Building a Digital Archives at the City of Vancouver

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Introduction

- City of Vancouver – Background and Context

- Addressing Digital Records Challenges
  - Current Challenges
  - Approach to Solutions

- Influence of Organizational Culture on Digital Preservation Planning
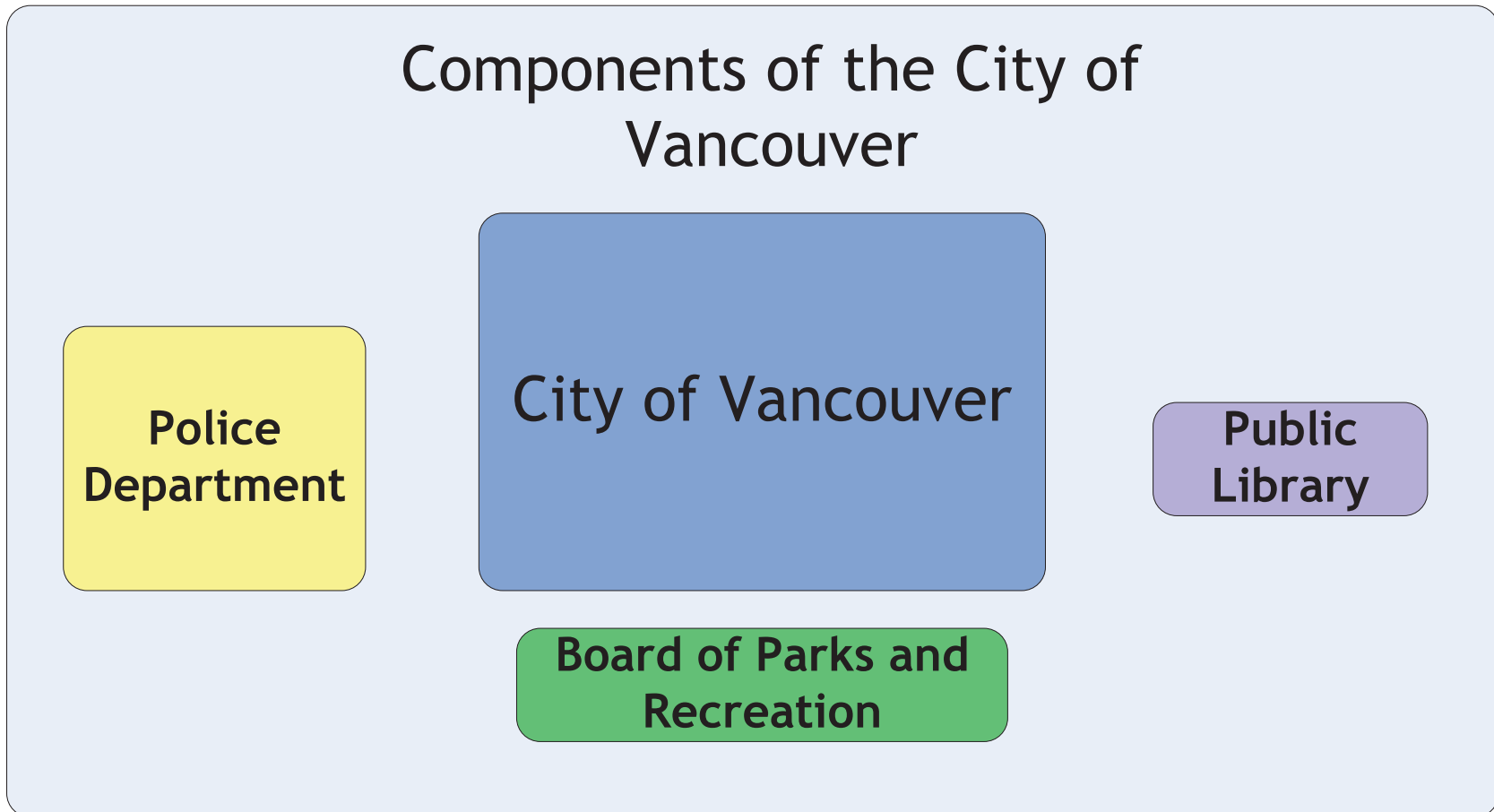
City of Vancouver – Some Context

Incorporated 1886
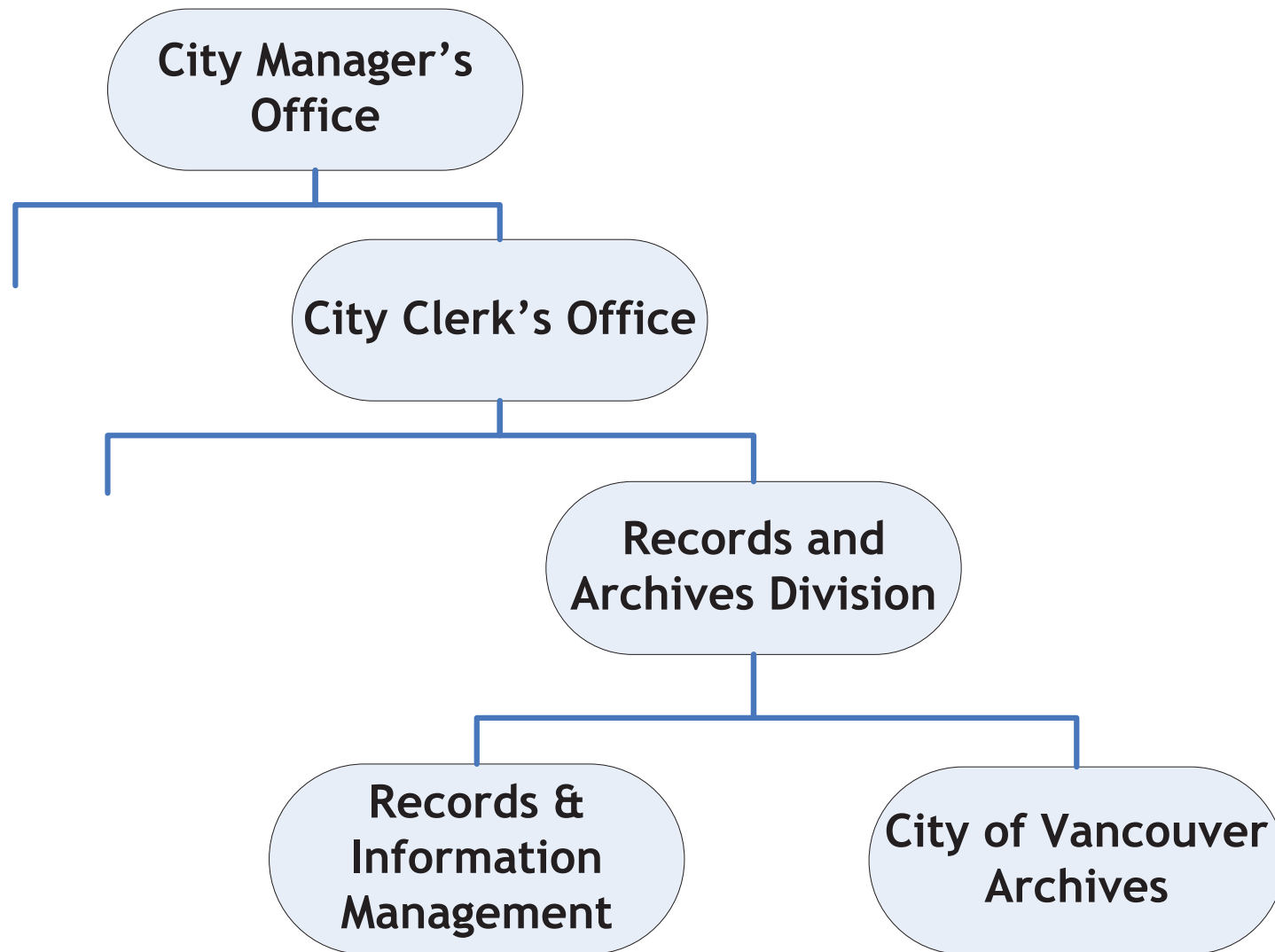
Largest city in BC and in the Metro region

Population ~580,000 (~28% of metro pop)

Regional centre for
  Business
  Government Services
  Entertainment
  Transportation...

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City of Vancouver – Organizational Entities

Components of the City of Vancouver

City of Vancouver

Police Department

Public Library

Board of Parks and Recreation

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Records and Archives – Organizational Context

Digital Preservation Challenges

What are the digital preservation
challenges specific to the
City of Vancouver?

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Digital Preservation Challenges – Broad Acquisitions Mandate

Total Archives - Broad mandate to preserve and make available to the public:

- Public records created by the City and its Boards (Parks, Library & Police)
- Private records from individual, businesses and organizations that document the history of Vancouver

These records are being increasingly produced in digital form, and in many cases, exist only in digital form

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Sources of Digital Records – Public Records

- Records Management System (VanDocs)
- Unstructured network "shared drives"
- Isolated Content Management systems
- Enterprise Resource Planning systems (SAP)
- Geographic Information Systems (VanMap)
- Over 250 others on the IT Systems List

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Sources of Digital Records – Private Records

Much less ability to control environment in which private records are created and kept

Potential donations range from small donations containing well known formats
- digital images
- office documents

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Sources of Digital Records – Private Records

Also, some very large imminent donations...

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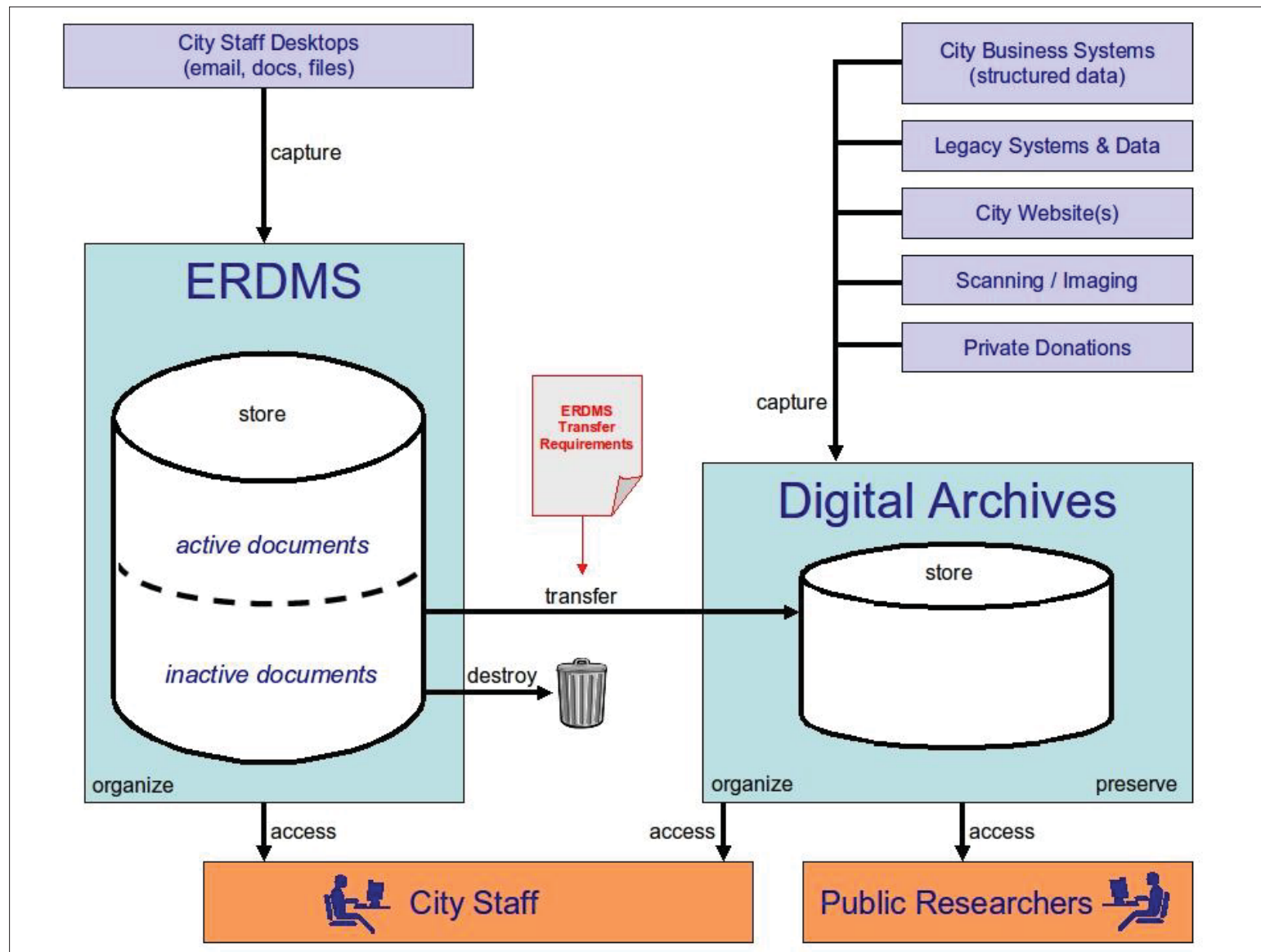VANCOUVER

Sources of Digital Records

Sources of Digital Records – Private Records

VANOC Records

- City is obligated by the Host City Agreement to preserve the records of the Games

- Almost entirely digital

- Extremely large volume (>20 TB)

- No influence over creation environment

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CoV as Total Archives – Potential Sources of Records

How is the City of Vancouver Archives addressing these preservation challenges?

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Meeting the Challenge – Digital Archives Project

	Phase 1	Phase 2
Timeline:	Nov 2008-Oct 2009	Nov 2009-Dec 2010
Focus:	Public records (ERDMS)	Private records (VANOC)
Funding:	~$150,000	~$580,000
Source:	ERDMS Project Funds	Olympic Legacy Fund

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Digital Archives Project – Preservation Strategy

- Use available open source tools to prepare digital records for preservation
  - Integrity Checking
  - File Format Identification and Validation
  - Malware Checking
  - Metadata Extraction and Management
  - Format Migration to Normalized Preservation Copies and Access Copies
  - Manage and Provide Web Access to Archival Descriptions and Access Copies

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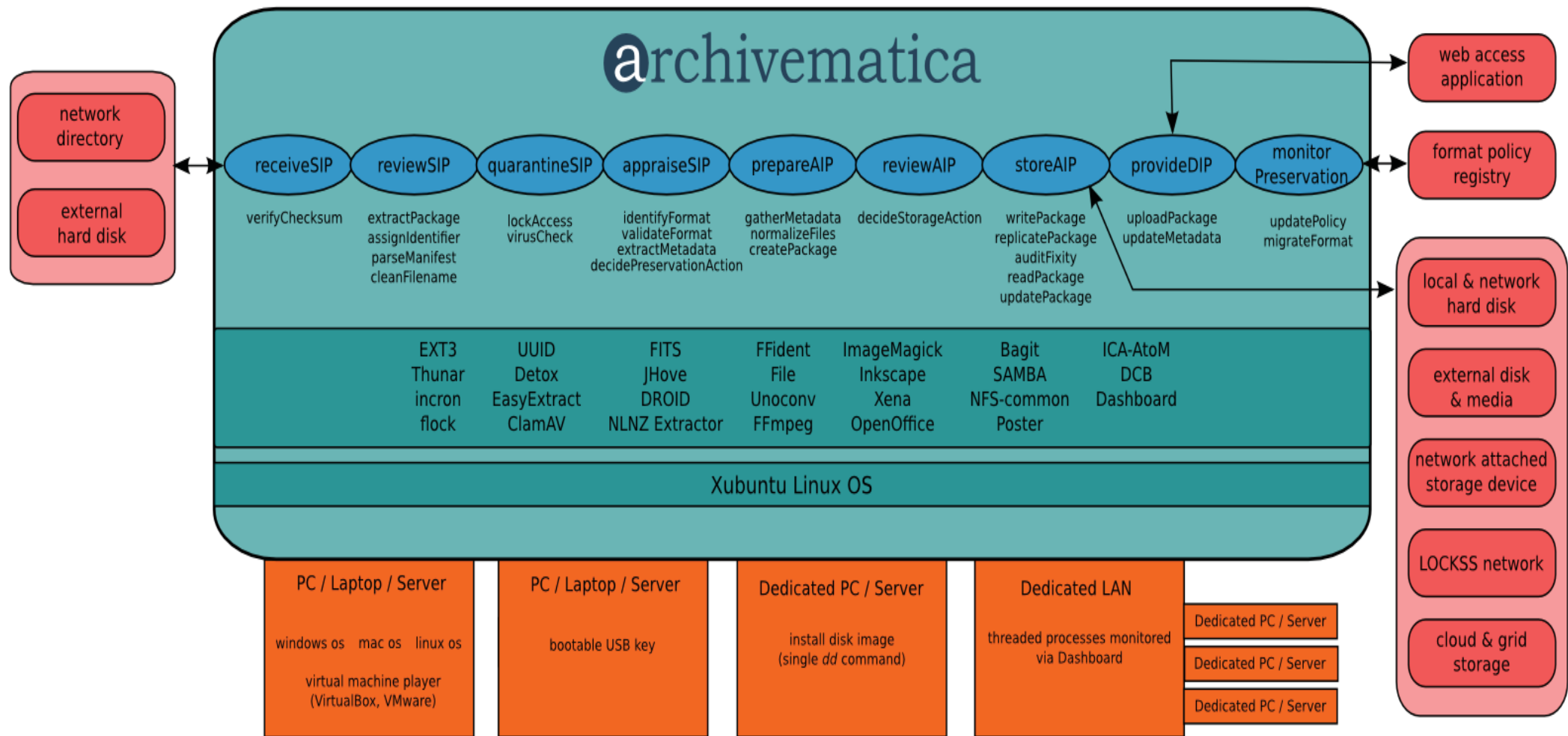# Digital Archives Project - System Requirements

Looked at a number of requirement sources:

- OAIS Reference Model
- InterPARES findings
- UNESCO – *Towards an Open Source Repository*
- METS
- PREMIS

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Digital Archives Project – Selecting and Integrating Components

- XUbuntu Linux
- EXT3 filesystem
- Thunar file manager
- incron
- flock
- md5deep and hashdeep
- UUID
- detox
- easy-extract
- File Information Tool Set (FITS)
- DROID
- JHOVE
- NLNZ Metadata Extractor
- Clam AV (anti-virus)
- unoconv
- OpenOffice.org
- BagIt
- Zip
- Samba/CIFS
- NFS-common
- ICA-AtoM
- Digital Collection Builder
- Poster

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Archivematica

Digital Archives Project - Archivematica

Project Consultant – Artefactual Systems
www.artefactual.com

Current Version – Archivematica 0.6
www.archivematica.org

Expect to begin processing of VANOC records this summer using v0.7 release

InterPARES Participation

Role of InterPARES in CoV Digital Archives Development includes:

- Requirements Source
- Feedback on Work
- Contribution to Specific Problems

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InterPARES Participation

System Requirements Evaluation

- Gap analysis of CoV Digital Archives Requirements against CoP model
- Next - Need to re-assess 'as built' system against CoP model
- Development of CoP requirements checklist

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InterPARES Participation

Metadata Analysis

- Help identifying necessary and sufficient metadata; how and where it is generated

- PREMIS-CoP Mapping –part of work towards building a metadata profile for our Digital Archives

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Is this approach working?

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Role of Organizational Culture in the Success of the Digital Archives Project

Project success in part attributed to supportive organizational culture

Combination of:

- Us actively working towards contributing to a favorable organizational culture
- Taking advantage of fortuitous circumstances

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Organizational Culture – Archives History

History of Canadian Firsts

- 1st Municipal Archives
- 1st Appointed City Archivist
- 1st Purpose Built Municipal Archives Building

Institutional pride in taking a leadership role in the digital realm

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Organizational Culture - Leadership

City Council aware of Records and Archives

Progressive attitude towards information technology issues

Open 3 Motion (Spring 2009) promoting
- Open Source Software
- Open Standards
- Open Data

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Organizational Culture – Size and Structure

Big and Decentralized

- 'organizational inertia'
- Locating authority can be problematic when dealing with Records Management issues
- Corporate IT vs. Departmental IT
- Decentralized IT particularly problematic when trying to address digital records issues
- Archives has worked had to build a positive relationship with IT

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Organizational Culture – Size matters

Archives size is close to ideal

Small enough to:
- enjoy relative independence
- have minimal red tape within Archives itself

Large enough to:
- have specialist staff
- have access to resources to act on initiatives
- have management whose voices get heard in other parts of the City's bureaucracy

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Organizational Culture – Location, Location, Location

Reporting relationship – to City Clerk, not Library or Cultural Services

Level of integration and collaboration between Archives and Records Management

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Organizational Culture – Professional Skills

Knowledge Base of Records and Archives Staff

- Awareness of Digital Issues
- Close relationship with MAS programme at UBC SLAIS
- InterPARES veterans
  - Current Archives/RIM Staff – 5
  - Former Staff – 3
  - Consultants – 2
- Closely knit local archival community

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Digital Archives Project (revisited)

Categorizing the Challenges

- Technical

- Policy

- Resource

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End

Thank-you

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