

# Rational Reporting

## Module 1: RRDl and IBM Rational Insight Introduction

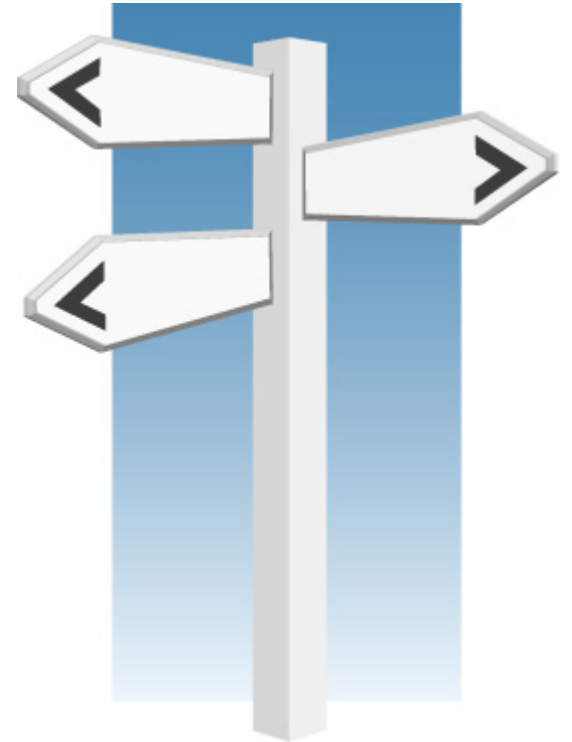


**Rational** software



# What's next?

- **Module 1: RRD1 and IBM Rational Insight Introduction**
- Module 2: IBM Rational Insight Data Warehouse
- Module 3: IBM Rational Insight and IBM Cognos Data Manager
- Module 4: IBM Rational Insight and IBM Cognos Framework Manager
- Module 5: Third-party Integrations



# Target audience and objectives

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## Target audience:

- Users of IBM® Rational® Reporting for Development Intelligence (RRDI) who want to compare the implementation of RRDI and IBM Rational Insight

## Objectives: After reading this module, you will be able to:

- Explain the difference between RRDI and Rational Insight architecture
- Explain data flow through RRDI and Rational Insight

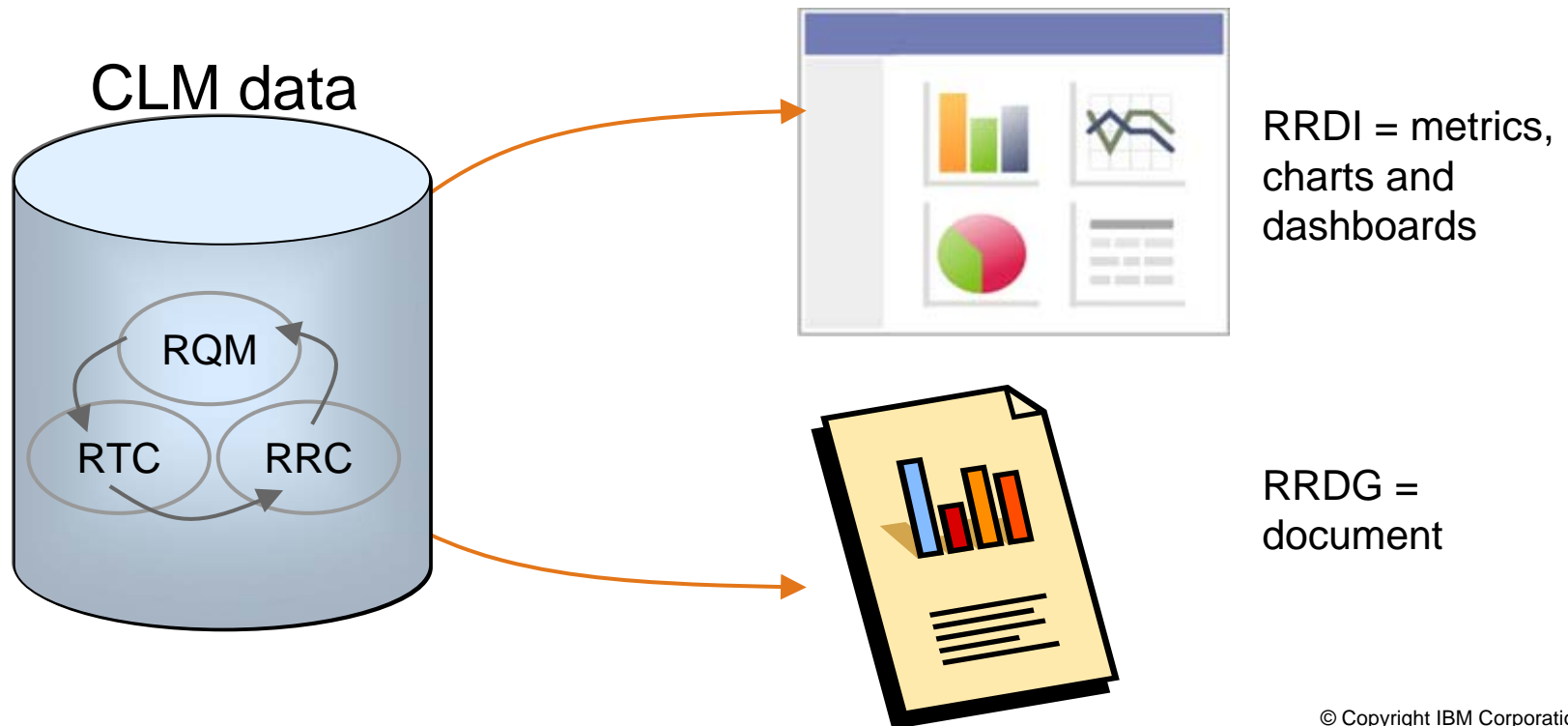
Your primary sources of information are the information centers for Rational Insight and the Rational solution for Collaborative Lifecycle Management (CLM).

These presentations are intended as conceptual introductions.

# Rational Common Reporting in CLM

The Rational solution for CLM solution provides two types of reporting:

- **RRDI** – Rational Reporting for **D**evelopment **I**ntelligence
- **RRDG** – Rational Reporting for **D**ocument **G**eneration



## Example built-in reports

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CLM reports implemented in RRD1 include the following examples:

- Test coverage of requirements
- Development item coverage of requirements
- Requirements affected by defects
- Requirements Test Execution results
- Requirements Lifecycle Traceability report

For a list of provided CLM reports, see

– <https://jazz.net/wiki/bin/view/Main/CALMReportingOOTBReports>



# Rational Reporting for Development Intelligence (RRDI)

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Users of all three CLM products (IBM Rational Team Concert, IBM Rational Quality Manager, and IBM Rational Requirements Composer) can access RRDI.

RRDI is an optional installation package.

The RRDI optional installation package provides additional predefined templates for development intelligence and tools for authoring and customizing reports.

# A rough sketch of RRD1

CLM data

Reporting data  
warehouse

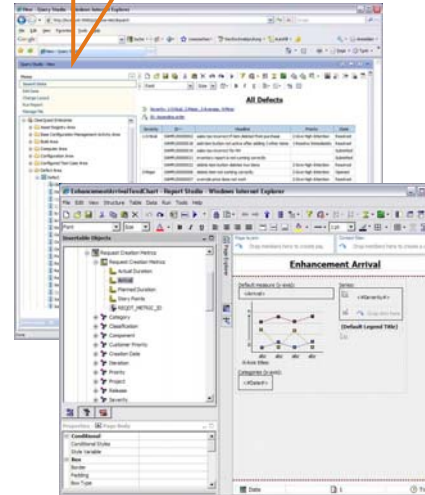
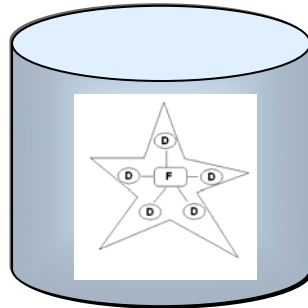
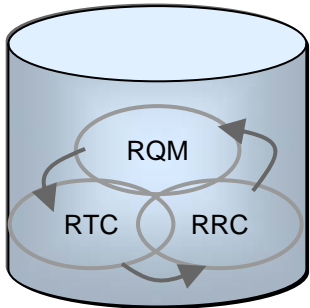
metadata  
packages

metrics, charts  
and dashboards

extracted,  
transformed and  
loaded into

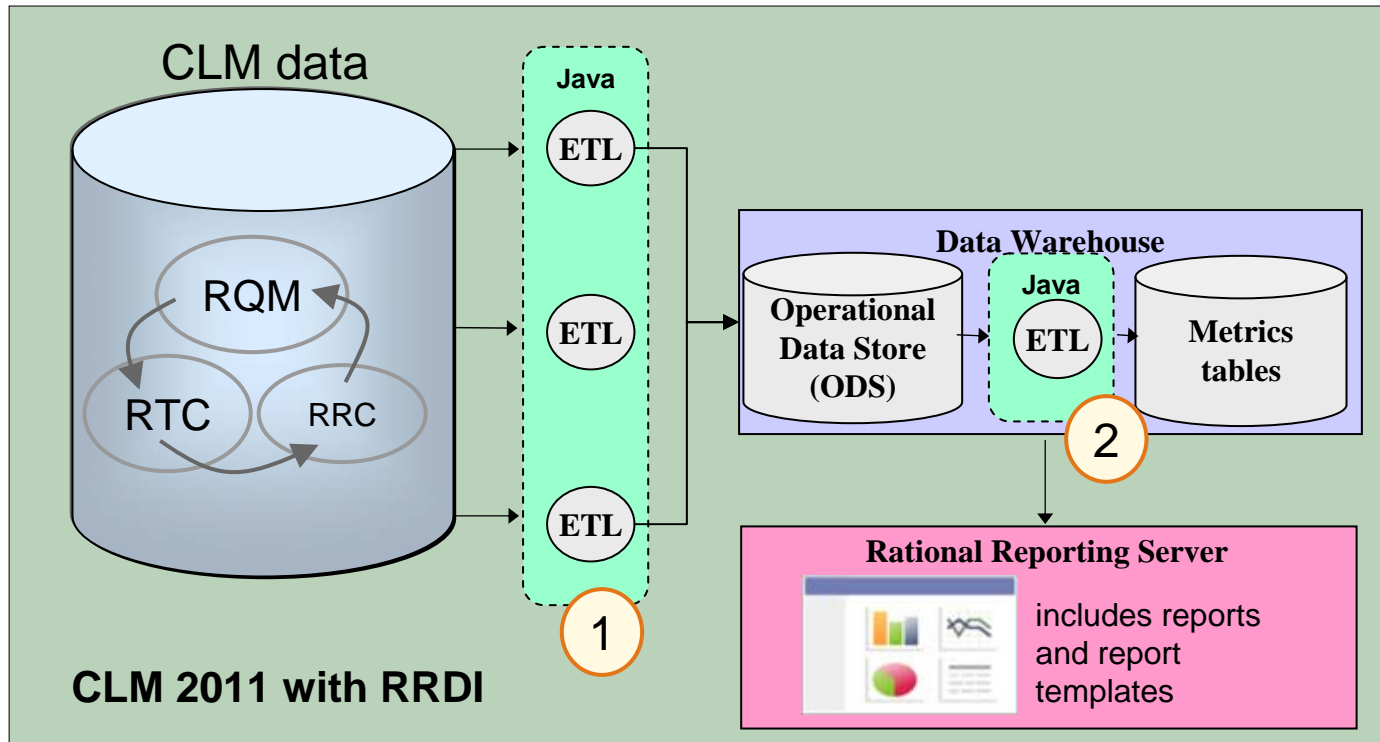
packaged as

used by report  
authors to provide



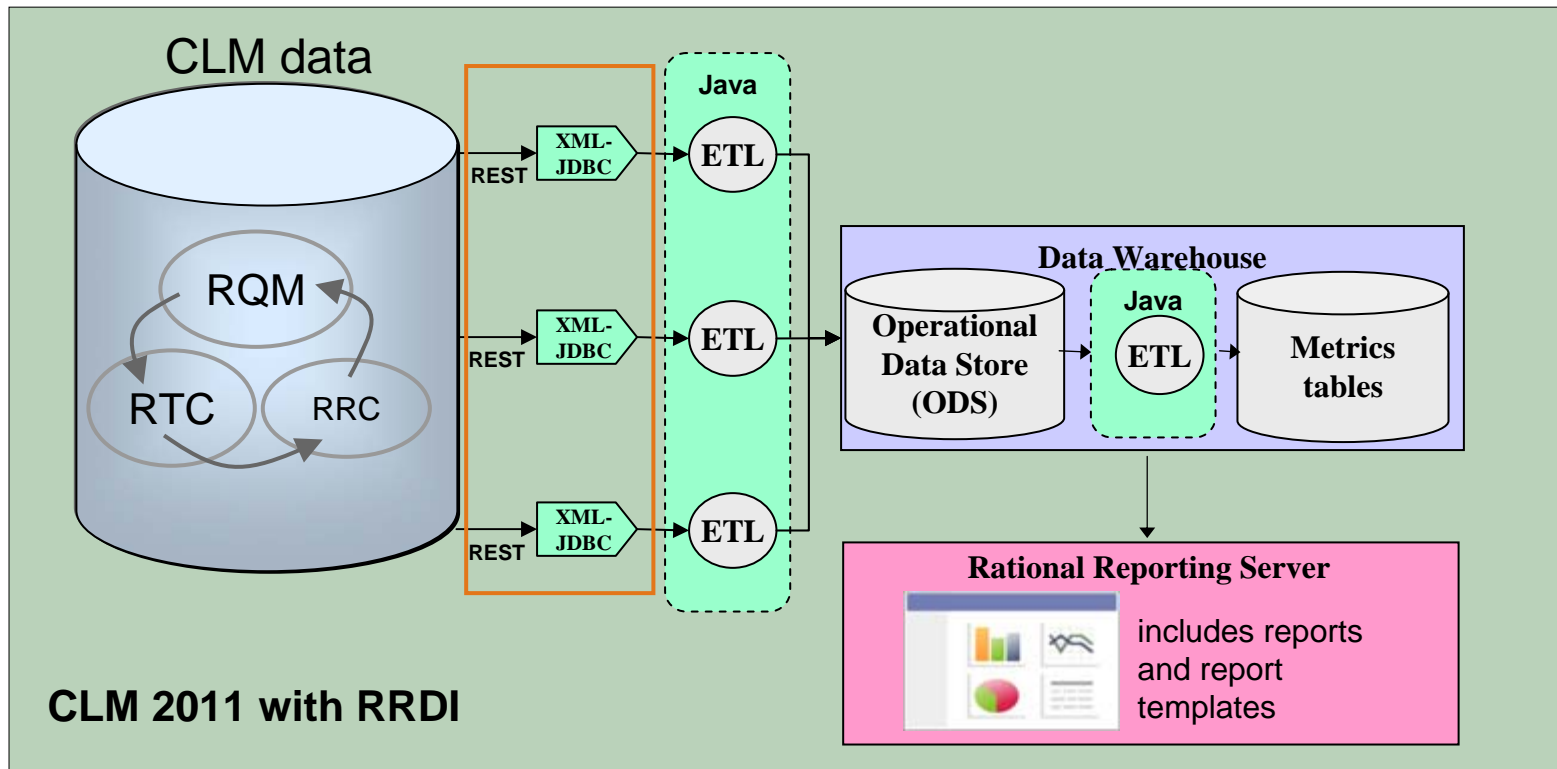


# CLM reporting uses Java ETLs



- ETL = Extract, Transform and Load. In RRDI, these ETLs are noncustomizable.
- **(1)** Java ETLs extract data from Rational Team Concert (RTC), Rational Quality Manager, and Rational Requirements Composer, transform the data, and load the data into the data warehouse according to the defined schema.
- Within the data warehouse, there is also a Java Star ETL **(2)** that transforms the flat data in the operational data store (ODS) into fact and dimension tables that can provide historical or aggregated metrics.

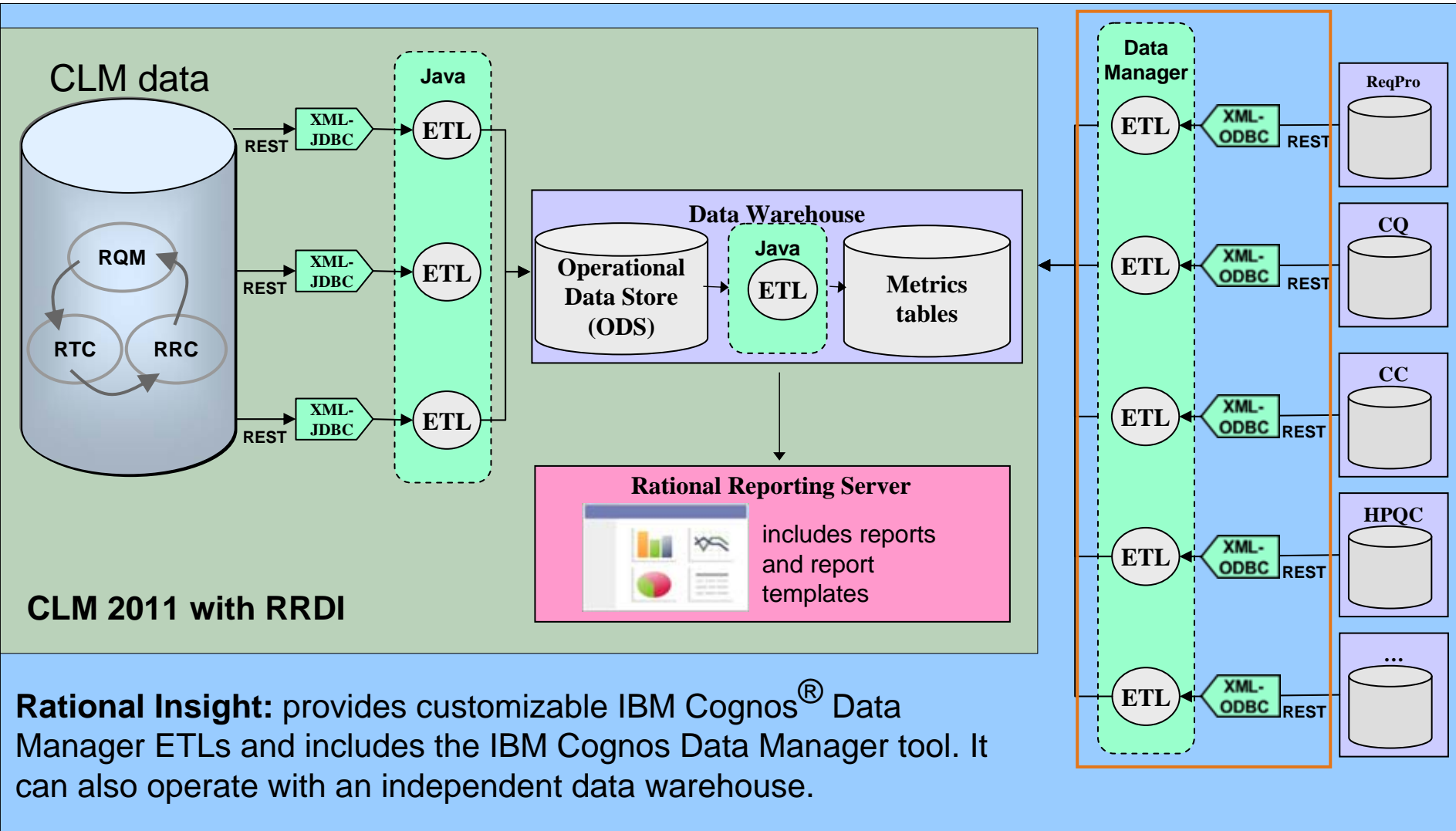
# RRDI uses REST APIs and XML-JDBC drivers



The Java ETLs call the **REST (Representational State Transfer) APIs**. The XML result set returned by the REST API is converted by the **XML-JDBC (Java Data Base Connectivity) driver** to relational form so the ETL can understand it.

An **XDC (XML Data Configuration) file** tells the XML-JDBC how to map the REST API resource to relational form.

# Insight uses IBM Cognos Data Manager ETLs and XML-ODBC



CLM 2011 with RRD

**Rational Insight:** provides customizable IBM Cognos<sup>®</sup> Data Manager ETLs and includes the IBM Cognos Data Manager tool. It can also operate with an independent data warehouse.

# Reportable REST Data Services

## Reportable REST Data Services V1

- Hides details of proprietary point product APIs
- Supports web scale distribution using HTTP GET requests
- Provides XML representations of the data
- Defines query strings for data filtering to improve performance
  - Field selection
  - Conditional tests
  - “Modified Since” parameter for delta ETLs

## Reportable REST Data Services V2

- Based on Open Services for Lifecycle Collaboration (OSLC), also known as proposed OSLC Reporting profile
- Based on RDF data model
- Supports Linked Lifecycle Data

## Clients are:

- Rational Insight XML ODBC driver for live reporting and ETL
- IBM Rational Publishing Engine for live document generation

### Open Data Architecture

ClearQuest

ClearCase

RequisitePro

TestManager

MS Project

XML

RTC

RQM

RRC

DOORS-RIF

HP Quality Cntr

CAST

OSLC

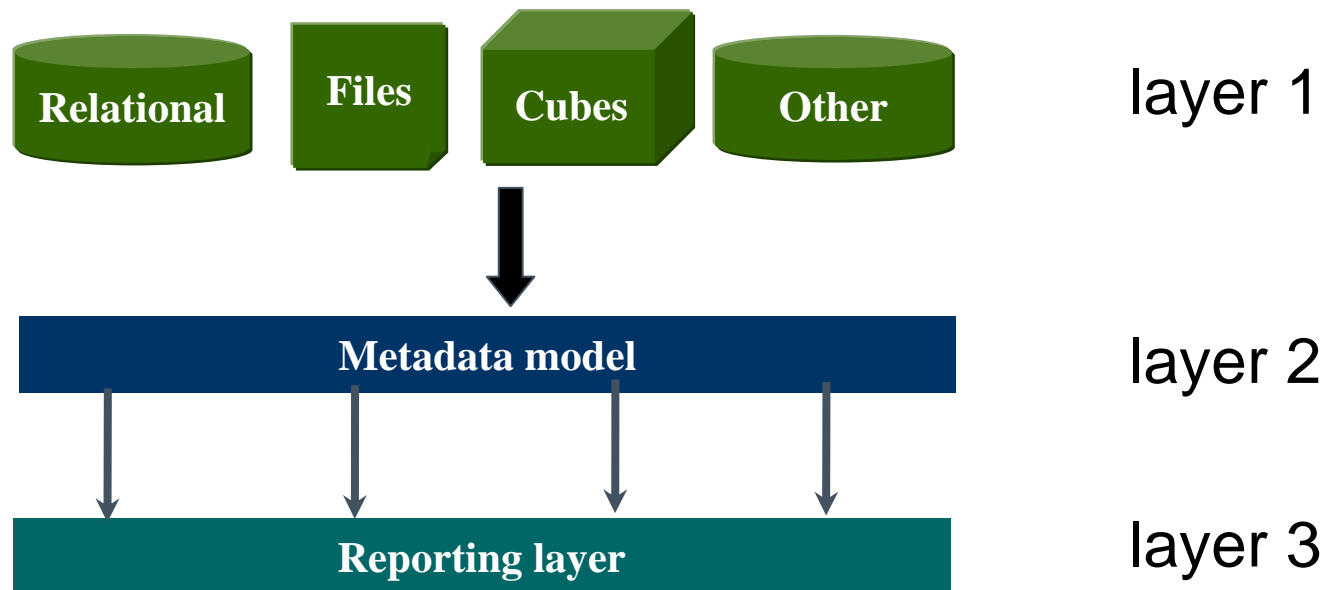
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# Reporting model

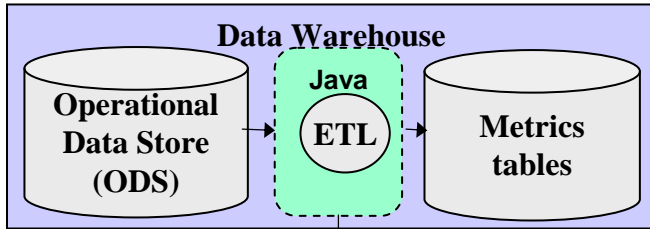
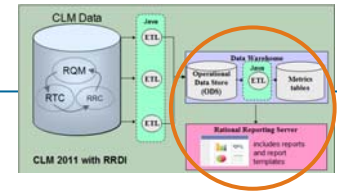
Report authors work with a model that provides a level of abstraction.

The model relates the physical database schema to business terms to simplify report construction.

You will see how these three layers are implemented on the next slide.



# IBM Cognos Framework Manager model

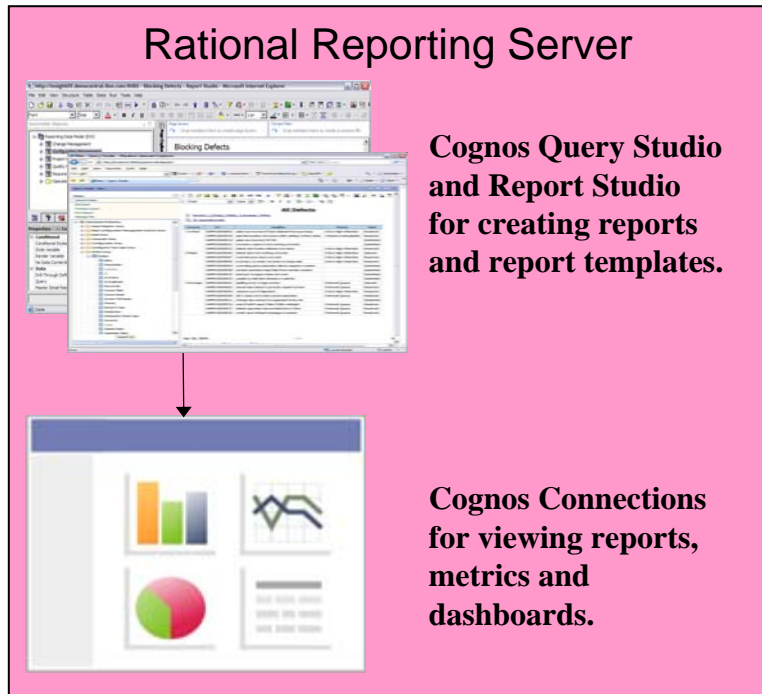


layer 1



Cognos Framework Manager model

layer 2

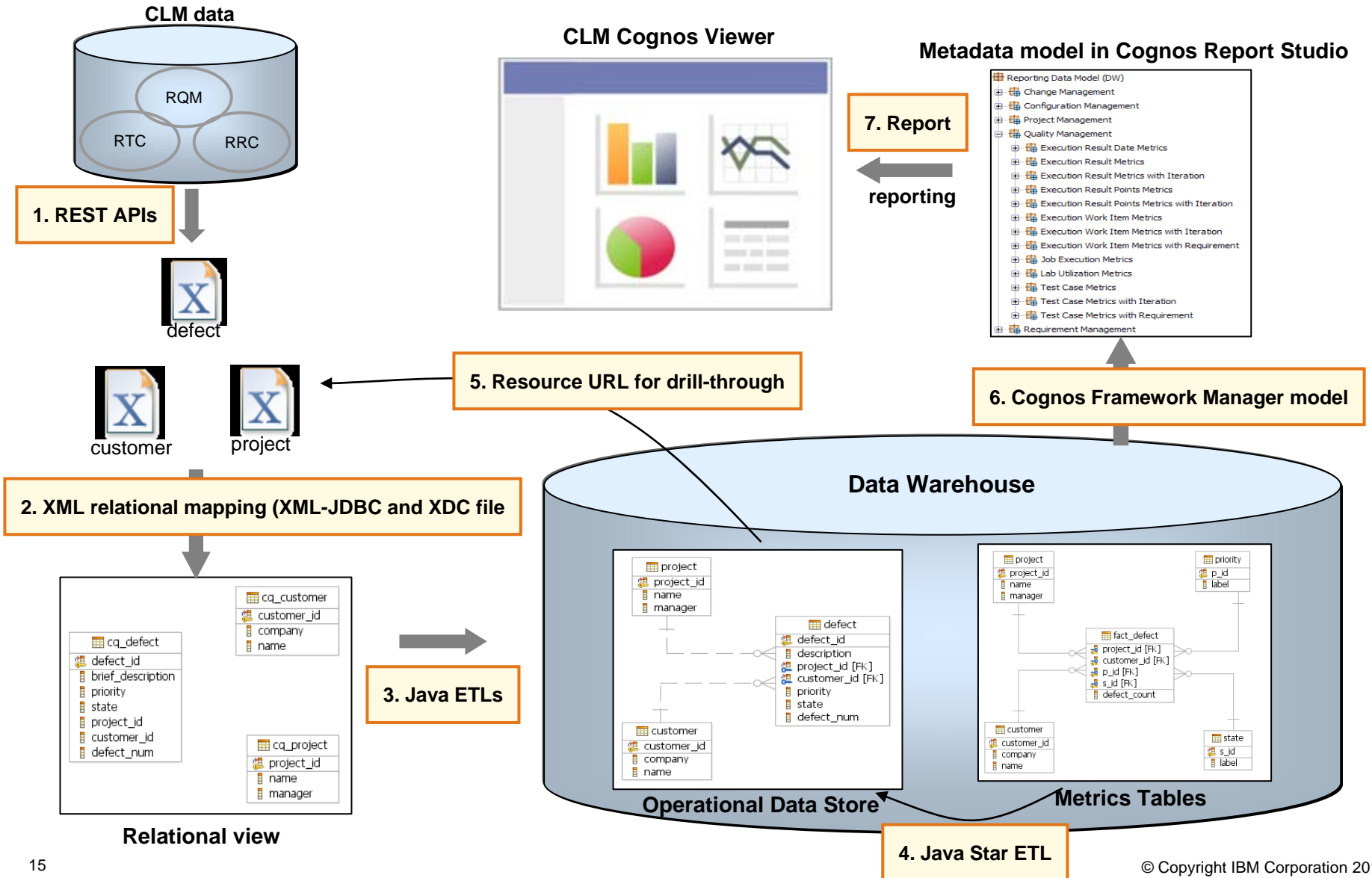


layer 3

The Cognos Framework Manager tool is included in Rational Insight but *not* in RRDI.

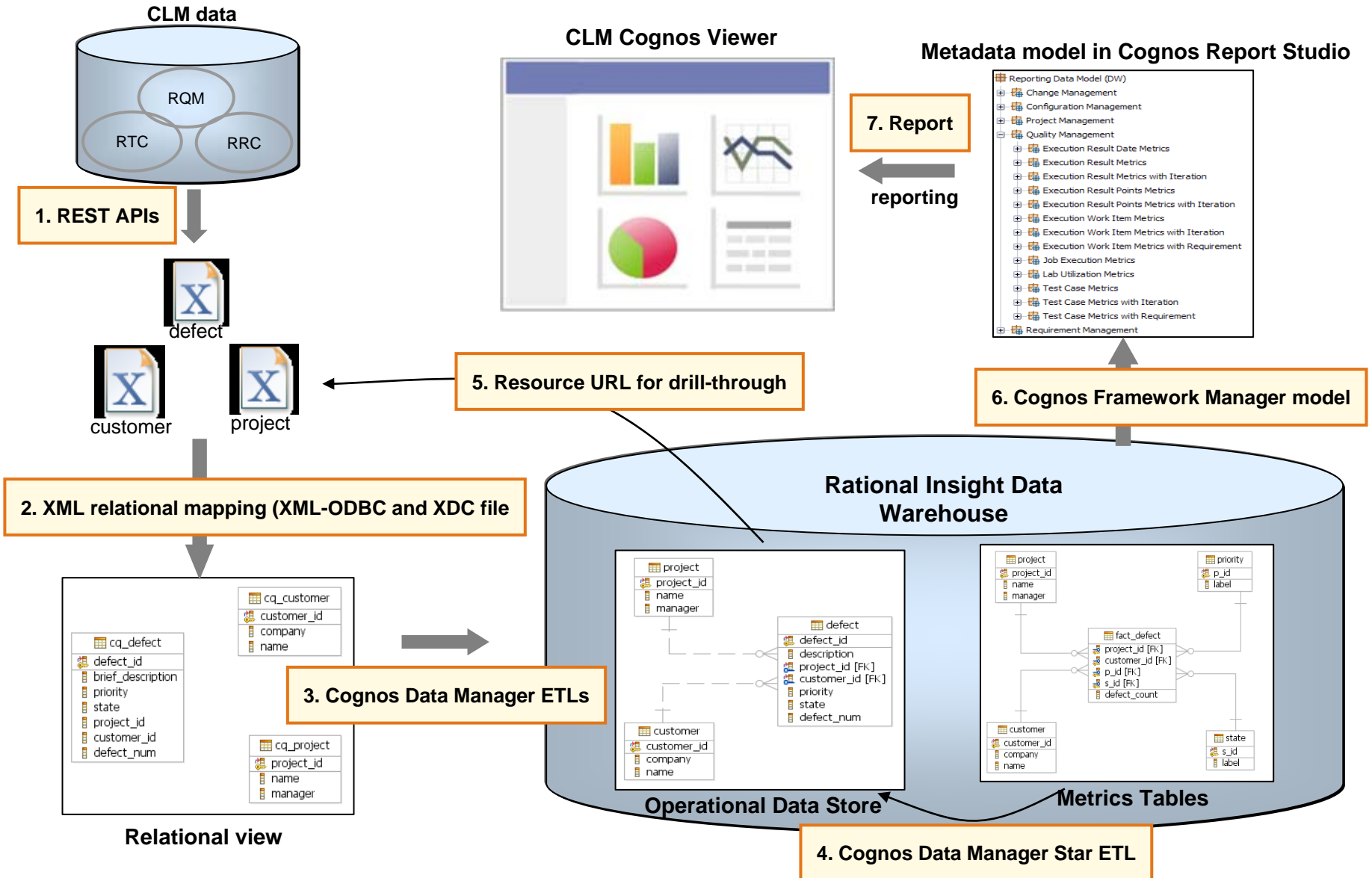
# Putting it all together: RRDl data flow

Data changes form as it moves through different stages of the architecture.



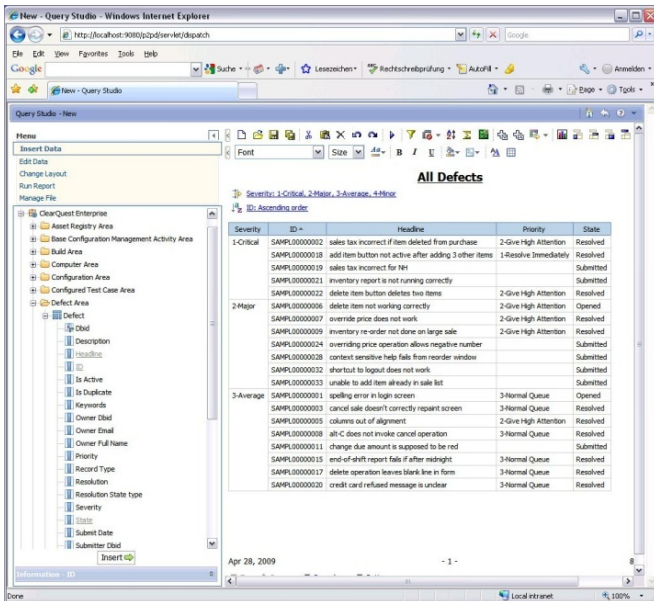
# Putting it all together: Rational Insight data flow

Data changes form as it moves through different stages of the architecture.

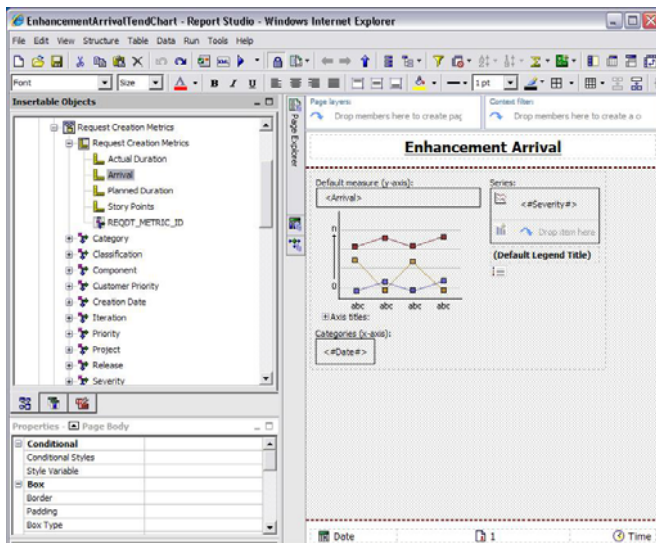




# Tools for authoring or customizing reports



**Query Studio** lets users with little or no training quickly design, create, and save reports to meet reporting needs not covered by the standard, professional reports created in Report Studio.



**Report Studio** lets report authors create, edit, and distribute a wide range of professional reports. They can also define corporate-standard report templates for use in Query Studio, and edit and modify reports created in Query Studio.

# Query Studio and Report Studio – more information

- Cognos Query Studio allows you to create simple queries and reports

- **Detailed information**

- Cognos Query Studio user guide: see under “Author and Create” at <http://publib.boulder.ibm.com/infocenter/cbi/v10r1m0/index.jsp>
- Training: See [www.ibm.com](http://www.ibm.com) -> Services -> Training

- Cognos Report Studio allows you to create more advanced, professional business reports:

- **Detailed information:**

- Cognos Report Studio user guide: see under “Author and Create” at <http://publib.boulder.ibm.com/infocenter/cbi/v10r1m0/index.jsp>
- Training: See [www.ibm.com](http://www.ibm.com) -> Services -> Training



# Summary of RREDI and Rational Insight tools

	RREDI includes	Rational Insight includes
IBM Cognos Connection	x	x
IBM Cognos Query Studio	x	x
IBM Cognos Report Studio	x	x
IBM Cognos Active Report*		x
IBM Cognos Business Insight*		x
IBM Cognos Framework Manager		x
IBM Cognos Data Manager		x

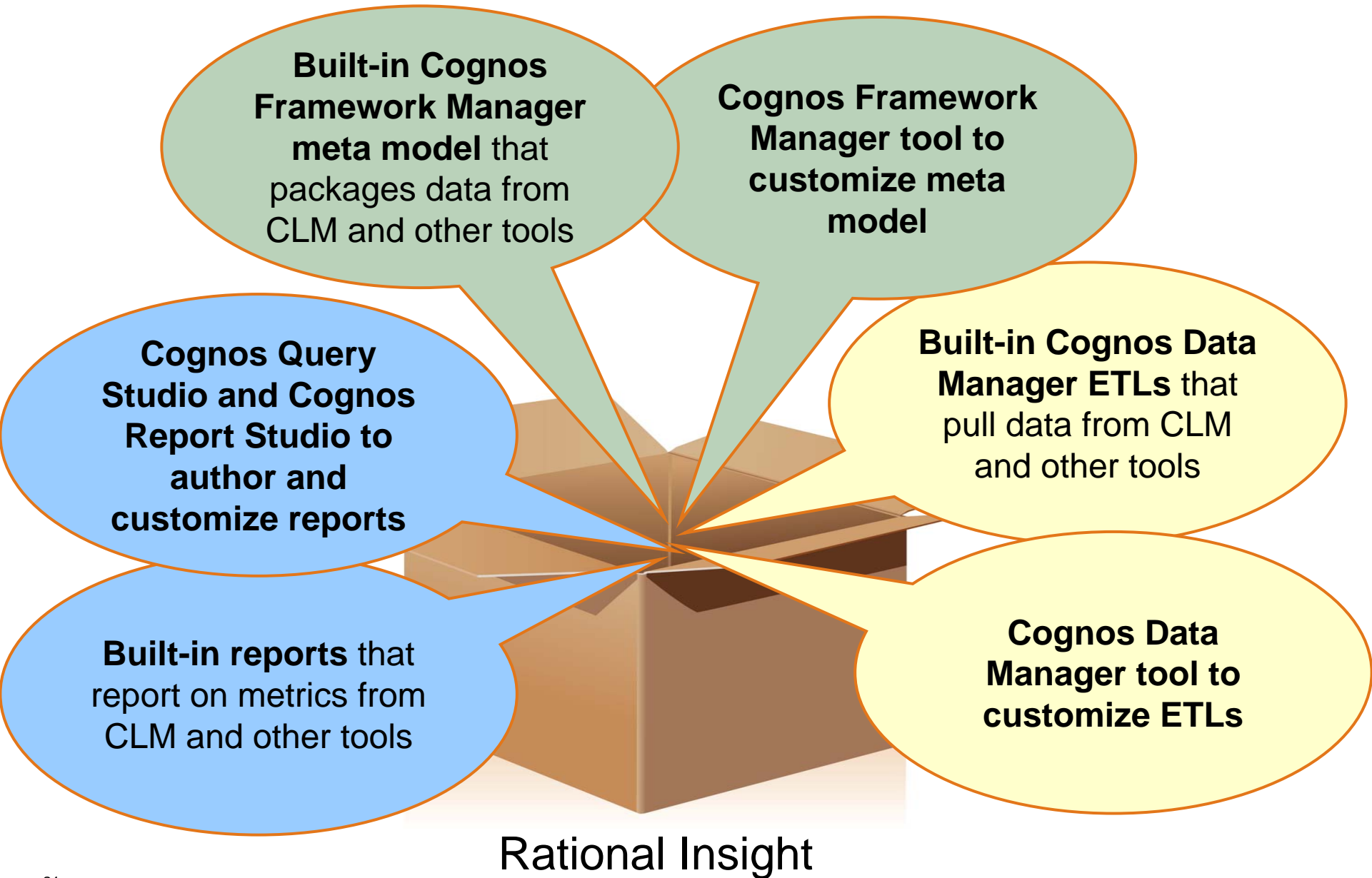
# Upgrading to Rational Insight

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You should consider upgrading to Rational Insight if you want to:

- Report from **data sources** other than RTC, RQM, RRC
- report on **data that is not supported by the fixed data warehouse schemas** that ship with CLM RRDI 2011
- Report on data in **more than one** Jazz Team Server (JTS)

# Value of IBM Rational Insight



# Schemas in RRDl versus Rational Insight

RRDI data warehouse and Rational Insight data warehouse schema differences:

<b>CLM 3.0.1</b>	<b>Rational Insight 1.0.1.1</b>
The operational data store (ODS) (schema RIODS) and the Star Schema (schema RIDW) are identical.	
CLM has some additional CLM-specific data that it stores in another schema (RICALM), which is not present in Rational Insight.	Rational Insight has some additional business analytics data that it stores in another schema (RIBA), which is not present in CLM.

# For more information

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- CLM Information Center - Reporting topic
  - <https://jazz.net/help-dev/clm/index.jsp>
- IBM Rational Insight Information Center
  - <http://publib.boulder.ibm.com/infocenter/rentrpt/v1r0m1/index.jsp>
- Rational Insight data models
  - [https://jazz.net/help-dev/clm/topic/com.ibm.rational.reporting.overview.doc/topics/c\\_reference\\_datadictionary.html](https://jazz.net/help-dev/clm/topic/com.ibm.rational.reporting.overview.doc/topics/c_reference_datadictionary.html)
- Jazz.net library
  - <https://jazz.net/library/>
- RRDI FAQ on jazz.net
  - <https://jazz.net/wiki/bin/view/Main/CALMReportingFAQ>

Thank  
YOU



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