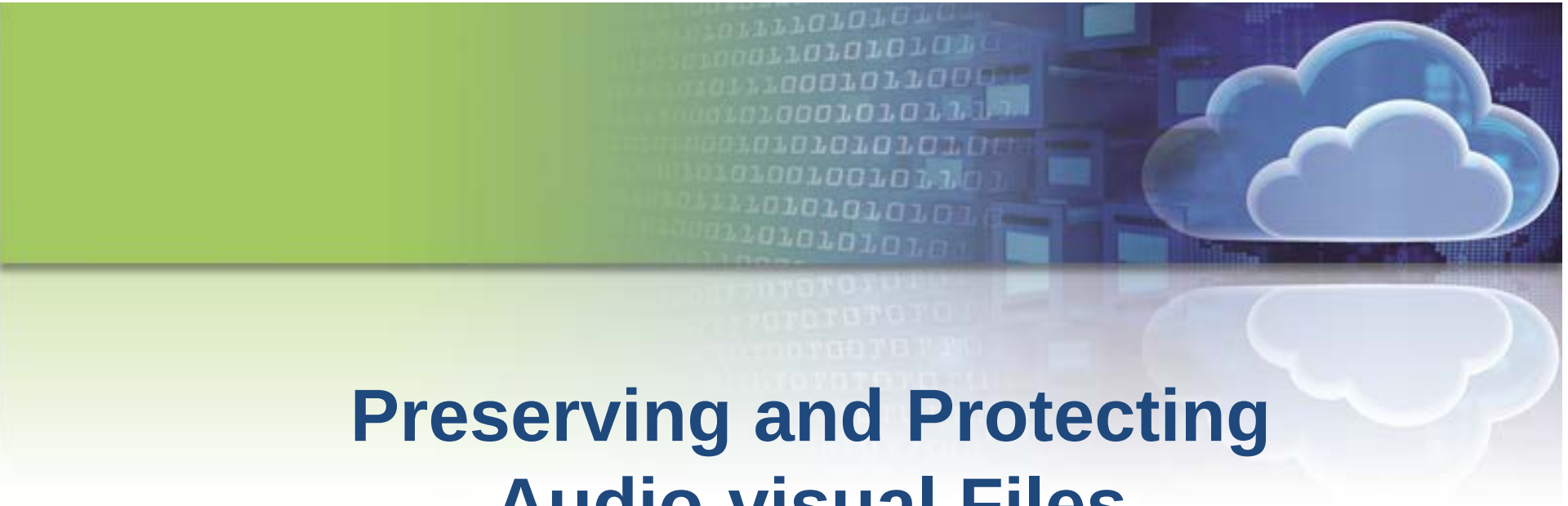
CoSA & Preservica Practical Digital Preservation 2017



Preserving and Protecting Audio-visual Files

April 11, 2017

CoSA Council of State Archivists

Preservica Digital Preservation

Practical Digital Preservation 2017

Welcome!

Sarah Grimm
Wisconsin Historical Society

PDP Briefings

- Protecting and Preserving Long-Term Digital Information — January 24
  - For IT Professionals & practitioners
- The Governance of Long-Term Digital Information — May 23
  - For Senior Managers & Budget Administrators

PDP "Hot Topic" Webinars — Tuesdays 2-3pm Eastern

- Preserving and Protecting Audio-visual Files — April 11
- Preserving Digitized State Government Records — May 9
- Best Practices in Digital Preservation: International Perspective — June 13

PDP Online Workshops - Digital Preservation 101:
'State Archives and Agencies Putting Digital Preservation into Action'

- Part 1: Practical Training in the Key Concepts — February 14
- Part 2: Practical Training in the Key Concepts — February 28
- Part 3: Case Studies — March 14

Sign up today on the CoSA website – PERTTS Portal > Education -Training

CoSA Council of State Archivists

Preservica Digital Preservation

Today's Presenters

Rachel Vagts
Berea College

Cathi Carmack
Tennessee State Library & Archives

David Portman
Preservica

Tim Hodge
Preservica

CoSA Council of State Archivists

Preservica Digital Preservation

Agenda

- Welcome
- Best Practices for Preserving AV Files
- Tennessee State Library & Archives Legislative Recording Program
- Preserving Traditional Music at Berea College
- Q&A

CoSA Council of State Archivists

Preservica Digital Preservation

Best Practices for Preserving and Protecting AV Files

Tim Hodge

Pre-Sales Engineer, Preservica

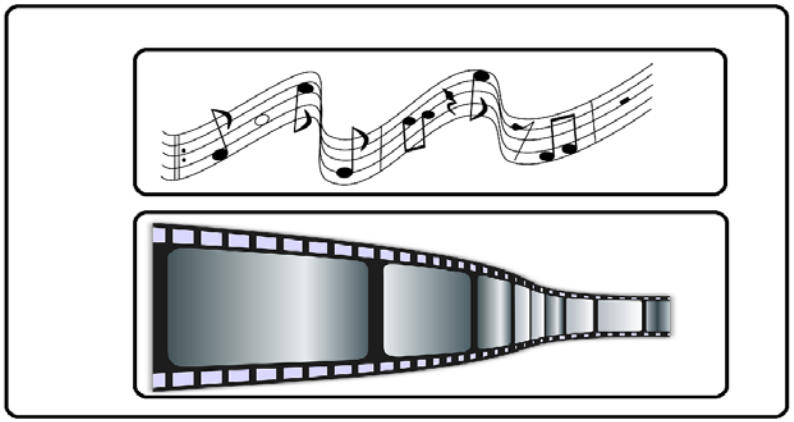
CoSA Council of State Archivists

Preservica Digital Preservation

Challenges of Managing AV - #1

Audio Visual Material is complex because…

- Formats change frequently - lots of research on video compression
- Because of the quantities of video online (VOD sites, eg Youtube, Netflix…) there's a high demand for new optimised formats with lower bandwidth requirements, eg. H264, H265
- It's a constantly evolving landscape



Challenges of Managing AV - #2

Audio Visual Material is complex because…

- Video formats are really composite formats, containing separate transports streams for the video and audio channels
- Video with stereo sound, will contain 3 embedded streams
- Video formats are containers for the image and sound files

Containers include MKV, MP4, AVI, MXF etc

- Containers can become obsolete
- Transport stream inside can become obsolete

What formats should you be looking for?

- **You should consider two formats**
  - Access
  - Long-term Preservation

- If the AV material is born digital, then your options may be limited.

- If you have a digitization program running then you have more flexibility

NARA Recommendation Audio
Preservation : WAV-PCM **Access :** MP3

NARA Recommendation Video
Preservation : MXF & MOV **Access :** H264/Mpeg4

https://www.archives.gov/records-mgmt/initiatives/dav-faq.html

Storage Solutions

Choosing the right storage will help you to best optimise use patterns

- Access formats are smaller and should be stored on fast low-latency storage e.g. AWS S3, Azure etc
- Long term preservation formats can be stored on cold storage e.g. AWS Glacier
- You need to consider the **frequency of use vs cost** of storage

Summary

- AV content is complex and must be treated differently

- Important to know how the content will be used
  - Understanding of recommended formats
  - Appropriate storage option selected

- Unlock the value of your digital content with Access
  - Share Audio & Video content with variety of audiences
  - Streaming content online and on demand

Tennessee State Library & Archives Legislative Recording Program

History of the program:

- Began in 1955 (started testing in 1951) with Audograph discs

- Switched to audiocassettes in 1974, began adding committees

History of the program continued….

- 1987: switched to half-speed recording on cassette
- 2006: Ethics Act which added the program to state law, increased coverage by adding all subcommittees
- 2008: Took the digital leap!

Key points to know…..

- Tennessee is a legislative intent state, so these are permanent records
- We produce a detailed log sheet that accompanies every recording, including bill numbers, speakers' names, and legislative actions

Staff member ca. 2007 using half-speed cassette recorder

Here was our problem…..

Cassette tapes (masters and reference copies) were:

- taking up massive amounts of space
- getting almost impossible to purchase
- no longer able be kept in temperature- and humidity-controlled storage, causing potential deterioration

Other issues

- Very heavily-used collection, requiring regular migration to new cassettes on high-speed duplicators
- Had to charge for tapes used or ask customers to provide their own tapes
- Only available for use in-house, expensive to order copies

This is the solution we adopted

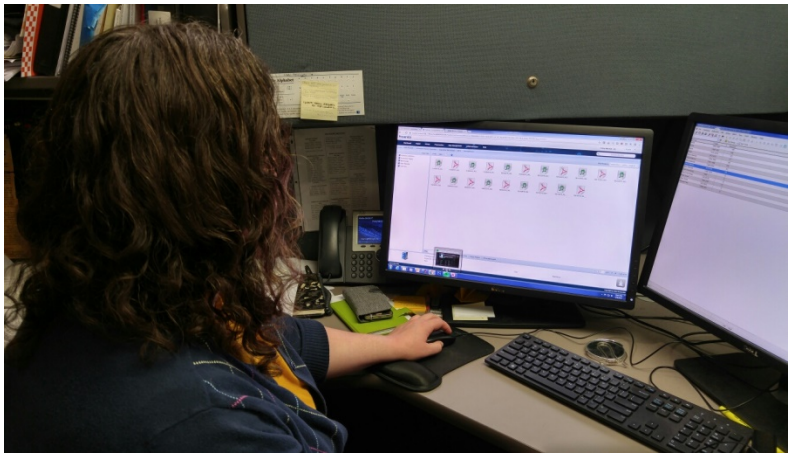
- Going digital was a foregone conclusion, it was a question of how we were going to do it
- After much research and testing, we chose BIS Digital's DCR (Digital Court Recorder) system
- Allows us to produce logs that are linked to audio
- Produces proprietary reference copy (with free player) and we save audio as a master WAV and log as TXT
- We are slowly digitizing older recordings
- Still retain all earlier formats (Audograph discs, cassettes)

This solution worked because…..

- Digital portion since 2008 is very easy for patrons to use
- Still have complete access to prior formats
- We are not stuck with only a proprietary file type
- Physical tape storage is no longer growing

Remaining issues/concerns……

- Experimenting with loading into Preservica, but cannot provide access there in DCR format due to licensing
- Can load WAVs and TXTs but would lose linkage between the two – need to provide running time instead
- Current issue with fast-forwarding in Preservica's Word Press plug-in
- Network storage is always a concern but has greatly improved



If you try this, here's what you should know

- Do lots of research to determine what will work for you and your users
- Think about your storage and preservation needs into the future
- Make sure you have access to the technical expertise needed, whether IT or archival staff

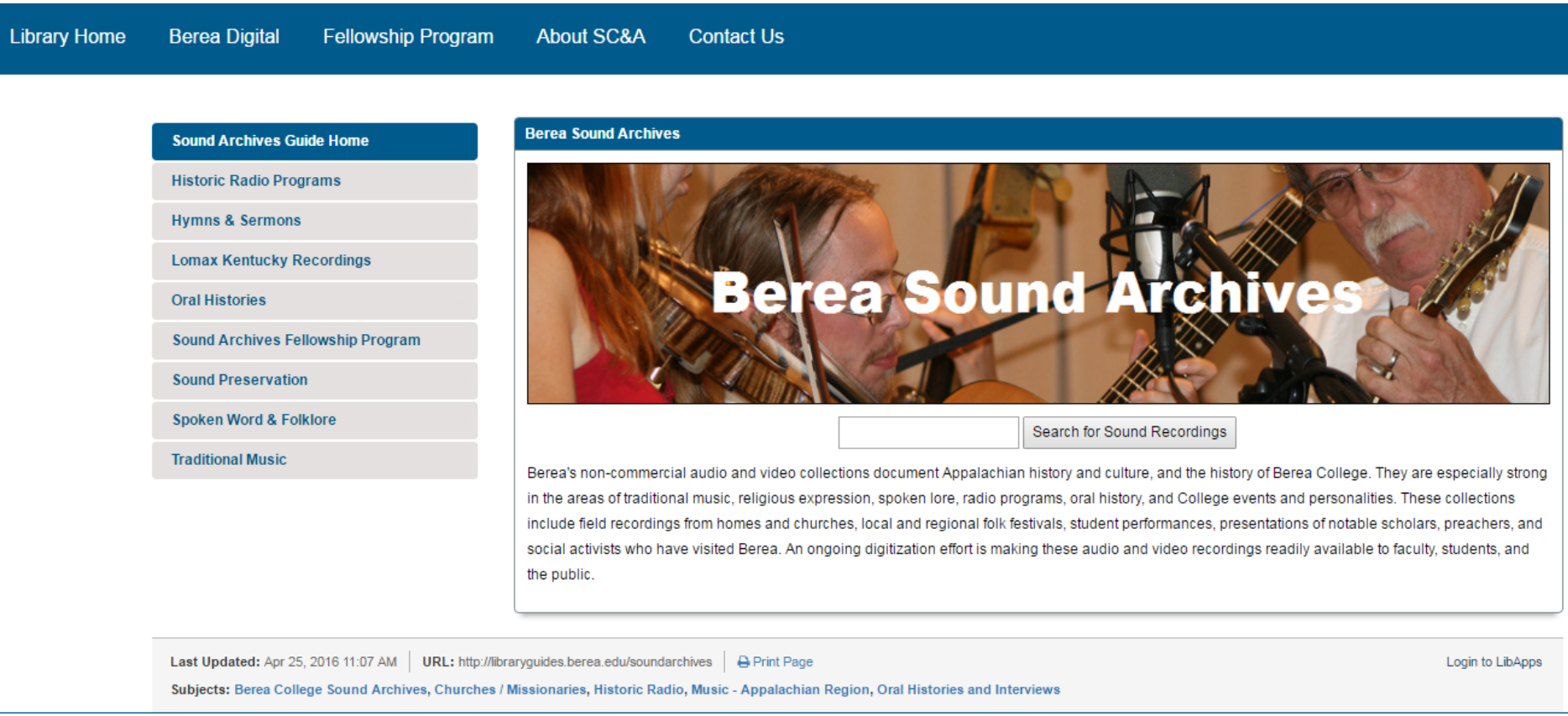
Hope our experience helps you - we're happy to talk with you at any time!

Cathi Carmack

(615) 253-3468

cathi.carmack@tn.gov

Preserving Traditional Music at Berea College



CoSA Council of State Archivists

Preservica Digital Preservation

Over 10 years, we digitized our analog A/V

But where would we store our digital files?

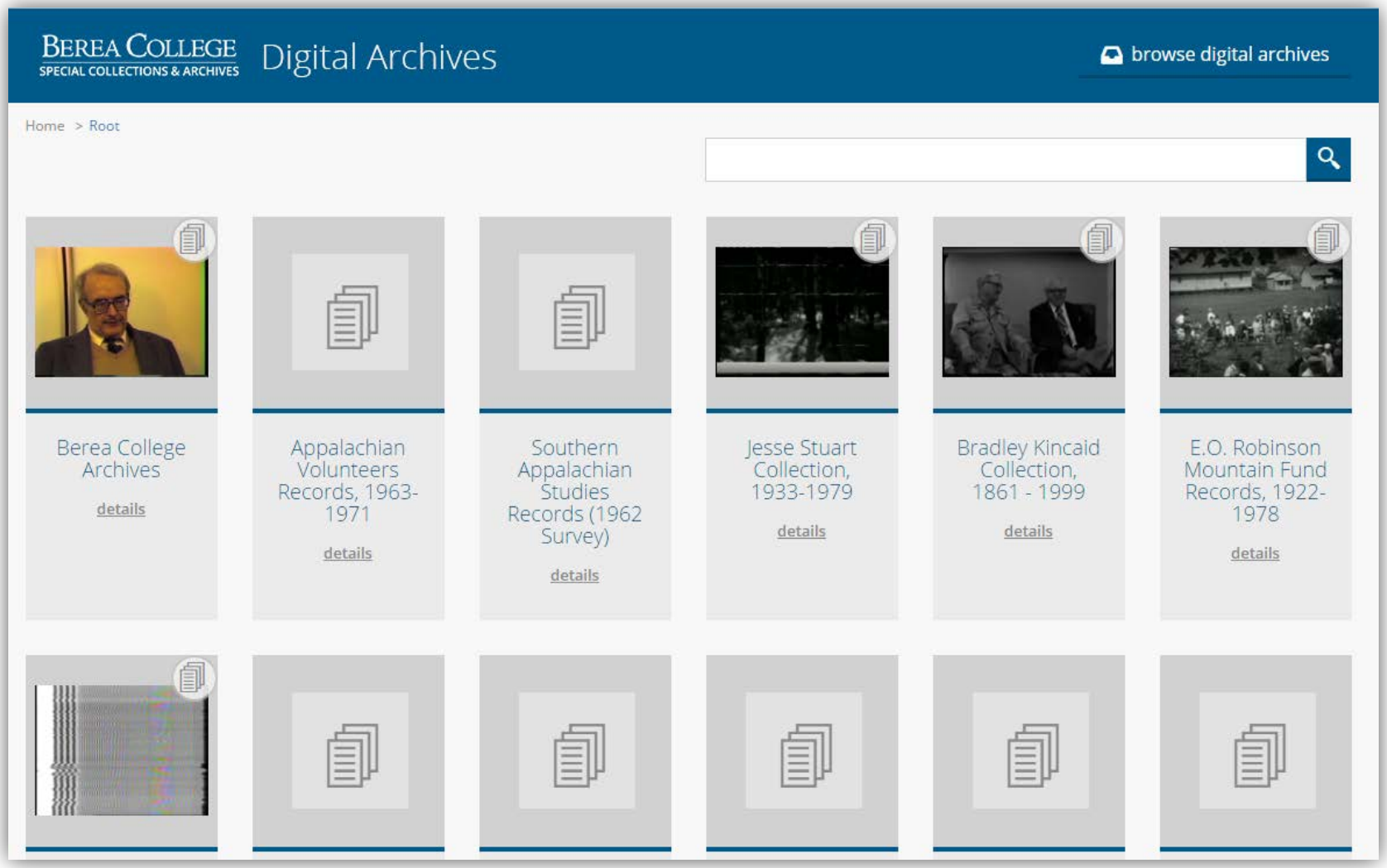
CoSA Council of State Archivists

Preservica Digital Preservation

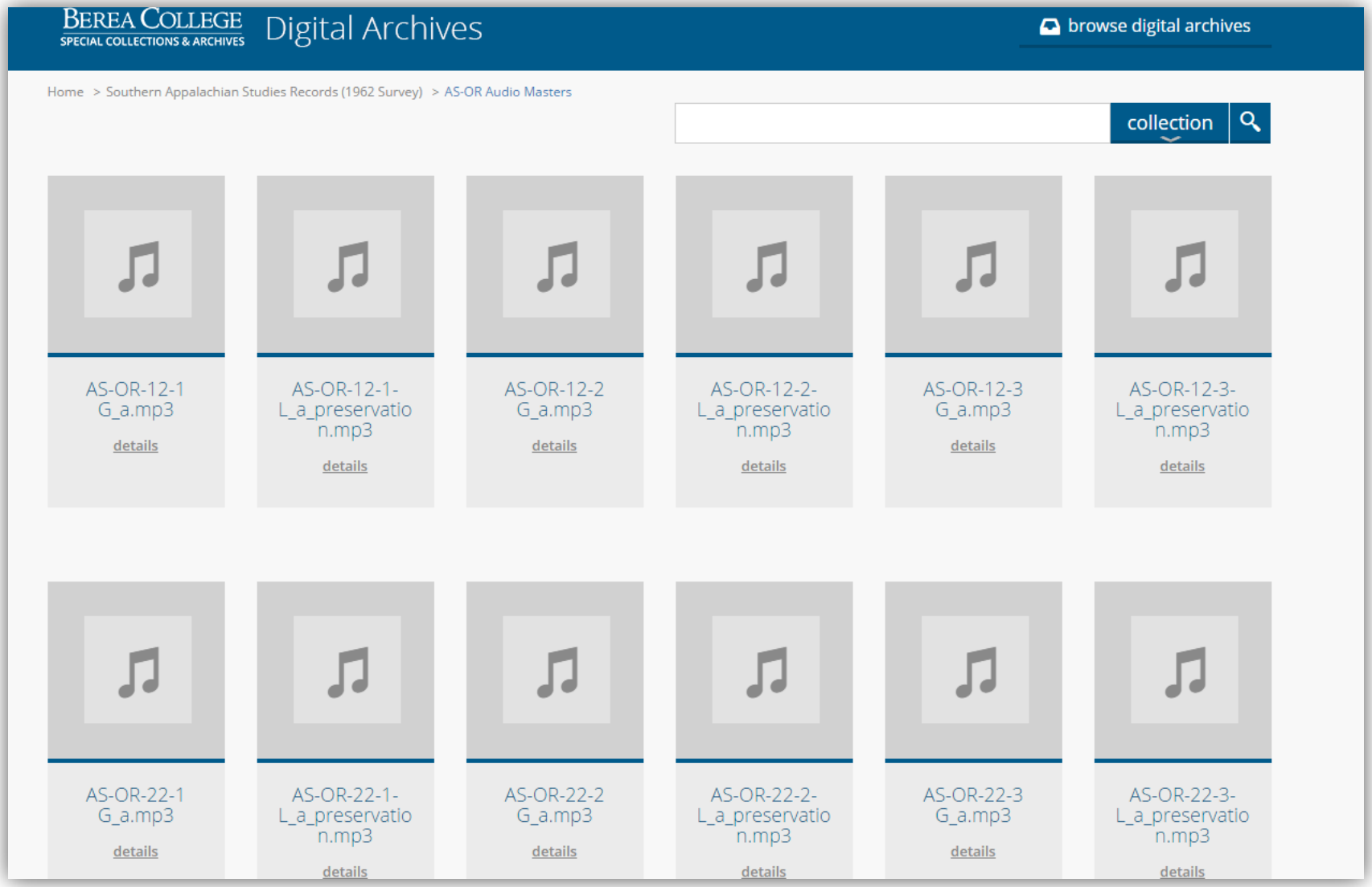
Our solution…the Cloud! But how?

- We needed a cloud based solution because of local IT limitations
- We needed a robust solution because of the size and complexity of our collection
- We had to figure how to get our data into any cloud solution because of band-width issues

Problem solved…



Or was it?



CoSA Council of State Archivists

Preservica Digital Preservation

So…how are we fixing it?

- Lots of support from the Preservica Help Desk
- Our consultants at AV Preserve
- Adding context links to our collection finding aids in Archon
- Making recommendations for additions to new releases of Preservica!

Since hindsight is 20/20…

It’s just like my shop teacher Mr. Jaeger used to say…

Measure twice, cut once.

We should have invested more time in the planning, which would have assisted in the execution.

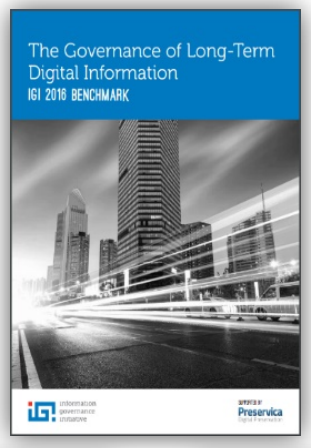
Next Steps & Resources

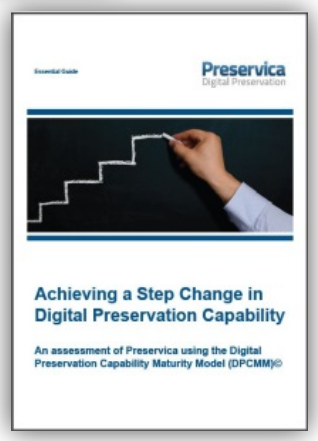
- CoSA/Preservica Practical Digital Preservation Program: https://www.statearchivists.org/pertts/education-training/cosa-preservica-practical-digital-preservation/

- Preservica Resources Center
  http://www.preservica.com/resources/

- Preservica Webinars
  - Live Demo: April 13 @ 10am Eastern
    Register at www.preservica.com

- Upcoming Events
  - CoSA: Boise, ID (10-13 July)
  - NAGARA: Boise, ID (12-15 July)
  - SAA: Portland, OR (23-29 July)





CoSA Council of State Archivists

Preservica Digital Preservation

Questions?

Thank You!

www.preservica.com

info@preservica.com

@preservica

@dPreservation

www.statearchivists.org/

CoSA Council of State Archivists

Preservica Digital Preservation