



# **IMS Application Retirement – Think the Unthinkable**

1 December 2015

John B Boyle

Senior Product Specialist  
Informatica Software

# Abstract

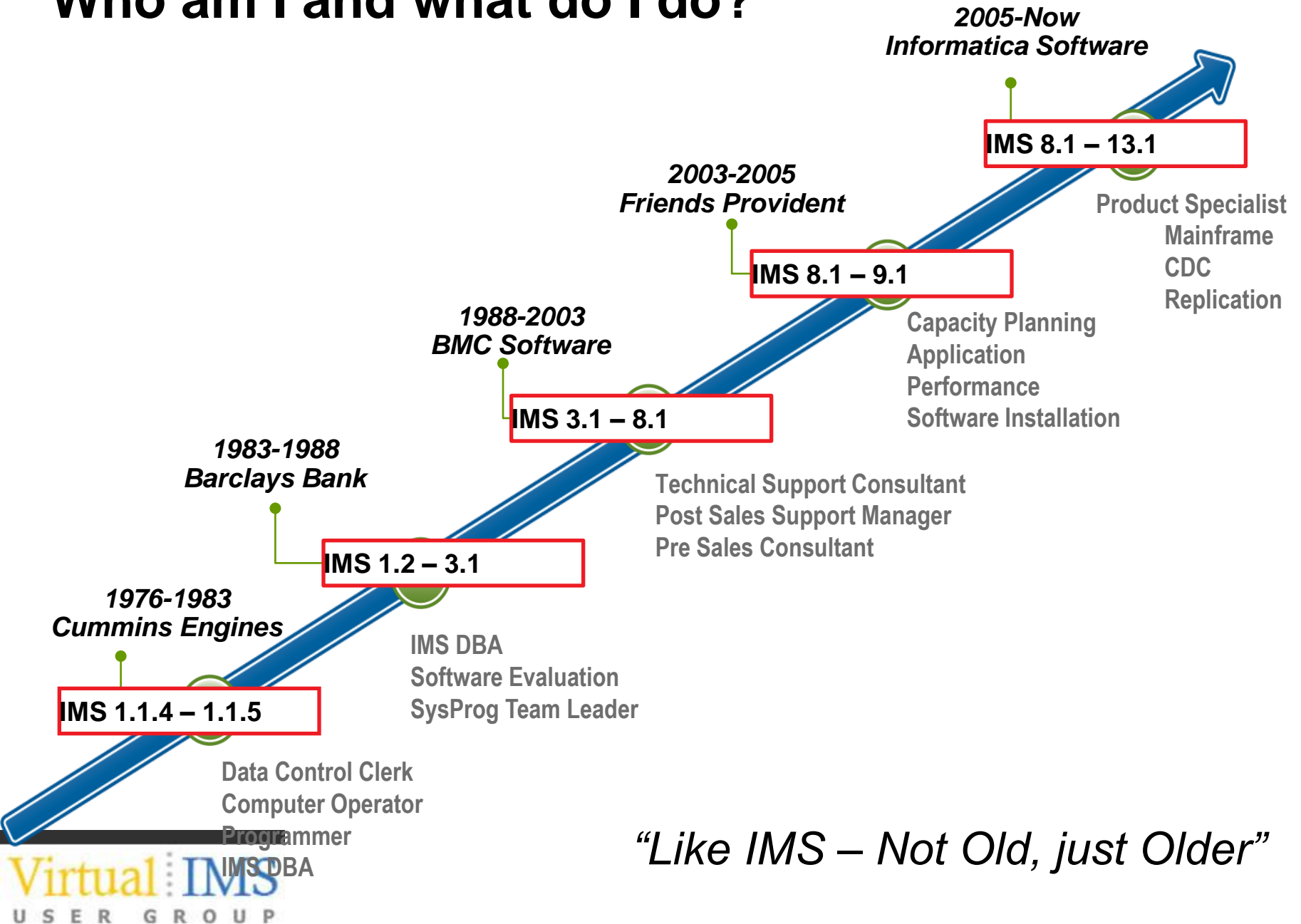
Although IMS is (hopefully!) still central to the day-to-day running of your business, there may be some applications that have been replaced/updated and use other databases now. This can result in some IMS databases that are being kept operational just to allow reporting or Inquiry Transactions to execute, or for 'regulatory compliance'. The inevitable questions of cost will come up, and you may be asked to look at how to move the data out of IMS and onto a cheaper platform. How can you do this safely and efficiently?

This presentation will look at Application Retirement, from an IMS viewpoint – what data can be retired, how do I do it, how do I make sure the process successfully 'retired' all the data correctly, how do I get access to the data when it's not in IMS anymore? It will review the types of tool that can be used to make this process as painless as possible, and illustrate this by highlighting some of Informatica's product offerings in this area.

# Agenda

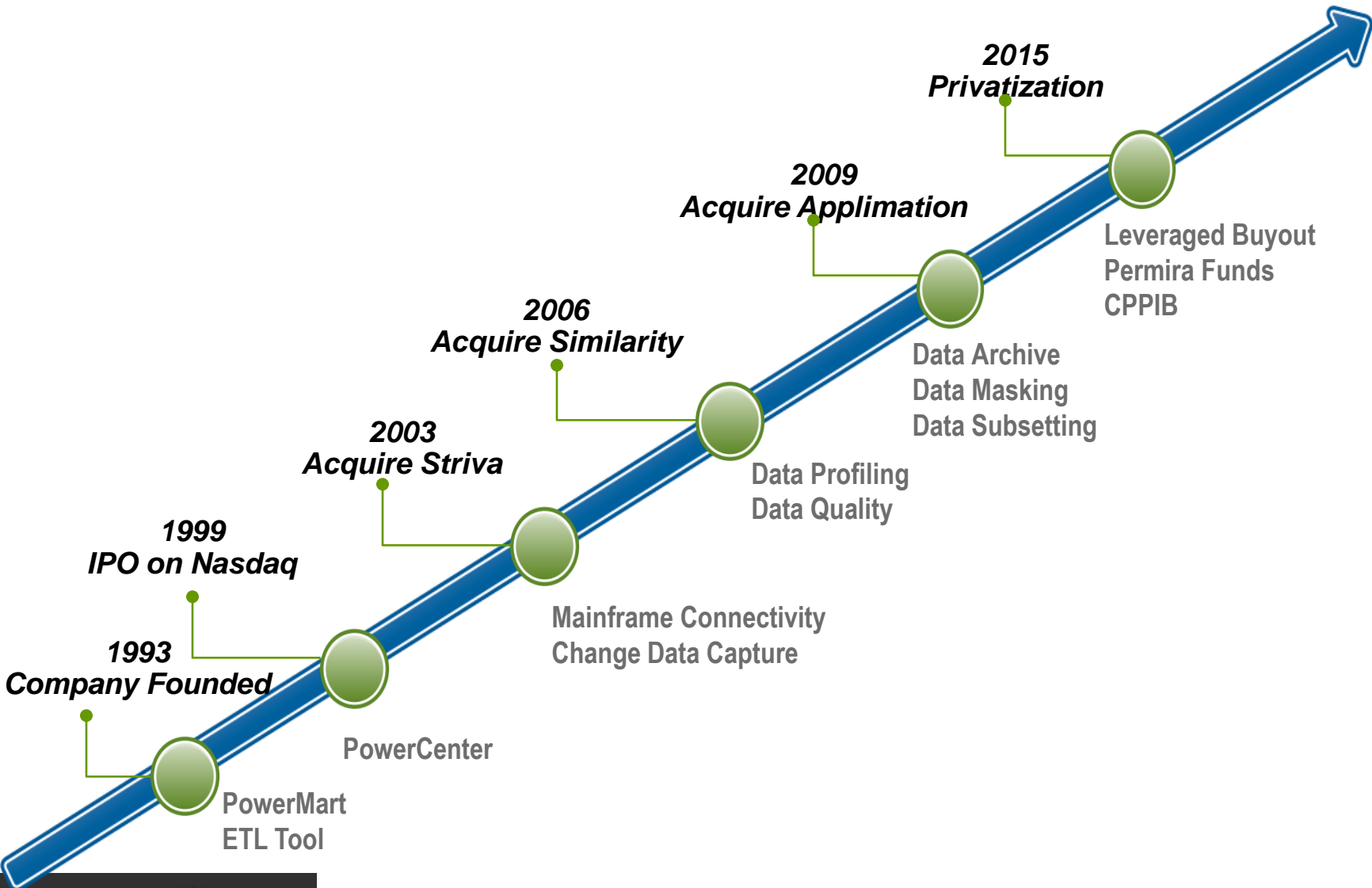
- Who am I and what do I do?
- Who are Informatica?
- Why Retire IMS Applications?
  - What data can be retired?
- Retirement – Nuts and Bolts
  - How do I do it?
  - How do I make sure the process successfully ‘retired’ all the data correctly?
  - How do I get access to the data when it’s not in IMS anymore?
- Informatica Solutions for IMS Application Retirement
- Case Studies

# Who am I and what do I do?



*“Like IMS – Not Old, just Older”*

# Who are Informatica and what do they do?





# Why Retire IMS Applications?

Issues and Challenges

Is this something I want to consider?



OR



?!

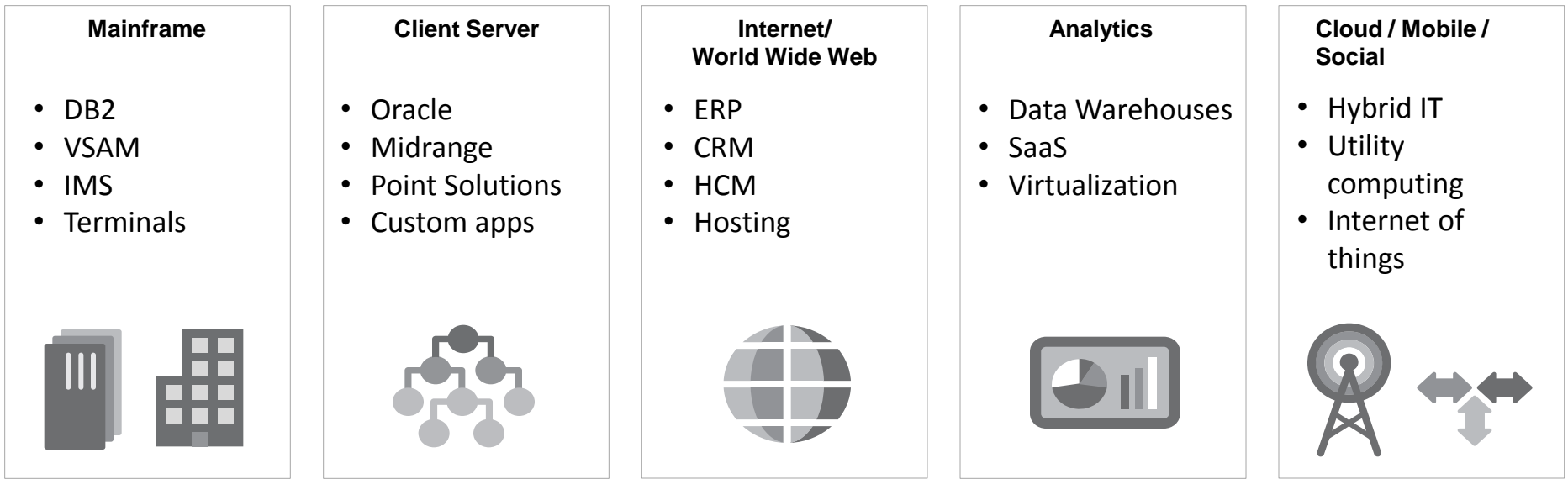
# Why Retire IMS Applications?

- I'm not picking on IMS Applications!
- The same applies to any application that has been superseded by a new application, but is still being maintained to provide read only access to the data
- All of the considerations and processes apply equally to other mainframe applications – and open systems!
  - DB2
  - VSAM
  - Adabas. Datacom, IDMS
  - Oracle, SQL Server, DB2 UDB
  - RYO





# APPLICATION LANDSCAPES ARE CHANGING AT A RAPID PACE



Time →

P L A N F O R I T

# The Application Lifecycle...

## Initiatives

- Modernization
- Consolidation
- M&A

Maintain New and Old Applications

## Goals

- Decrease Costs
- Increase Agility

Implement New Applications



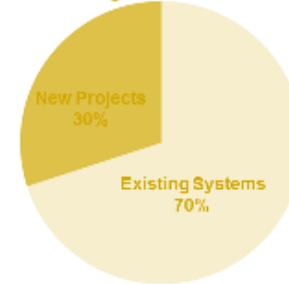
Retire Old Applications

# The reality of legacy applications today

## >50%

OF APPLICATIONS ARE LEGACY IN  
TYPICAL ENTERPRISE PORTFOLIOS

IT Budget Allocation



## APPLICATION LANDSCAPE CONTINUES TO CHANGE

### Mainframe

- DB2
- VSAM
- IMS
- Terminals



### Client Server

- Oracle
- Midrange
- Point Solutions
- Custom apps



### Internet/ World Wide Web

- ERP
- CRM
- HCM
- Hosting



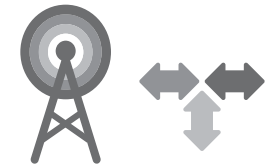
### Analytics

- Data Warehouses
- SaaS
- Virtualization



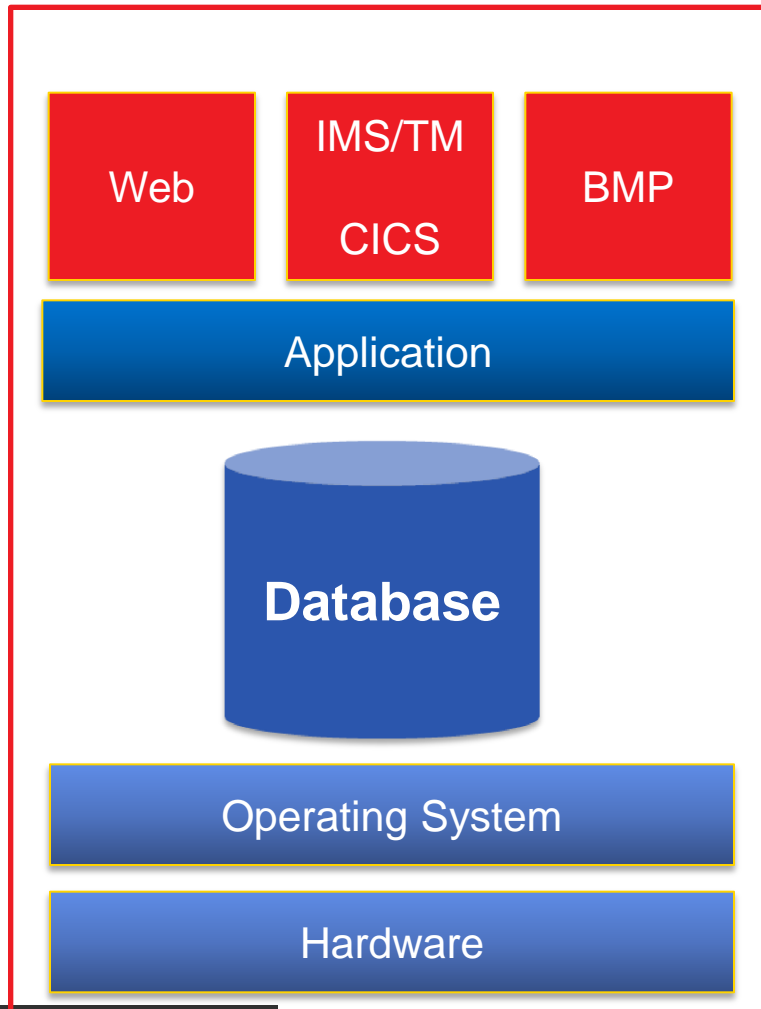
### Cloud / Mobile / Social

- Hybrid IT
- Utility computing
- Internet of things



# IMS Applications

## *What are the Costs?*



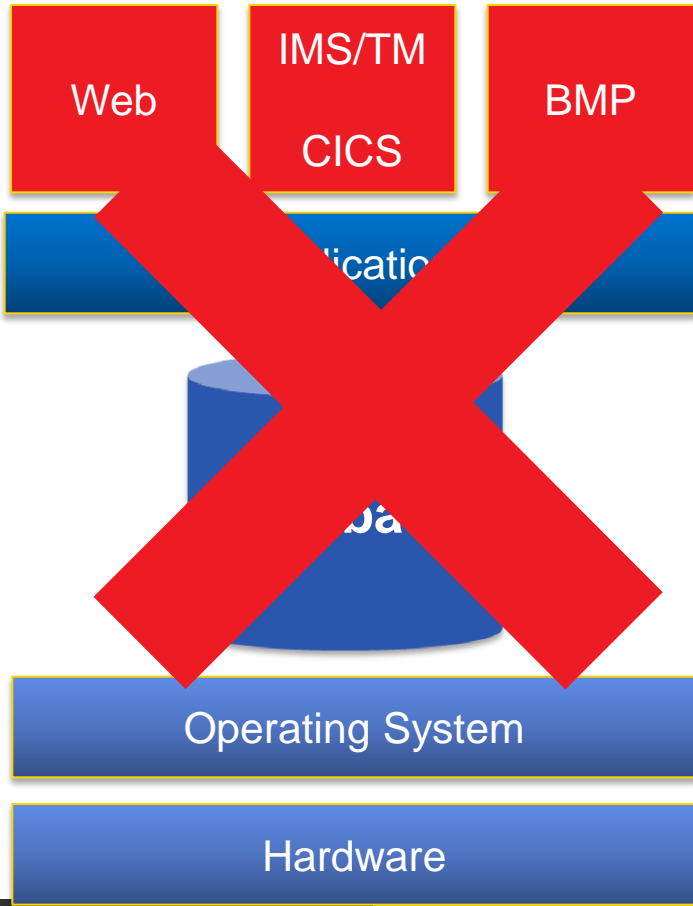
- Software licenses
- Maintenance fees
- Hardware
- Subject matter expertise
- Poor utilization of expensive resources

- **Skill-sets are scarce**
  - **It's not just the data that needs to be retired** 😞 😊
- **Expensive to maintain**

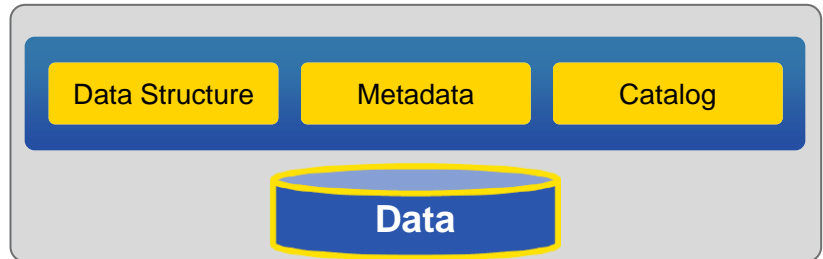
# Application Retirement

## Archive Legacy Data, Sunset Systems

### Before



### After



### Key Requirements

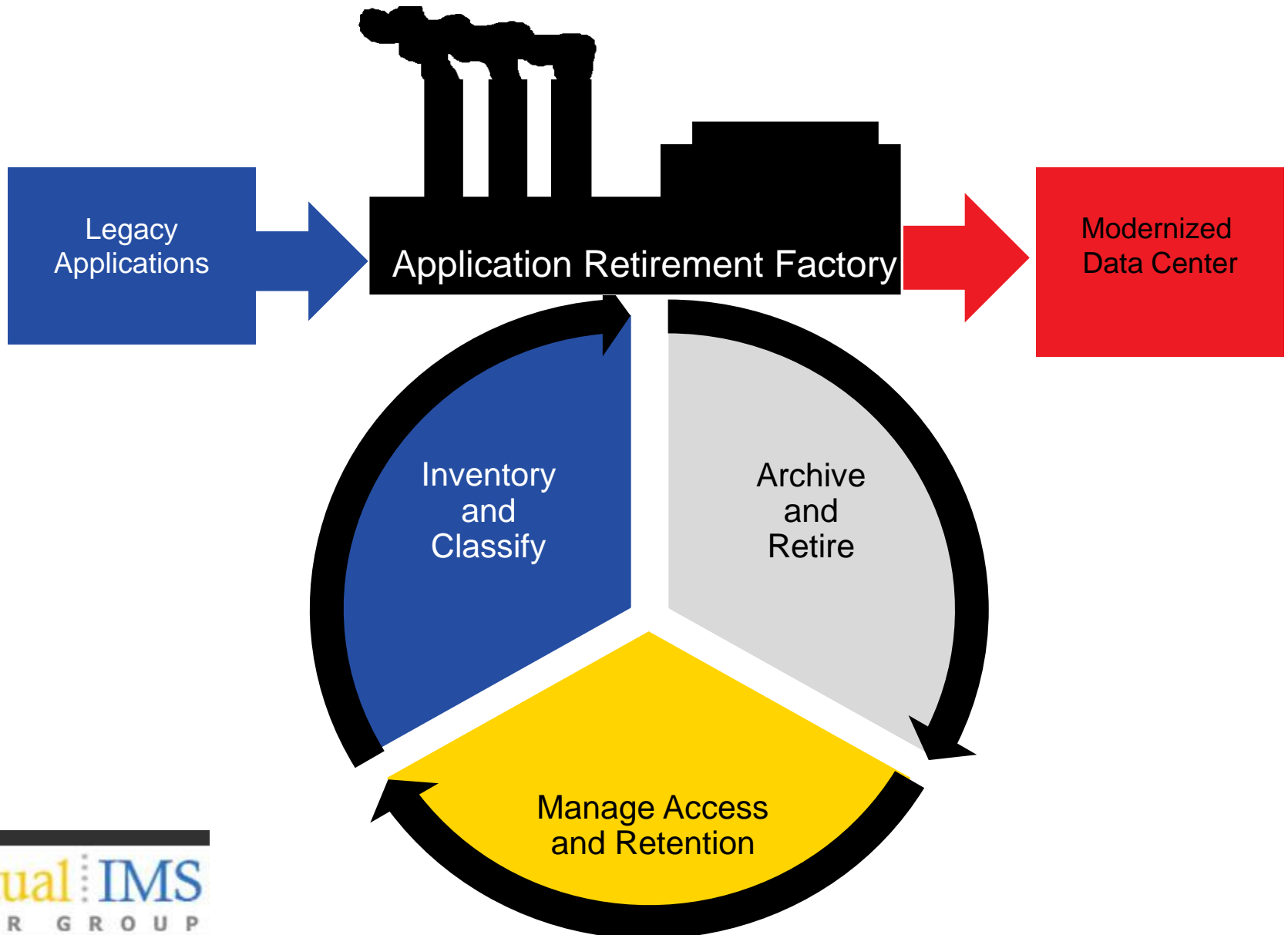
- Full data and metadata discovery
- Efficient and Effective Data Compression
- Complete data independence from source application software and hardware
- SQL query access
- Integrated retention management
- Data validation



# **How do I do it?**

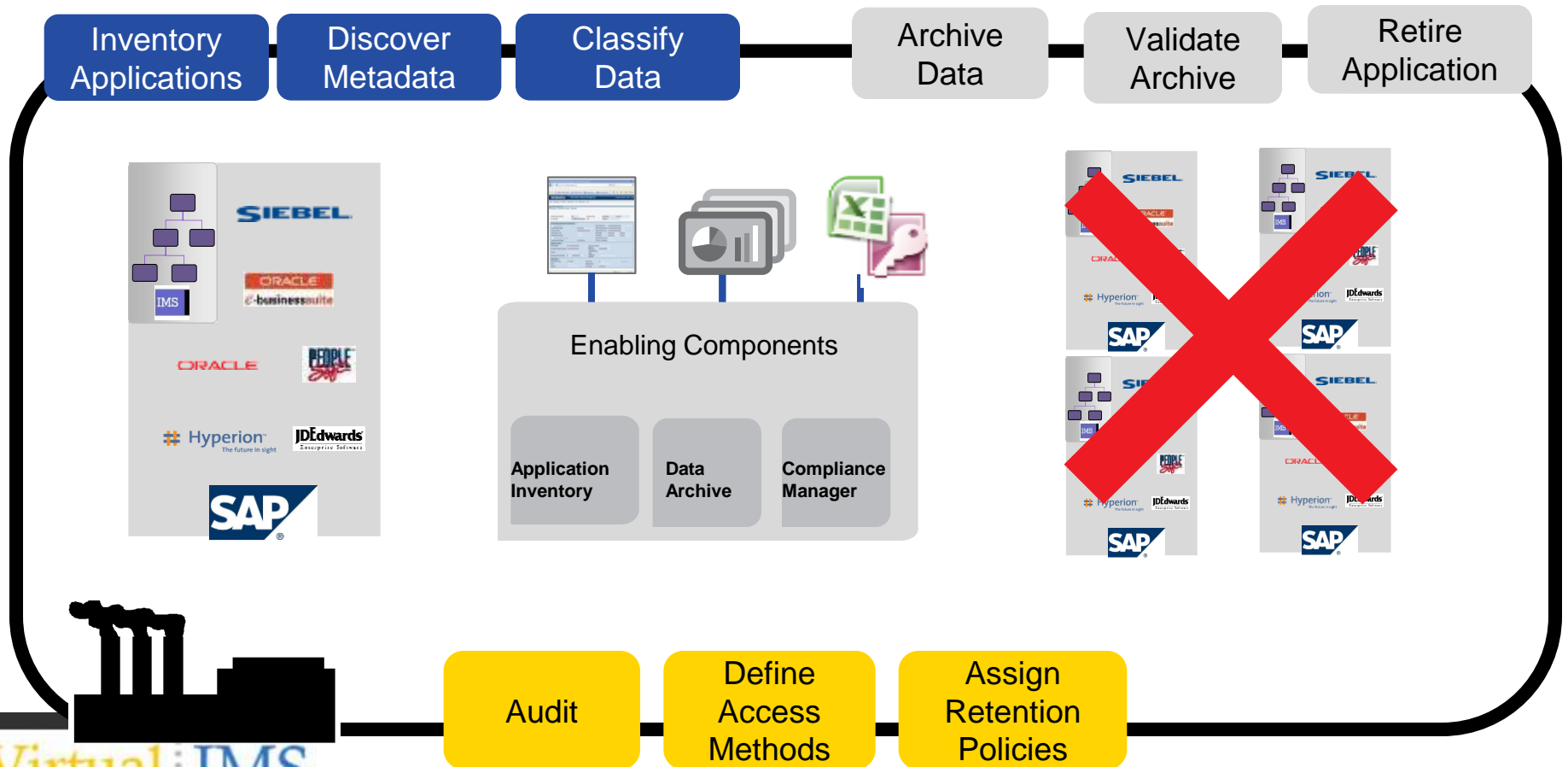
Nuts and Bolts of IMS Retirement

# Establish an Application Retirement Factory



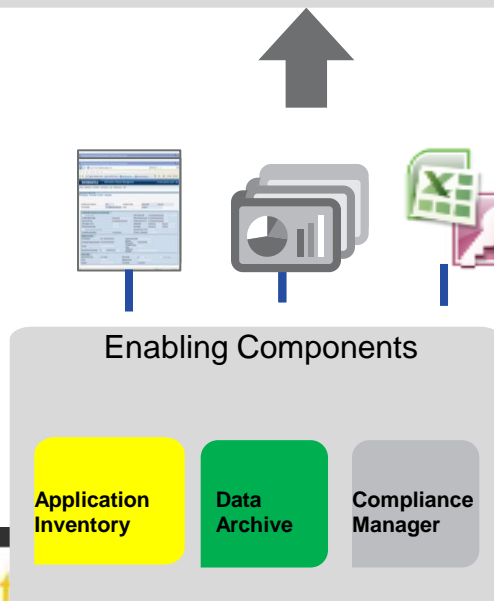
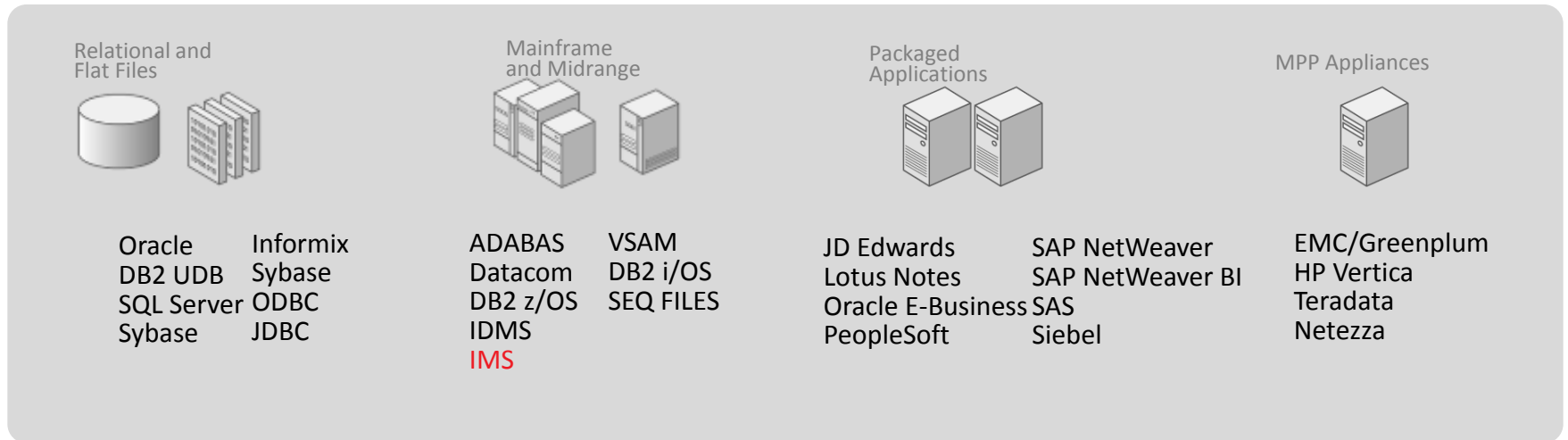
# Smart Application Retirement

Process Automation Through Technology





# Key Benefits Comprehensive Connectivity and Application Discovery



- Single solution to connect and retire a wide variety of applications, technologies and platforms
- Packaged application metadata templates and accelerators
- Integrated metadata discovery for unknown applications and data models

# Discovery beyond the Metadata

- After 'retirement' most solutions will involve accessing the retired data using SQL
- SQL based access is less tolerant of 'dirty data' than mainframe programs
- Analysis of the Data Quality before retirement helps to pre-empt access issues later
- Does every policy have a valid start date and end date?
- Do we have Packed decimal fields containing spaces?
- Profiling the data before retirement can pay dividends
- Cleansing the data before retirement is even better, even if it's just replacing missing dates with a valid date etc.

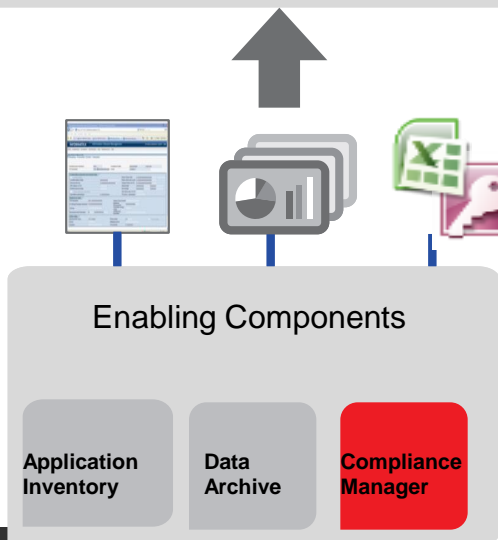
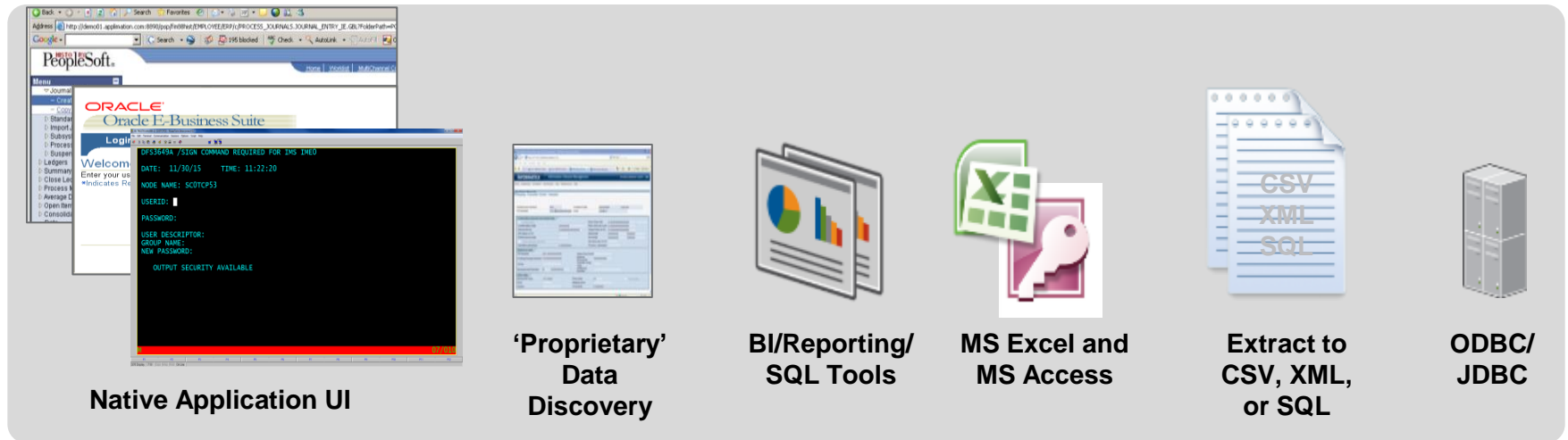
# Data Validation – Check before you Delete!

- If we didn't need to keep the data we'd just delete it and the job is done
- If we need to keep it then we need all of it, and it needs to be the same data
- Or does it? What is the 'the same data'
- Bit for Bit and Byte for Byte?
  - No – it might be stored in a different encoding
  - No – Only IMS can read an IMS Database Dataset I don't need to archive the pointers
- Same number of records?
  - Yes – easy to check by counting
- Same 'linkages' between records?
  - Can I access all Payments for a Policy?
    - More difficult to check
  - Do all the payments for a Policy add up to the same total as in IMS
    - And a thousand similar cross checks?

# Automated Validation is Essential

- Define the Validation checks that need to be performed
- This will need knowledge of the data being retired, and the applications which use it
  - Don't wait until the people with this knowledge have retired
- Build the Validation Processes and Execute
  - This could take days depending on volume of data and complexity
- Check results
- There will be 'differences'
  - Do they matter?
    - Do you need 'Garbage In Garbage Out' or is it OK if a string of X'00' padding a description to the end of a fixed length field becomes spaces in the archived data?

# Key Benefits to Retaining Appropriate User Access Levels To Archived Data



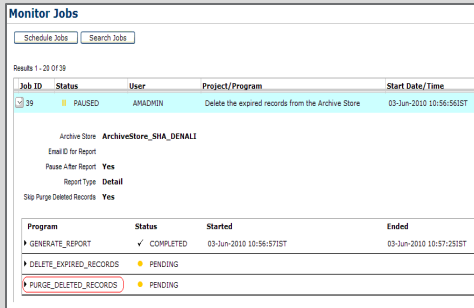
- Increased user adoption and acceptance
- Lower costs by leveraging existing technology, resources, and skills
- Simplifies ongoing maintenance through consolidation and centralized management
- Integrated security ensures appropriate levels of access to archive data

# Easy Access to retired data is Key to Success

- Providing users with access to the data after retirement is important and may take some negotiation



# Key Benefits to Integrated Retention Management



**Monitor Jobs**

Schedule Jobs Search Jobs

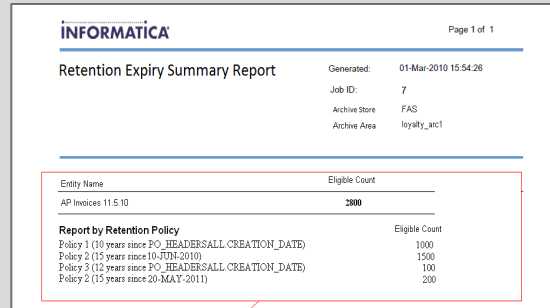
Results 1 - 20 of 39

| Job ID | Status | User     | Project/Program                                   | Start Date/Time         |
|--------|--------|----------|---|-------------------------|
| 39     | PAUSED | ANADIMIN | Delete the expired records from the Archive Store | 03-Jun-2010 10:56:56IST |

Archive Store: ArchiveStore\_SHA\_DENALI  
Email ID for Report: Yes  
Pause After Report: Yes  
Report Type: Detail  
Stop Purge Deleted Records: Yes

| Program                | Status    | Started                 | Ended                   |
|------------------------|-----------|-------------------------|-------------------------|
| GENERATE_REPORT        | COMPLETED | 03-Jun-2010 10:56:57IST | 03-Jun-2010 10:57:25IST |
| DELETE_EXPIRED_RECORDS | PENDING   |                         |                         |
| PURGE_DELETED_RECORDS  | PENDING   |                         |                         |

**Audit and Validate Archive**



**INFORMATICA** Page 1 of 1

**Retention Expiry Summary Report**

Generated: 01-Mar-2010 15:54:26  
Job ID: 7  
Archive Store: FAS  
Archive Area: loyalty\_atc1

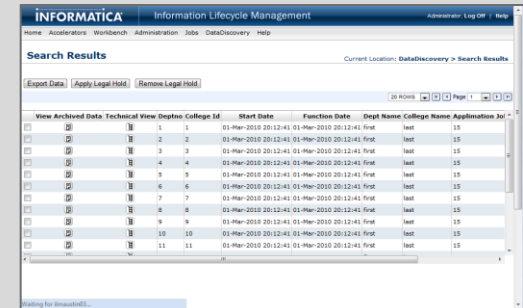
| Entity Name         | Eligible Count |
|---------------------|----------------|
| AP Invoices 11.5.10 | 2800           |

**Report by Retention Policy**

| Retention Policy                                      | Eligible Count |
|---|----------------|
| Policy 1 (10 years since PO_HEADERSALL CREATION_DATE) | 1000           |
| Policy 2 (15 years since 10-JUN-2010)                 | 1500           |
| Policy 3 (12 years since PO_HEADERSALL CREATION_DATE) | 100            |
| Policy 2 (15 years since 20-MAY-2011)                 | 200            |

*Retention reported for every entity in archive area*

**Generate Retention Expiry Reports**



**INFORMATICA** Information Lifecycle Management

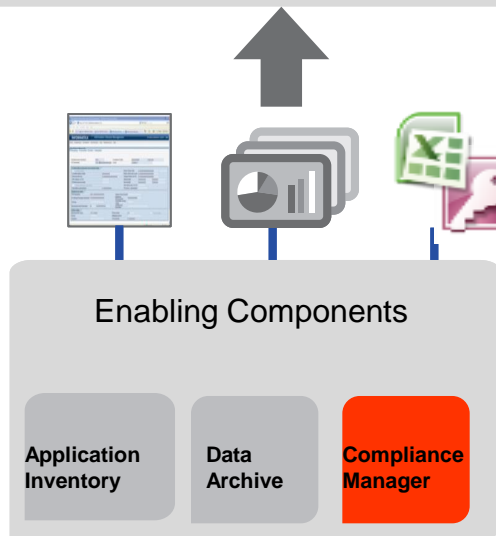
Home Accelerators Workbench Administration Jobs DataDiscovery Help

**Search Results** Current Location: DataDiscovery > Search Results

Export Data Apply Legal Hold Remove Legal Hold

| View | Archived Data | Technical View | Desktop | College Id | Start Date           | Function Date        | Depth Name | College Name | Application Ju |
|------|---------------|----------------|---------|------------|----------------------|----------------------|------------|--------------|----------------|
|      | 1             | 2              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 2             | 2              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 3             | 3              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 4             | 4              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 5             | 5              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 6             | 6              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 7             | 7              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 8             | 8              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 9             | 9              |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 10            | 10             |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |
|      | 11            | 11             |         |            | 01-Mar-2010 20:12:41 | 01-Mar-2010 20:12:41 | First      | test         | 15             |

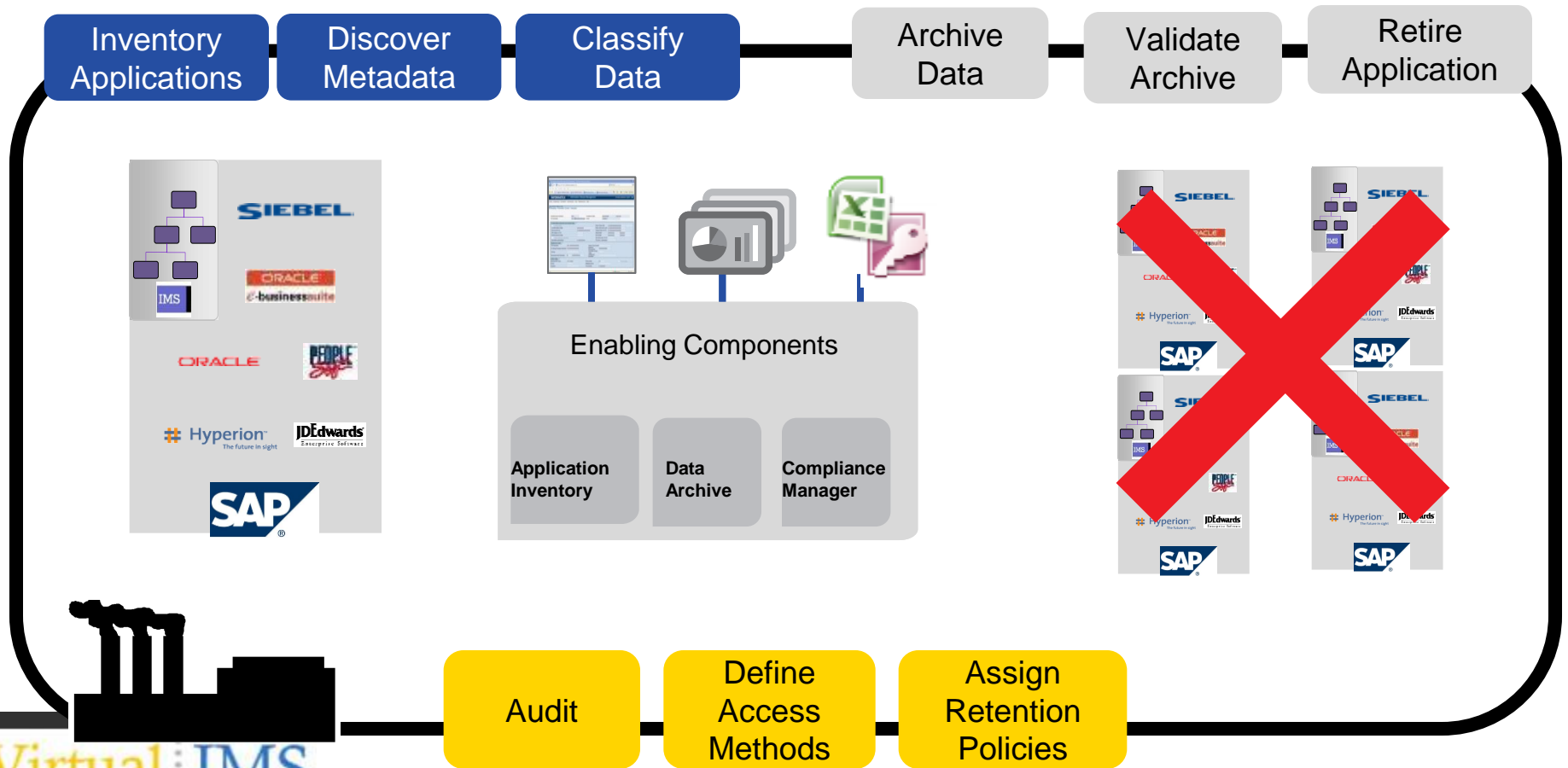
**Key-word Search**



- Minimize manual audit reporting
- Lower capex/opex costs by eliminating the need to purchase a separate tool for retention management and key-word search
- Minimizes risk of retaining data longer than necessary
- Simplifies ongoing enforcement of data retention policies, including legal holds

# Smart Application Retirement

Process Automation Through Technology





# Market Evaluation

- Gartner
  - Structured data archiving technologies help IT leaders retire legacy applications, reduce capital and operating expenses, and meet governance and compliance requirements. We evaluate vendors offering products and services that provide archiving for databases and data from enterprise applications.
- Forrester
  - Enterprise architects, in many regulated industries, are refreshing their approach to information archiving. As newer, innovative vendors are assessed, enterprise architecture (EA) professionals must add new requirements to the product wish list

# Identifying the Leaders – Gartner

## Magic Quadrant

Figure 1. Magic Quadrant for Structured Data Archiving and Application Retirement



Source: Gartner (June 2015)



# Informatica Solutions

for IMS Application Retirement

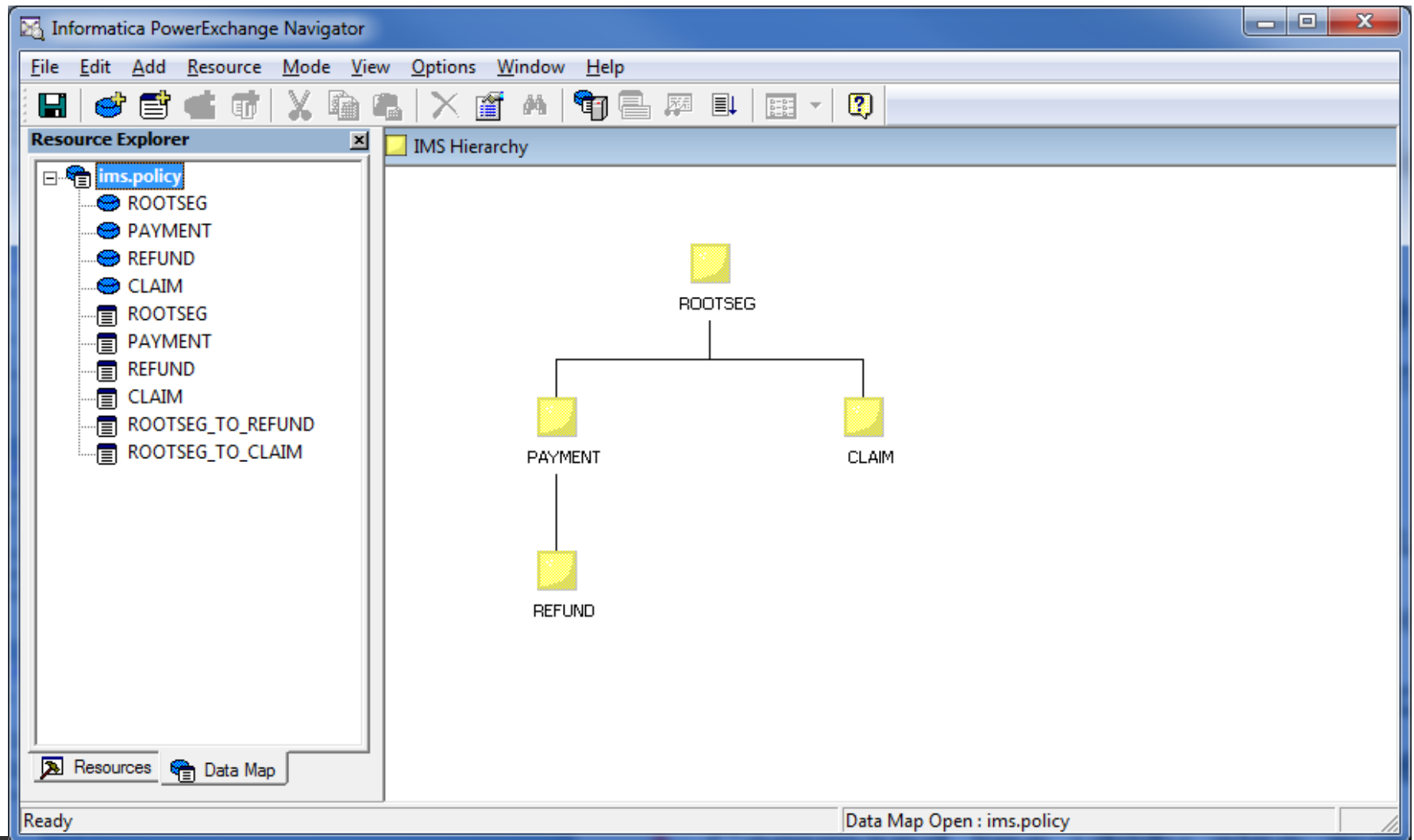
# IMS Application Retirement with Informatica

- Step 1 – Import IMS Metadata
  - Import IMS DBD Source and Segment layouts for IMS databases.
- Step 2 – Profile the data
  - Using the IMS Metadata created in Step 1 scan the IMS databases to find out what's actually in there
    - Optional Step – Address Data Quality issues which could compromise the usability of the archived data
- Step 3 – Import IMS Metadata into Workbench and create Retirement Project to read IMS data and load into Archive Store
- Step 4 – Execute the Retirement Project
- Step 5 – Validate that the data is successfully archived
- Step 6 – Create Required Reports for end user access to archived data
- Step 7 – Turn off the IMS Applications (and see who shouts!)
- Step 8 – Remove the Databases, Programs, Transactions from IMSGEN
- Step 9 – Delete the Databases and all the Image Copies

# Informatica IMS Metadata – How does it work?

- Windows based tool to create ‘Relational View’ of IMS data – referred to as a data map
- Two inputs to the process –
  - IMS DBD for database structure
  - PL/I Includes or Cobol Copybooks for segment layouts
- Once ‘datamap’ is created it can be used for all Informatica products which need to access IMS data
- Command line utility also available for datamap creation

# Informatica IMS Metadata – How does it work?



# Informatica IMS Read Access – How does it work?

- Data Server component is installed on Mainframe LPAR
  - Runs as a Started Task
  - Referred to as the PowerExchange Listener
- Listens on a TCP/IP Port for ‘Client Requests’ to read Mainframe Data or Metadata
- Two options for IMS Database Access
  - Direct Access - Listener connects to IMS using ODBA and executes DL/I Calls
  - Job Submission – Listener tailors and submits IMS BMP or Batch/DLI Job via internal reader
  - In both cases the listener sends the IMS data to the ‘client’ over the TCP/IP connection

# Informatica IMS Data Profiling – How does it work?

- Eclipse based Developer Tool to import the metadata
  - Imported from PowerExchange listener
- Comprehensive data profiling capabilities
  - Missing/Invalid Values – IMS has no concept of Nulls, but a Policy End Data of all zeros or a National Insurance Number of spaces is not good data!
  - Non-Unique Values – IMS will insure Unique Values if the DBD defines them, but the ‘data model’ may have additional unique definitions not enforced by IMS
  - Relationship profiling to validate or discover relationships between segments in different databases
- Data accessed via PowerExchange Listener
  - Same options as on previous slide





# Informatica IMS Data Profiling – How does it work?

## Column Profiling

All 2494 rows. Last run on:26-Oct-2015 17:44:13 o'clock GMT

| Column                 | Unique Values | % Unique | Nulls | % Null | Datatype                          | Documented Datatype |
|------------------------|---------------|----------|-------|--------|-----------------------------------|---------------------|
| ROOTSEG                |               |          |       |        |                                   |                     |
| CCK_ROOTSEG_POLICYN... | 2494          | 100.00   | -     | -      | - Integer(7) [100.00]             | string(7)           |
| SURNAME                | 1728          | 69.28    | -     | -      | - String(17) [100.00]             | string(30)          |
| FORENAME               | 501           | 20.08    | -     | -      | - String(11) [100.00]             | string(30)          |
| MIDDLENAME             | 545           | 21.85    | -     | -      | - String(10) [100.00]             | string(30)          |
| TITLE                  | 17            | 0.68     | -     | -      | - String(15) [100.00]             | string(18)          |
| BIRTHDATE              | 2288          | 91.74    | -     | -      | - Date [99.95]                    | string(10)          |
| SEXIND                 | 2             | 0.08     | -     | -      | - Fixed Length String(1) [100.00] | string(1)           |
| NATINSNUM              | 1904          | 76.34    | -     | -      | - String(9) [100.00]              | string(9)           |

## Details

Show: Patterns

| Pattern | Frequency | Percent | Chart |
|---------|-----------|---------|-------|
| XX9(6)X | 1912      | 76.66%  |       |
| 9b(6)   | 582       | 23.34%  |       |

## Column Profiling

All 2494 rows. Last run on:26-Oct-2015 17:44:13 o'clock GMT

| Column                 | Unique Values | % Unique | Nulls | % Null | Datatype                          | Documented Datatype |
|------------------------|---------------|----------|-------|--------|-----------------------------------|---------------------|
| ROOTSEG                |               |          |       |        |                                   |                     |
| CCK_ROOTSEG_POLICYN... | 2494          | 100.00   | -     | -      | - Integer(7) [100.00]             | string(7)           |
| SURNAME                | 1728          | 69.28    | -     | -      | - String(17) [100.00]             | string(30)          |
| FORENAME               | 501           | 20.08    | -     | -      | - String(11) [100.00]             | string(30)          |
| MIDDLENAME             | 545           | 21.85    | -     | -      | - String(10) [100.00]             | string(30)          |
| TITLE                  | 17            | 0.68     | -     | -      | - String(15) [100.00]             | string(18)          |
| BIRTHDATE              | 2288          | 91.74    | -     | -      | - Date [99.95]                    | string(10)          |
| SEXIND                 | 2             | 0.08     | -     | -      | - Fixed Length String(1) [100.00] | string(1)           |
| NATINSNUM              | 1904          | 76.34    | -     | -      | - String(9) [100.00]              | string(9)           |
| SURNAME2               | 758           | 30.39    | -     | -      | - String(24) [100.00]             | string(30)          |
| FORENAME2              | 322           | 13.31    | -     | -      | - String(15) [100.00]             | string(30)          |

## Details

Show: Statistics

| Statistic      | Value     |
|----------------|-----------|
| Maximum Length | 9         |
| Minimum Length | 9         |
| Bottom (5)     | 0         |
|                | AA012203A |
|                | AA233916C |
|                | AA324318B |
|                | AA407232C |
| Top (5)        | ZY985884C |
|                | ZY973336B |
|                | ZY956145B |
|                | ZY952916A |
|                | ZY919574D |

## Column Profiling

All 2494 rows. Last run on:26-Oct-2015 17:44:13 o'clock GMT

| Column                 | Unique Values | % Unique | Nulls | % Null | Datatype                          | Documented Datatype |
|------------------------|---------------|----------|-------|--------|-----------------------------------|---------------------|
| ROOTSEG                |               |          |       |        |                                   |                     |
| CCK_ROOTSEG_POLICYN... | 2494          | 100.00   | -     | -      | - Integer(7) [100.00]             | string(7)           |
| SURNAME                | 1728          | 69.28    | -     | -      | - String(17) [100.00]             | string(30)          |
| FORENAME               | 501           | 20.08    | -     | -      | - String(11) [100.00]             | string(30)          |
| MIDDLENAME             | 545           | 21.85    | -     | -      | - String(10) [100.00]             | string(30)          |
| TITLE                  | 17            | 0.68     | -     | -      | - String(15) [100.00]             | string(18)          |
| BIRTHDATE              | 2288          | 91.74    | -     | -      | - Date [99.95]                    | string(10)          |
| SEXIND                 | 2             | 0.08     | -     | -      | - Fixed Length String(1) [100.00] | string(1)           |
| NATINSNUM              | 1904          | 76.34    | -     | -      | - String(9) [100.00]              | string(9)           |

## Details

Show: Datatypes

| Datatype   | Frequency | % Conformance | Status   |
|------------|-----------|---------------|----------|
| Decimal(1) | 582       | 23.33%        | Inferred |
| Integer(1) | 582       | 23.33%        | Inferred |
| String(9)  | 2494      | 100.00%       | Inferred |



# Informatica IMS Retirement – How does it work?

- Browser based Workbench Tool to define all aspects of the Retirement Project
- Metadata for IMS Sources is imported from PowerExchange listener
- Archive Destination defined to store data in flat files on 'commodity disk storage' managed by Linux/Unix/windows server
  - Extremely high compression rates - >90%
- Define Entity containing databases to be archived
- Define policies for data retention and access
- Data movement engine connects to PowerExchange listener to read IMS data and write to the archive store

# Retirement Project

Manage Retirement Projects x Informatica Administrator: D... x

infa-server:8080/retrViewRetrAppDef.htm?fromMenu=Yes

Apps ★ Bookmarks IM Informatica Informatio... Ad Informatica Administra... Test Data Manager

**informatica** Information Lifecycle Management

Home Accelerators Workbench Administration Jobs Data Discovery Data Visualization Help

## Manage Retirement Projects

New Retirement Project

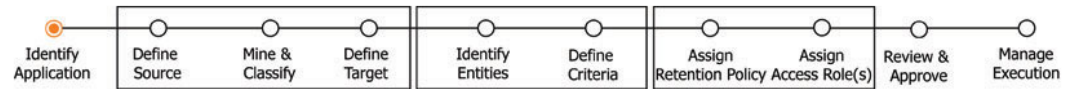
Results 1-8 of 8

| Project Name          | Description | Action       | Source                       | Target                       |
|-----------------------|-------------|--------------|------------------------------|------------------------------|
| HEALTHCARE_RETIREMENT |             | ARCHIVE ONLY | Healthcare_Retirement_Source | Healthcare_Retirement_Target |
| JD_EDWARDS_RETIREMENT |             | ARCHIVE ONLY | JDE_SOURCE_TESTCTL           | JDE_TARGET                   |
| MAINFRAME_LOYALTY     |             | ARCHIVE ONLY | mh28902_DSN9                 | MAINFRAME_LOYALTY_TARGET     |
| OEBS_RETIREMENT_BLR   |             | ARCHIVE ONLY | OEBS_BLORE_SOURCE            | OEBS_TARGET                  |
| OEBS_RETIREMENT_VM    |             | ARCHIVE ONLY | OEBS_VM_SOURCE               | OEBS_TARGET                  |
| OPENMRS_RETIREMENT    |             | ARCHIVE ONLY | OPENMRS_Retirement_Source    | OPENMRS_Retirement_Target    |
| OPENMRS_Rtrmnt        |             | ARCHIVE ONLY | OEBS_VM_SOURCE               | OEBS_TARGET                  |
| RETIRE_IMS_POLICY_DB  |             | ARCHIVE ONLY | MHZ8902_IMS_SOURCE           | MAINFRAME_IMS_POLICY         |

**informatica** Information Lifecycle Management

Home Accelerators Workbench Administration Jobs Data Discovery Data Visualization Help

## Create or Edit a Retirement Project



★ Mandatory fields

### Application Details

★ Application Name  Application Vendor name

Application Owner  Vendor Contact

★ Retirement Date  Vendor Phone

Primary Contact  Vendor Contract Number

Comments

# Retirement Project

**Informatica Enterprise Data Manager**  
File View Insert Help

Informatica Products  
Custom Apps Only  
Custom Product Family Version  
JBBSMS Created by EDM  
JBBSMT Created by EDM  
JBOYLE Created by EDM  
ims Created by EDM  
RETIRE\_IMS\_POLICY\_DATABASE  
XC\_17\_ims1 Retirement Entity for the IMS Policy DB  
policy\_CLAIM  
policy\_PAYMENT  
policy\_REFUND  
policy\_ROOTSEG  
VIEW\_IMS\_ALLTABLES  
VIEW\_IMS\_POLICY\_DB\_ARCHIVE

Deltek Costpoint  
Healthcare  
JD Edwards  
JD Edwards Retirement  
Oracle Applications  
Oracle Applications Retirement  
PeopleSoft  
PeopleSoft CRM  
PeopleSoft Campus Solutions  
PeopleSoft eLearning  
PeopleSoft ePortal  
PeopleSoft Financials & SCM  
PeopleSoft HRMS  
SAP  
Siebel

| policy_CLAIM |              |
|--------------|--------------|
| CCK_ROOTSEG  | POLICYNUMBER |
| CCK_CLAIM    | CLAIM_NO     |
| CLAIM_LL     |              |
| CLAIM_NO     |              |
| CLAIM_AMOUNT |              |
| CLAIM_DATE   |              |
| CLAIM_TYPE   |              |
| CLAIM_DESC   |              |

| policy_PAYMENT |              |
|----------------|--------------|
| CCK_ROOTSEG    | POLICYNUMBER |
| PAY_DATE       |              |
| PAY_AMOUNT     |              |
| PAY_NR         |              |

| policy_REFUND |              |
|---------------|--------------|
| CCK_ROOTSEG   | POLICYNUMBER |
| CCK_REFUND    | REF_NO       |
| REF_NO        |              |
| REF_AMOUNT    |              |
| REF_DATE      |              |

| policy_ROOTSEG |              |
|----------------|--------------|
| CCK_ROOTSEG    | POLICYNUMBER |
| SURNAME        |              |
| FORENAME       |              |
| MIDDLENAME     |              |
| TITLE          |              |
| BIRTHDATE      |              |
| SEXIND         |              |
| NATINSNUM      |              |
| SURNAME2       |              |
| FORENAME2      |              |
| MIDDLENAME2    |              |
| TITLE2         |              |
| BIRTHDATE2     |              |
| SEXIND2        |              |
| NATINSNUM2     |              |
| ADDRESSLINE1   |              |
| ADDRESSLINE2   |              |

| XC_17_ims1 Retirement Entity for the IMS Policy DB |  |
|--|--|
| STATS_DATE   |  |
| ORG_ID   |  |
| PURGEABLE_FLAG                                     |  |

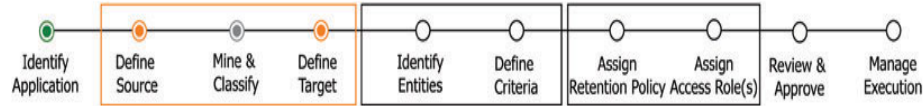
General Information | Tables | Default Columns | Business Rules | Indexes | Report Statements

Name: XC\_17\_ims1  
Description: Retirement Entity for the IMS Policy DB

# Retirement Project

Create or Edit a Retirement Project

Current Location: Workbench



\* Mandatory fields

\* Application Version Custom Apps Only Custom Product Family Version ▼

**\*Source**

MHZ8902\_IMS\_SOURCE ▼ POWER\_EXCHANGE\_ADAPTER 1.0 ▼

\* Source Name MHZ8902\_IMS\_SOURCE

Description IMS Database Source - mhz890-2

\* Data Source Name PWX\_NRDB2\_64BIT\_IMSREAD

\* Admin Schema Name JBOYLE

\* Admin Login Name JBOYLE

\* Password \*\*\*\*\*

\* Confirm Password \*\*\*\*\*

\* Application Username IMS

\* Application Login Name JBOYLE

\* Password \*\*\*\*\*

\* Confirm Password \*\*\*\*\*

\* Staging Username JBOYLE

\* Staging Login Name JBOYLE

\* Password \*\*\*\*\*

\* Confirm Password \*\*\*\*\*

\* Staging Tablespace JBOYLE

Use Staging

JDBC Fetch Size 0

Database Link to ILM Repository

Database Link To Production (Restore only)

Use Staging User for Deletes

Parallel Entity Run

Ignore Insert As Select

**\*Destination**

MAINFRAME\_IMS\_POLICY ▼ Optimized File Archive ▼

\* Target Name MAINFRAME\_IMS\_POLICY

Description

\* Staging Directory C:\ILM\_DA\STAGING

\* Number of Rows Per File 1000000

\* File Archive Data Directory C:\ILM\_DA\DATA\MAINFRAME

\* File Archive Folder Name MAINFRAME\_IMS\_POLICY

\* File Archive Host infra-server

\* File Archive Port 8500

\* File Archive Administration Port 8600

\* File Archive User dba

\* File Archive User Password \*\*\*

\* Confirm Password \*\*\*

Add On URL

Maintain Imported Schema Name

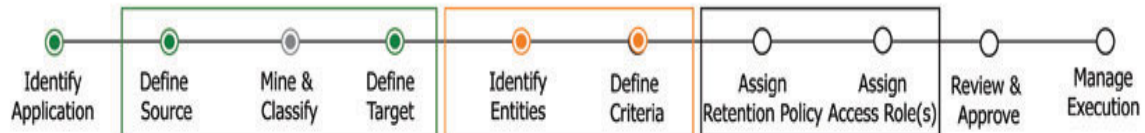
Application Owner

Application Owner email-id

Archive Store Type ▼

# Retirement Project

Create or Edit a Retirement Project

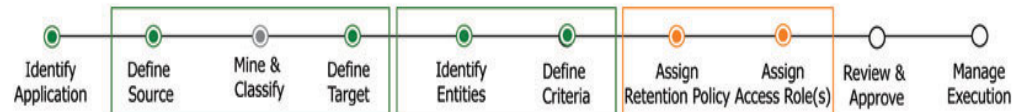


Add Entity

RETIRE\_IMS\_POLICY\_DATABASE

Entities: RETIRE\_IMS\_POLICY\_DATAB.

Create or Edit a Retirement Project



RETIRE\_IMS\_POLICY\_DATABASE

Retention

Policy:

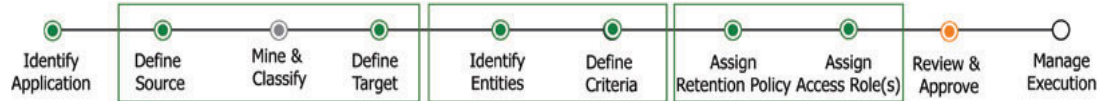
Access Roles

| *Role Name             | *Description               | *Valid From | Valid Until |
|------------------------|----------------------------|-------------|-------------|
| IMS_POLICY_ACCESS_ROLE | Access the IMS POLICY DB A | 14-Oct-2015 |             |



# Retirement Project

## Create or Edit a Retirement Project



Application Name: RETIRE\_IMS\_POLICY\_DB

### Application Information

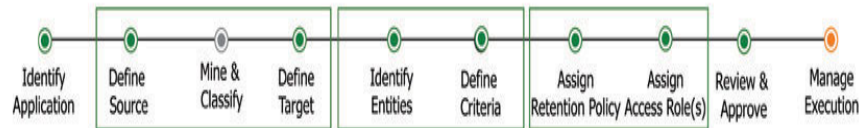
### Source and Target

| Entity Name                | Retention Policy | Access Role            |
|----------------------------|------------------|------------------------|
| RETIRE_IMS_POLICY_DATABASE |                  | IMS_POLICY_ACCESS_ROLE |

Approved By:  Approval Date:

## Create or Edit a Retirement Project

Current Location: Workbench > Create or Edit a Retirement Project



| Step                    | Pause After              | Row Count Report         | Skip                     | Run Before           | Run After            | Notify                   |
|-------------------------|--------------------------|--------------------------|--------------------------|----------------------|----------------------|--------------------------|
| 1. Generate Candidates  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 2. Validate Destination | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 3. Copy To Destination  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 4. Purge Staging        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |

# Retirement Project

## Monitor Jobs

Curre

[Schedule Jobs](#) [Search Jobs](#)

Results 1 - 20 of 30

20 JOBS ▾

| Job ID | Status      | User    | Project or Program                              | Start Date and Time     | Completion Date and Time |
|--------|-------------|---------|---|-------------------------|--------------------------|
| > 33   | ✔ COMPLETED | AMADMIN | File Search Archive Data Exporter               | 20-Oct-2015 16:29:33BST | 20-Oct-2015 16:29:44BST  |
| > 32   | ✔ COMPLETED | AMADMIN | File Archive Loader                             | 15-Oct-2015 08:30:45BST | 15-Oct-2015 08:32:01BST  |
| ▾ 31   | ✔ COMPLETED | AMADMIN | RETIRE_IMS_POLICY_DB RETIRE_IMS_POLICY_DATABASE | 15-Oct-2015 08:30:28BST | 15-Oct-2015 08:30:45BST  |

✔ Resume Job ✕ Terminate Job ● Au

Entity **RETIRE\_IMS\_POLICY\_DATABASE**

Definition **RETIRE\_IMS\_POLICY\_DB**

| Program                | Status      | Started                 | Ended                   | Elapsed  |
|------------------------|-------------|-------------------------|-------------------------|----------|
| ▶ Generate Candidates  | ✔ COMPLETED | 14-Oct-2015 16:06:48BST | 14-Oct-2015 16:06:48BST | 00:00:00 |
| ▶ Validate Destination | ✔ COMPLETED | 14-Oct-2015 16:06:48BST | 14-Oct-2015 16:06:49BST | 00:00:01 |
| ▶ Copy To Destination  | ✔ COMPLETED | 15-Oct-2015 08:30:28BST | 15-Oct-2015 08:30:42BST | 00:00:14 |
| ▶ Purge Staging        | ✔ COMPLETED | 15-Oct-2015 08:30:42BST | 15-Oct-2015 08:30:45BST | 00:00:03 |

# Retirement Project

Working on policy\_CLAIM

Working on policy\_PAYMENT

Working on policy\_REFUND

Working on policy\_ROOTSEG

Completed Processing policy\_PAYMENT . Total Rows 1246

Completed Processing policy\_REFUND . Total Rows 1867

Completed Processing policy\_ROOTSEG . Total Rows 2494

Completed Processing policy\_CLAIM . Total Rows 1246

# Data Retention Policy

infa-server:8080/viewReport.htm?jobId=35&jobStepId=62&reportName=Retention Modification Report - Google Chrome

infa-server:8080/viewReport.htm?jobId=35&jobStepId=62&reportName=Retention%20Modification%20Report

**informatica** Page 1 of 1

---

## Retention Policy Modification Report

Old Retention Policy :  
New Retention Policy      Keep 7 Years (7Years Since 30-November-2015)  
Retention Period            7  
Based on                      11/30/15 12:00 AM

Generated :                    30 November 2015  
Job Id :                        35  
Destination Repository      MAINFRAME\_IMS\_POLICY

Applied to tables in application :      Custom Apps Only Custom Product Family Version

| Schema Name | Table Name     |
|-------------|----------------|
| ims         | policy_ROOTSEG |
| ims         | policy_REFUND  |
| ims         | policy_PAYMENT |
| ims         | policy_CLAIM   |

# Informatica Data Validation – How does it work?

- Development Tool to define the Validation Tests you need to perform
- Metadata for IMS Sources and Archive Targets imported into the design workbench
  - Same metadata which was used by the Archive process
- Required test conditions for each source/target pair are selected from list of pre-defined tests
- PowerCenter Workflows are generated to execute the tests which you have defined
- Workflows are executed and results stored in repository
- Simple dashboard to view test results, with drilldown for details.

# Informatica Data Validation – Define Table Pair

**Table Pair Editor**

Basic | Advanced

Description: Policy\_PAYMENT

**Table A**

Table A: policy\_PAYMENT

Conn A: PWX\_NRDB\_IMSREAD

GroupA: policy\_PAYMENT

Where clause A:

Execute Where Clause in DB

Optimization Level: Default

**Table B**

Table B: POLICY\_PAYMENT

Conn B: Informatica\_Archive\_IMS\_Policy

GroupB:

Where clause B:

Execute Where Clause in DB

Optimization Level: Default

**Table Join**

| Join Field A | Join Field B |  |
|--------------|--------------|--|
|              |              |  |
|              |              |  |
|              |              |  |
|              |              |  |

External ID:

# Informatica Data Validation – Define Test

**Table Pair Test Editor Policy\_PAYMENT** [X]

Function:

Description

Field A:  =  Field B:

Threshold:  Max Bad Records:

Case Insensitive  Trim Trailing Spaces  Null=Null

Test Conditions

Condition A:   Condition B:

Expression Definitions

Field A is Expression  Field B is Expression

Data Type:  Precision:  Scale:  Data Type:  Precision:  Scale:

Comments:

# Informatica Data Validation – Define

**Table Pair Test Editor Policy\_PAYMENT** [X]

Function:

Description

Field A:  =  Field B:

Threshold:  Max Bad Records:

Case Insensitive  Trim Trailing Spaces  Null=Null

Test Conditions

Condition A:   Condition B:

Expression Definitions

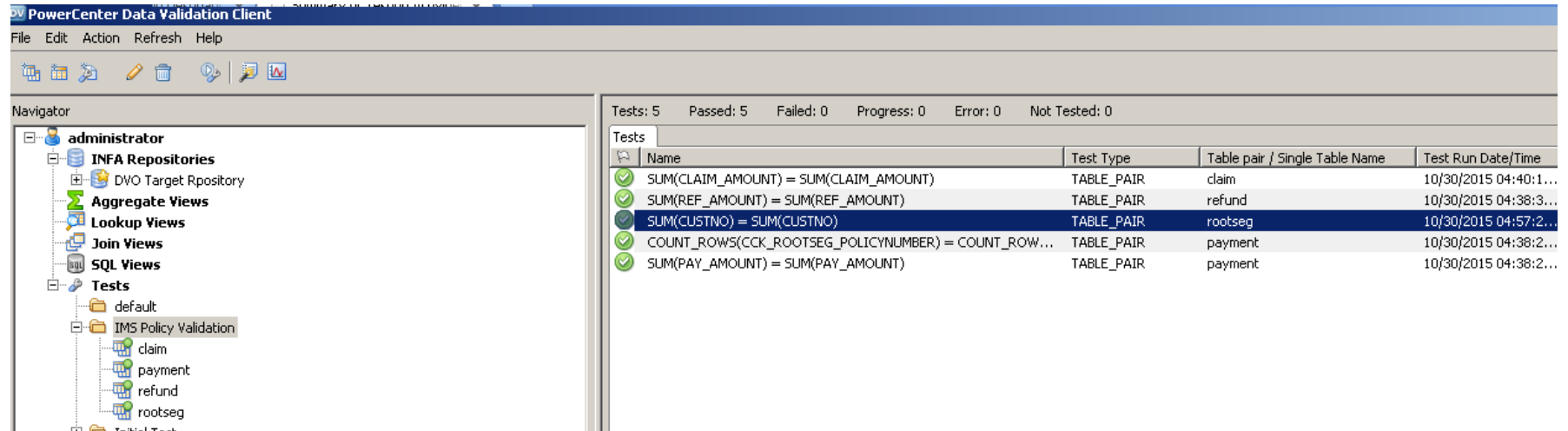
Field A is Expression  Field B is Expression

Data Type:  Precision:  Scale:  Data Type:  Precision:  Scale:

Comments:



# Informatica Data Validation – Summary



The screenshot displays the Informatica PowerCenter Data Validation Client interface. The top menu bar includes File, Edit, Action, Refresh, and Help. Below the menu is a toolbar with various icons. The Navigator pane on the left shows a tree view of the system structure, including Administrator, INFA Repositories, DVO Target Repository, Aggregate Views, Lookup Views, Join Views, SQL Views, and Tests. The Tests folder is expanded, showing sub-folders for default and IMS Policy Validation, with sub-items for claim, payment, refund, and rootseg. The main pane displays a summary of test results: Tests: 5, Passed: 5, Failed: 0, Progress: 0, Error: 0, Not Tested: 0. Below this is a table of test results.

| Name  | Test Type  | Table pair / Single Table Name | Test Run Date/Time    |
|---|------------|--------------------------------|-----------------------|
| SUM(CLAIM_AMOUNT) = SUM(CLAIM_AMOUNT)               | TABLE_PAIR | claim                          | 10/30/2015 04:40:1... |
| SUM(REF_AMOUNT) = SUM(REF_AMOUNT)                   | TABLE_PAIR | refund                         | 10/30/2015 04:38:3... |
| SUM(CUSTNO) = SUM(CUSTNO)                           | TABLE_PAIR | rootseg                        | 10/30/2015 04:57:2... |
| COUNT_ROWS(CCK_ROOTSEG_POLICYNUMBER) = COUNT_ROW... | TABLE_PAIR | payment                        | 10/30/2015 04:38:2... |
| SUM(PAY_AMOUNT) = SUM(PAY_AMOUNT)                   | TABLE_PAIR | payment                        | 10/30/2015 04:38:2... |

# Informatica Data Validation – Management Report

INFORMATICA

PowerCenter - Data Validation Option

## Summary of Testing Activities

IMS Testing

**User: administrator**

| Results        | Table Pairs/Single Table | Tests       |
|----------------|--------------------------|-------------|
| Pass           | 4                        | 6           |
| Fail           | 0                        | 0           |
| Error          | 0                        | 0           |
| Total          | 4                        | 6           |
| <b>Pass %:</b> | <b>100%</b>              | <b>100%</b> |

User=Current; Table Pair=In selected folders; Recency=All Tests; Results=All Results;  
Run Dates: From Oct 29, 2015 To Oct 31, 2015

Report run on: Oct 30, 2015 4:51 PM

Run By: administrator

Page 1 of 1

# Informatica Reporting – How does it work

Flexible reporting options to allow data in archive to be accessed by end users

- JDBC/ODBC access to Archive allows use of preferred 'in house' BI Reporting Tools – Cognos, Business Objects, Tableau, DBeaver, etc.
- Built in reporting tool JReport from Jinfonet Software Inc. is included with Archive Product
- Archive Workbench provides query access to archive
- All of the above provide capability to create both standard reports and query style access

# Informatica Reporting – JDBC Query Tool

The screenshot displays the DBeaver Enterprise interface. The left sidebar shows a tree view of the database structure. The main window shows a table with the following data:

|    | T CCK_ROOTSEG_POLICYNUMBER | T PAY_DATE | PAY_AMOUNT | PAY_NR |
|----|----------------------------|------------|------------|--------|
| 1  | 9219531                    | 01.02.03   | 120.25     | 1      |
| 2  | 9221219                    | 03.02.05   | 120.25     | 2      |
| 3  | 9221219                    | 03.01.05   | 120.25     | 1      |
| 4  | 9218080                    | 01.02.03   | 120.25     | 1      |
| 5  | 9218859                    | 03.02.05   | 120.25     | 2      |
| 6  | 9218859                    | 03.01.05   | 120.25     | 1      |
| 7  | 9214877                    | 01.02.03   | 120.25     | 1      |
| 8  | 9217679                    | 03.02.05   | 120.25     | 2      |
| 9  | 9217679                    | 03.01.05   | 120.25     | 1      |
| 10 | 9215039                    | 01.02.03   | 120.25     | 1      |
| 11 | 9216777                    | 03.02.05   | 120.25     | 2      |
| 12 | 9216777                    | 03.01.05   | 120.25     | 1      |
| 13 | 9220355                    | 01.02.03   | 120.25     | 1      |
| 14 | 9215834                    | 03.02.05   | 120.25     | 2      |
| 15 | 9215834                    | 03.01.05   | 120.25     | 1      |
| 16 | 9218845                    | 01.02.03   | 120.25     | 1      |
| 17 | 9217844                    | 03.02.05   | 120.25     | 2      |
| 18 | 9217844                    | 03.01.05   | 120.25     | 1      |
| 19 | 9216561                    | 01.02.03   | 120.25     | 1      |
| 20 | 9219222                    | 03.02.05   | 120.25     | 2      |
| 21 | 9219222                    | 03.01.05   | 120.25     | 1      |
| 22 | 9216067                    | 01.02.03   | 120.25     | 1      |
| 23 | 9219429                    | 03.02.05   | 120.25     | 2      |

# Informatica Reporting – Data Visualisation

## Reports & Dashboards

### Reports & Dashboards

| <input type="checkbox"/>            | Name ↑                        | Type ↑ | Description ↑ |
|-------------------------------------|-------------------------------|--------|---------------|
| <input type="checkbox"/>            | MAINFRAME_IMS_POLICY (3)      |        |               |
| <input type="checkbox"/>            | IMS Policy Claim Report.wls   | Report |               |
| <input checked="" type="checkbox"/> | IMS Policy Payment Report.wls | Report |               |
| <input type="checkbox"/>            | IMS Policy Holder Report.wls  | Report |               |

# Informatica Reporting – Simple JReport

Run Report:IMS Policy Payment Report.wls

## Policy Payments Report

| POLICY ROOTSEG POLICYNUMBER1 | Polcy No. | Pavment No. | Amount | Date     |
|------------------------------|-----------|-------------|--------|----------|
| 9214682                      | 9214682   | 1.00        | 120.25 | 01.02.03 |
|                              |           |             |        |          |
| 9214685                      | 9214685   | 2.00        | 120.25 | 03.02.05 |
|                              | 9214685   | 1.00        | 120.25 | 03.01.05 |
| 9214686                      | 9214686   | 2.00        | 120.25 | 03.02.05 |
|                              | 9214686   | 1.00        | 120.25 | 03.01.05 |
| 9214687                      | 9214687   | 1.00        | 120.25 | 01.02.03 |
|                              |           |             |        |          |
| 9214688                      | 9214688   | 2.00        | 120.25 | 03.02.05 |
|                              | 9214688   | 1.00        | 120.25 | 03.01.05 |
| 9214696                      | 9214696   | 1.00        | 120.25 | 01.02.03 |
|                              |           |             |        |          |
| 9214715                      | 9214715   | 2.00        | 120.25 | 03.02.05 |
|                              | 9214715   | 1.00        | 120.25 | 03.01.05 |
| 9214737                      | 9214737   | 2.00        | 120.25 | 03.02.05 |
|                              |           |             |        |          |

# Informatica Reporting – Workbench Data Discovery

The screenshot displays the Informatica Reporting Workbench interface. At the top, the browser address bar shows the URL: `infa-server:8080/fileArchiveSearch.htm?action=displayFileArchiveAreas#`. The Informatica logo and "Information Lifecycle Management" text are visible on the left, and "Administrator Log Off | Help" is on the right. A navigation menu includes "Home", "Accelerators", "Workbench", "Administration", "Jobs", "Data Discovery", "Data Visualization", and "Help".

The main section is titled "Search Within an Entity in Data Vault". Below this, there is a "Search Criteria" section with a "Hide Criteria" button. The search criteria include:

- \* Archive Folder: MAINFRAME\_IMS\_POLICY - MAINFRAME\_IMS\_POLICY
- \* Entity: VIEW\_IMS\_POLICY\_DE
- Maximum Number of Records in Results: 10
- Operator: Custno (dropdown), Equals (dropdown), 25850 (text input)
- Options:  Not Case Sensitive, AND (dropdown)

Buttons for "View" and "Preview Search Condition" are located below the search criteria.

Below the search criteria is an "Export" button and a table with 11 columns: View Archived Data, Technical View, Cck Rootseg Policynumber, Surname, Forename, Middlename, Title, Birthdate, Sexind, Natinsnum, and Surr. The table contains one row of data:

| View Archived Data | Technical View | Cck Rootseg Policynumber | Surname | Forename | Middlename | Title | Birthdate  | Sexind | Natinsnum | Surr |
|--------------------|----------------|--------------------------|---------|----------|------------|-------|------------|--------|-----------|------|
|                    |                | 9215015                  | HOLMES  | VERA     |            | MRS   | 25.08.1930 | F      | HH694735B |      |

At the bottom right of the table, there are controls for "10 rows", "1", and navigation arrows.



# Case Studies



# Case Study 1

## Multi National Pharmaceutical Company

### Business need

The company implemented a significant number of new IT solutions in the last few years. As a result a number of solutions (300 +) have to be decommissioned. Some of the data retained in those solutions have retention periods beyond the time of retirement (e.g. 10 years). Therefore, the data needs archiving in a way that allows them to retrieve the data in a secure way so it still can be read.

### Solution

Informatica Data Archive Advanced Edition, Discovery Option, Data Validation Option, Unlimited ILM Relational Adapters and add. 10 TB of transactional data.

Instead of allowing global functions to implement a number of individual solutions, the ILT endorsed an approach for a global solution. The eArchive project's goal is to enable application retirement by implementing a 'factory' for archiving electronic data from applications. In addition, the projects goal is to 'produce' or 'onboard' data from  $\pm 50$  applications which indicated in early stages that they require archiving

# Case Study 2

## European Bank

### Business need

This East European Bank is part of a larger Pan-European Banking Group. Originally, it was created from the merge of two other banks, then acquired by a third, and finally merged again with a fourth. This complex history resulted in very expensive maintenance of application landscape generating instant need for simplification.

### Solution

Informatica Data Archiving Advanced Edition and Data Validation.  
The completeness of the solution and vision will allow the bank to solve the issue of archiving.  
The priority is the retirement of systems in order to reduce the complexity of the application landscape.

# Want more Information?

Email me at [jboyle@informatica.com](mailto:jboyle@informatica.com)

Or visit the Informatica Web site

<https://www.informatica.com/products/data-security/data-archive/application-retirement.html>

# Bibliography

- Gartner Magic Quadrant
  - <http://www.gartner.com/technology/reprints.do?id=1-2HYPOQ8&ct=150616&st=sb>
- **Forrester Market Overview: Information Archiving, Q2 2015**
  - <https://www.forrester.com/Market+Overview+Information+Archiving+Q2+2015/fulltext/-/E-res115414>
- Informatica White Paper – “A Practical Guide for Legacy Application Retirement”
  - [http://now.informatica.com/en\\_practical-guide-legacy-application-retirement\\_white-paper\\_6957.html?uid=12-10586#fbid=ljrHDW0XnAH](http://now.informatica.com/en_practical-guide-legacy-application-retirement_white-paper_6957.html?uid=12-10586#fbid=ljrHDW0XnAH)
- Informatica Case Study
  - <http://www.emc.com/collateral/hardware/white-papers/h6579-informatica-data-retirement-poc-wp.pdf>
- Independent Case Studies
  - [http://www.techvalidate.com/product-research/informatica-application-ilm/case-studies?utf8=%E2%9C%93&case\\_study\\_search%5Bquery%5D=application+retirement](http://www.techvalidate.com/product-research/informatica-application-ilm/case-studies?utf8=%E2%9C%93&case_study_search%5Bquery%5D=application+retirement)



# Thanks for Listening

