acquisition of 100 independently published e-book titles by the library loan system by mid-summer 2011."
"Many members of CIPA have entered the world of digital publishing. By June of 2011, the Red Rocks Community College and the Douglas County Libraries will not only offer eBooks from CIPA's authors for checkout through their library catalogs, but will also allow click-through purchases of these titles."

Califa group:
http://www.thedigitalshift.com/2012/03/ebooks/large-california-consortium-joins-movement-toward-library-ebook-ownership/

California's 220-member library consortium adopts the Douglas County Model, dropping an initial $30,000 for purchases of eBooks as negotiations with publishers begin.

http://www.infodocket.com/2012/06/26/californias-califa-library-consortium-continues-to-develop-its-ebook-service/

Important Evoke site links:
http://evoke.cvlsites.org/resources-guides-and-more/publishers-willing-to-sell-e-content/

http://evoke.cvlsites.org/files/2012/06/ECONTENT-PROCESSING_4.pdf

http://evoke.cvlsites.org/files/2012/07/ColoradoeBookManifesto.pdf

http://evoke.cvlsites.org/files/2012/03/CommonUnderstandingPurchaseEbooks2012Jan11.pdf