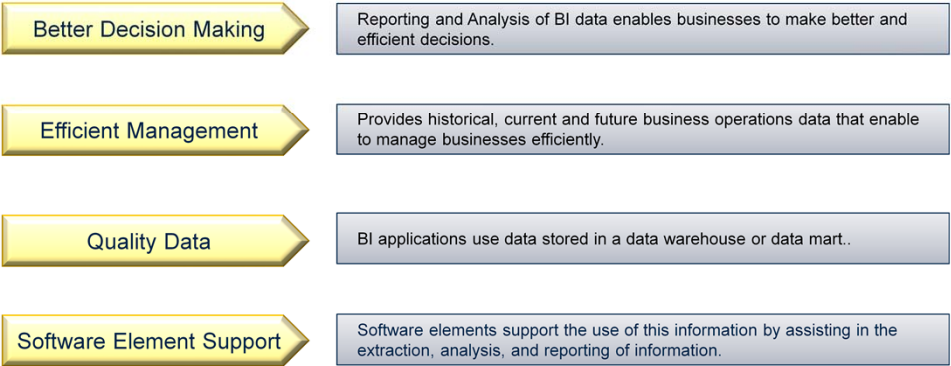# Cognos 11

Lesson 01: Introduction to Cognos

Module Objectives :

1. Why Reporting?
2. Why Cognos Analytics?
3. Cognos 8/10 and 11 Comparison
4. Cognos Analytics Self Service capability
5. Cognos Analytics - Three tier Architecture
6. User Interfaces
7. Web-based User Interfaces
8. Tier 1 Web Server: Cognos Analytics Gateways
9. Tier 2 Application: Cognos Analytics Servers
10. Tier 3 Data: Content Providers
11. Accessing Cognos Analytics

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Why Reporting?

- Business Intelligence (BI) applications enable businesses to gather, store, analyze, integrate, and present business data.

Better Decision Making	Reporting and Analysis of BI data enables businesses to make better and efficient decisions.
Efficient Management	Provides historical, current and future business operations data that enable to manage businesses efficiently.
Quality Data	BI applications use data stored in a data warehouse or data mart..
Software Element Support	Software elements support the use of this information by assisting in the extraction, analysis, and reporting of information.

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Why Cognos Analytics?

- Introduction
  - IBM Cognos Analytics is a complete enterprise business intelligence solution with a range of BI capabilities.
  - Enables users to author, share, and use reports that retrieve data from all enterprise sources which helps to take efficient business decisions
  - Use reports, analysis, dashboards and scorecards to monitor business performance, analyze trends and measure results.
  - Easy to deploy and manage due to a Service Oriented Architecture (SOA).
  - Scalability to handle a large number of users.
  - Modular deployment enables you to meet immediate user requirements and expand or modify as needed.

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Why Cognos Analytics? - Features and Benefits

Reporting

Provides access to a complete list of self-serve report types, is adaptable to any data source and operates from a single metadata layer for a variety of benefits such as multilingual reporting, ad hoc query, and scheduling and bursting.

Analysis

Enables the guided exploration of information that pertains to all dimensions of your business, regardless of where the data is stored. Analyze and report against online analytical processing (OLAP) and dimensionally aware relational sources.

Dashboards

Business dashboards communicate complex information quickly. They translate information from your various corporate systems and data into visually rich presentations using gauges, maps, charts and other graphical elements to show multiple results together.

Scorecarding

Enables you to align your teams and tactics with strategy, communicate goals consistently, and monitor performance against targets.
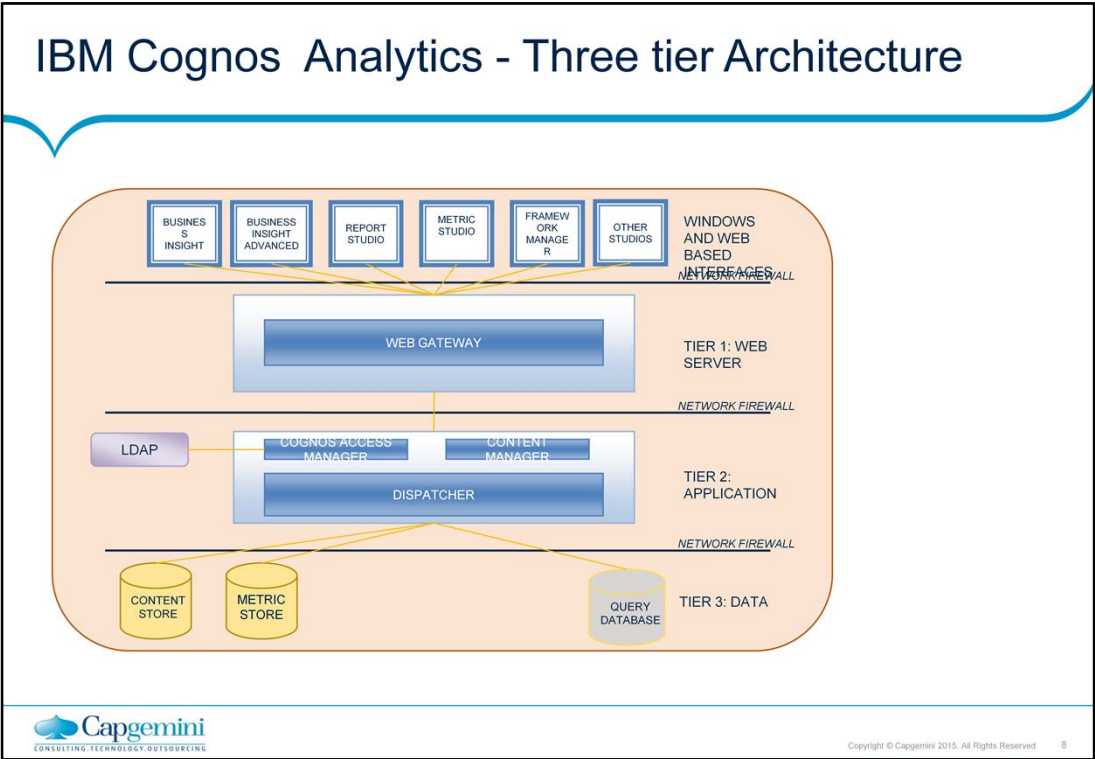
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Cognos Analytics Self Service capability

- Basic data modeling, coupled with an updated look and feel
- Create an attractive dashboard in minutes
- As data is dragged onto the canvas, Cognos selects a visualization to best represent it
- Automatically linking of a filter across the object
- The graphs and tables are laid out on a choice of grids which enhances the visual appeal without any additional effort by users

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Cognos Analytics - Three tier Architecture

The Cognos Analytics BI architecture consists of the following features:

- Single, open Application Program Interface (API) founded on SOAP and XML.
- Enables integration with Microsoft Office, Business Performance Management (BPM) solutions, enterprise search capabilities, and other applications.
- Consistent, zero foot print web based user interface.
- Supports leading Relational Databases as well as OLAP.
- Ensures dynamic load balancing.
- Cognos can be customized and is compatible with third party product.
- Supports multilingual reporting.

IBM Cognos Analytics - Three tier Architecture

BUSINESS INSIGHT	BUSINESS INSIGHT ADVANCED	REPORT STUDIO	METRIC STUDIO	FRAMEWORK MANAGER	OTHER STUDIOS

WINDOWS AND WEB BASED INTERFACES

NETWORK FIREWALL

WEB GATEWAY

TIER 1: WEB SERVER

NETWORK FIREWALL

LDAP

COGNOS ACCESS MANAGER

CONTENT MANAGER

DISPATCHER

TIER 2: APPLICATION

NETWORK FIREWALL

CONTENT STORE

METRIC STORE

QUERY DATABASE

TIER 3: DATA

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IBM Cognos Analytics- User Interfaces

Cognos Connection
- Web portal provided with Cognos Analytics where users have a single point of access to corporate data. Users can query, analyze and organize data, create reports, scorecards and events

Cognos Analytics
- Web-based tool enabling report authors to create, edit, and distribute a wide range of professional reports. It can also edit or modify reports created in Query Studio or Analysis Studio.

Query Studio
- Web-based tool for ad-hoc reporting enabling users with little experience in Cognos to quickly design, create and save reports to meet reporting requirements not covered by the standard, professional reports created in Report Studio.

Analysis Studio
- Web-based tool enabling users to explore, analyze, and compare dimensional data. It provides access to dimensional, Online Analytical Processing(OLAP), and dimensionally modeled relational data sources.

Event Studio
- Web-based tool to create agents to monitor data and perform tasks when business events or exceptional conditions occur in your data. When an event occurs, users are alerted to take action.

Framework Manager
- Windows based modeling tool to create and manage business related metadata for analysis and reporting. It provides a single, integrated business view of any number of heterogeneous data sources.

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IBM Cognos Analytics BI Architecture

Cognos Analytics User Interface

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Web server & Gateway Tier

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Application Tier

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Data Tier

Tier 2: Cognos Application Servers

- Tier 2 consists of various components, such as, a Dispatcher, Content manager and Services.
  - The Cognos Analytics Applications tier can be configured on one or more Cognos Analytics Servers. A Cognos Analytics Server runs requests, such as reports, data analysis and queries that are received through a gateway. A Cognos Analytics server also renders the Cognos Connection and Metric Studio interfaces.
- Each Cognos Analytics Application Tier includes the following:
  - Dispatcher that performs load balancing of requests at the application tier. It is a light weight java servlet that managers application services.
  - Report Server consists of the report or query service which is mainly responsible for application tier processing.
  - Content Manager which manages storage of the application data such as packages, report specification, dashboards, server configuration settings, security settings and configuration, metrics and report output

IBM Cognos Analytics BI Architecture

Cognos Analytics
User Interface

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Web server &
Gateway Tier

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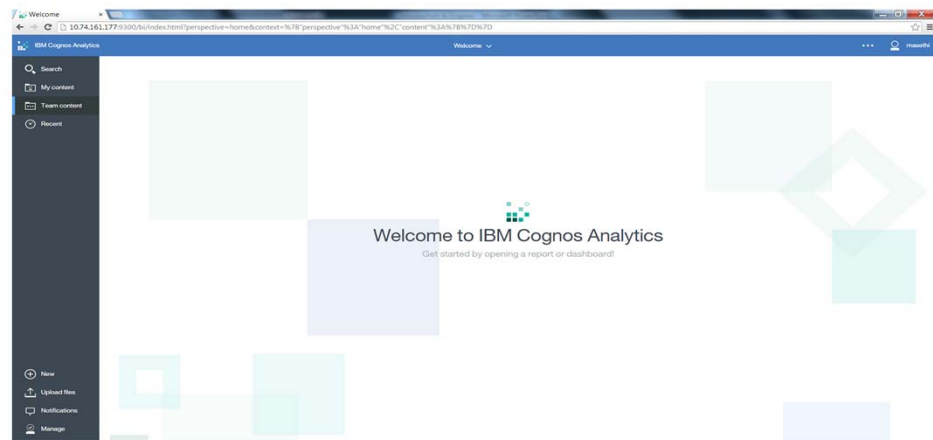
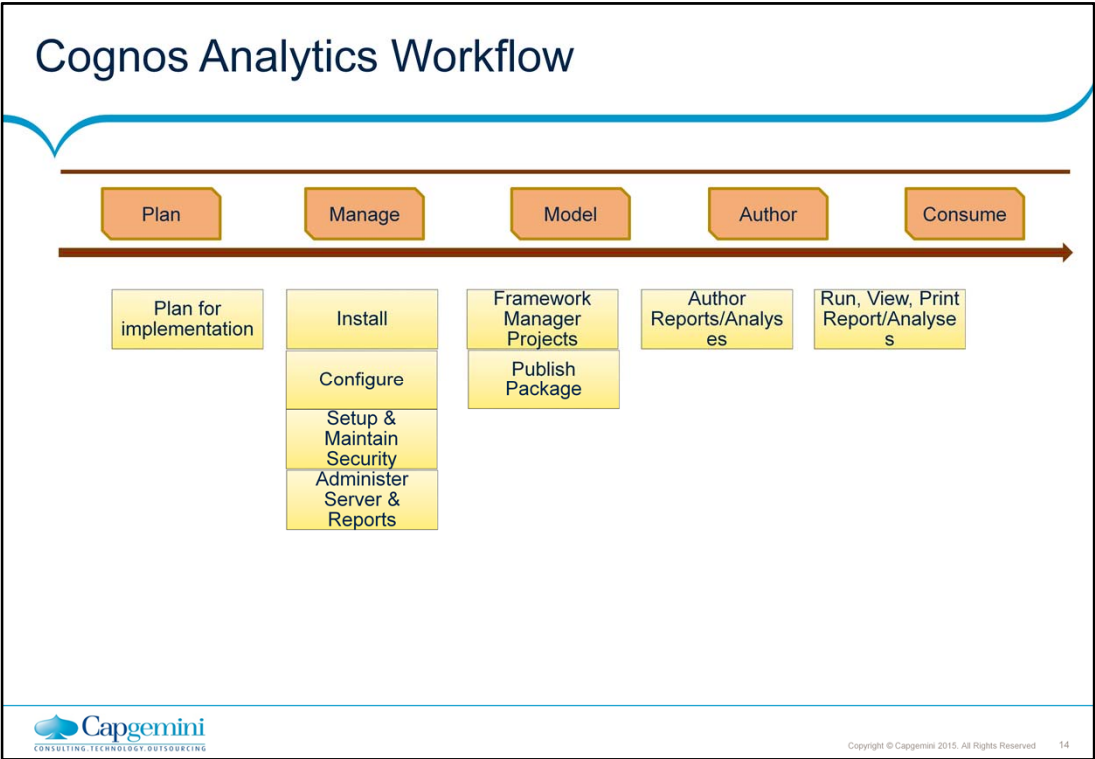Application Tier

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Data Tier

Tier 3: Data Tier

- Tier 3 consists of Content store, Data sources and Metric store
  - Content store: A relational database that stores data required by Cognos Analytics to operate, such as, report specifications, published models, and packages that contain them; connection information for data sources; information about the external namespace, and the Cognos namespace itself; and information about scheduling and bursting reports.
  - Data sources: These are relational databases, dimensional cubes, files, or other physical data stores that can be accessed through Cognos Analytics. Application Tier Components use data source connections to access data sources.
  - Metric store: A Relational database that contains content for metric packages. A metric store also contains Metric Studio settings, such as user preferences.

Accessing IBM Cognos Analytics

- IBM Cognos Homepage - http://10.74.161.177:9300/bi/v1/disp

Cognos Analytics Workflow

Plan	Manage	Model	Author	Consume

Plan for implementation	Install	Framework Manager Projects	Author Reports/Analyses	Run, View, Print Report/Analyses
	Configure	Publish Package		
	Setup & Maintain Security			
	Administer Server & Reports			

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Cognos 8/10 and 11 Comparison

Q & A

Thank You

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