Data Migration towards System Decommissioning

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I'm here to help ☺

Overview

Organizations, both contract and captive, collect data. At some point in this effort, there becomes a need to move the data to an ultimate repository. These "source information" collection systems include data, metadata, audit trails, e-signatures. All of this information has to migrate in controlled manner. Complications arise when interim data transfers occur that muddle the assurance that what data has been transmitted and what is outstanding. All of this involves pre-planning and conscious efforts to ensure that the information does not loose its context and is representative and credible in the target system. In addition, after the data is migrated,, the source system needs to be decommissioned in a manner that informs all parties and dispositions all hardware in a manner consistent with record retention policies and accounting rules.

Introduction

This presentation will discuss:

- Points to consider when migrating a source system.
- Not discussing system functionality migration.
- How to ensure all parties understand who has what responsibility.
- How to manage interim data transfers.
- How to reconcile what was transmitted in the past.
- How to construct and execute a decommissioning plan.

Background

- No system lives forever!
- Systems and data must “move on” as technology dictates!
- For internal customer data moves to new systems
- For External customer data is delivered to the client.
- For ALL customers, ALL systems expire.

Background

- Quick definitions:
  - SYSTEM = software+hardware (in the active environment).
  - CUSTOMER = recipient of data (internal & external).
  - ISO 12207:1995 § 5.5.5 – SLC - discusses system migration (we will include data).
  - ISO 12207:1995 § 5.5.6 – SLC - discusses system retirement (decommissioning).

Data Migration

- This is the process by which data is either incrementally or fully transmitted to target system.

- Target system can be customer or replacement.

- Very important to discuss during project inception in order that all parties agree to Roles and Responsibilities.

E-Source Data

- E-source data controls are mandated by regulations.
- It is impossible to maintain e-source on one system forever.
- Obsolescence makes us move data to newer systems.
- Data migration is the method used to change e-source data locations.

Two Types of Data Migration

- One associated with system replacement.
  - Assume one bulk data transfer.
- One associated with customer deliverable.
  - Can be many incremental / full transfers.
  - Could be just once.

Main Migration Requirements

- One must ensure, in a validated way, that source data on system A is transferred to system B.
- Techniques include;
  - Validated queries & Record Counts
  - Data Translations (mapping)
  - Data Transformations (logic)
- All inside secure data paths (Intra, VPN, CDR, SSH)

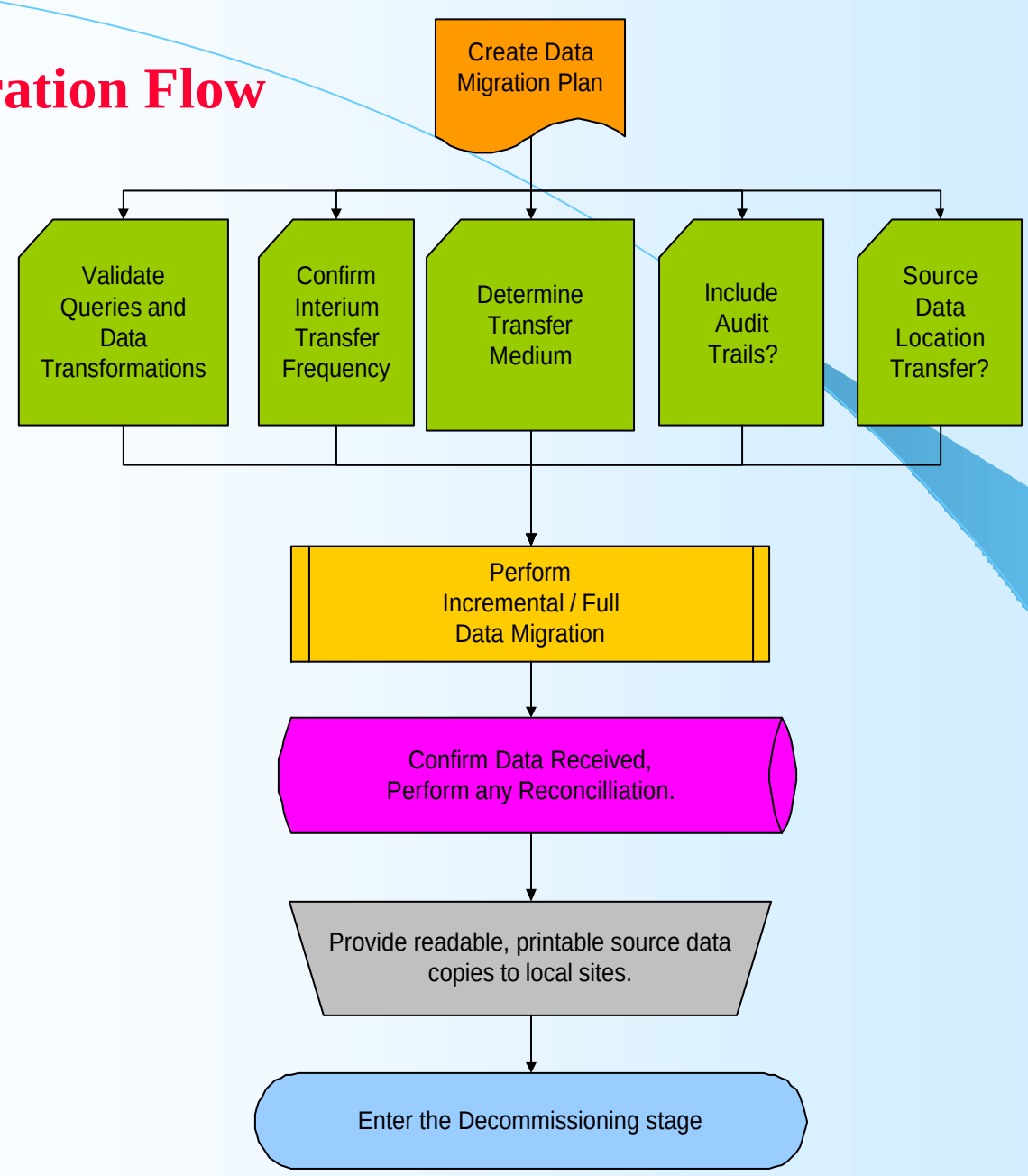
Interim data Transfers

- When interim data transfers are required, ensure;
  - Upfront agreement to accumulate or overwrite data.
  - Overwrite is easier, as latest data is always transferred.
  - Queries can be used to cull and transfer only new + changed data points.
  - Agree what to do with audit trails. (typically final only)
- Final Reconciliation
  - After all data transferred reconcile via record count.

Data Transfer Considerations

- Determine who needs copies of source data?
  - Create location specific sub-sets.
    - ASCII delimited files.
    - XML with reader.
    - CDISC (Clinical Data Interchange Standards Consortium) files with reader.
    - PDF files with reader.
    - Paper printouts.
  - Include copies of audit trails.
  - Insure validation of culled data sets.
- Ensure recipient agrees to “own” the source!

Data Migration Flow



Data Mig Summary

- Should be started early in the project.
- Ensure customer agreement on frequency & format.
- Moves the electronic source data location.
- An example process is available at;

ftp://ftp.fasor.com/pub/paper/datamig.pdf

Decommissioning

- Happens when old System / Data no longer needed.
- Happens after data migration.
- Important to close the SLC and disposition all components in the environment.
- Ensures good housekeeping

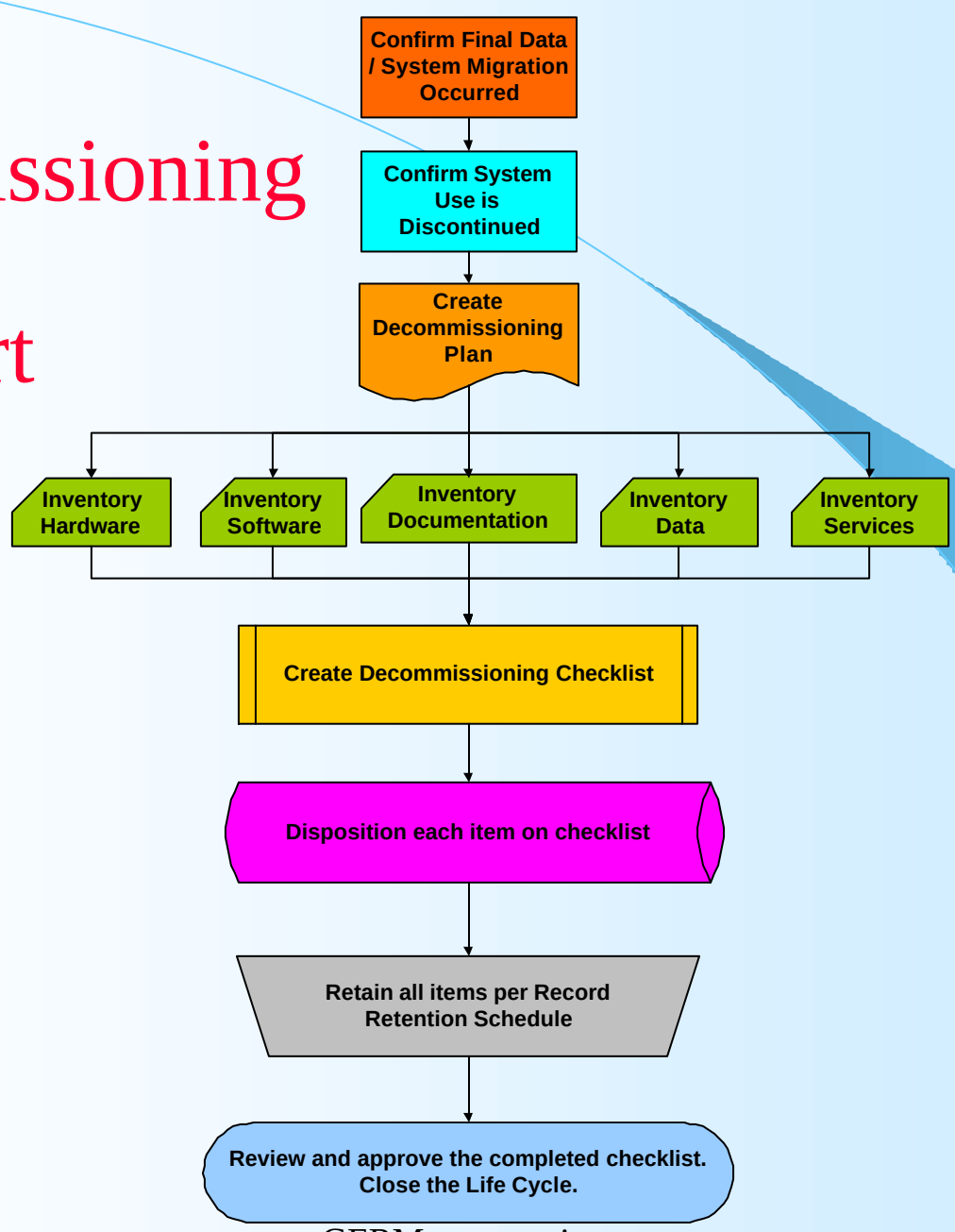
Decommissioning

- Decommissioning is the process of removing product related software and hardware from the operational environment.
- This activity should be documented in a Decommissioning Plan.
- The plan includes a checklist of necessary activities.
- The plan should be executed in an appropriate time scale in agreement with the customer.
- After the decommissioning is complete the project is closed and the software life cycle complete.

Decom Plan Contents

- Purpose
- Inventory of ;
  - Hardware
  - Software
  - Data
  - Documentation
- Disposition of;
  - Hardware
  - Software
  - Data
  - Documentation
- Notification of Affected Parties
- Checklist of ordered tasks

Decommissioning Flowchart



Decom Summary

- The decommissioning process logically locates all of the hardware, software, & interfaces.
- Inventories all the items.
- Methodically retires their functions.
- An example process is available at
  - ftp://ftp.fasor.com/pub/paper/decom.pdf

Where to get more information

- ISO 12207:1995 ”Information Technology – Software Life Cycle Practices”
- Greg Gogates – Fasor Inc. gdg@fasor.com

A copy of this presentation is available from:
ftp://ftp.fasor.com/pub/paper/migration`decommission.ppt

Questions?