



Multnomah County - Enterprise Data and Analytics Team (EDAT)

**SOAR Presentation
December 2017**

What is Business Intelligence?

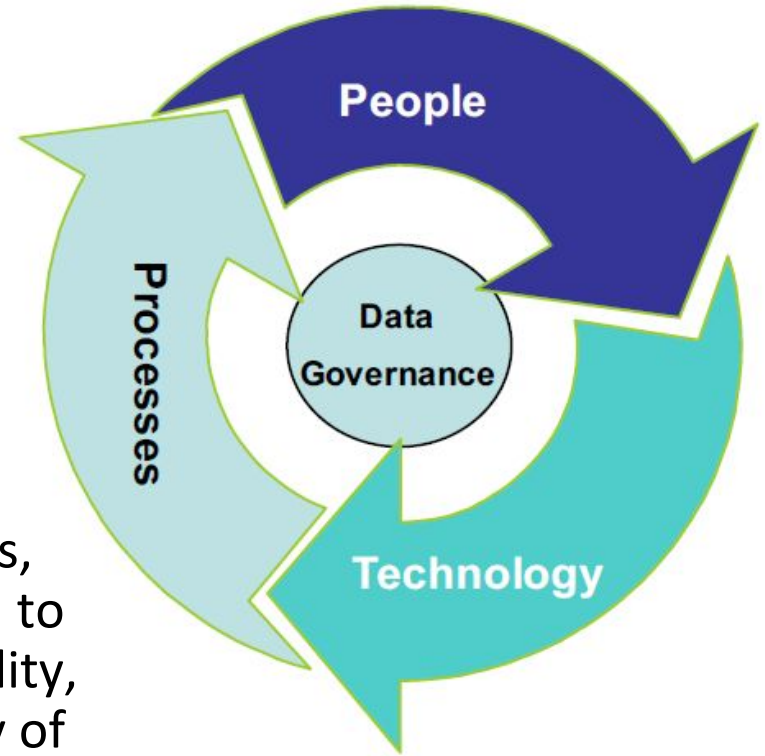
Wikipedia: "a set of techniques and tools for the acquisition and transformation of raw data into meaningful and useful information for business analysis purposes."



What is Data Governance?

It is the formal orchestration of people, process, and technology to enable an organization to leverage data as an asset.

A data governance model is a set of processes, policies, standards and technologies required to manage and ensure the availability, accessibility, quality, consistency, auditability, and security of data within the organization



Enterprise Data Governance & Master Data Management

The Enterprise Data & Analytics Team (EDAT) is creating a set of Enterprise DataMarts to support the integration of data across Multnomah County. These DataMarts will enable both operational and strategic analysis by facilitating appropriate interdepartmental data sharing.

The goal of EDAT is to provide a foundation for effective and efficient data-informed decision making. Common Master Data definition and Master Data Management is key to successful data integration.



Enterprise Data and Analytics Team - Overall Timeline

2014

- Countywide BI Program Launched
- Visualization Vendor Evaluation



2015

- Visualization Vendor Evaluation and Selection: Tableau and Domo
- Pilot Data Projects



2016

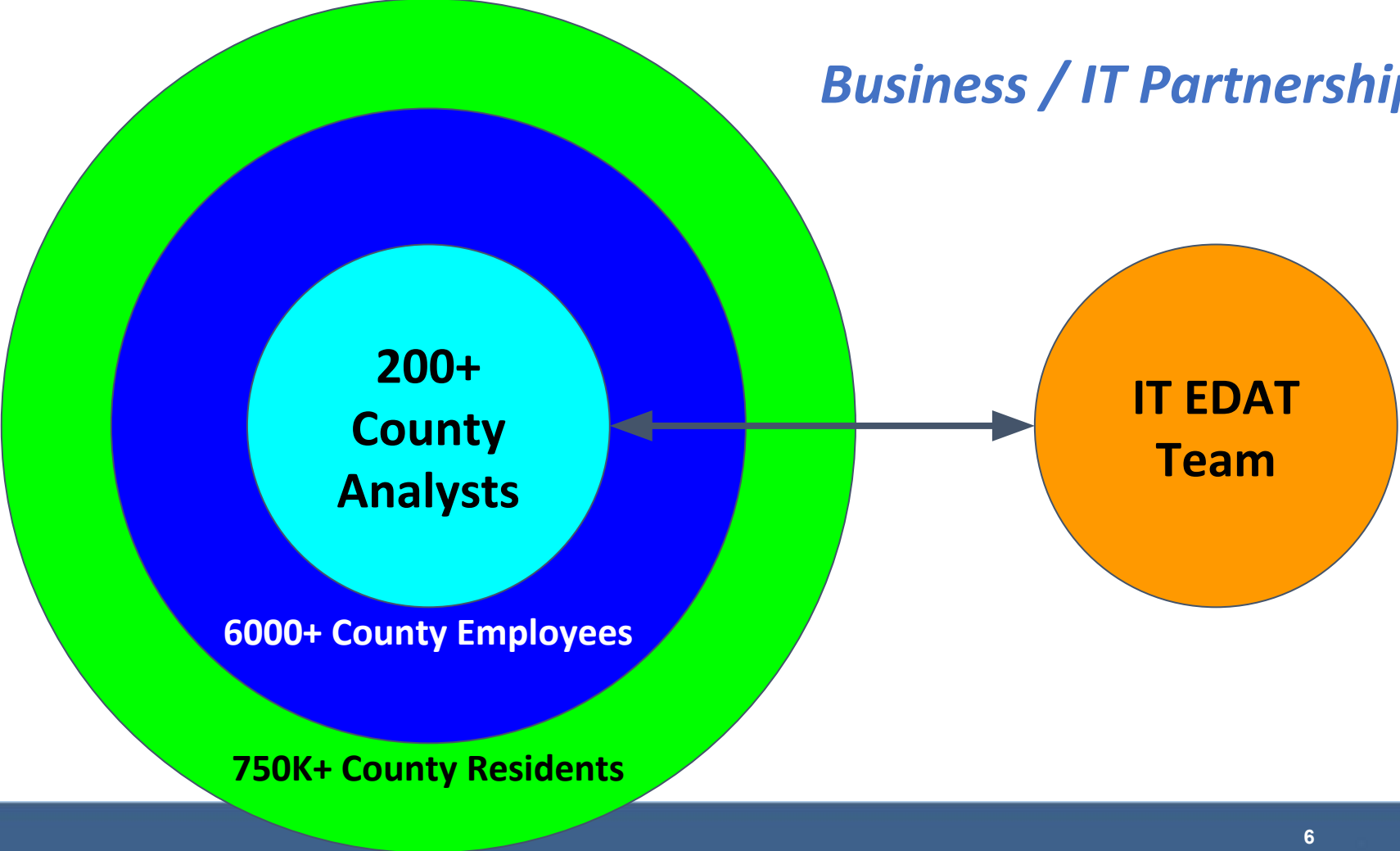
- Purchase of Tableau Server
- 50+ Tableau Desktop Licenses Purchased and County Led Trainings

2017

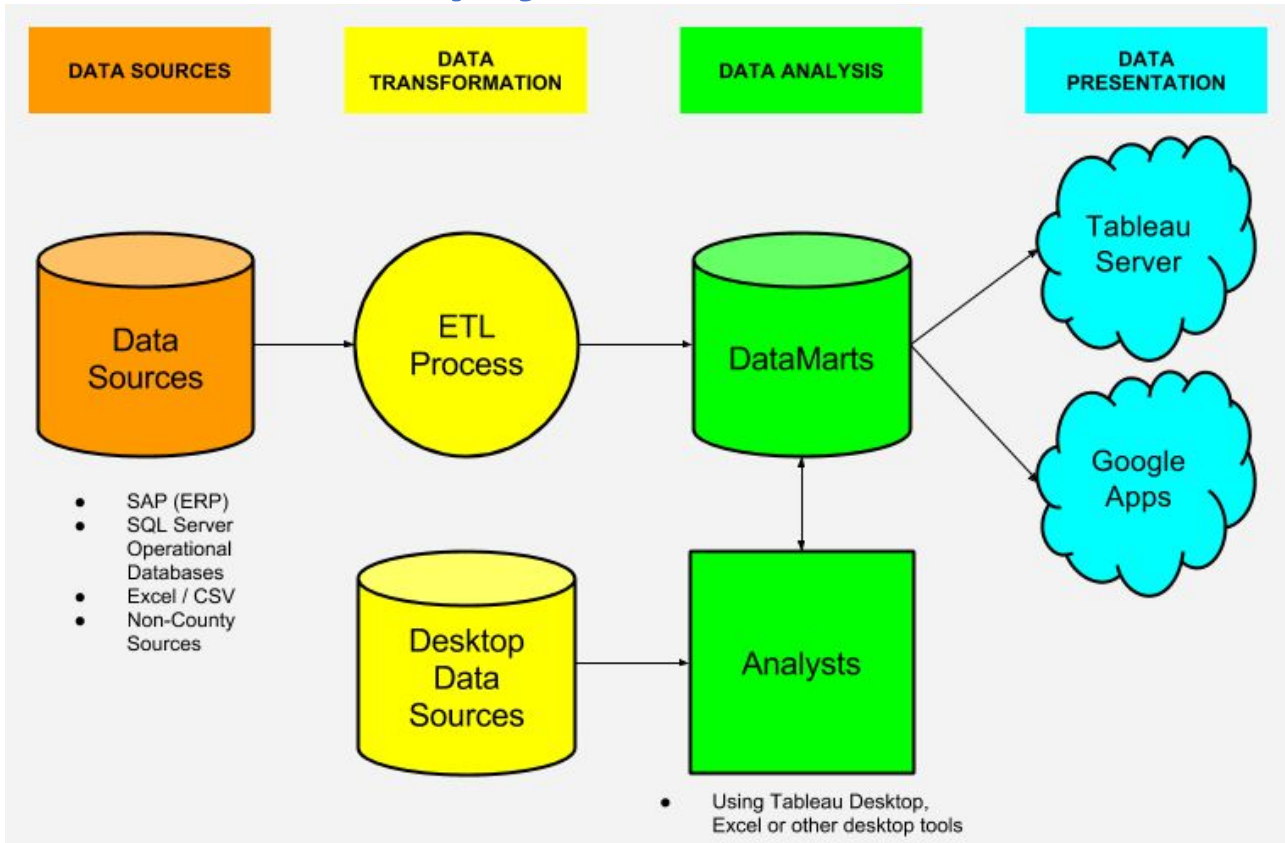
- Increase in BI Program FTE (9 TOTAL: 3 DBA, 5 SQL/ETL Developers, 1 Data Governance)
- 75 more Tableau Desktop Licenses Purchased
- Maturation of BI Technical Infrastructure



Business / IT Partnership



Simplified Data Flow



BI Program 2017 Priorities

1. **BI Environment Data:** Create “ready to report” datasets, combining data from across our 400+ Multico transactional systems, and provide “self service” access to data.
2. **Data Tools and Platforms:**
 - Provide standardized processes for the 200+ Analysts to utilize Tableau Server, and keep all Tableau software updated and in sync
 - SQL Server-based databases and datasets
 - Master Data Management (MDM) Software
3. **User Training Plan:** Basic and Intermediate level of training for key Analyst skills (at a minimum: Tableau Desktop and SQL). Quick training for Tableau Workbook interactors.
4. **User Self-Service:** Implement processes to enable a Self-Service Data-Driven Organization:
 - (a) clear obstacles for Analysts, and standardize Data Governance around data access
 - (b) data dictionary of available datasets, to facilitate data discovery
 - (c) automated promotion of user created Tableau Workbook visualizations and user data queries
5. **Mapping/Graphical Information Systems (GIS) Services**



BI Program Challenges / Lessons Learned

1. **Much More Technical / Process Infrastructure Needed Than Anticipated**
 - a. **Using Microsoft SCCM to automate install/update of Tableau Reader (6000 machines) and Tableau Desktop (125+ machines).**
 - b. **Automated deployment of Tableau Workbook files**
 - c. **All security managed through Active Directory Security Groups**
2. **Analyst Training / Skills**
 - a. **Difficult to teach SQL skills without in depth training**
 - i. **EDAT team does bulk of SQL Development and Data Preparation**
 - b. **We need new job classification / pay**
3. **Data Governance is Complex and Challenging**
 - a. **In some ways, technical is the easier part of BI**
 - b. **Sharing data across Programs/Divisions is rare, across departments is unheard of**
 - c. **D**
4. **Would have focused on data readily available, and defer projects with more difficult data (SAP)**
5. **Would have focused on delivery of Tableau vizs more, to demonstrate value quicker**

