



ICIT Webinar

January 13, 2025
Gianni Balistreri





AGENDA

1. Intro, capabilities, differentiators
2. Project methodology
3. Migration tools
4. Reference cases

AIRFRANCE

ING 

 SOCIÉTÉ
GÉNÉRALE

 mazda

AON

 KBC

 Deutsche Bank

ASTADIA



Market Leader according to
ISG report 2024



300+
Migration Projects



Focus on Refactoring



200+
Employees



Fastest growing cloud agnostic
mainframe modernization
company



100%
Success Rate with
FastTrack Methodology



100%
Automated conversion,
transformation & testing



Modernization of IBM
mainframes



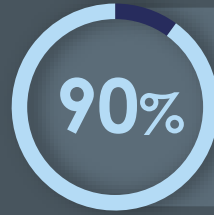
Factories in the US and EU
(Belgium)



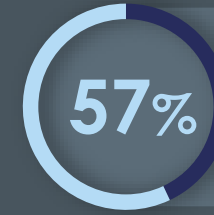
DRIVERS THAT CREATE URGENCY TO MIGRATE AND MODERNIZE



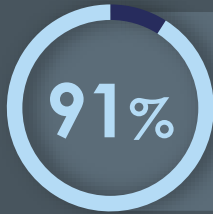
Estimated mainframe costs compared to equivalent cloud infrastructure costs



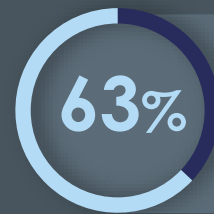
Of business leaders say it's moderately or extremely difficult to acquire the right talent²



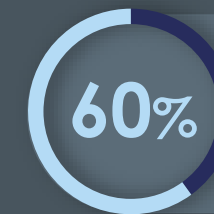
Of business say lack of agility that stifle growth & innovation**



Confirm that mainframe operating and maintenance costs are rising faster than any other computing costs¹



Of positions to replace them remained unfilled



Of businesses say integrating legacy tools with new applications is a challenge**

¹ <https://newsroom.accenture.com/news/2022/accenture-research-finds-four-in-five-banks-planning-to-or-already-migrating-mainframes-to-the-cloud-are-doing-so-quickly>

² <https://www2.deloitte.com/us/en/insights/focus/tech-trends/2023/future-mainframe-technology-latest-trends.html>



MIGRATION OPTIONS

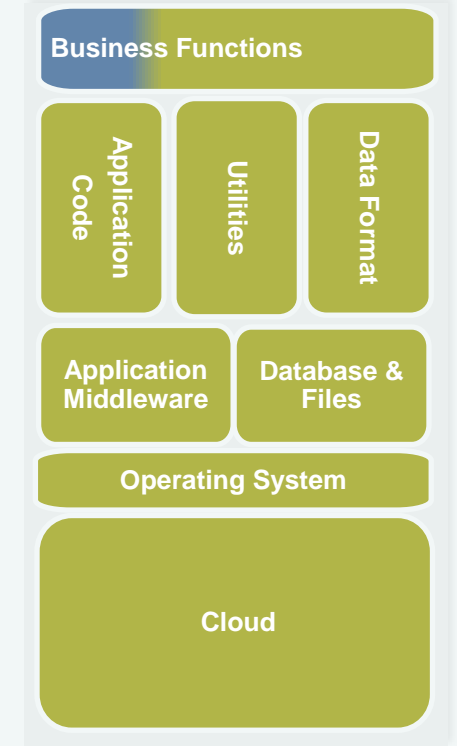
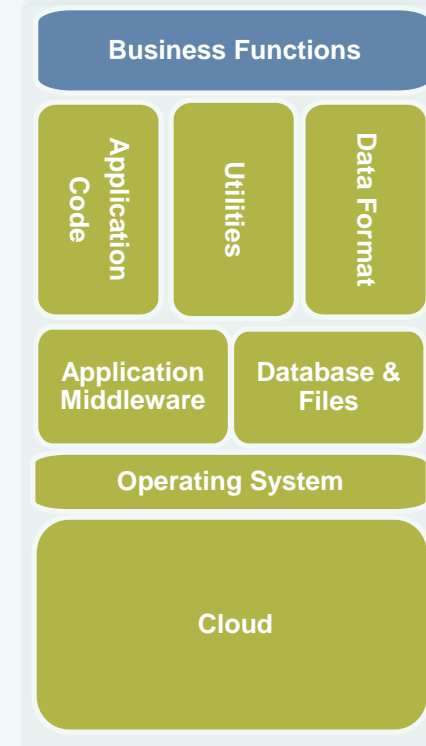
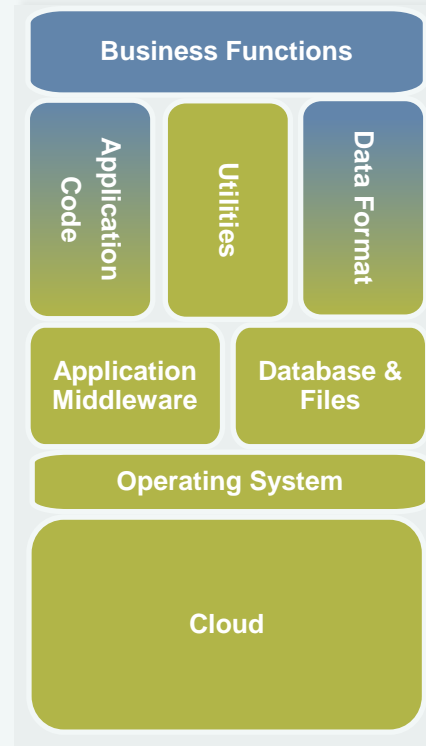
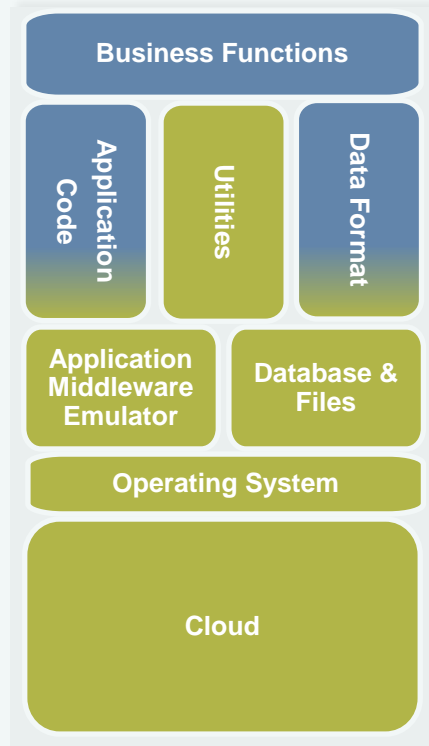
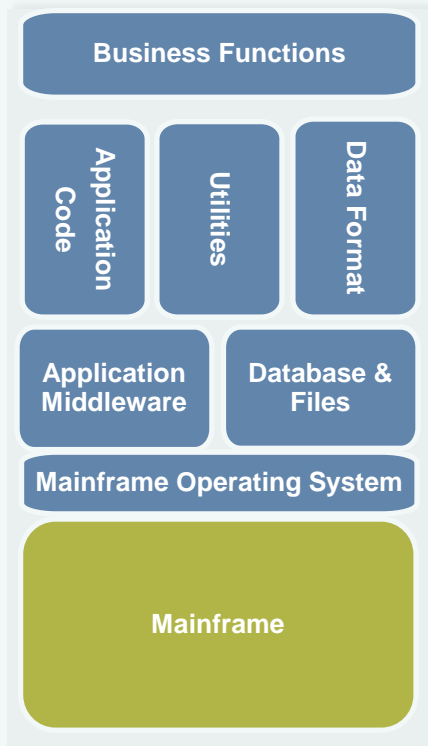
Rehost

Legacy Replatform

Native Replatform

Refactor

Rearchitect



SAME



CHANGED



ASTADIA'S GAME CHANGERS



100% Automated
code refactoring⁽¹⁾



Automated
Testing



Highly Scalable
(numerous Fortune 100
references at scale)



Offers both
replatforming and
refactoring



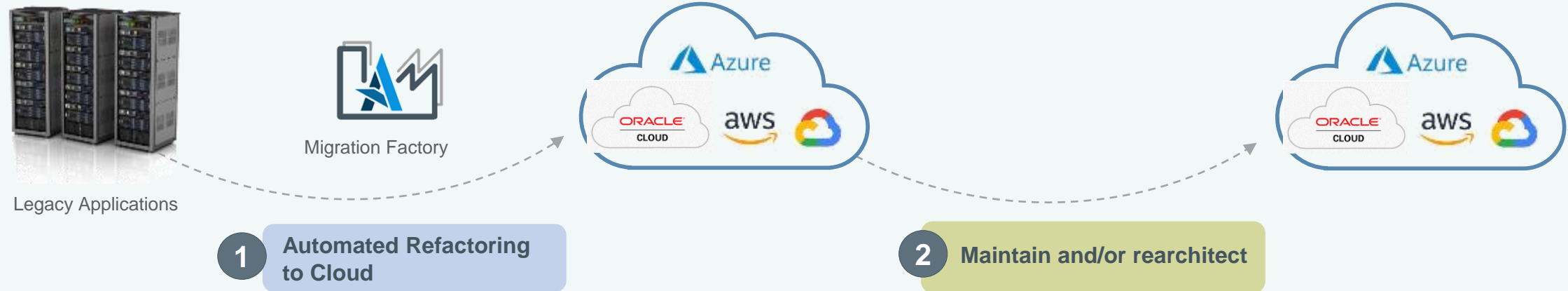
Most Maintainable
Java and C#
(both procedural and
OO)



Factory
licensing model
(an industry first)



Modernization Journey



1 GET OUT OF THE MAINFRAME ASAP

- No mixing of risks
- Money is saved to invest in further modernization
- Fastest path with best ROI
- Scalable
- Acceptance is straightforward
- Testing can be automated
- Target native technologies (Java, RDBMS, Containers, ...)

2 FURTHER MODERNIZE IN THE CLOUD

- No mixing of risks
- Re-invest savings
- Happens in a state-of-the-art environment
- Best and latest tools available on the market
- Large pool of talented skills available
- Native technologies (Java, RDBSM, DevOps...)
- At own pace and with own priorities



Project Methodology

AIRFRANCE

ING

SOCIETE GENERALE

Deutsche Bank



Astadia

FASTTRACK METHODOLOGY

Automatic Analysis
Questionnaires
Workshops

Legacy
Application

Convert/test/tune

Convert/test/tune

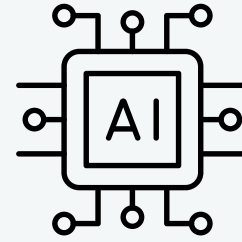
Convert/test/tune

Convert/test/tune

Migrated
Application



GEN AI ROADMAP



Understanding:



- Improve assessment accuracy, understanding of project scope
- Functional understanding and code explanation
- Assisted pathway to **micro services architecture**
- Summary of functionality

Generation:



- Rapid creation of automated converters for unsupported languages
- (For example: REXX, CLIST, FOCUS, EASYTRIEVE)
- Potentially: test case generation

Optimization:



- Optimization of generated code (conversion results)
- Initial focus on Java, making Java more "native"
- Potentially: modularization



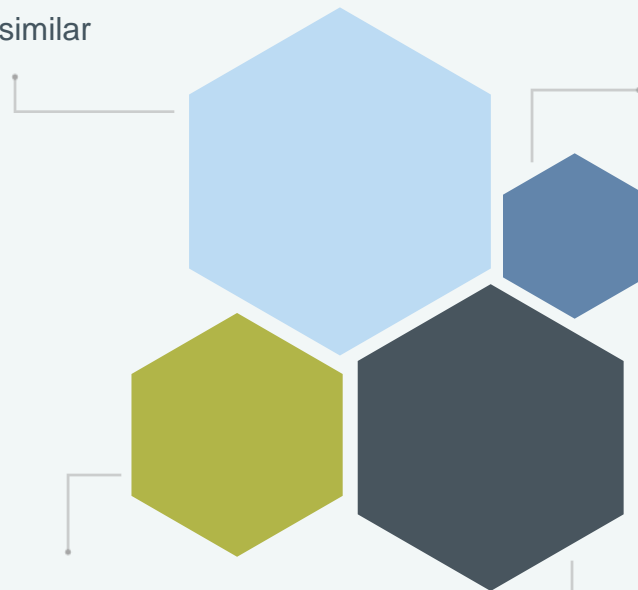


Migration Tools

AUTOMATED CODE CONVERSION

MAINTAINABLE

Concise, no code bloat
Original comments retained
Structurally similar



NATIVE

Pure Java/C#, no magic
Can call or be called by any other Java/C#
Support lib not needed for future development

ISO-FUNCTIONAL

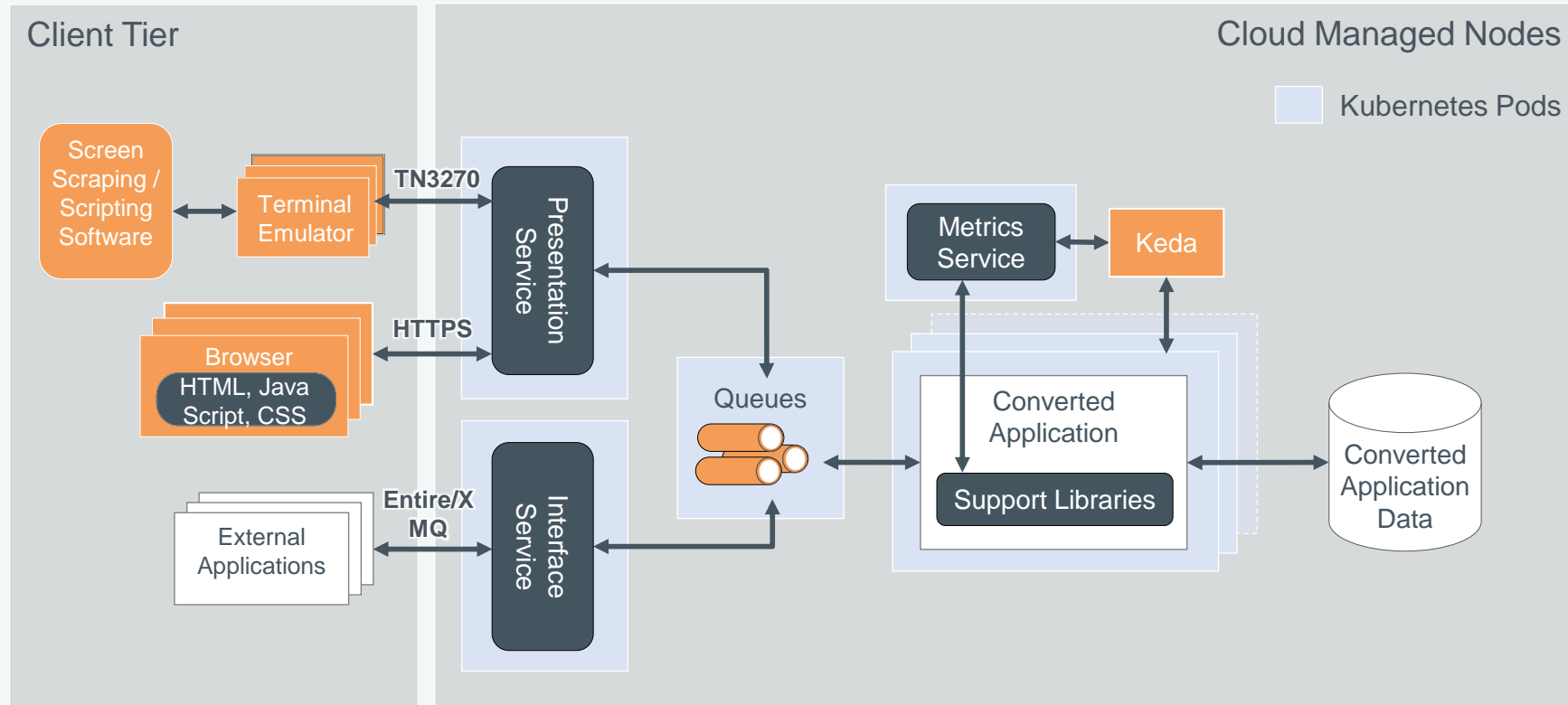
Converted application behaves the same as the original application
Enables automatic compare

AUTOMATIC

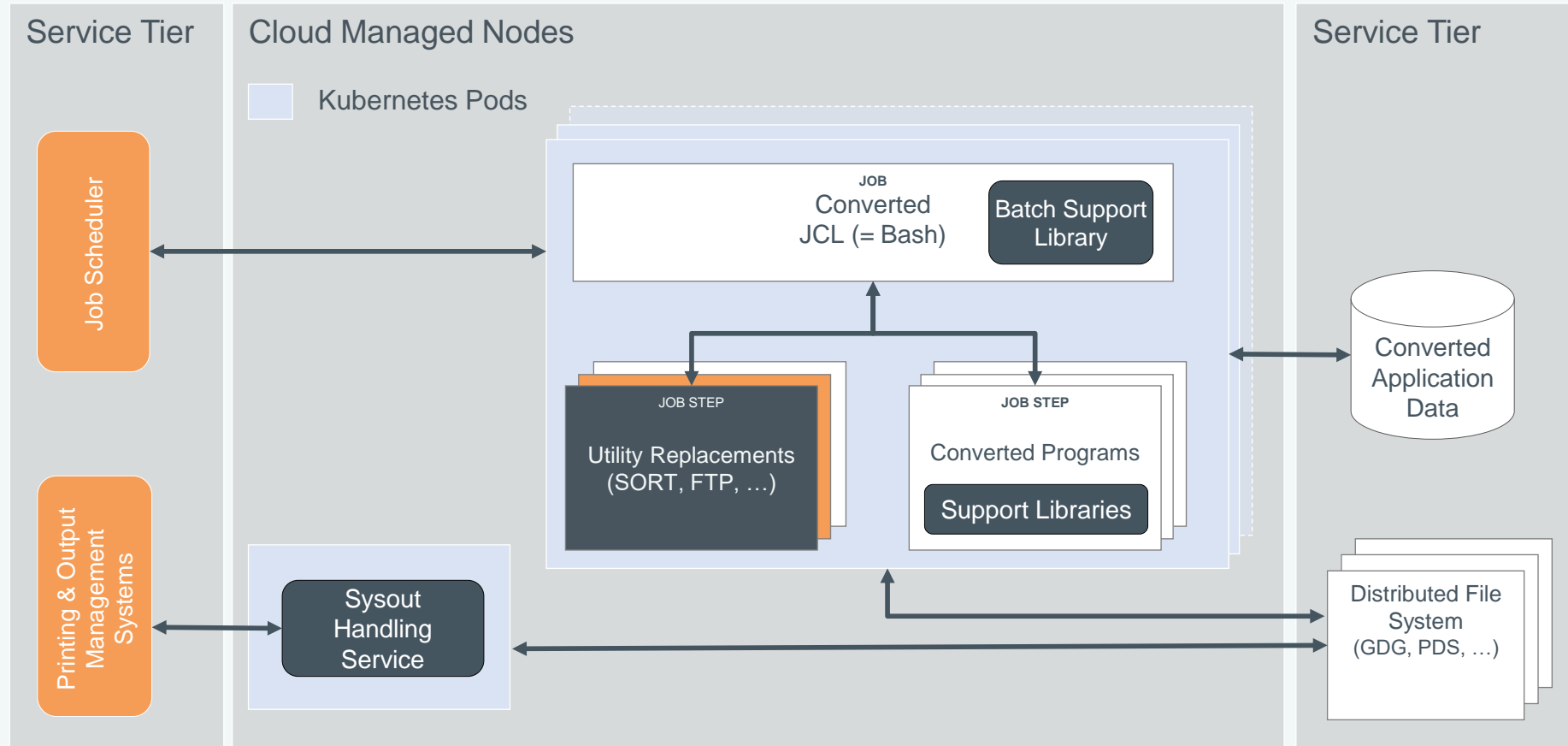
100% automatically generated
Typically, <0.01% changes integrated in automatic workflow

From:	To:
COBOL	COBOL
	Java
	C#
Natural	COBOL
	Java
	C#
IDMS / ADS	COBOL
	Java
	C#
Assembler	Java
	C#
JCL	Perl
	PowerShell
	Bash
PL/1	Java
	C# (roadmap)
EGL (partner)	Java

ASTADIA'S STANDARD TARGET ARCHITECTURE (ONLINE)



ASTADIA'S STANDARD TARGET ARCHITECTURE (BATCH)



AUTOMATED DATA CONVERSION

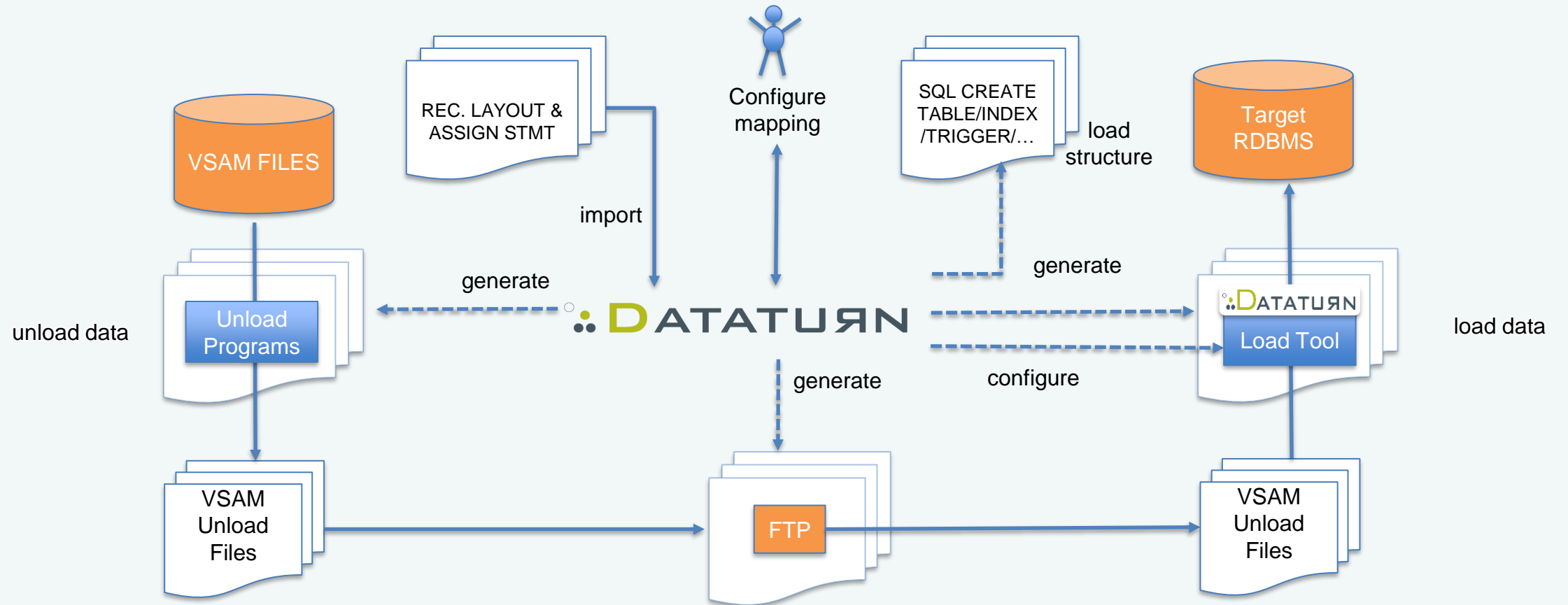
- Data Conversion **from A to Z**
- **Data analysis** on the source DB (volume, occurrences...)
- Optional **interactive configuration** permits tuning of target database model
- Unload/Transfer/Load scripts for **100% automation**
- **Data validation** on target DB (completeness, correctness)
- Result: Target DB that is **truly relational** (CRUD)



From	To
IDMS	PostgreSQL
DB2 z/OS	Cloud SQL
IMS DB	Alloy DB
VSAM	SQL Server
ISAM	Oracle
...	DB2 LUW
	...



DATA MIGRATION VSAM (EXAMPLE)



AUTOMATED ONLINE TESTING



TestMatch - Automated Testing

File Edit Tools Options Help

3270-scenario-2-vtam

Sessions (110)

- REPLAY: 2013-04-08 13:28:24
- REPLAY: 2013-04-08 14:26:12
- REPLAY: 2013-04-09 07:59:12
- REPLAY: 2013-04-09 09:00:57
- REPLAY: 2013-04-09 09:33:49
- REPLAY: 2013-04-09 10:11:17
- REPLAY: 2013-04-09 10:49:38
- REPLAY: 2013-04-12 12:05:12
- REPLAY: 2013-04-15 06:02:47
- REPLAY: 2013-04-15 06:41:36
- REPLAY: 2013-04-15 08:03:48
- REPLAY: 2013-04-15 08:23:19
- REPLAY: 2013-04-15 09:17:42
- REPLAY: 2013-04-15 10:00:44
- REPLAY: 2013-04-15 11:31:58
- REPLAY: 2013-04-16 13:41:22
- REPLAY: 2013-04-17 05:10:18
- REPLAY: 2013-04-17 05:38:34
- REPLAY: 2013-04-18 05:59:59
- REPLAY: 2013-04-18 07:30:31
- REPLAY: 2013-04-18 07:53:04
- REPLAY: 2013-04-18 09:08:32
- REPLAY: 2013-04-18 09:26:32
- REPLAY: 2013-04-18 09:31:05
- REPLAY: 2013-04-18 09:32:58
- REPLAY: 2013-04-18 09:34:54
- REPLAY: 2013-04-18 11:59:58
- REPLAY: 2013-04-18 12:15:14
- REPLAY: 2013-04-18 12:21:15
- REPLAY: 2013-04-18 13:05:07
- REPLAY: 2013-04-19 05:31:40
- REPLAY: 2013-04-19 06:15:02
- REPLAY: 2013-04-19 12:49:46
- REPLAY: 2013-04-22 07:44:06
- REPLAY: 2013-04-22 08:13:20
- REPLAY: 2013-04-22 08:15:16
- REPLAY: 2013-04-22 09:07:37

Compare scenario 3270-scenario-2-vtam and REPLAY: 2013-11-08 13:21:01

General Statistics Visualization Performance Tickets

1783 / 5824

Mark all differences Mark input Display attributes Attribute maps: --None--

Screen view Details Msg name: B063S05

```

B063S05 REKENMODULE FIN / LEAS / RENT EUR
PRE/POST : PRE
INVESTERINGSBEDRAG : 16457,78
LOOPTIJD : MND + OVERBRUGGING : 0 MND
FREQUENTIE (M/T/S/J) : M
OPTIE 365/360 : 360 (STEEDS 365 BY HYP.KRED/CONS.KRED/LEAS/RENT)
JAARLIJKS RENDEMENT : 3,4578 %
NOMINAAL RENDEMENT : 3,3575 %
VOOROPG. EINDSALDO INCL/EXCL (I/E) :
INCL. WAARBORGSON :
DEGRESSIEF ? : ('J' OF ')
DE GEVRAAGDE LOOPTIJD IS GELEGEN TUSSEN 36 EN 37 MAANDEN
KOSTEN
1) : 2) :
3) : 4) :
5) :
ENTER : NIEUWE BEREKENING F6 : OPSTELLEN AFLOSSINGSTABEL
    
```

Differences Ignored Differences

#	Difference type	Row	Col	Offset	Length	Original value	New value
1	Text	5	28	347	3	...	0

Update original scenario Approve screen Ignore difference Tickets...

(row: 15, col: 29, offset: 1148)

Compare scenario 3270-scenario-2-vtam and REPLAY: 2013-11-08 13:21:01

Statistics Performance Tickets

Flow Rule:

- Total number of sessions: 100
- Current session: 83
- Total messages: 47
- Failed messages: 53.27%
- Leased pass rate: 292
- Total number of messages: 410
- Current messages: 378
- Approved messages: 300
- Failed messages: 100
- Message pass rate: 85.69%

Transaction breakdown:

- Total number of transactions: 896
- Current transactions: 722
- Failed transactions: 174
- Approved transactions: 122
- Transaction pass rate: 81.19%

Session pass rate: [Pie chart showing 85.69% pass rate]

Message pass rate: [Pie chart showing 85.69% pass rate]

Transaction pass rate: [Pie chart showing 81.19% pass rate]

Transaction breakdown table:

Transaction	Col	Msg	Stat
B063S05	1	1	Pass
B063S05	1	2	Pass
B063S05	1	3	Pass
B063S05	1	4	Pass
B063S05	1	5	Pass
B063S05	1	6	Pass
B063S05	1	7	Pass
B063S05	1	8	Pass
B063S05	1	9	Pass
B063S05	1	10	Pass
B063S05	1	11	Pass
B063S05	1	12	Pass
B063S05	1	13	Pass
B063S05	1	14	Pass
B063S05	1	15	Pass
B063S05	1	16	Pass
B063S05	1	17	Pass
B063S05	1	18	Pass
B063S05	1	19	Pass
B063S05	1	20	Pass
B063S05	1	21	Pass
B063S05	1	22	Pass
B063S05	1	23	Pass
B063S05	1	24	Pass
B063S05	1	25	Pass
B063S05	1	26	Pass
B063S05	1	27	Pass
B063S05	1	28	Pass
B063S05	1	29	Pass
B063S05	1	30	Pass
B063S05	1	31	Pass
B063S05	1	32	Pass
B063S05	1	33	Pass
B063S05	1	34	Pass
B063S05	1	35	Pass
B063S05	1	36	Pass
B063S05	1	37	Pass
B063S05	1	38	Pass
B063S05	1	39	Pass
B063S05	1	40	Pass
B063S05	1	41	Pass
B063S05	1	42	Pass
B063S05	1	43	Pass
B063S05	1	44	Pass
B063S05	1	45	Pass
B063S05	1	46	Pass
B063S05	1	47	Pass
B063S05	1	48	Pass
B063S05	1	49	Pass
B063S05	1	50	Pass
B063S05	1	51	Pass
B063S05	1	52	Pass
B063S05	1	53	Pass
B063S05	1	54	Pass
B063S05	1	55	Pass
B063S05	1	56	Pass
B063S05	1	57	Pass
B063S05	1	58	Pass
B063S05	1	59	Pass
B063S05	1	60	Pass
B063S05	1	61	Pass
B063S05	1	62	Pass
B063S05	1	63	Pass
B063S05	1	64	Pass
B063S05	1	65	Pass
B063S05	1	66	Pass
B063S05	1	67	Pass
B063S05	1	68	Pass
B063S05	1	69	Pass
B063S05	1	70	Pass
B063S05	1	71	Pass
B063S05	1	72	Pass
B063S05	1	73	Pass
B063S05	1	74	Pass
B063S05	1	75	Pass
B063S05	1	76	Pass
B063S05	1	77	Pass
B063S05	1	78	Pass
B063S05	1	79	Pass
B063S05	1	80	Pass
B063S05	1	81	Pass
B063S05	1	82	Pass
B063S05	1	83	Pass
B063S05	1	84	Pass
B063S05	1	85	Pass
B063S05	1	86	Pass
B063S05	1	87	Pass
B063S05	1	88	Pass
B063S05	1	89	Pass
B063S05	1	90	Pass
B063S05	1	91	Pass
B063S05	1	92	Pass
B063S05	1	93	Pass
B063S05	1	94	Pass
B063S05	1	95	Pass
B063S05	1	96	Pass
B063S05	1	97	Pass
B063S05	1	98	Pass
B063S05	1	99	Pass
B063S05	1	100	Pass



SIDE BY SIDE COMPARISON – DATA BUFFER MESSAGES



TestMatch - Automated Testing

File Edit Tools Options Help

root @ jdbc:mysql://localhost:3306/testr

- 3270-scenario-1-vtam
- 3270-scenario-2-vtam
- CTG-scenario
 - Sessions (4)
 - REPLAY: CTG scenario (R: 2019-06-30 17:37:40)
- MQ-XML-scenario
- Hidden scenarios
- 3270-settings
- CTG-settings
- MQ-XML-settings
- WEB-settings

Compare scenario CTG-scenario and REPLAY: CTG scenario (R: 2019-06-30 17:37:40)

General Statistics Visualization Performance Tickets

8 / 594 Mark all differences

Tree view Hex view Details Msg name: PD5003D

Variable	Value	Type	Offset	Length
SEARCH...	9999-12-31-23.59.59.	X(26)	601	26
SEARCH...	9999-12-31-23.59.59.	X(26)	627	26
SEARCH...	14.06.2019	X(10)	653	10
SEARCH...	14.06.2019	X(10)	663	10
CONTRO...	F	X(6)	673	6
CURRENT...		X(18)	679	18
SHOW_S...		X(1)	697	1
SQLERR...			698	8
SQLER...	00000000	9(8)	698	8
SAVE_RE...			706	56
SAVE...		X(8)	706	8
SAVE...		X(26)	714	26
SAVE...		X(7)	740	7
SAVE...		X(15)	747	15
SQL_HIG...		X(1)	762	1
IS_LOCK...		X(1)	763	1
VAGen_C...	14.06.2019	X(10)	764	10

Tree view Hex view Details Msg name: PD5003D

Variable	Value	Type	Offset	Length
SEARCH...	9999-12-31-23.59.59.	X(26)	601	26
SEARCH...	9999-12-31-23.59.59.	X(26)	627	26
SEARCH...	30.06.2019	X(10)	653	10
SEARCH...	30.06.2019	X(10)	663	10
CONTRO...	F	X(6)	673	6
CURRENT...		X(18)	679	18
SHOW_S...		X(1)	697	1
SQLERR...			698	8
SQLER...	00000000	9(8)	698	8
SAVE_RE...			706	56
SAVE...		X(8)	706	8
SAVE...		X(26)	714	26
SAVE...		X(7)	740	7
SAVE...		X(15)	747	15
SQL_HIG...		X(1)	762	1
IS_LOCK...		X(1)	763	1
VAGen_C...	30.06.2019	X(10)	764	10

Differences Ignored Differences

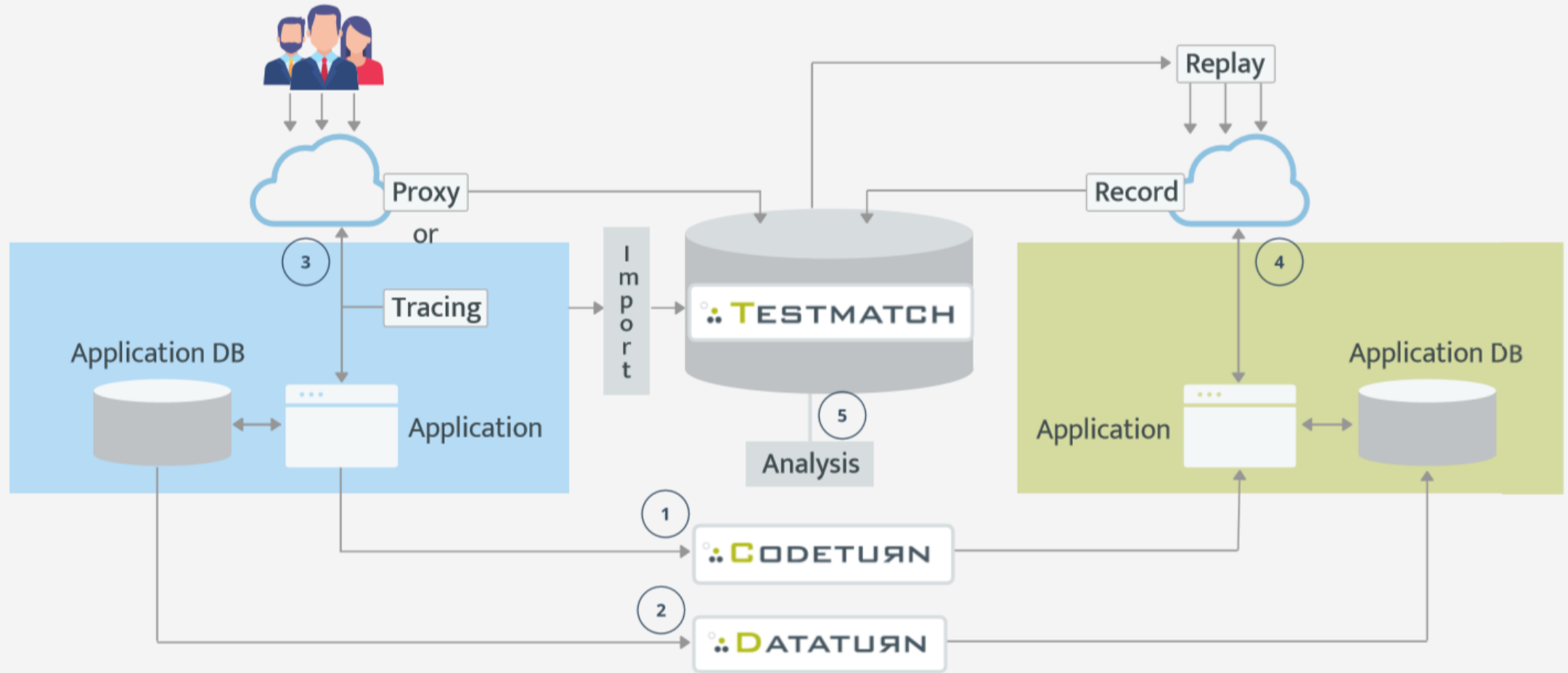
#	Field Name	Offset	Length	Original value	New value
1	LFT_COMMON_REC.GLFT_COMMON_RE...	592	8	GUS	LINDTOI
2	LFT_COMMON_REC.GLFT_COMMON_RE...	653	10	14.06.2019	30.06.2019
3	LFT_COMMON_REC.GLFT_COMMON_RE...	663	10	14.06.2019	30.06.2019
4	LFT_COMMON_REC.GLFT_COMMON_RE...	764	10	14.06.2019	30.06.2019

Update original scenario Ignore difference Tickets...

Scenario CTG-scenario, created on Sun Jun 30 17:37:18 CEST 2019



TESTMATCH



AUTOMATED BATCH TESTING

➤➤➤ Validate **iso-functional behavior** of migrated batch jobs and data intensive online applications.

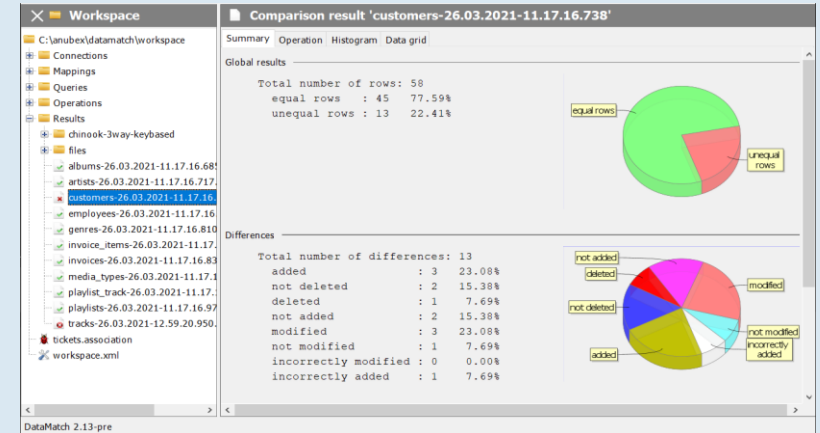
➤➤➤ **Three-way compare** of database states on source and target platforms:
1: before 2: after/reference 3: after/actual

➤➤➤ Integration with **ticket tracking systems** to report and follow-up on detected differences.

➤➤➤ **Highly configurable:** what tables to compare, what key-ranges, what columns...

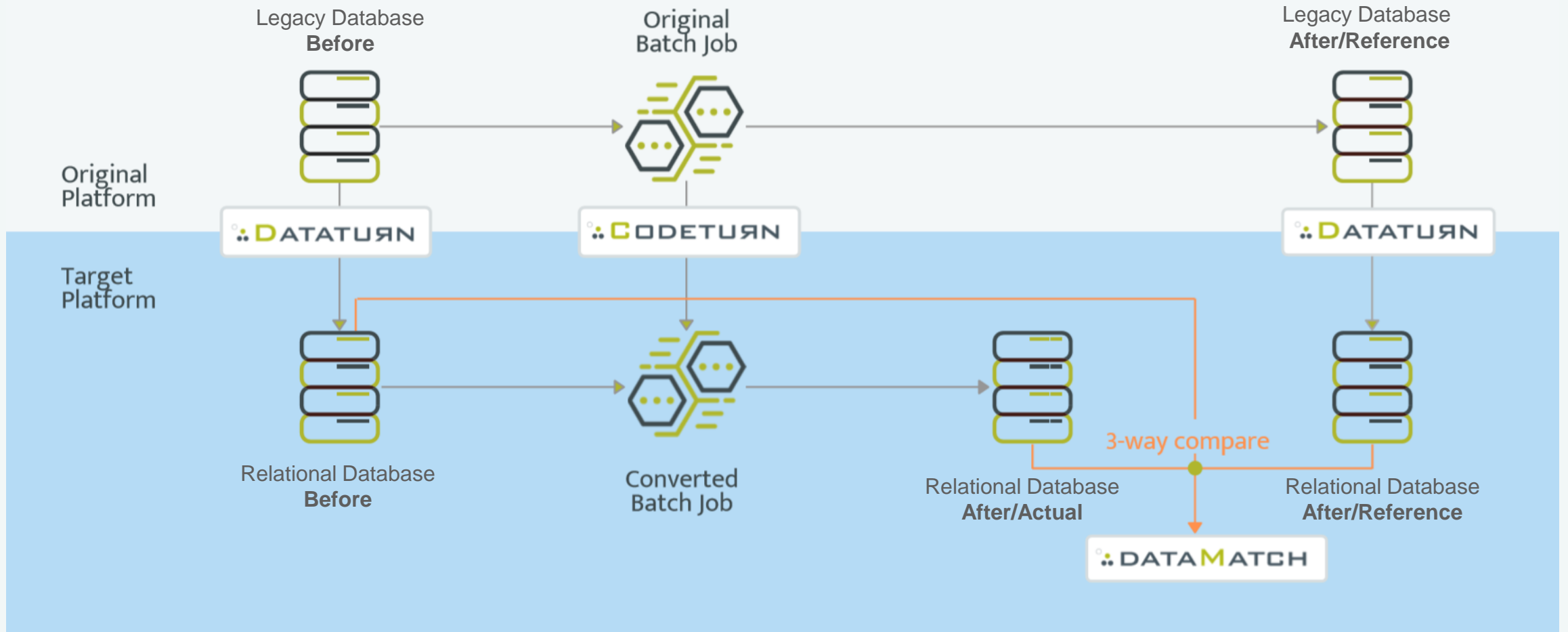
➤➤➤ Can be **scripted**, e.g. start comparing as soon as job completes.

➤➤➤ Can be integrated in **CI/CD pipelines**.



this screen shot contains only fake data




















DATA MATCH





Reference Cases

CLIENTS

	Société Générale (Banking – France) * Factory License
	Mercedes-Benz (Automotive – Germany)
	Alberta Justice (Government – Canada)
	Alberta Motor Vehicles (Government – Canada)
	Shop Direct / the Very (Retail – UK)
	SD Worx (HR & Social Security Services – Belgium)
	Foyer (Insurance – Luxembourg)
	Deutsche Bank (Banking – Germany, Spain) * PoC
	German Railways (Transport – Germany)
	Fedris (Government – Belgium)
	ZLA/ZLF (Government – Germany)
	Texas Universities (Education – USA)
	Bezeq Israel Telecom (Telecom – Israel)
	ista (Consumer Services – Germany)
	Deutsche Asset Management (Banking – Germany)
	Société Générale (Banking – Luxembourg)
	CM-MC (Social Security - Belgium)
	Ford Versicherung (Insurance – Germany)
	Air France Industries (Transport - France)

FROM

z/OS	Natural	Adabas
z/OS	COBOL, ADS	IDMS
z/OS	COBOL, ADS	IDMS
z/OS	COBOL, Natural, Assembler	Adabas, VSAM
z/OS	Natural	Adabas
z/OS	COBOL, ADS	IDMS
z/OS	COBOL, EGL	Db2, VSAM, DL2
z/OS	Natural	Db2
z/OS	Natural	Adabas
z/OS	COBOL	Db2, VSAM
z/OS	COBOL, ADS	IDMS, VSAM
z/OS	Natural	Adabas
z/OS	COBOL, ADS	IDMS
z/VSE	COBOL	VSAM
z/VSE	Natural	Adabas
BS2K	Natural	Adabas
BS2K	COBOL,	IDMS
Windows	COBOL	Oracle
Windows	COBOL	Oracle

TO

z/OS	COBOL	Db2 z/OS
z/OS	COBOL	Db2 z/OS
Windows	COBOL	SQL Server
Windows	C#	SQL Server
Linux	Java	Oracle
Windows	COBOL	Db2
Linux	Java	Db2
Linux	Java	Oracle
Linux	Java	PostgreSQL
Linux	Java	Db2
Windows	COBOL	SQL Server
Windows	C#	SQL Server
Linux	COBOL	Oracle
Linux	Java	Oracle
Windows	C#	SQL Server
Linux	COBOL	Oracle
Unix	COBOL	Oracle
Windows	Java	Oracle
Windows	Java	Oracle



EXAMPLE



Sector

Governmental Institution

Solution

z/OS Mainframes to Windows

- JCL to PowerShell

Justice and Solicitor General (JOIN)

- From IDMS, ADS and COBOL
- To COBOL and SQL Server

Motor Vehicles (MOVES)

- From Adabas, VSAM, Assembler, COBOL and Natural
- To C# and SQL Server

Motor Vehicles

Legacy Platform	Mainframe – Adabas
Adabas Tables	161
VSAM Files	8
COBOL	2,590,281 LoC
Natural	113,474 LoC
Assembler	947,741 LoC expanded
JCL	±100,000
Target Platform	Windows – SQL Server – C#

Justice and Solicitor General

Legacy Platform	Mainframe – IDMS
IDMS Records	390 (in 2 schema's)
COBOL Programs	8
ADS/O Dialogs	853 (1,115,091 LoC)
ADS Modules	602
OLM Maps	726 (896,788 LoC)
Target Platform	Windows – SQL Server – COBOL

Proven Level of Automation

Conversion Rate

COBOL Programs	99.6688%
ADS Modules	99.7877%
IDD Modules	99.8820%
ADS Dialogs	99.9939%
IDD Records	99.9471%
JCL	99.9355%

Testing

UAT timeframe reduced from usual 3 months to below 1 month

EXAMPLE



Organization

Bezeq (Israel)

Sector

Telecom

Solution

IDMS to Linux - Oracle

Overview

Legacy Platforms	Mainframe – IDMS
IDMS Records	710 (in 22 schema's)
COBOL Programs	11,155 (6,445,581 LoC)
ADS/A Apps	38
ADS/O Dialogs	5,182
ADS Modules	27,765 (2,473,224 LoC)
OLM Maps	3,000
Target Platform	Linux – Oracle

Fast and Proven ROI

“By migrating to open systems, we eliminated an important cost and took an important step in our IT optimization process, allowing us to grow and adapt even quicker to future business changes.”

Eli Frank
Vice President of IT

“Bezeq achieved a 95% maintenance cost reduction, which results in project ROI of less than 2 years.”

Yaki Zano
Director of Technology & Operational IT & Engineering
Division

EXAMPLE



Mercedes-Benz

Organization

Mercedes-Benz

Sector

Manufacturing - Automotive

Solution

IDMS to z/OS and Linux

Overview

Program of projects, driven by:

- High license costs, increasing even dramatically the coming years
- IDMS know-how disappearing
- IDMS limiting many modernization initiatives
- No cloud integration possibilities available from IDMS

- Millions of lines of COBOL, ADS
- Thousands of IDMS records
- Multiple applications, migrated on and off mainframe

SMOOTH GO LIVE

“The “user” department has been using the system since Monday and it runs smoothly. The functionality is exactly the same, the nighttime processing works smoothly and in certain aspects the application is even more performant than before.”

EXAMPLES



Ministry of France

Sector: Governmental Institution

"All my teams have full confidence in Anubex. Going live was the first concrete step that proved for the DGCP that the technical solution of Anubex works out really well [...] I congratulate the Anubex project management for its commitment and full availability throughout the migration. I am extremely satisfied with Anubex as a business partner for this project".

Philippe Le Brumant
Director IT department of Bordeaux

A fully automated process of code
and data migration



**Northeastern
University**

Northeastern University

Sector: Higher Education

"Anubex provided a superior solution for our migration project. The Anubex staff was professional, accommodating, and efficient. Our project was completed within budget and exceeded our expectations."

Paul E. Pagliarulo
Director of Administrative Application Service

Exceeded 99% automation



Air France Industries

Sector: Aviation

"We chose Anubex because through their extensive experience in migrating applications to modern platforms they were able to automate the conversion. Using their own tools and their migration methodology, they were able to guarantee a migration without risk and without business interruption. Consequently, Anubex delivered the migration project right on time and within budget."

Michel Le Guillevic
IT Director Air France Industries

On time and within budget, without risk

EXAMPLE



Organization

The Texas A&M University System

- More than 50,700 employees
- More than 9,000 faculty
- More than 150,000 students

Sector

Education

Solution

Adabas-Natural
To Windows – SQL Server – C#



Mapping

z/OS	Windows
Adabas (150)	SQL Server
Natural (4,1 M)	C#
JCL (1,8 M)	PowerShell



“Would do it all over again” – Automated Testing

“Astadia was undoubtedly the right choice, they’re the leader in the space for very good reason, and if we had to do it all over again, there’s no question we would want to work with Astadia.”

“the university teamed with Astadia to implement automated testing which was critical to the success of the process.”

Mark Schultz
Deputy CEO



EXAMPLE



Organization

Foyer (Luxembourg)

Sector

Insurance

Solution

COBOL & EGL to Linux - DB2 - Java

Overview

z/OS	Linux
Db2 tables	1,489 to Db2 LUW
DL2 tables	124 to Db2 LUW
VSAM	125 to Db2 LUW
COBOL	3,672 to Java
BMS Maps	294 to Java
Back-end EGL programs	7,000 to Java
UI -EGL	360 to JavaScript
JCL & REXX	7,000 to Bash

Complexity driven by mixture of COBOL and EGL - EGL skills no longer available

"I would like to thank the many collaborators who made this colossal project successful, in IT and in the business teams. I say a special congratulation to the migration core team, which has been able to keep a cool head throughout this long project and organize everything with precision and accuracy. Thanks to you, the Foyer Groups has reached an essential milestone in the modernization of its IT architecture, essential to the achievement of our digitalization strategy."

Marc Laurer
Managing Director

EXAMPLE



Organization

Ista (Germany)

Sector

Utility Services

Solution

VSAM and COBOL
to Linux - Oracle - Java

Mapping

z/VSE	Linux
VSAM Files	Oracle
CICS	Redis + Astadia Services
3270 TE	Browser + Angular
COBOL	Java
Assembler	Java
JCL	Bash
CA FAQs	Automic

Artifacts

BMS Maps	201
VSAM Files	165
COBOL	1,831,140
JCL	106,379

Level of Automation

BMS Maps	99.5025%
VSAM Files	100.0000%
COBOL	99.9842%
JCL	99.9549%

EXAMPLE



Organization

Société Générale Banque & Assurances
(Luxembourg)

Sector

Banking / Insurance

Solution

Adabas to Linux – Oracle - COBOL

Overview

Legacy Platform	Mainframe – Adabas
Adabas Files	374
COBOL Programs	38 (18,000 LoC)
Natural Conversion Rate	99,9962% Automated
Data Area's	4,345
Natural Programs	16,856 (6,773,598 LoC)
Natural Maps	4,680
Target Platform	Linux – Oracle – COBOL

“Saving hundreds of days in testing”

“Some of our core business applications received a technical upgrade, with major impact on all functions of the entire system. We have been using TestMatch heavily to automatically compare the functioning and performance of the upgraded applications with our previous systems. Doing this we did not only save several hundreds of man-days in testing but we also improved the quality of the tests itself.”

Luc Dosquet
Deputy CIO SGBT Luxembourg

EXAMPLE



Organization

Société Générale (France)

Sector

Banking

Solution

Adabas-Natural Migration



Phase 1

Multi-Year Engagement

“Anubex became on our radar screen when they successfully migrated the entire mainframe of our daughter company Société Générale Bank & Trust in Luxembourg. The team over there was very enthusiast about the cooperation, and even more so about the level of automation achieved in converting and testing the applications.”

Philippe Raux

Deputy Head of Support Mainframe & Projects
Société Générale



Phase 2

Factory License

“By licensing the Anubex Factory, we will be able to execute the migration of the rest of the portfolio on our own rhythm and speed, and plan and prioritize the work much more dynamically in the future, instead of being tied to a strict contract”

Philippe Raux

Deputy Head of Support Mainframe & Projects
Société Générale



EXAMPLE



Deutsche Bank

Organization

Deutsche Asset Management (DWS)

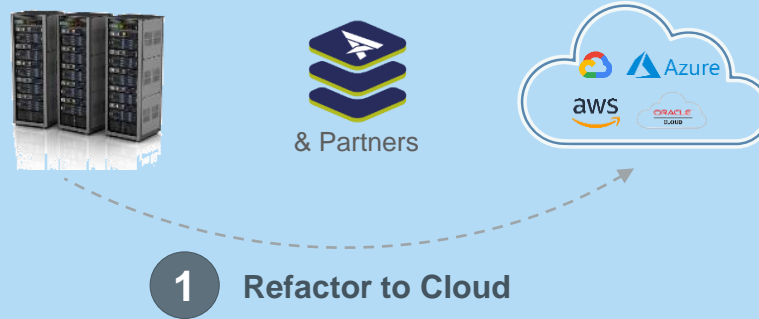
Sector

Asset Management

Issues

IKS on Obsolete platform

Impending skills issue



Solution

Natural to C#

Adabas to SQL Server

Lines of Code

Natural (1.3 M LoC)

C# (4.5 M LoC)

Results

Entire-X replacement

15.7 TB data

Batch performance: duration of most challenging program went from 179 mins to 39 mins

“Cost reduction of 5.8 million Euro per year”

“Beside the cost reduction of about 5.8 million Euro per year, Deutsche Asset Management now has a modern platform and all future options.”

Markus Kickertz
Lead Application Manager

“We are very proud of the whole team that collaborated on this project, and I want to thank Anubex, since they went beyond mere migration and conversion work: they took ownership and were at our side during the entire project.”

Dietmar Dunkel
Program Manager

EXAMPLE



Deutsche Bank

Organization

Deutsche Asset Management

Sector

Asset Management

Solution

Natural to C#
Adabas to SQL Server



- 2 Maintain, or rearchitect & introduce microservices, data cleansing

October 5, 2021 Announcement:

From an obsolete monolithic system to a digital investment platform and digitalized business



DWS Partners with BlackFin to Unlock the Full Potential of Digital Investment Platform IKS

DWS Group (DWS) and BlackFin Capital Partners (BlackFin) have agreed on a long-term strategic partnership to jointly evolve the digital investment platform into a platform eco system that provides comprehensive digital investment solutions and services to distribution partners, institutional investors and retail clients. The aim is to adapt the digital investment platform even better to the opportunities offered by the platform market, which in future will undergo a rapid pace of change as a result of new technologies. In addition, both partners have agreed to transfer the digital investment platform into a joint venture with DWS maintaining a stake of 30 percent.

Source: www.dws.com/Our-Profile/media/media-releases/dws-partners-with-blackfin/



Thank You!

