



Ytria

GDPR considerations
for your IBM Domino environment



GDPR and Domino: Everything you need to know to become and stay compliant

Speakers: Ben Menesi, Head of Products

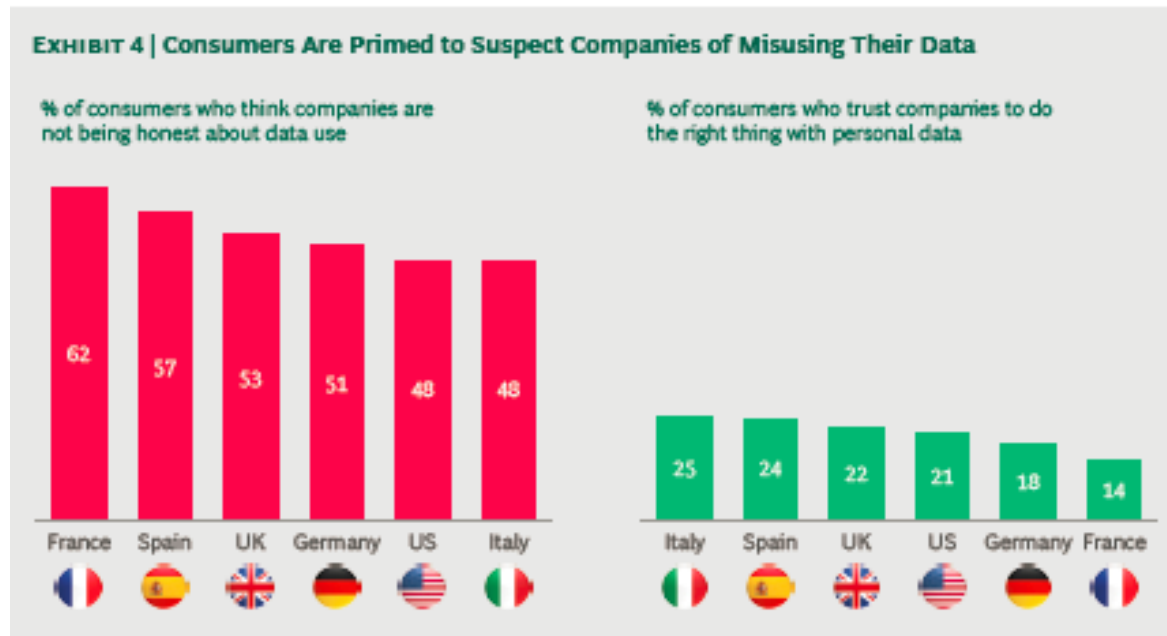
- 
- A vertical list of five agenda items. Each item is preceded by a white circle with an orange outline, connected by a thin orange line. The text of each item is white and centered within a horizontal orange bar of varying shades.
- GDPR Overview
 - Data Subject Rights
 - Domino as a Data Container
 - Searching Domino
 - Ytria tools and how we can help

GDPR in a nutshell – a one liner summary

The GDPR Regulation provides the means for EU citizens to better control their personal and sensitive data

GDPR in a nutshell – reasons

- According to the Boston Consulting Group's recent survey (<https://www.bcg.com/publications/2018/leveraging-gdpr-become-trusted-data-steward.aspx>)



GDPR in a nutshell – Definitions

- **Data Controller:** natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data
- **Data Processor:** a natural or legal person, public authority, agency or any other body which processes personal data on behalf of the controller
- **Data Subject:** A living individual to whom personal data relates / whom personal data identifies.

GDPR in a nutshell – Basics

- Repeals directive 95/46/EC – while principles remain, the GDPR will be much more effective.
- It has been approved by the EU Parliament in April 2016 (already in effect), set to be enforced as of May 25 2018.
- Member states may introduce further provisions as long as they do not weaken the principles outlined in GDPR
- Fines up to 10M EUR or 2% of WW turnover for failing responsibilities, 20M EUR or 4% of WW turnover for personal data

GDPR in a nutshell – Consent

- **Consent is key to the GDPR:** Freely given, specific, informed and unambiguous indication of the data subject's wishes by which they agree to the processing of personal data
- **In plain English:** Gone are the days of burying end users in pages and pages of legal mazes for consent (think cookies)
- **Out of scope:** This doesn't directly relate to our topic today so we won't be discussing it more in detail. Read more: <https://iapp.org/news/a/top-10-operational-impacts-of-the-gdpr-part-3-consent/>

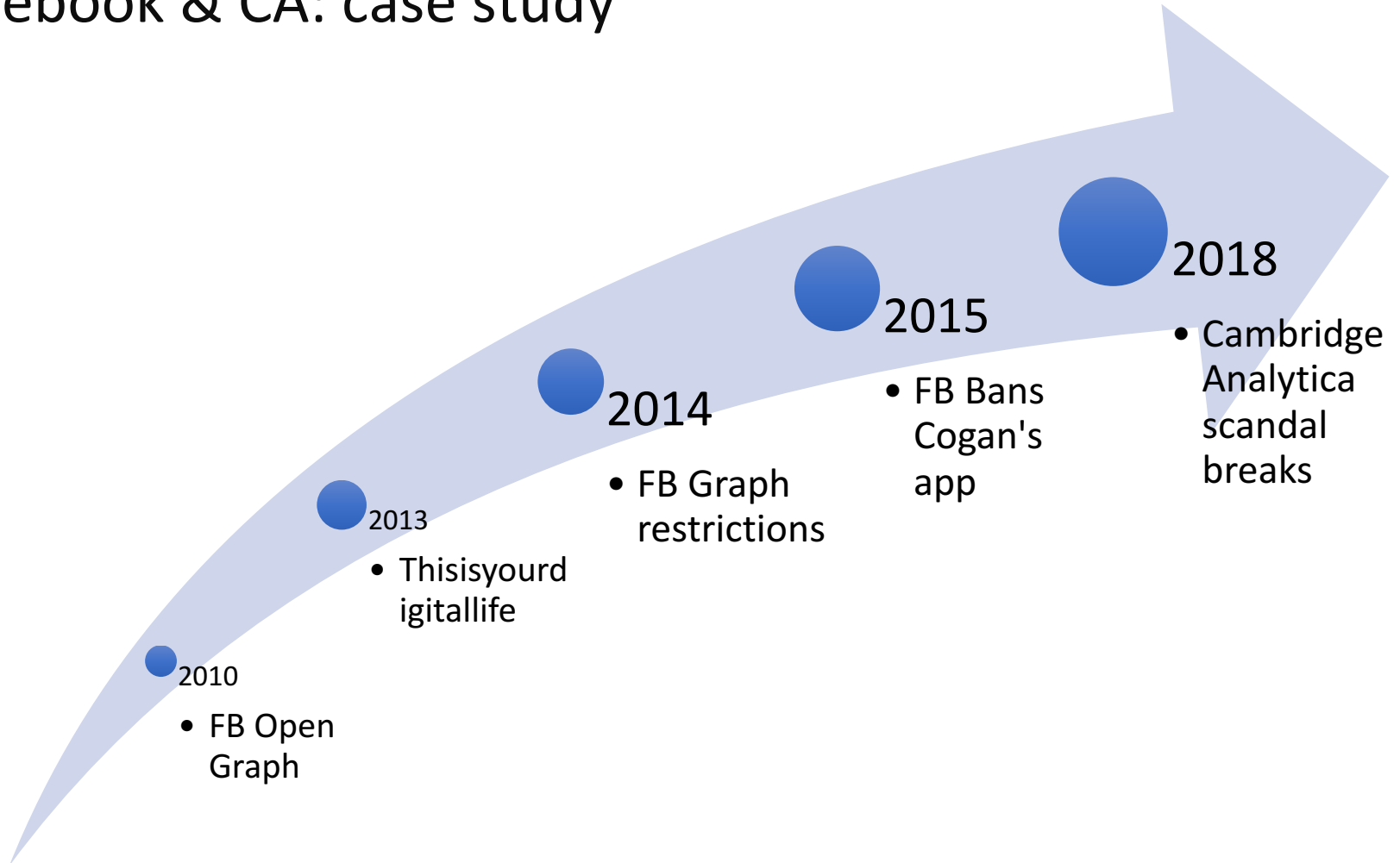
GDPR in a nutshell – DPO (Data Protection Officer)

- **Every organization (regardless their size)** must appoint a Data Protection Officer who'll be the face of the organization to the Information Commissioner's Office and to the public.
- **Exceptions:** If processing personal / sensitive data isn't considered to be a core activity (no key operations rely on it)
- **See also:** http://pwc.blogs.com/data_protection/2017/02/data-protection-officer-do-you-need-to-appoint-one.html
- **Conclusion:** It's best to appoint a DPO no matter your company's size, core activities or the scale at which you process personal data.

GDPR in a nutshell – Cyber Attacks

- **What is a personal data breach:** Loss of confidentiality that may result in physical, material or non-material damage to natural persons.
- **Report personal data breaches:** within 72 hours of detection
- **Report to the relevant authority:** Contact the ICO and provide a description of the breach including the categories and number of individuals concerned, personal data records, DPO contact information, measures taken to address the breach. (Information may be provided in phases according to article 34(4))
- **About detection:** According to FireEye, global average for intrusion detection is 146 days and **469 days** in the EMEA region. Read more: <https://www.fireeye.com/company/press-releases/2016/fireeye-releases-first-mandiant-mtrends-emea-report.html>

Facebook & CA: case study

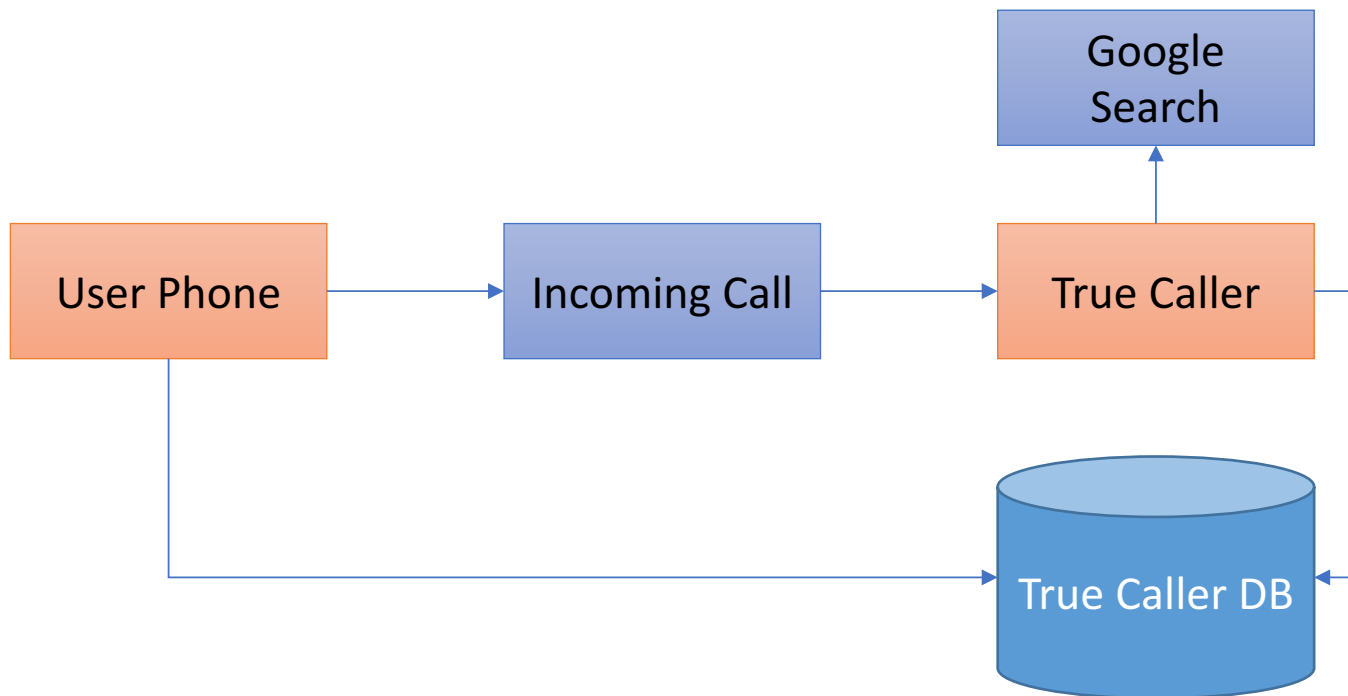


Facebook & CA: In terms of GDPR

- **Facebook:** Data Controller
- **Global Science Research:** Data Processor
- **How to tell if you've been impacted:** One friend is enough:
<https://www.facebook.com/help/1873665312923476?helpref=search&sr=1&query=cambridge>
- **Why would (and still might) this be a \$480M GDPR Fine**
 - Lack of breach reporting within 72 hours
 - No clear consent or data retention policy
 - Exposing personal data that no data subject consented to

Application to identify unknown caller IDs

- Yet another GREAT subject for GDPR



What rights does the GDPR grant to data subjects?

- Right of access: Whether and where my data is processed? For what purposes? Recipients with whom my data is shared? For how long?
- Right of rectification: Is my data accurate? I want it deleted / rectified.
- Right of to be forgotten: You don't need my data anymore. (Google paper: <https://drive.google.com/file/d/1H4MKNwf5MgeztG7OnJRnl3ym3gIT3HUK/view>)
- Right of data portability: I want a copy of my personal data.
- Right of objection: Stop processing my data unless you can prove you legally need to continue.
- Right to not be evaluated on the basis of automated processing: Do not profile me and make decisions about me unless it's lawfully authorized or I explicitly consented to it.

Debunking hoaxes about Domino and GDPR

- Some of you might have come across articles such as this one: <https://www.realwire.com/releases/Lotus-Notes-and-the-GDPR-conundrum>
- Domino is VERY SECURE. (No major data breach in the last decade, last public exploit over 2 years ago)
- Domino can't be made GDPR compliant: FALSE.
- No matter what software you use, complying with the GDPR requires significant legwork. Domino is no exception but it's doable.

What counts as personal data in an NSF database?

Custom Apps

- Documents with names
- Attachments containing personal information

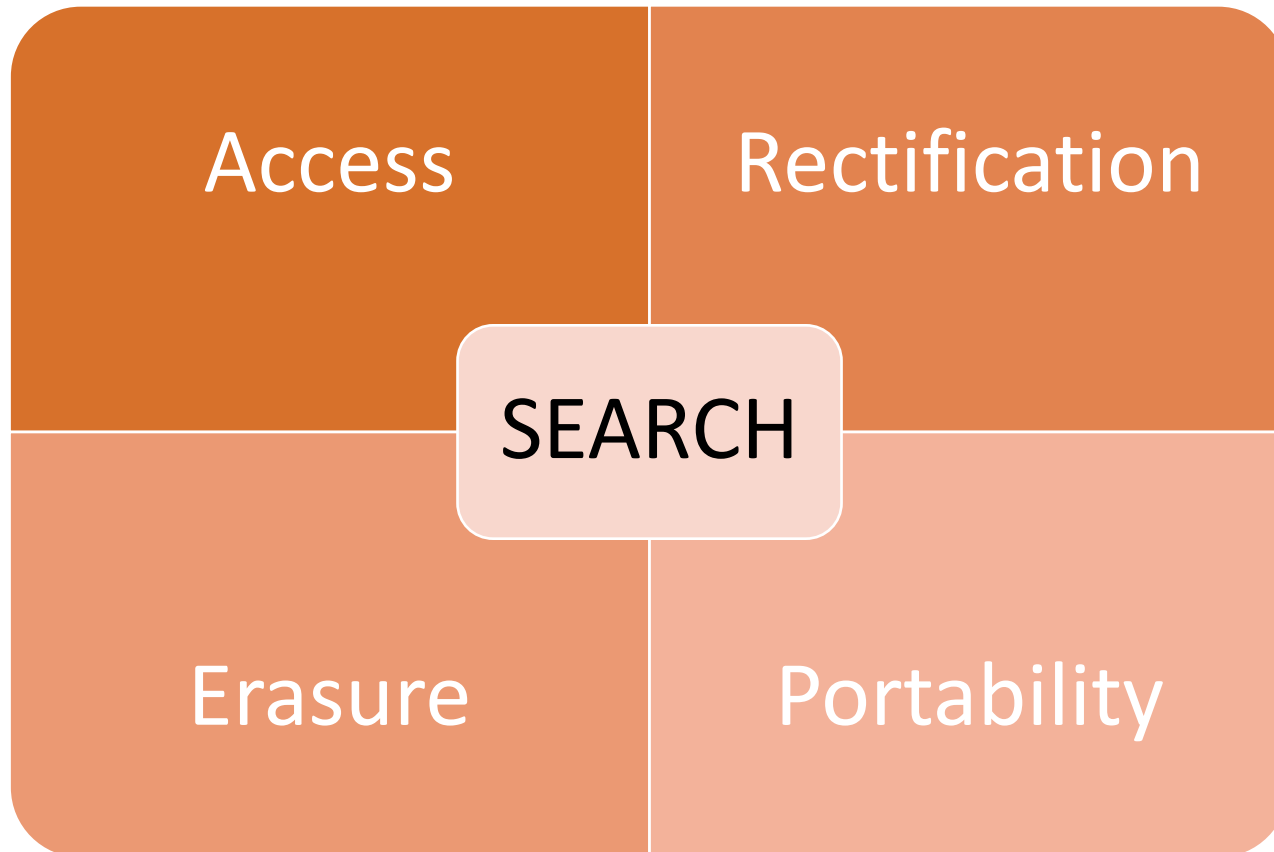
Mail files

- Mails from / to / about the data subject
- Mails with attachments containing PII

System Databases

- Logs containing names
- IP Address information

The challenge

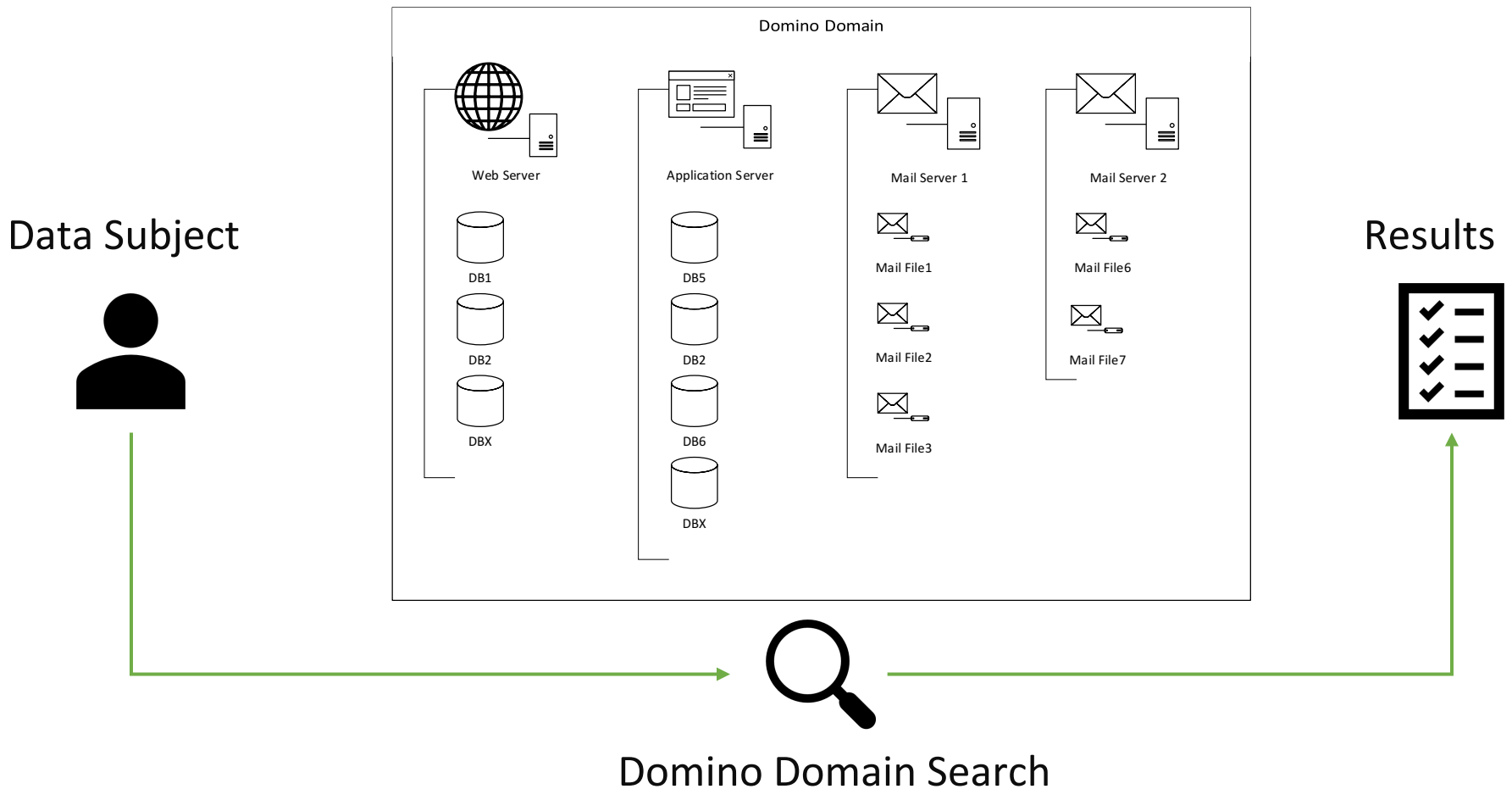


IBM SmartCloud vs. On-premises

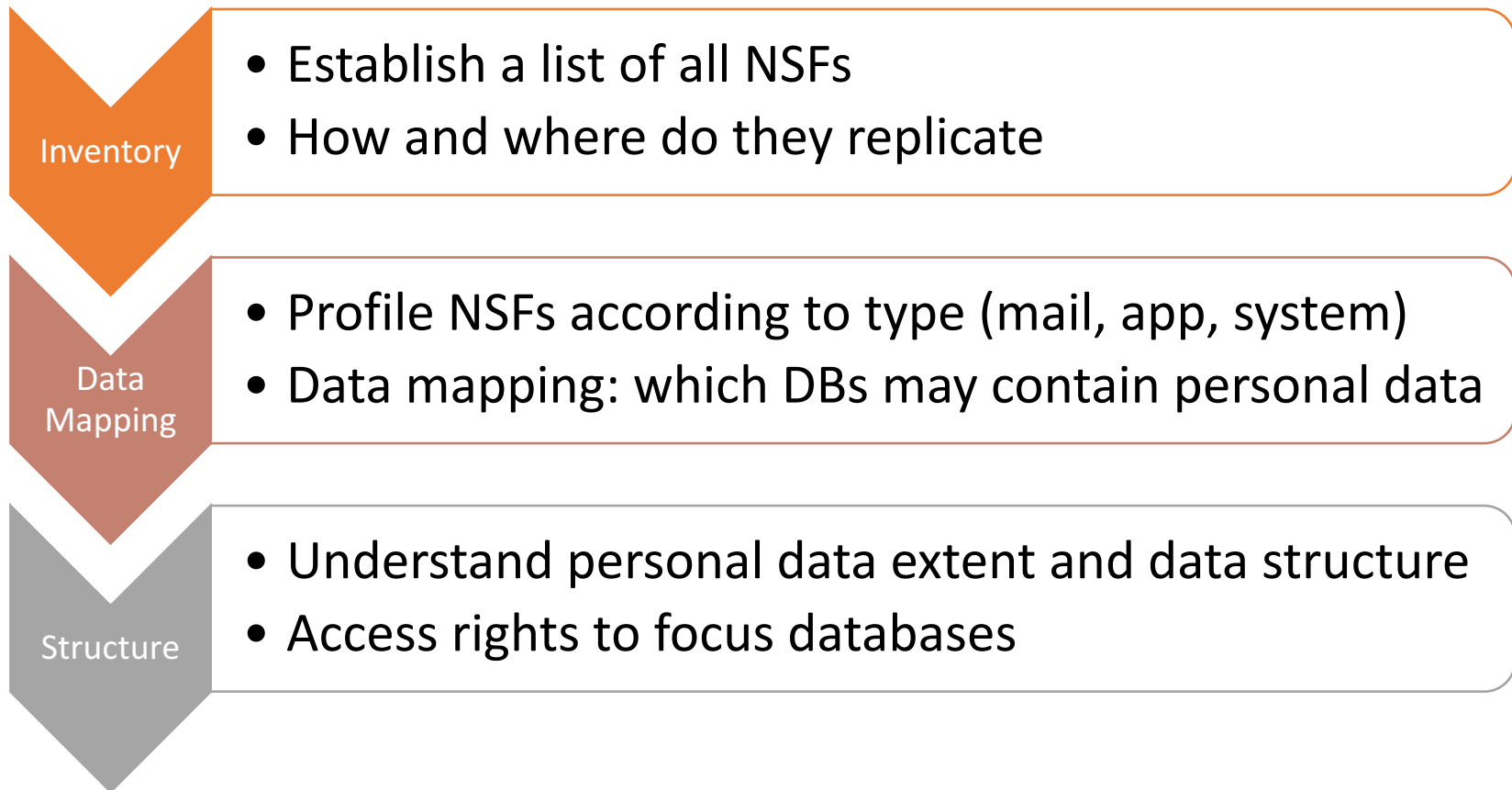
	IBM SmartCloud	On-Premises
Data Controller:	Your organization	Your organization
Data Processor:	IBM	Your organization
Domino Data shared with:	3 rd party, outside the EU depending on datacenter	Your organization, outside the EU depending on server location & replication
Scope of GDPR compliance	Mail only	Mail & applications (apps. Only if you use IBM SC)

Domino as a data container

Ideal GDPR readiness for Domino

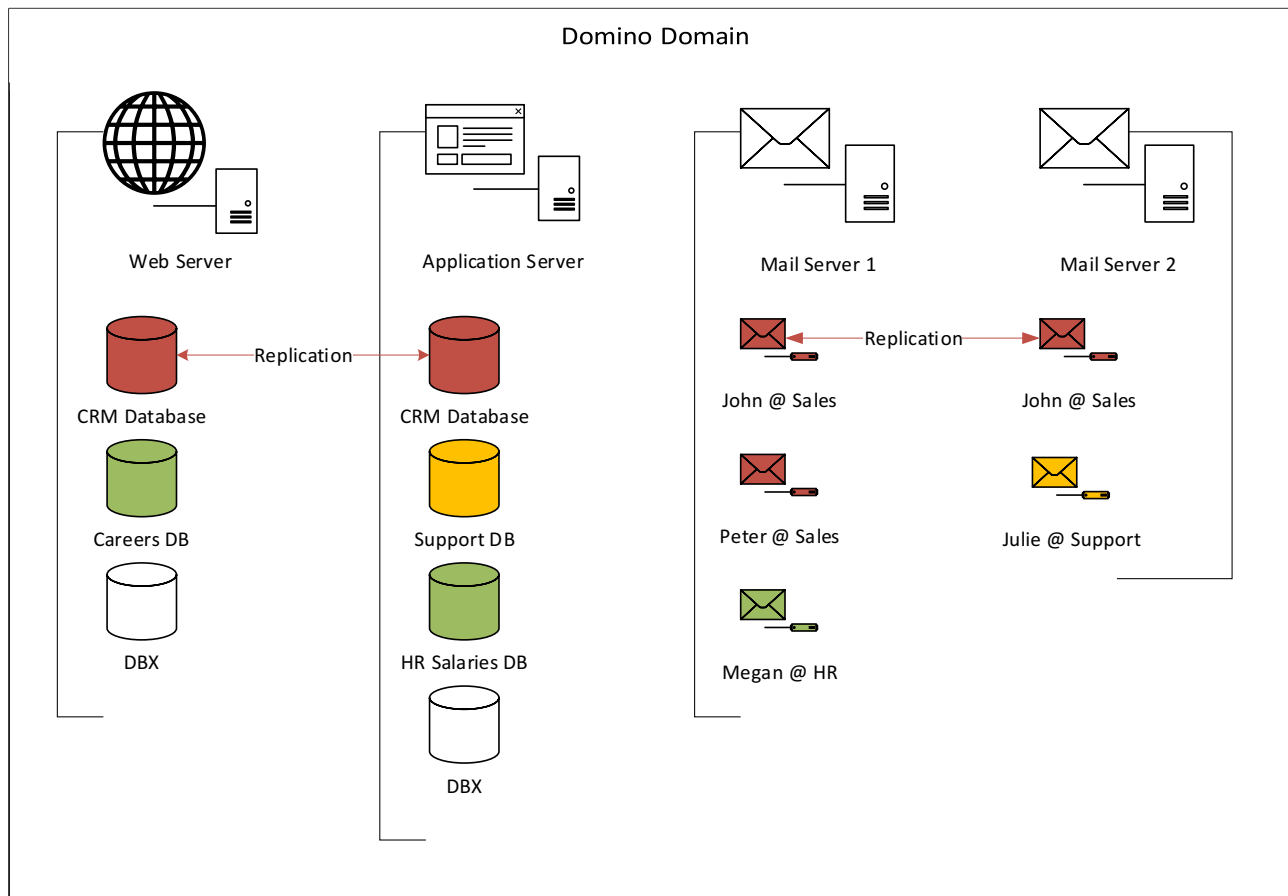


Domino discovery & data mapping phase



Domino as a data container

Your domino environment after discovery & data mapping



Data mapping in real life

- Example: we've already received our first access request from a customer pertaining to their employers' personal data in our systems

Annual renewal - GDPR Regulation 2018

Hope you are keeping well.

It is almost time for our annual renewal of the scanEZ and databaseEZ licences. I'm sure you are already aware and possibly already been asked GDPR related questions by other customers for the first time this year as the new EU regulation comes into force.

On the basis that personal data being processed by Ytria is limited to the name, email address and telephone contact numbers of a small number of [REDACTED] Staff and the data is processed outside the EEA, I will require the following actions to be completed as part of the renewal process this year:

(a) An appropriate contract should be in place which includes the GDPR compliant clauses and EU model clauses. In particular, the contract must include:-

A clause providing, at [REDACTED] choice, return or secure & permanent deletion of personal data (at our option) & any copies in accordance with our instructions upon expiry/termination, with certification that destruction has been completed

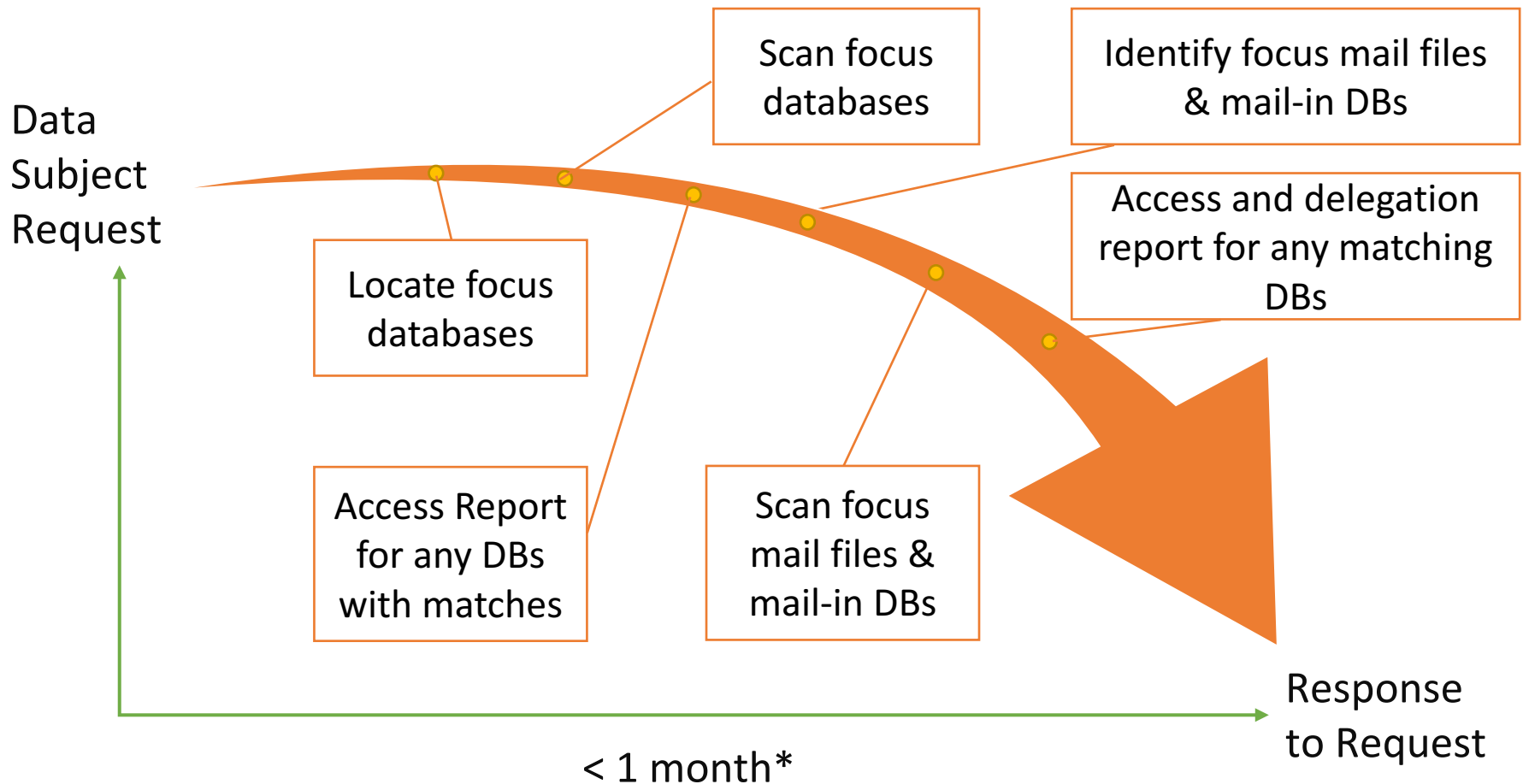
(b) I will require to review the existing staff information Ytria holds, which has built up to date, to ensure personal data is retained for no longer than is needed for the original support purpose. We can agree to include this information each renewal year to ensure only current staff contact information is being held for the purposes of providing support.

If you can arrange to have a renewal quote together with a list of existing [REDACTED] staff contact information held and a GDPR compliant support agreement I will be able to progress the renewal Purchase Order.

The key to locating personal data: Search, search and search

- Full Text Indexing is your friend
- When no FTI possible: more work, you need to identify items that can be used to connect documents to data subjects, and then use them for searches via Formulas, LS or Java.
- Database by database search: not enough. You will need a larger framework to comply and make your data subject request response time and resource efficient.

Locating personal data in Domino



Using Ytria to extend database operations



Discovery

- Environment overview
- Replication analysis

Extended Search

- Multi-DB FTI, Formula, Mail & attachment search
- Extended Custom Application Search

Access Documentation

- Cross-server ACL Reporting
- Effective Access reporting across servers

replicationEZ: cross-server database overview

Number of Servers Currently Loaded: 3 - Ytria replicationEZ v16.5.3

Server Edit Panels Search Tools Options Help

Databases 253 ReplicaID(s) Found on 3 Servers

Common Info :: Number of Replicas Acme01/ACME :: Inherit from Acme02/ACME

Status	Replica ID	Is Du...	Do N...	Nu...	Database Full Path	Database Title	Inherit from	Database Full Path	Database Title	Inherit from
Duplicates (16/16)										
1 (107/107)										
2 (32/32)										
(-unset-) (5/5)										
(5/5)										
BusyTime (1/1)										
DemoEZ v1.0 (2/2)										
	85257AF5:007B9A6C			2	app\DemoEZ.nsf	ACME Order Management	DemoEZ v1.0	app\DemoEZ.nsf	ACME Order Management	DemoEZ v1.0
	85257AF5:007B2636			2	app\DemoEZ2.nsf	DemoEZ	DemoEZ v1.0	app\DemoEZ2.nsf	DemoEZ	DemoEZ v1.0
StdR4AdminRequests (1/1)										
StdR4ClusterDirectory (1/1)										
StdR4PublicAddressBook (1/1)										
StdR7DocLibMS (1/1)										
StdR7WebDocLib (1/1)										
StdR85Discussion (3/3)										
StdR85Mail (8/8)										

Rows Loaded: 261 | Rows Displayed: 261

Selected Databases

Drag & drop column headers here to group

Replica ID	Is Du...	Do N...	Server Name	Database Full Path	Database Title
------------	----------	---------	-------------	--------------------	----------------

Discover Replicas Chart

Time of Retrieval: 03/19/2018 06:17:10 AM

Filters Transition Format Zoom: 100%

Acme01/ACME app\DemoEZ.nsf → 01/05/2017 07:18:17 AM → Acme02/ACME app\DemoEZ.nsf

Replication History Chart Connection Analyzer Chart Discover Replicas Chart

With replicationEZ you can

- List every single database across all servers and find out where and when they replicated
- Easily identify focus databases with personal information based on their template inheritance or any other database information
- Filter out templates and non-relevant, standard IBM databases to focus on what really matters.

databaseEZ: In-depth server-wide database analysis

The screenshot displays the Ytria databaseEZ application interface. The main window shows a grid of 180 databases currently listed in the grid. The grid columns include Status, Is Co..., Database Title, Database Path, Database Filename, Server, PII Analysis, Database Type, Is a D..., Use J..., Requ..., Don't..., and En. The PII Analysis column is color-coded: green for 'No Personal Data', red for 'Sensitive Data', and orange for 'Customer Personal Data'. The Database Type column shows 'Standard' for all entries.

Status	Is Co...	Database Title	Database Path	Database Filename	Server	PII Analysis	Database Type	Is a D...	Use J...	Requ...	Don't...	En
	<input checked="" type="checkbox"/>	Field bigger 32K	\32k\	AAFieldBigger32K.nsf	Acme01/ACME	No Personal Data	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Java AgentRunner	\	AgentRunner.nsf	Acme01/ACME	No Personal Data	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Acme Expenses	\app\	acme_expenses.nsf	Acme01/ACME	Sensitive Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Acme Project Management	\app\	ITProjects_V1.0.nsf	Acme01/ACME	Customer Personal Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Oscorp Purchasing	\app\	Oscorp_Purchasing.nsf	Acme01/ACME	Customer Personal Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Acme Purchasing	\app\	Purchasing.nsf	Acme01/ACME	Customer Personal Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Acme IT Servicedesk	\app\	ServiceDesk.nsf	Acme01/ACME	Customer Personal Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Acme Project Management	\archive\	a_ITProj.nsf	Acme01/ACME	Customer Personal Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Acme Purchasing	\backup\	Purchasing_old.nsf	Acme01/ACME	Customer Personal Data	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Rows Loaded: 236 | Rows Displayed: 180 | Rows Hidden: 56 | Rows Selected: 1

The User Activity window shows a list of databases and their associated users. The columns include Database Title, Database Path, Database Filename, Date/Time, and User. The list is expanded to show the following databases and their user counts:

- Acme Expenses (1/1)
- Acme IT Servicedesk (475/475)
- Acme Project Management (28/28)
 - Acme01/ACME (8/8)
 - Acme02/ACME (3/3)
 - Agent Signer/ACME (1/1)
 - John Admin/ACME (13/13)
 - Stanley Millington/ACME (1/1)
 - Template Development/ACME (1/1)

Rows Loaded: 546 | Rows Displayed: 546 | Rows Selected: 1

With databaseEZ you can

- Analyze all apps server by server including 130+ database properties
- Classify databases by type, template, amount of documents and more
- Analyze user activity across multiple databases to establish usage patterns and locate focus databases.

scanEZ search automation

- Use databaseEZ for database selection and process selected databases using scanEZ automation XML scripts
- Find all pre-made scripts here:
<http://www.ytria.com/WebSite.nsf/WebPageRequest/GDPR-considerationsen>
- Easily edit your XMLs to modify / add search terms.
- Load server using databaseEZ, select databases to scan and use 'Execute Automation Scripts on' > scanEZ before selecting the appropriate XML file.

Running scanEZ automation scripts

The screenshot displays the Ytria database management interface. On the left, a tree view shows the database structure. The main window shows a table with columns for 'Status', 'Is Co...', 'Database Title', and 'Database'. The table contains data for 'Potential Customer Personal Data' and 'Sensitive HR Data'. A context menu is open over the table, listing various actions. The 'Execute Automation File on...' option is selected, and a sub-menu is visible with 'scanEZ' highlighted. The 'Output' pane at the bottom shows the results of the scanEZ script execution.

Status	Is Co...	Database Title	Database
		Aaron Glen	\mail\
		Daniel Altmann	\mail\
⚠️		Donald Draper	\mail\
		David Fenwick	\mail\
		Dorothee Parker	\mail\
⚠️		Harvey Specter	\mail\
		John Admin	\mail\
		John Admin	\mail\
		John Doe	\mail\
		Joan Holloway	\mail\
		Jessica Pearson	\mail\
		Bill Shepherd	\mail\
		Joe Gowlan	\mail\
		Jay Preston	\mail\
		Jason Whittaker	\mail\
		Luis Litt	\mail\

Context Menu Options:

- Load Complete Database information (Ctrl+L)
- Revert to Summarized Information (Ctrl+U)
- Load Current Space Used (Ctrl+Shift+L)
- Edit Basic Properties... (Ctrl+1)
- Edit Design Properties... (Ctrl+2)
- Edit Advanced Properties... (Ctrl+3)
- Edit Miscellaneous Properties... (Ctrl+4)
- Edit Quota Properties... (Ctrl+5)
- Edit Database Template Build Properties... (Ctrl+6)
- Edit Template Name(s)...
- Edit Replica ID...
- Tools
 - Apply Changes to Selection (Ctrl+Shift+S)
 - Copy as Application Link
 - Open with aclEZ
 - Open with agentEZ
 - Open with designPropEZ
 - Open with replicationEZ
 - Open with scanEZ
 - Open with signEZ
 - Open with viewEZ
- Execute Automation File on...
 - designPropEZ
 - scanEZ**
 - viewEZ
- Sign/Audit with Another ID (with signEZ)...
- Batch Process Using designPropEZ...
- Open in Designer
- Open in Notes Client
- Delete Database(s) (Del)
- Grid Entry Selection: Remove Databases Related to Selected Entries
- Grid Entry Selection: Keep Only Databases Related to Selected Entries
- Grid Tools & Options

Output:

```
[3/19/2018 6:21:05 AM] ----- Scanning: Acme01\ACME - Ytria databaseEZ v16.5.3
[3/19/2018 6:21:06 AM] ----- 0 error(s), 0 sec
[3/19/2018 6:21:13 AM] ----- Reading: 236 databases
[3/19/2018 6:21:13 AM] ----- 0 error(s), 0 sec
[3/19/2018 6:21:16 AM] ----- Loading: 236 databases
[3/19/2018 6:21:18 AM] [- WARNING -] APR v1.3 (APRv1.3.nt)
[3/19/2018 6:21:18 AM] [- WARNING -] APR v1.3 (APRv1.3.nt)
```

Multi-database FTI search using scanEZ automation

- Edit the XML to modify the search term

```
<!--Full Text Index search term to look for. Copy and paste the entire line to add more terms -->  
<List name="vFTISearchTerms" Action="SetVar" vFTISearchKeyword="GDPRFTI"/>
```

- Duplicate and edit line to add more search terms

```
<!--Full Text Index search term to look for. Copy and paste the entire line to add more terms -->  
<List name="vFTISearchTerms" Action="SetVar" vFTISearchKeyword="GDPRFTI"/>  
<List name="vFTISearchTerms" Action="SetVar" vFTISearchKeyword="Sensitive Data"/>  
<List name="vFTISearchTerms" Action="SetVar" vFTISearchKeyword="Gender"/>
```

- Find the script here:

<http://www.ytria.com/WebSite.nsf/WebPageRequest/GDPR-considerationsen>

Multi-database Mail search using scanEZ automation

- Edit the XML to modify the search term

```
<!-- USER INPUT: Please define your variables here. Define a file name including its extension -->  
<List name="vDataSubjectNames" Action="SetVar" vDataSubjectName="John Admin"/>
```

- Current script searches expression in items SendTo, Copyto and From. Modify XML to change / add / remove item names to search custom applications

```
<!--This script block will perform the search for the documents.-->  
<SearchBy Type="Formula">  
  <Setparam Field="SetFormula" Value="@Contains(FirstName:LastName:Mgr:Customer:o_Gender;&quot;{%vDataSubjectName%}&quot;)" />  
  <Setparam Field="SearchDocuments" Value="true"/>  
  <Setparam Field="SearchDesigns" Value="false"/>  
  <Setparam Field="PutSearchInSelCreateName" Value="{%vDataSubjectName%}" />  
</SearchBy>
```

- Find the script here:

<http://www.ytria.com/WebSite.nsf/WebPageRequest/GDPR-considerationsen>

Multi-database Attachment search using scanEZ automation

- Edit the XML to modify / add attachment names to locate

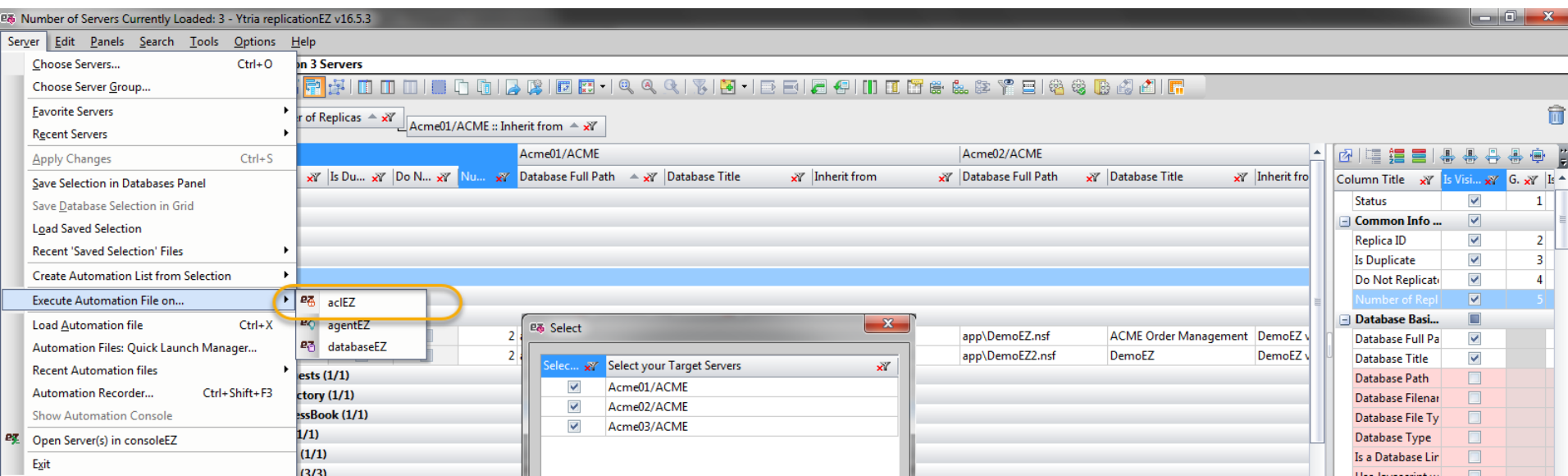
```
<!-- USER INPUT: Please define your variables here. Define a file name including its extension -->  
<List name="vAttachmentSearchObjects" Action="SetVar" vAttachmentName="Sensitive_CV.pdf"/>  
<List name="vAttachmentSearchObjects" Action="SetVar" vAttachmentName="CV.pdf"/>
```

- Find the script here:

<http://www.ytria.com/WebSite.nsf/WebPageRequest/GDPR-considerationsen>

Multi-server effective access reporting automation

- acEZ can calculate effective access for multiple users, across all databases.
- Using replicationEZ load multiple servers, then select 'Server' > 'Execute automation file on' > 'acEZ' and select servers to report Effective access from.



The screenshot displays the Ytria replicationEZ v16.5.3 application window. The 'Server' menu is open, showing the path 'Execute Automation File on...' > 'acEZ'. A 'Select' dialog box is also open, showing a list of servers with checkboxes selected for 'Acme01/ACME', 'Acme02/ACME', and 'Acme03/ACME'. The main window shows a table of databases with columns for 'Database Full Path', 'Database Title', and 'Inherit from'. The table contains two rows of data:

Database Full Path	Database Title	Inherit from
app\DemoEZ.nsf	ACME Order Management	DemoEZ.v
app\DemoEZ2.nsf	DemoEZ	DemoEZ.v

On the right side of the interface, there is a 'Common Info ...' panel with a table of database properties:

Column Title	Is Visi...	G.	Is
Status	<input checked="" type="checkbox"/>		1
Replica ID	<input checked="" type="checkbox"/>		2
Is Duplicate	<input checked="" type="checkbox"/>		3
Do Not Replicat	<input checked="" type="checkbox"/>		4
Number of Repl	<input checked="" type="checkbox"/>		5

Multi-server effective access reporting automation

- Edit the XML to modify / add / remove users whose effective access will be calculated across all databases and servers.

```
<ShowEffectiveAccess RemoveAll="true">  
  <!-- Modify the Value field to match any user of interest, and feel free to remove or add lines for less / more users -->  
  <SetParam Field="Added" Value="Anonymous"/>  
  <SetParam Field="Added" Value="Dorothee Parker/ACME"/>  
</ShowEffectiveAccess>  
<Select />
```

- Set the ‘RemoveAll’ parameter to “false” and remove user names to calculate effective access for all users across all databases (warning: this will take time!)

```
<ShowEffectiveAccess RemoveAll="false">  
</ShowEffectiveAccess>  
<Select />
```

- Find the script here:

<http://www.ytria.com/WebSite.nsf/WebPageRequest/GDPR-considerationen>

Ytria Tandem Jump

- 2h remote session with one of our engineers using the Ytria tools
- Includes temporary licenses and help with Automation script configuration
- Flat pricing at USD \$500
- More info: <http://www.ytria.com/tandem>

"Taking the tandem jump with Ytria's help let us discover so much about our environment, that it would've probably taken us about 2 weeks to get the same results ourselves—even if we already had the Ytria tools..."

- Anatol Lizik, Domino admin, Solaris

Free webcast on Domino Security

- External Domino security and all that's involved
- Mitigating internal risks from application design flaws to agent security
- Real life attack scenarios and how to defend yourself against them

Apr 18, 2018 9:00 AM in Eastern Time (US and Canada)

www.ytria.com/ibmdominosecurity

Thank you

The logo for Ytria, featuring the word "Ytria" in a bold, italicized, yellow sans-serif font.

Thank you for attending our webinar

Any feedback or questions:

support@ytria.com

Recording available:

<https://youtu.be/ELOO4RU6ss4>