Rapid Deploy Analytics

From Concept to Production

This document shows how Datamensional plans to go from concept to production implementation. We believe that a majority of or all of the DW/DI work can be created using the built in functionality of Cognos TM1 that is baked into each Cognos Insight workspace, thus speeding development toward Enterprise Scalability. It depends on the requirements in each phase, amount of data being manipulated, and system capacity.

Step-by-Step

Requirements and Business Subject Areas

- Overall plan is created with each Business Subject Area prioritize (e.g. Billing, Sales, Labor, etc).
- As new ideas come in, they are added to the Client Planning Board that's maintained by Datamensional's account on Trello.com
- After each Subject Area, Phase, or Project is completed, overall strategic objectives are re-evaluated.
- For each Phase, the overall requirements are agreed upon by the Datamensional PM and the Client PM.
- It will be evaluated based on the current system balance/performance and the needs of the client if the built-in Cognos TM1 capabilities are enough or if Traditional DW/BI will be needed.
- Sprints are organized for development with cards for each task needed to complete that Phase of the project.

Prototype ETL BFT for Business Subject

- Can be pulled using Cognos Insight Import Process with one or more SQL import statements.
- Comes from simple SQL Process that produces a Flat File for quick development

Cognos Insight Prototype for a Business Subject

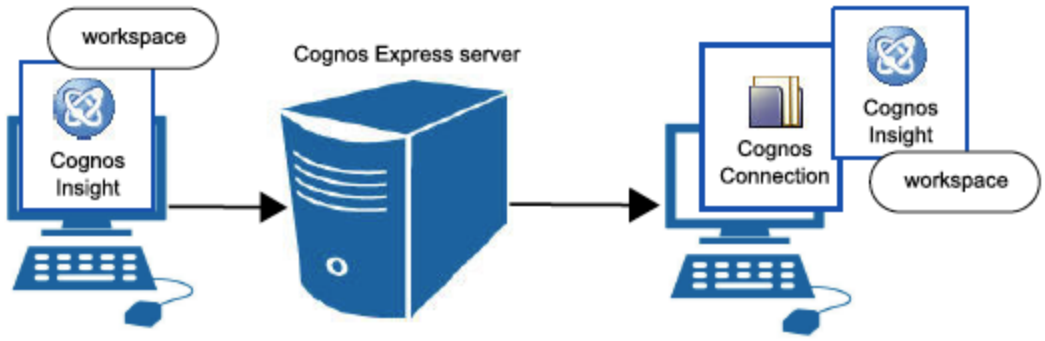
- Can be stored on local users machine and/or shared across LAN, Email, Google Drive, Dropbox, etc.
- If pulling from a Relational or Multidimensional datasource (ODBC), user has to maintain their

own connection.

- This is meant to be used as a production solution receiving additional user-feedback for more Enterprise Refinement.

Insight workspace deployed to Production launched from Cognos Connection (e.g. Cognos Server)

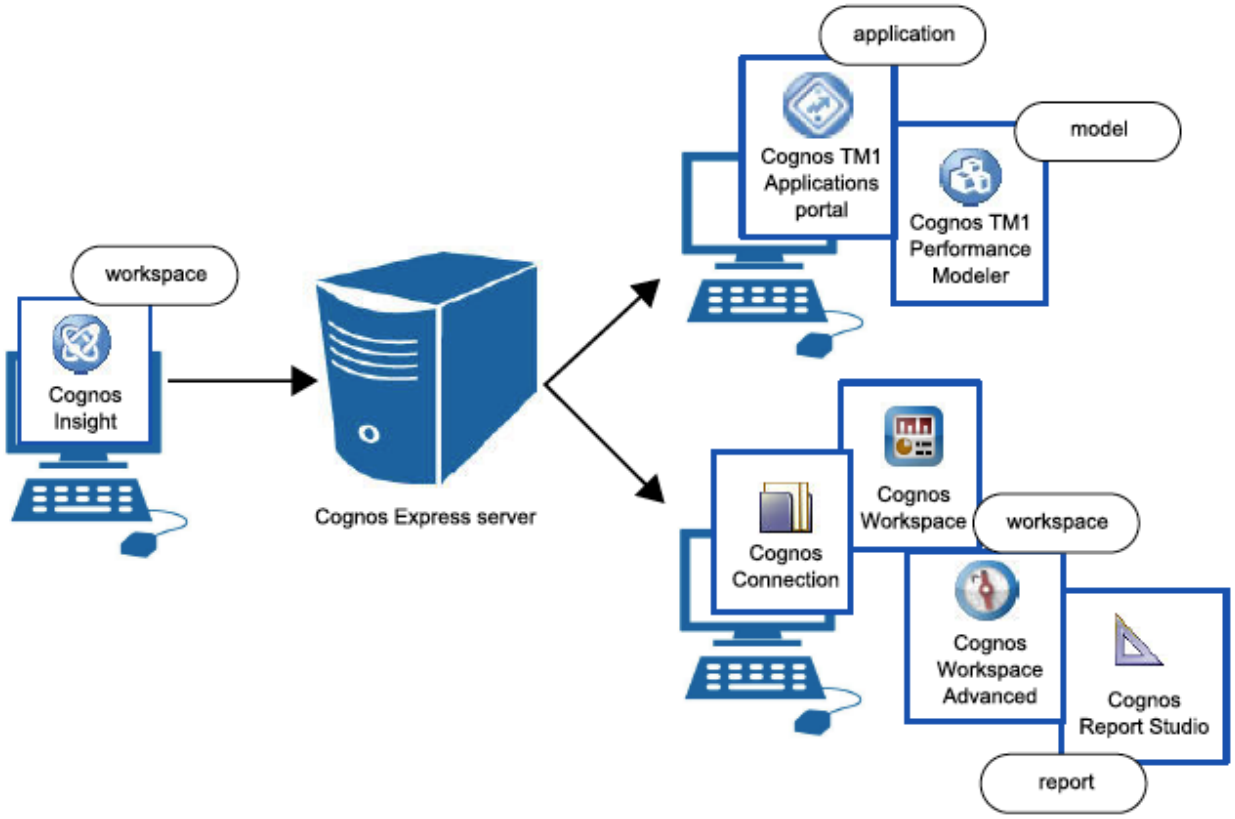
- Insight workspace launched from Cognos Connection through web browser.
- If end-user attempts to launch Insight workspace without Insight installed, Cognos Connection will automatically install it with the proper version.
- Database connection maintained if pulling from a pre-existing TM1 data source or other Cognos package (e.g. a Business View that was created in Framework Manager or Dynamic Cubes).



[Optional Additional Refinement of Cognos Insight Cube and Dimensions in or incremental iterations]

Publish Cognos Insight to become reusable Enterprise Components.

- Use for a variety of different development.
- Accessible by end-users, developers, and power users.
- Insight widgets converted to Report Studio editable solution files.
- Cube Data Source (TM1) for end-users and developers.
- User does not need to create ODBC connection on client machine thus simplifying deployment.



Develop Web-based Reports/iPad, Active Reports/iPad from reusable widgets and Cube Data Source (TM1)

- Edit individual pivot and graph widget files in Report Studio to create ratios and formats appropriate for web-browsing and iPad.
- Put widgets together in Report Studio to create Mobile BI, browser-based reports, and stand alone reports.
- Create a web-based dashboard easily using Cognos Workspace with Report Studio Widgets or combine with other solutions.
- **See this diagram for an overview of this process.**
- **This is considered the last step for a Subject Area not including small iterative changes unless Traditional DW is needed.**

[Graft into Traditional DW/DI, if needed]

- This step will not be required depending on Cognos Connection Server capacity and other factor.
- See Using Traditional DW/DI versus Cognos TM1.
- All headings in orange represent this.

[Develop Traditional DW]

- Create Star Schema in SQL Server and any necessary dimensions.
- Remap TM1 Import processes to the DW instead of the source systems.

Using Traditional DW/DI versus Cognos TM1 DW/DI

There are two types of ETL and Data Warehousing (DW) that can be done both of which are Enterprise scalable solutions. We will always begin with the Cognos TM1 DW/DI. It's possible to skip the Traditional DW/DI process, but that must be evaluated in each phase of implementation. Since many of the client's requirements are relatively simple at this point and data volumes relatively low, it's possible that a traditional DW could be built later.

Why Traditional DW/DI might be needed

- Amount of data exceeds the the total amount of memory since the TM1 Storage engine is in memory.
- We predict it will typically not be needed unless working with massive quantities of data from machines for example.
- Integrating and cleaning data is easier to perform with Traditional DW/BI.
- Special types of data sources such as SOAP/http, XML, Email, JSON, Fixed Position Flat Files, and more are needed for extraction and manipulation.
- Data is particularly dirty and/or needs recoding.
- Other reporting engines, operational databases or systems need a typical relational DW.

Cognos TM1 DW/DI	Traditional DW/DI
• Will always be used first.	• DW is relational and SQL-based.

• DW and DI built into Cognos Insight workspace and is created automatically based on TM1 technology. • When an Insight workspace is published to the Cognos Connections Server, it produces the DI and the DW automatically as components and can be further refined. • The TM1 storage engine fuses the Business View (e.g. Meta Data) to the actual data stored in the OLAP engine thus saving time. • It is better performing many types of aggregated calculations than traditional SQL.	• Uses traditional DW designs like Kimball's Star Schema. • Can be implemented later. • DI is easier to use, graphical based, and highly versatile. • DI could automate other processes, not just creating a DW.