

North Carolina, Kentucky and Pennsylvania Attempt to Tame the E-Tiger with EMCAP

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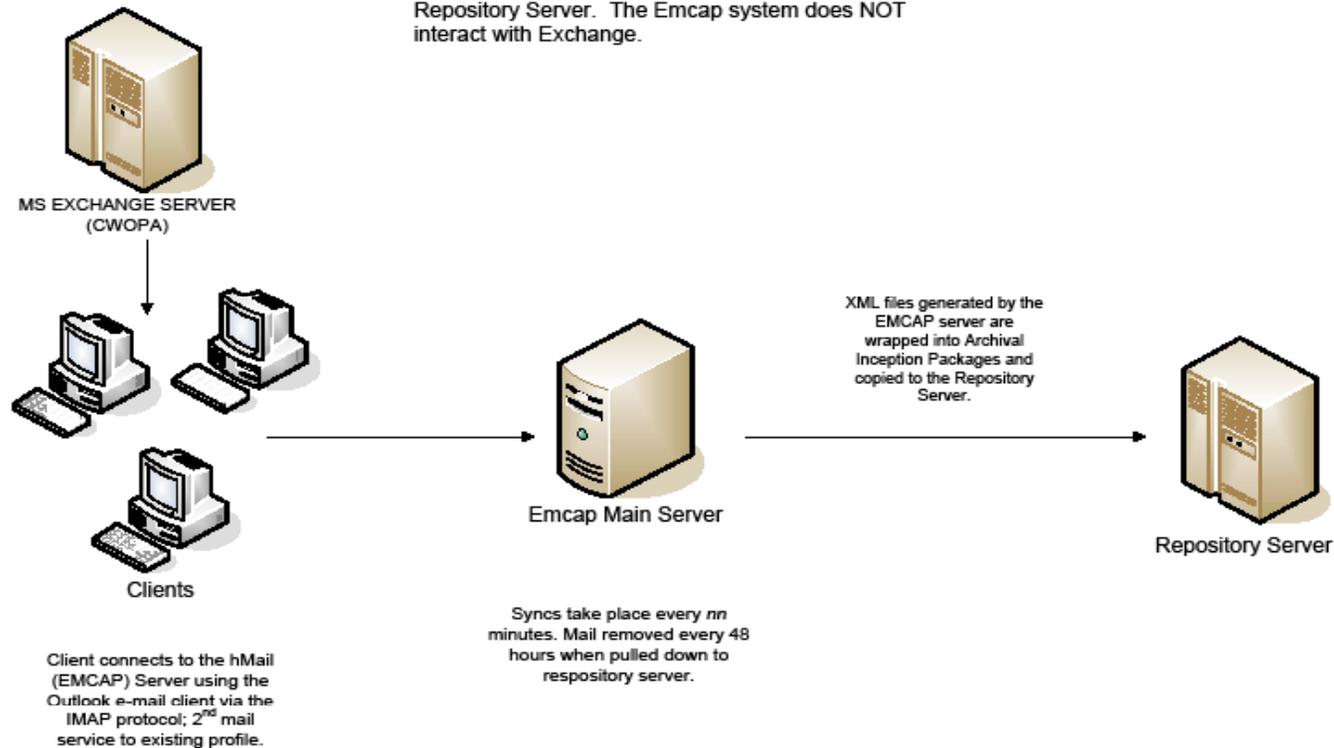
Electronic Mail Collection and Preservation Tool

- Captures e-mail that each user chooses to archive, arranged into folders the user designates
- Uses open formats
- Has an easy migration path to other content repositories
- Utilizes existing standards and protocols
 - Original message and the XML copy saved
 - Original attachments saved in native format as well as being converted to Unicode

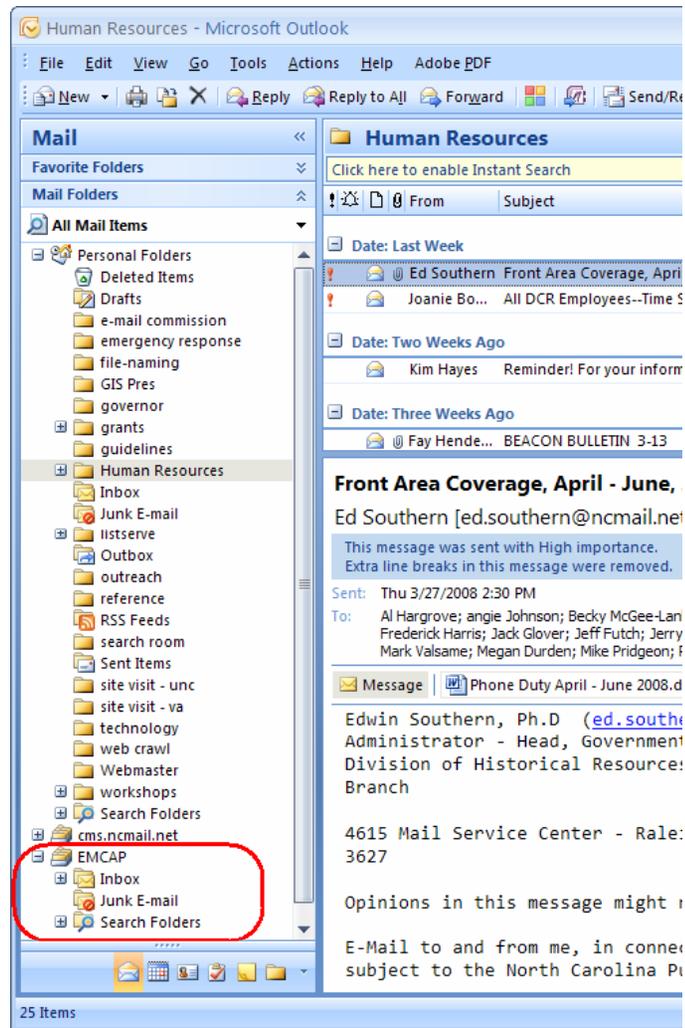
Architecture of EMCAP

EMCAP Deployment

In addition to Exchange, clients have IMAP mail service with EMCAP server; Syncs take place every nn minutes. Every 48 hours XML files are generated and both original mail and XML files are pulled down to a Repository Server. The Emcap system does NOT interact with Exchange.



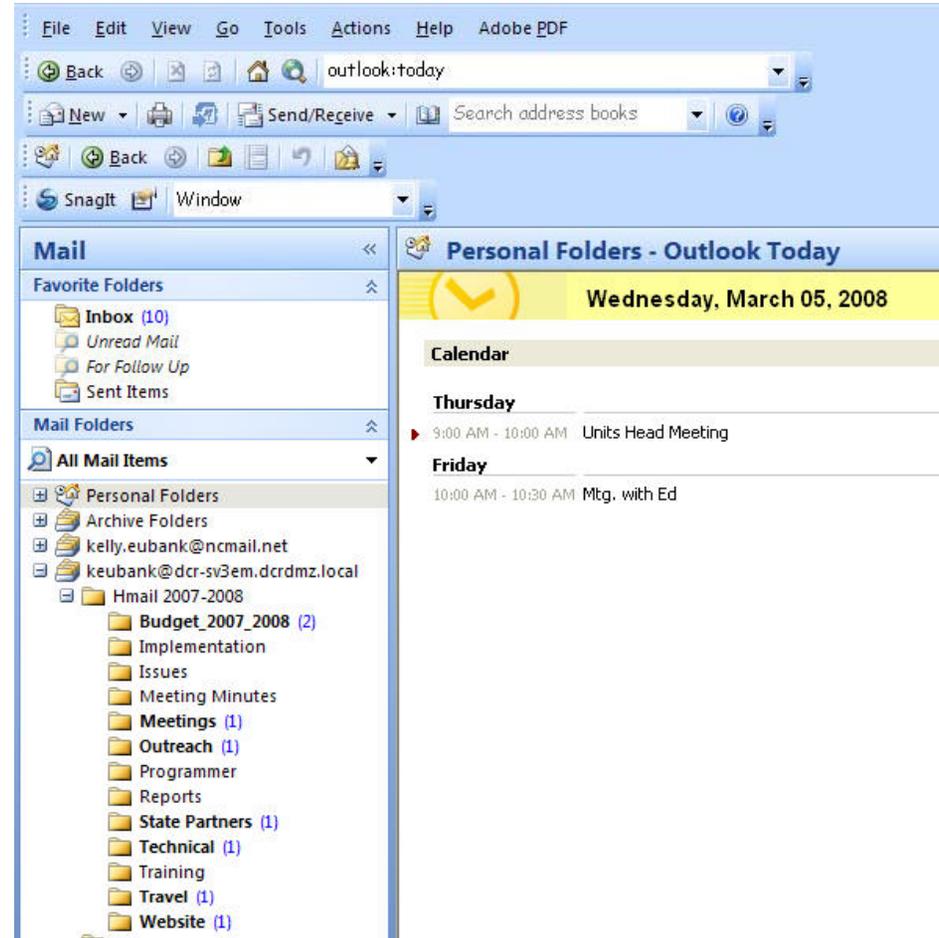
EMCAP User Client View



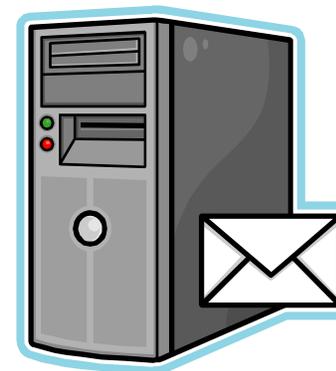
- Can use a variety of software clients
- IMAP connection to the archival server is just another folder in e-mail client you use

User E-mail moved to EMCAP

- Can be reviewed but not removed by user
- Automatic transfer
- Archivists reviews before creation of XML copies



EMCAP XML Creation Tool



- XML schema describes all email in an account
- Develops “common schema” with CERP grant
- Captures the header information in email
- Retains all original bit streams in native format
- When external file save, a message digest is create with a unique identifier
- Preliminary tests show conversion 95% effective

Example of the XML file Created by the Parser

- ID and format info
- Text of message
- From and to, etc.

```
<Name>X-Mailer</Name>
<Value>Unknown (No Version)</Value>
</Header>
- <Header>
  <Name>Message-ID</Name>
  <Value><18a.1823ab0.296c8bde@aol.com></Value>
</Header>
- <Header>
  <Name>X-Filter-Version</Name>
  <Value>1.7 (maildmz)</Value>
</Header>
- <SingleBody>
  - <BodyContent>
    <Content>The Southern Seed Legacy Project based at the University of Georgia has
    completed its web updates. We thank you for allowing us to link to your website. Each
    group has a short paragraph next to their link. Please feel free to comment on these
    paragraphs, if you feel that you would like your group described in another fashion. The
    address for the links page is: http://www.uga.edu/~ebl/links/ If you are interested in
    viewing our home page and seeing what the Southern Seed Legacy Project is all about,
    please check out our main page http://www.uga.edu/~ebl/southernheirloom/ Once
    again thank you. Katie O'Connell University of Georgia Department of
    Anthropology</Content>
  </BodyContent>
</SingleBody>
<Eol>CR</Eol>
</Message>
- <Message>
  <LocalId>0</LocalId>
  <From>"Jennifer Bean" <JBean@oldsalem.org></From>
  <To><ahweb@ncmail.net></To>
  <Subject>Historical Markers</Subject>
  - <Header>
    <Name>Return-Path</Name>
    <Value><JBean@oldsalem.org></Value>
```

Management of Attachments

- Links to attachments maintained in native format and converted to Unicode if text
- Migration or conversion may be necessary in the future for binary files (PDF, Word, etc.)
- System leaves tag in schema to point to the attachment



Training Documents

- User manuals for EMCAP in conjunction with client software
- User manual for Administrative Console
- E-mail records management training for state and local agencies



Grant Web Site

www.ah.dcr.state.nc.us/records/EmailPreservation

Preservation of Electronic Mail Collaboration Initiative - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.ah.dcr.state.nc.us/records/emailpreservation/project_do

Google

North Carolina State Archives

Preservation of Electronic Mail Collaboration Initiative

About / Team Members / Project Documentation / Agendas and Minutes / Reports / Online Training / Timeline / Other Email Preservation Sites

Links

- About
- Team Members
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- Timeline
- Other Email
- Preservation Sites

Project Documentation

[In Adobe .pdf format]

- Project Summary June 2006**
- Project Narrative June 2006**
- Project Overview September 2006**
- Response to Reviewers September 2006**
- NHPRC Project Report--Preservation of Electronic Mail January 2006**

Contact Information

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Raleigh, N.C. 27699-4615

Physical

Negotiations & Nuances in North Carolina

- Meeting with Budget Office—March 2007
- Meeting with ITS—September 2007
- Discussion with Deputy CIO
- Choosing Programmer—working with State Supplemental Staffing
- Consolidation
- Scheduling
- Negotiating cultural differences
- Bugs in the system

Technical and Soft Skills

- Knowledge of architecture
- Knowledge of different software programs.
- Play nicely with partners and participants
- Training
- Roll out—
 - Governor's Office (Outlook)
 - Secretary of State (GroupWise)
 - Emergency Management Office (Lotus Notes)



North Carolina in the News

<http://www.ncpress.com/ebackgroundsite/backgroundemailindex.html>

The issue: Reports surfaced this year that the administration of Gov. Mike Easley may have told state public affairs personnel in the executive branch to delete e-mails to and from the governor's office each day. The governor has said this is not the policy. However, notes uncovered by reporters investigating use of e-mails indicate state personnel were told to destroy e-mails. Easley said the notes are being misinterpreted and formed a commission to review state policies on e-mail.

The problem: North Carolina Press Association and others point out that under current state law, government e-mails are public records. They are subject to state open records laws and must not be deleted. They also must be made available for public inspection.

Copy of the lawsuit filed against Gov. Easley 4/14/08
Easley panel calls for longer e-mail storage 5/22/08
Email retention draws attention of agencies 5/21/08
E-mail deletions could continue 5/16/08
E-mail panel proposes longer storage, better training 5/16/08
Easley wants e-mail lawsuit thrown out 5/14/08

Officials take class on public records 5/14/09
Attorney: Officials shunning e-mail. 5/9/08
Easley not alone in his e-mail troubles 4/18/08
Did the governor contradict records law? 4/4/08
NC media: Public records law is clear, state e-mail must be saved. 4/3/08
Committee's final draft report 5/15/08

Governor's Review Panel

- Email Records Review Panel Appointed—March 2008
- Panel makes recommendations to Governor on May 15, 2008
- Recommended roll out of EMCAP on an enterprise level.
- Recommended funding for integration of Microsoft Exchange and hMail.
- Waiting to hear.

Overview of Kentucky Electronic Records Archive

- KDLA combines library, archives, and records management
- In-house technical support
- Planning e-archive for twenty years; collecting for ten years; and providing access for five
- Accessioned publications, minutes, web records and databases, but no e-mail



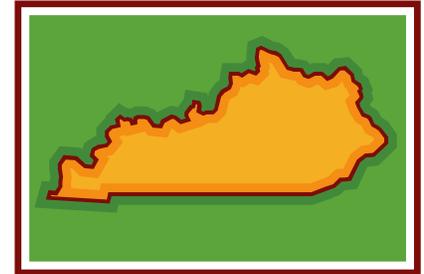
E-mail Archiving Activity Before the Grant

- Kentucky Governor's constituent mail from two governors in tracking databases
- Created e-mail guidelines through Electronic Records Working Group
- Training in electronic records management
- Attempts to get PST files at end or during an administration



Problems with Previous Systems

- Various media and formats
 - CD specific set
 - Text and image combined in database
- Incomplete information
 - Not a complete exchange between offices
 - Text only of messages
- Customized and proprietary access mechanisms



Politics of E-mail

- Top level Republican administrators taken to court by Democratic Attorney General over hiring issue
- E-mail figured prominently in the court proceedings and agencies asked to produce original copies of e-mails
- Governor shield himself by using party purchased Blackberries as “private” e-mail devices
- Governor pardons the group
- New administration examines E-discovery issues



E-mail Archiving During the Grant

- Kentucky examined 10 years of Libraries and Archives Commissioner e-mail
 - Examined by records analyst
 - Archived a limited number
- Current Commissioner connected to system
- Told by Cabinet Secretary that e-mail saved was not archival and would be conveyed
- Analyzed databases for extraction



EMCAP Tool Features



- Open-source
- Client is configured to have “Archives Folder” mapped to server
- User can replicate file folder structure
- Mimics current behaviors of drag and drop in most e-mail software
- Drops e-mail into our collection server
- Internet message parser makes an XML copy and also keeps the original



Enterprise Architecture Issues

- Security is primary
- Use of a single ID and password for all state e-mail accounts
- Working with an enterprise e-mail working group
- Finding software that facilitates e-discovery and archiving



EMCAP Use of Web 2.0 Tools

- **Wiki:**



- Storage of grant documents
- Documentation of technical problems
- Can be used to support the tool in the future

- **Webinar, Course Management and Terminal Services**

- Demonstrations
- Development of training tools



E-mail Management in Pennsylvania

- Management Directive 210.13 -Retention and Disposition of Records Created on Electronic Mail (E-mail) Systems, reissued August 2007
- Email training for supervisors and management November 2005-March 2006
- E-LMS training for supervisors, February 2008
- New Right to Know Law (Open Records) to be enacted in January 2009.
- July 2008 E-LMS training cancelled, but may be released with minor revisions in September to all Commonwealth employees



Pennsylvania
Historical & Museum
Commission

Pennsylvania's Perils

- Pennsylvania gets Tarred!
 - Yes, PA. (The Tar Heels had nothing to do with this!)
- The TAR is a real beast . . .
 - Technical Architecture Review (TAR)
 - Reviews projects
 - Submitted through Communities of Practice (COP)
- Team work, perseverance and persuasion

EMCAP to Date in Pennsylvania

- Server built
- Users added
- Training materials edited for PA use
- Use of PA General Administrative Retention and Disposition Schedule
- Training with PHMC senior staff is underway



Next Steps

- Development of additional file import and export capability
 - Microsoft .pst format
- Test and refine training tools
- Implementation by agencies
- Refinement of the XML conversion tool
- Development of standard XML schema
- Continued development of EMCAP if funded



Conclusions

- **Technical problems** will be addressed, but enterprise architecture integration is challenging
- **Political issues** can both help and hurt
- **Multi-state** project helps anticipate problems
- **EMCAP tool** is proving very useful

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