



NTT DATA
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CUSTOMER 720

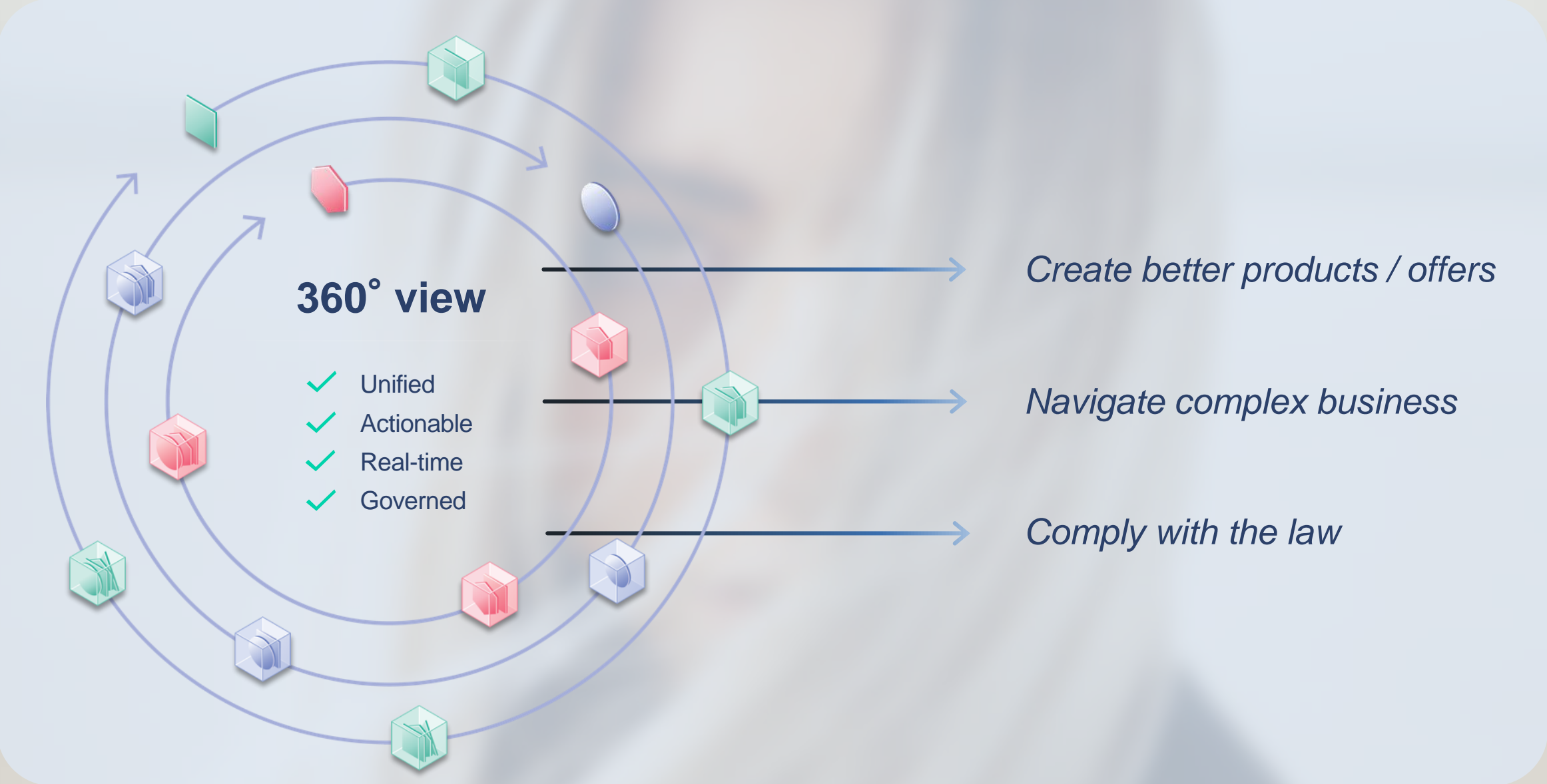
Customer 360° view + additional customer 360° view

MarkLogic Centre of Excellence Nov.2019

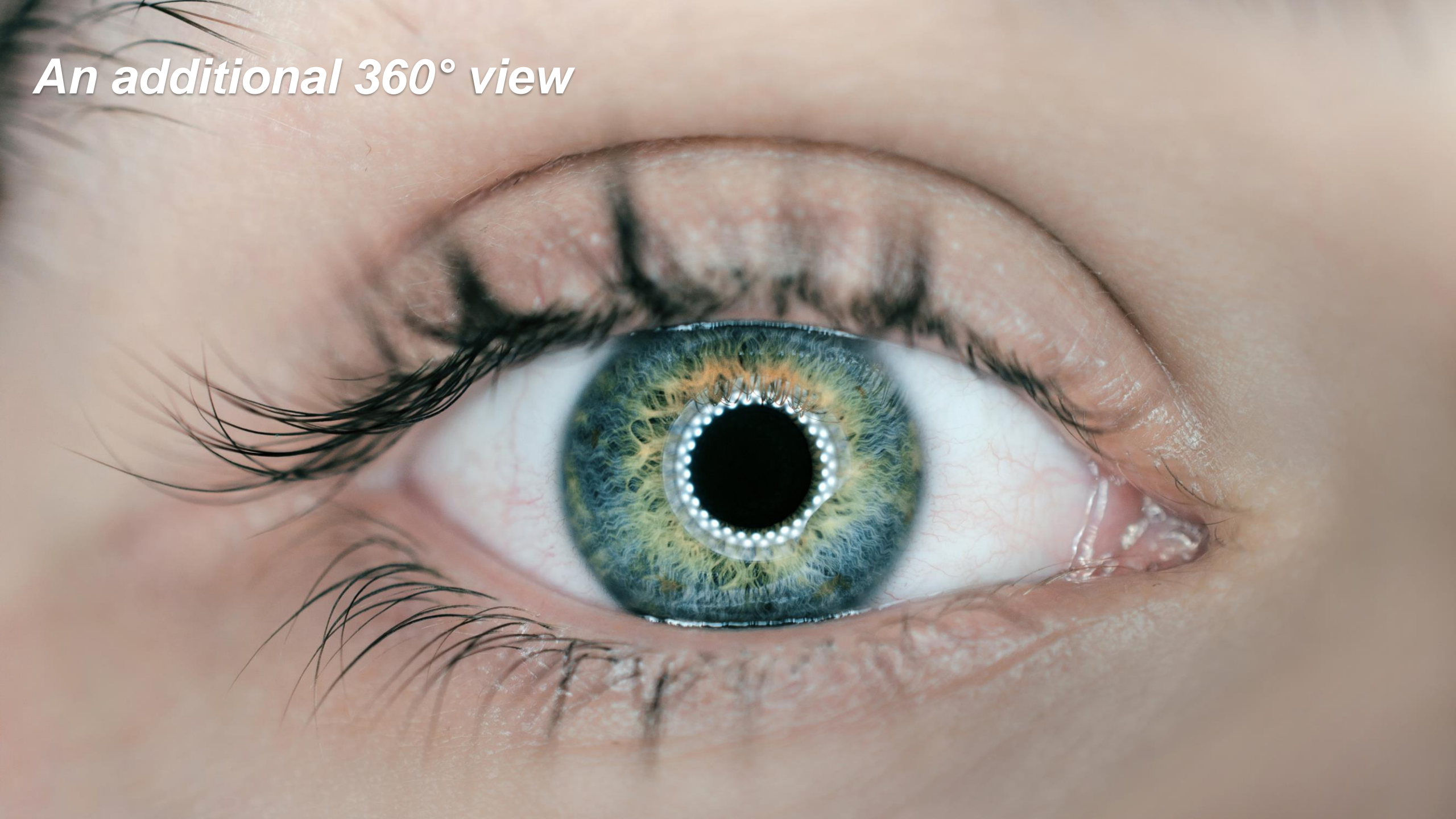
Companies need a 360° view



Companies need a 360° view



An additional 360° view



An additional 360° view

● Local information

- ✓ Outside information
- ✓ Other languages

● News sites

- ✓ Good news
- ✓ Bad news
- ✓ Scandal

● Reputation

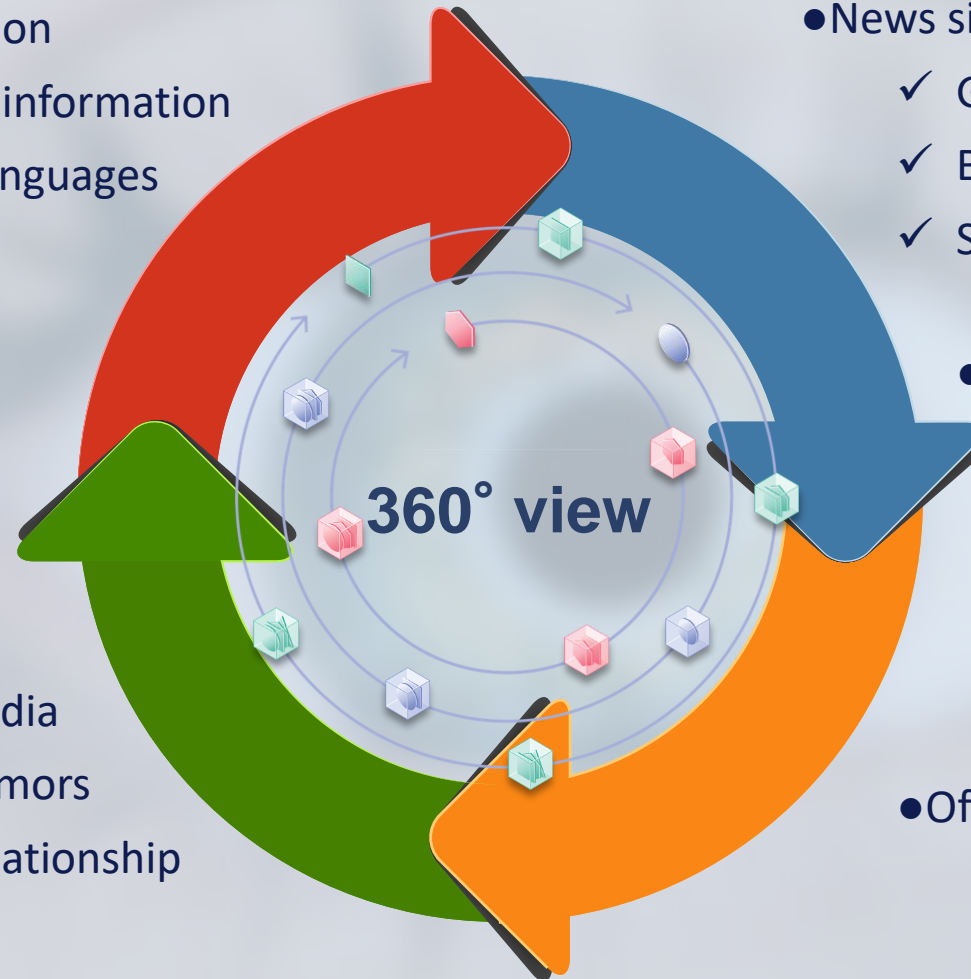
- ✓ Bankruptcy sign
- ✓ Suspicious information
- ✓ Rumor

● Social media

- ✓ Rumors
- ✓ Relationship

● Official website

- ✓ Corporate information
- ✓ News release



Customer +360° view

Challenges for data mastering

Customer ID	First name	Last name	Address	Birthday	...
C001	William	Reinhart	Meineke str. 84, 10719 Berlin, Germany	10/21/1980	
C100	Anna	Klug	Potsdamer Platz 22, Berlin	3/25/1995	
C238	Fransisco	Mayer	Av. Séptima, 1, 28022 Madrid	5/1/1972	

Kunden	Vorname	Nachname	Strasse	Ort	PLZ	Geburtstag	...
K1	Bob	Reinhard	Meineke Str. 84	Berlin	10719	21.10.1980	
K10	Aenne	Klug-Ritter	Lübecker Str. 99	Hamburg	22087	25.03.1995	
K255	Paco	Mayer	Av. Séptima, 1	Madrid	28022	01.05.1972	

Challenges for data mastering

Customer ID	First name	Last name	Address	Birthday	...
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C100	Anna	Klug	Potsdamer Platz 22, Berlin	3/25/1995	
C238	Fransisco	Mayer	Av. Séptima, 1, 28022 Madrid	5/1/1972	



Customer ID	First name	Last name	Address	Latitude	Longitude
C001	William	Reinhard	Knesebeckstraße 40, 10719 Berlin, Germany	52.5014408	13.3214348
C100	Anna	Klug	Potsdamer Platz 22, 10117 Berlin, Germany	52.509832	13.3767417

Challenges

- Low-quality customer data
- maintenance burden to ensure the quality of the data

Solution

- Thanks to cloud power, we ensure the quality of data and get rid of maintenance burden

Business benefit

- No maintenance even if cities were merged
- Customers can leverage geospatial data to the marketing activities

Challenges for data mastering

Customer ID	First name	Last name
C001	William	Reinhart
C100	Anna	Klug
C238	Fransisco	Mayer

Kunden	Vorname	Nachname
K1	Bob	Reinhard
K10	Aenne	Klug-Ritter
K255	Paco	Mayer

Challenges

- Sometimes customers use nick name
- Last name could be changed after marriage
- Sometimes misspelled.

Solution

- We use thesaurus for nicknames and Metaphone for misspellings
- We also use custom rules to specify the same person

Business benefit

- Customers can focus only on marketing activities
- Customers can promote campaigns efficiently

Challenges for data mastering

Customer ID	First name	Last name	Birthday
C001	William	Reinhart	10/21/1980
C100	Anna	Klug	3/25/1995
C238	Fransisco	Mayer	5/1/1972

Kunden	Vorname	Nachname	Geburtstag
K1	Bob	Reinhard	21.10.1980
K10	Aenne	Klug-Ritter	25.03.1995
K255	Paco	Mayer	01.05.1972

Challenges

- Table formats are different among data source systems

Solution

- We provide data preparation tool, called Data Discovery Tool

Business benefit

- Customers can focus only on marketing activities
- Customers can promote campaigns efficiently

Challenges for data mastering

Customer ID	First name	Last name	Address	Birthday	...
C001	William	Reinhart	Meineke str. 84, 10719 Berlin, Germany	10/21/1980	
C100	Anna	Klug	Potsdamer Platz 22, Berlin	3/25/1995	
C238	Fransisco	Mayer	Av. Séptima, 1, 28022 Madrid	5/1/1972	

Kunden	Vorname	Nachname	Strasse	Ort	PLZ	Geburtstag	...
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Challenges

- Mapping tasks are needed among tables

Solution

- We provide data preparation tool, called Data Discovery Tool

Business benefit

- Customers can focus only on marketing activities
- Customers can promote campaigns efficiently

Challenges for data mastering

One ID	First name	Last name	Address	From where it came from? A? B?	Birthday	SystemA	SystemB
OID-1	William	Reinhard	Knesebeckstraße 40, 10719 Berlin, Germany		Oct-21-1980	C001	K1
OID-2	Aenne	Klug-Ritter	Potsdamer Platz 22, 10117 Berlin, Germany		Mar-25-1995	C100	K10
OID-3	Fransisco	Mayer	Av. Séptima, 1, 28022 Madrid, Spain		May-1-1972	C238	K255

- We found out Anna Klug and Aenne Klug-Ritter are different
- However, it is difficult to unmerge the record because the last name "Klug" is in systemA only

From where can we get the other information?

Challenges

- Sometimes customers want to unmerge records
- However, it cannot be done easily. Sometimes migration could be required

Solution

- Our solution keep original record with metadata from each system
- Customers can easily unmerge wrong records

Business benefit

- Customer experience could improve
- Advanced analysis of the data in time-series to propose services or actions

Our mastering functions

Individual

- Specify individual using name, nick name, birthday, address, telephone number, e-mail and so on

Corporate

- Specify company using corporate name, corporate number(e.g. VAT), address, telephone number, domain name and so on

Family

- Specify family using last name, address, geospatial data, gender, IBAN, age and so on

Group

- Specify company group using corporate name, address, geospatial data, group data from ESMA (now planning)



Data Value Creation Chain



Collection data out of several sources

Maintaining data quality

Creating golden records for entity, individual and family

Data are applied for different purposes

Store Data As-Is

Cloud Power

Smart Mastering

Marketing Systems

Success Story (wrap up)

Challenges

- Low-quality customer data
- maintenance burden to ensure the quality of the data
- As a result, it is not so easy to make golden records to uniquely identify customer's customers and their families
- In addition to that, even the internet information getting important, customers have difficulty to fully get the benefit of the information

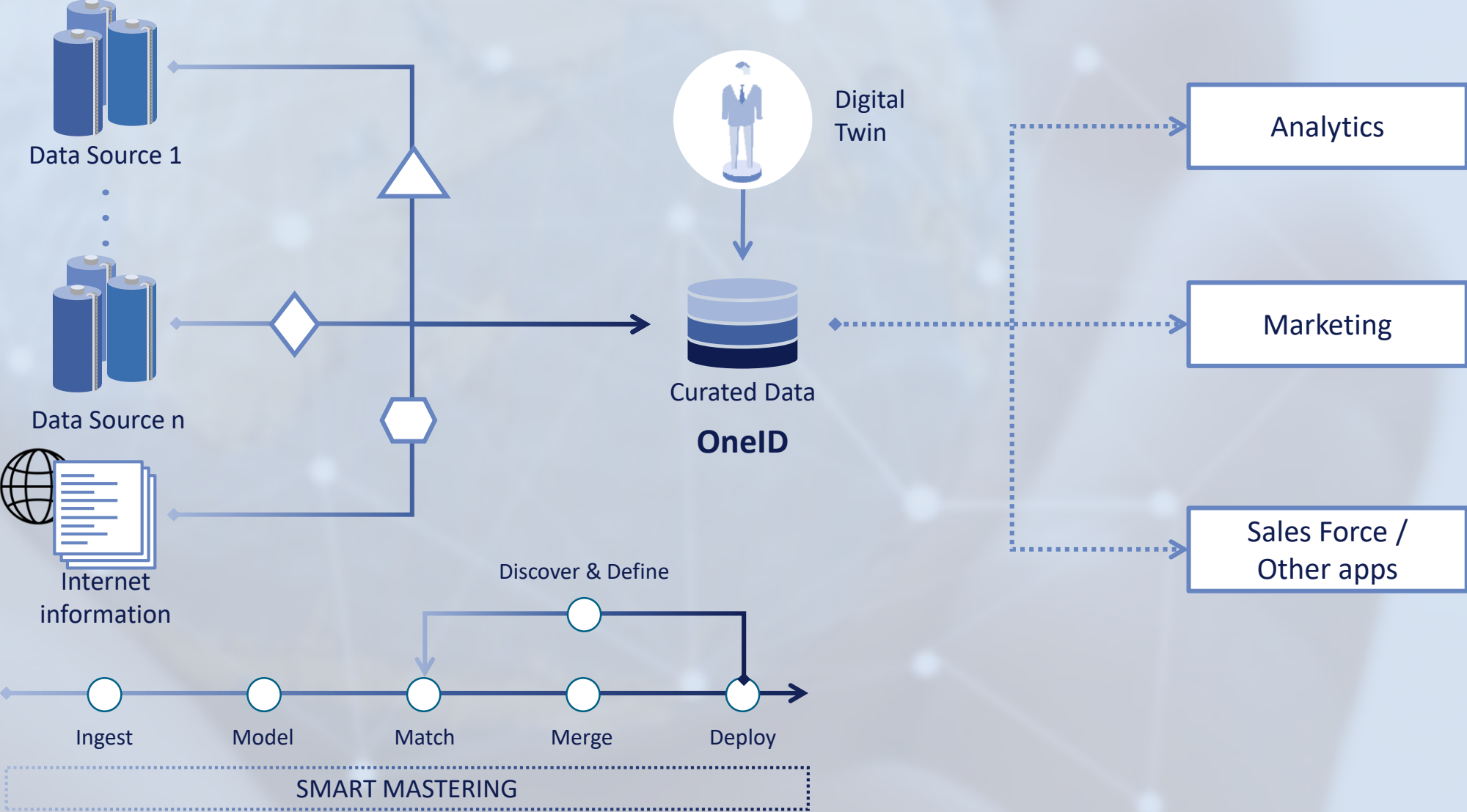
Solution

- Our solution
 - ✓ Thanks to cloud power, we ensure the quality of data and get rid of maintenance burden
 - ✓ Use geospatial data for mastering
 - ✓ Provide additional customer 360 views from internet information
 - ✓ Easy to unmerge records

Business benefit

- Customers can focus only on marketing activities
- Customers can promote campaigns efficiently
- Customers can lead to increase revenue and loyalty from their customers with high satisfaction
- Customers can comply with the law immediately thanks to the golden record

System Overview



About Us

We are MarkLogic Center of Excellence in München.



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