

# Leverage GIS Technology to Improve Processes and Reliability



**GeoGathering 2011**

GIS for Gathering and Production Lines

# Williams Operations and Assets



# Williams Ownership Structure



WMB

## Exploration & Production

WMB owns 100% of Williams E&P

- 10th largest natural gas producer in the United States
- Primary production areas: Piceance, Powder River, San Juan, Fort Worth and Arkoma basins
- Upstart presence in Pennsylvania's Marcellus Shale.
- 4.8 Tcfe in domestic natural gas reserves
- 1.2 Bcfe of daily production in the United States
- 8,000-plus new natural gas wells developed since 2004

## Williams Partners L.P.

WPZ is 84% owned by WMB

## Gas Pipelines

- Owns and operates three natural gas pipelines - Transco, Northwest, Gulfstream (50%)
- Over 15,000 miles of pipelines
- Combined design capacity of over 12 Bcf/d
- Delivers approximately 12 percent of the natural gas consumed in the United States
- Seasonal storage capacity over 230 Bcf

## Midstream

- Primary service areas: Wyoming, Colorado, New Mexico, Gulf of Mexico
- Approximately 10,000 miles of gathering lines
- 24 natural gas processing facilities
- Total inlet capacity of approx. 9.5 Bcf/d of gas
- Approx. 360,000 bpd of natural gas liquids production capacity
- Fractionating capacity of approx 320,000 bpd (as operators and/or owners)

# Agenda

- Drivers for selecting Google Earth Enterprise
- How Williams' decision makers use Google Earth Enterprise
- How to leverage existing Esri infrastructure with Google Earth Enterprise

# What is the Challenge?

- Powerful GIS Tools
  - Cartographic Excellence
  - Data Management
- Fit-for-Purpose
  - Custom User Experience
  - Easy Access Through Web
  - Connected



# What Was Needed?

- GIS Tool for Non-GIS folks
- Not all spatial data came from internal GIS
- User Generated Content
- Portable Data Type
- \*.xls for GIS
- Excel File to PDF before Emailing?
- Find a Lat Long

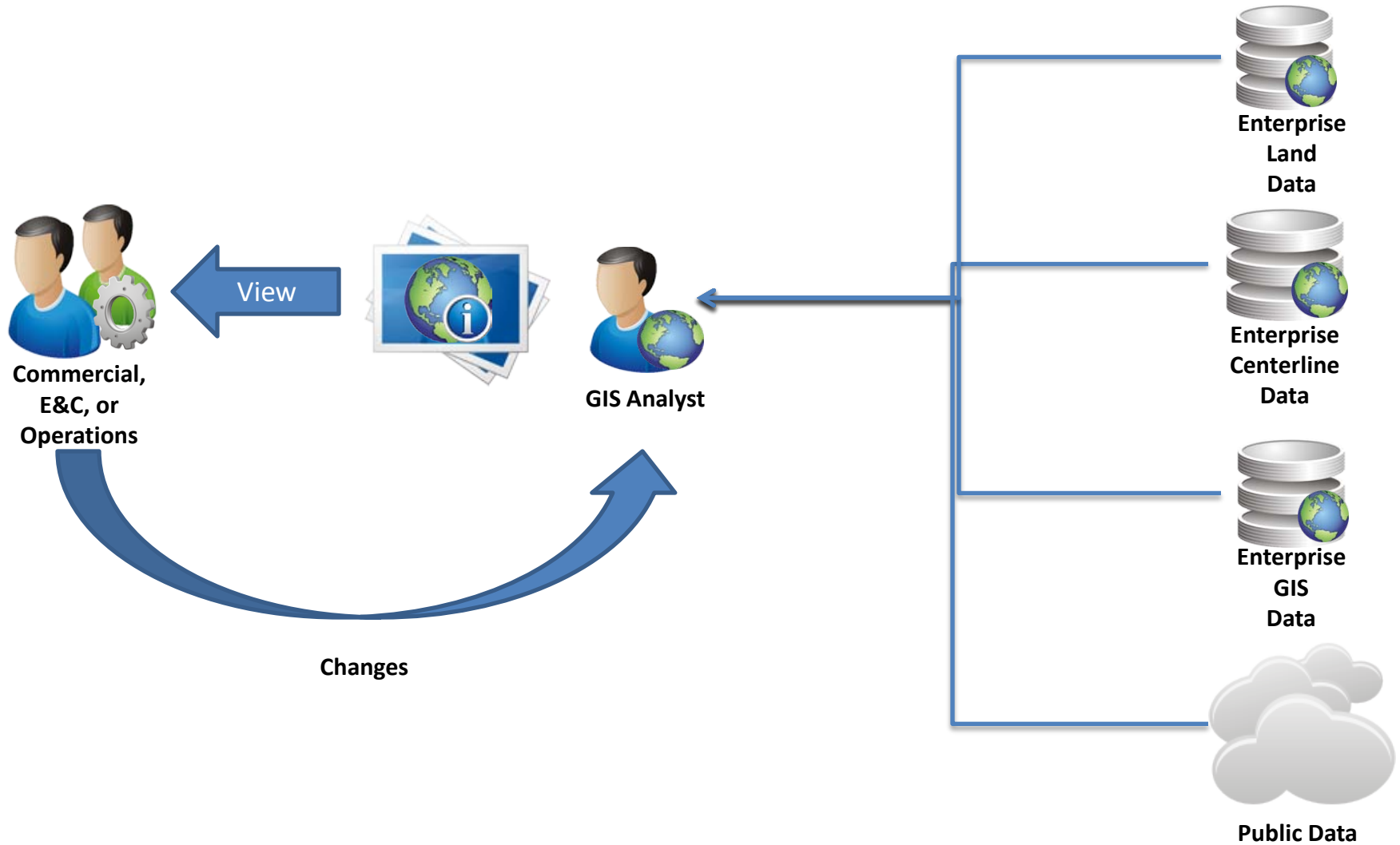
# Google Earth

- Google Earth (Blue)
- Google Earth Pro (Silver)
- Google Earth Enterprise (Gold)
- Google Earth Enterprise Server
  - Build a private globe
  - Stream custom layers to Google Earth

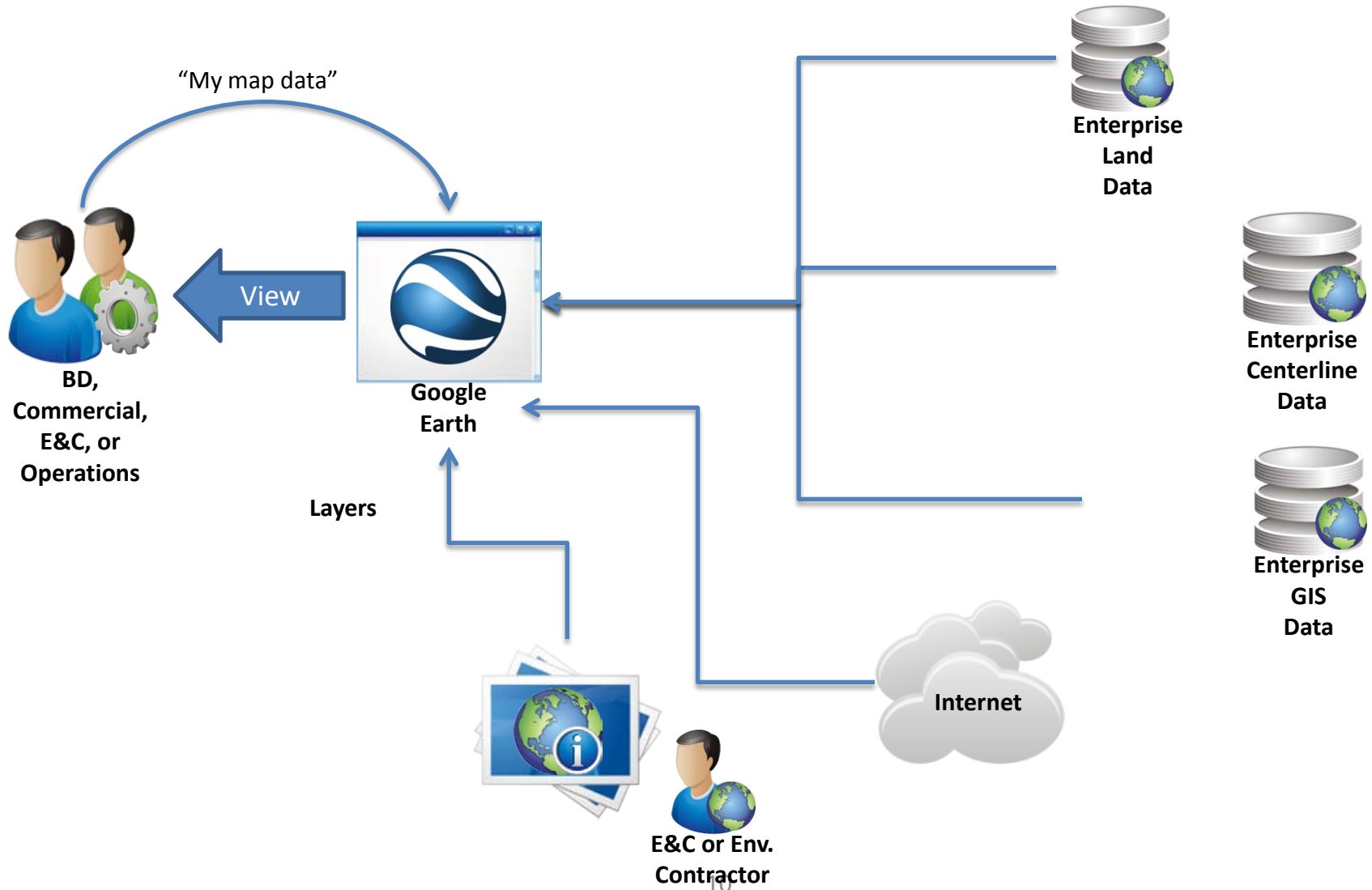
# **HOW WILLIAMS' DECISION MAKERS USE GOOGLE EARTH ENTERPRISE**



# Static Mapping

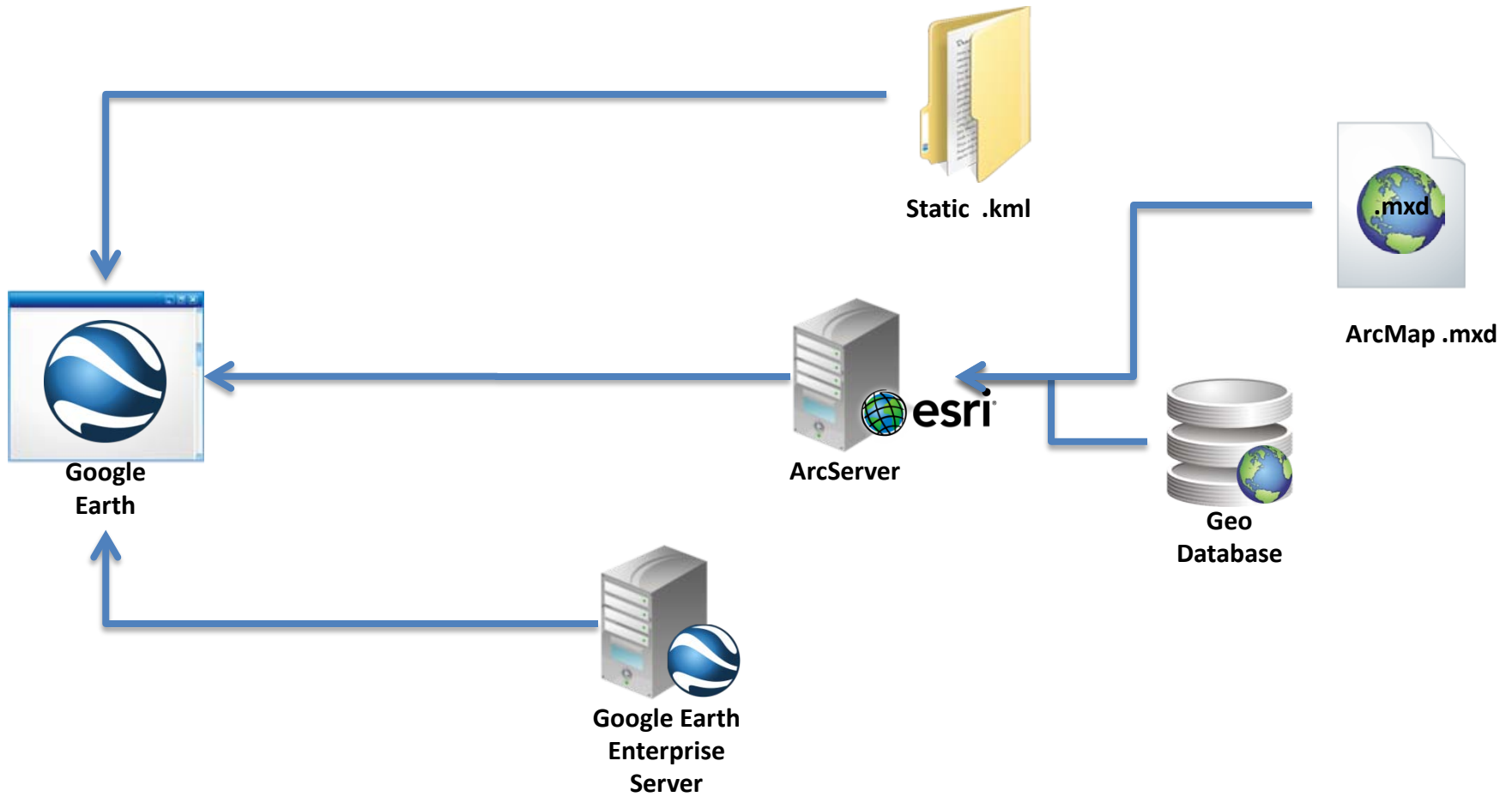


# Google Earth



# **HOW TO LEVERAGE EXISTING ESRI INFRASTRUCTURE WITH GOOGLE EARTH ENTERPRISE**

# Technology Stack



**DEMO**