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Esri Defense Mapping: Enterprise Production Management

GREG WAITE & G.C. RICE

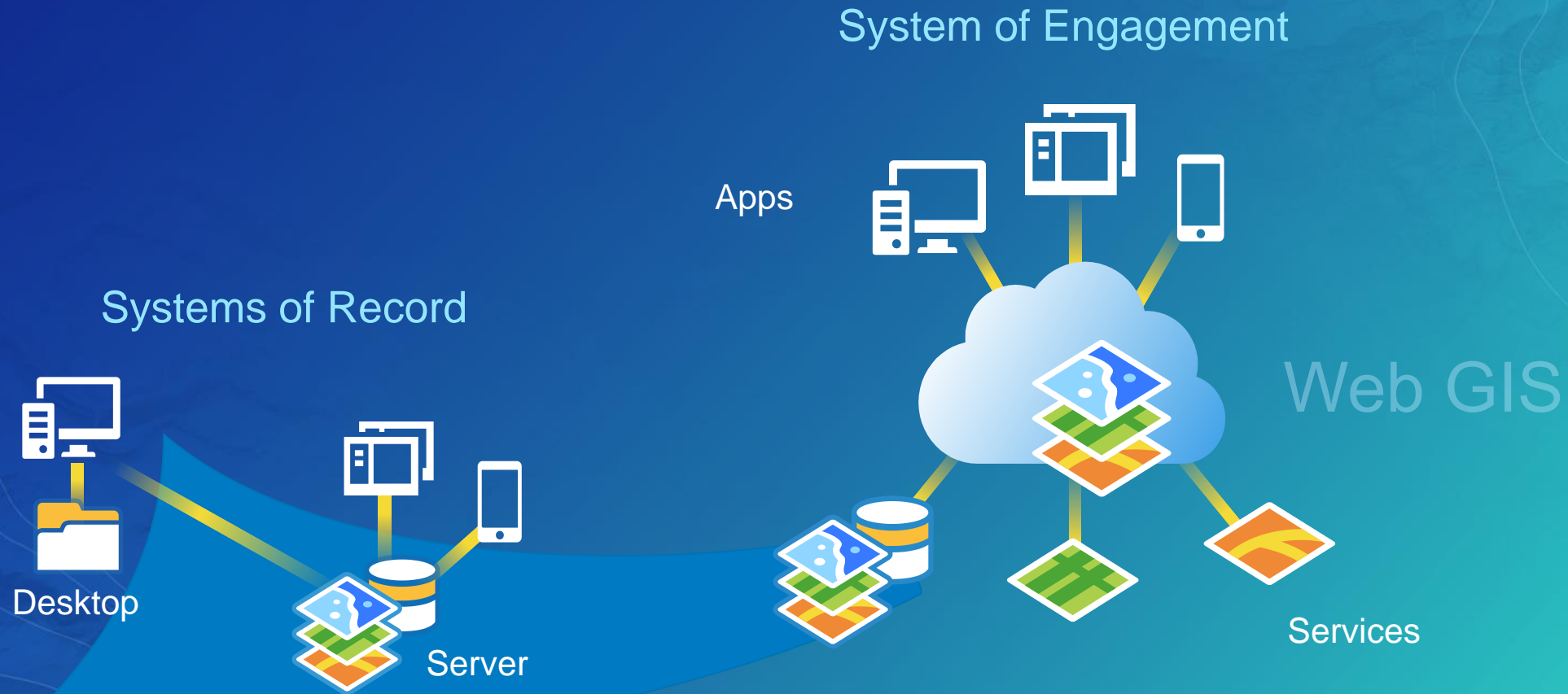
Esri Defense Mapping

EXTENSION TO ARCGIS



Esri Defense Mapping

Produce, Manage, and Share Authoritative Content



Esri Defense Mapping

Authoritative Content Producers

Mission Critical Information



*Specification
Driven*



*Quality
Controlled*



*Automated
& Efficient*

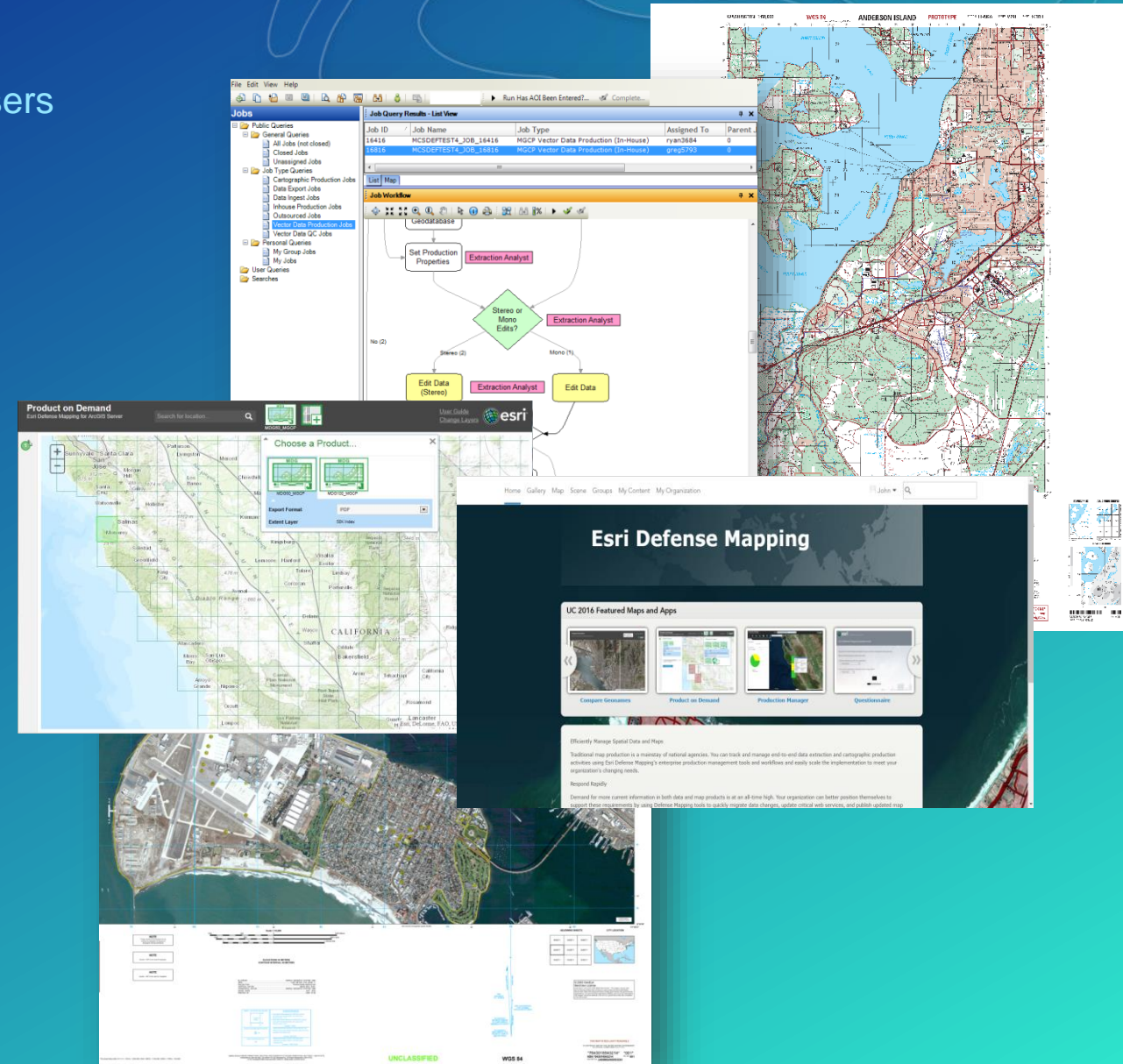


*Standardized
Workflows*

Esri Defense Mapping

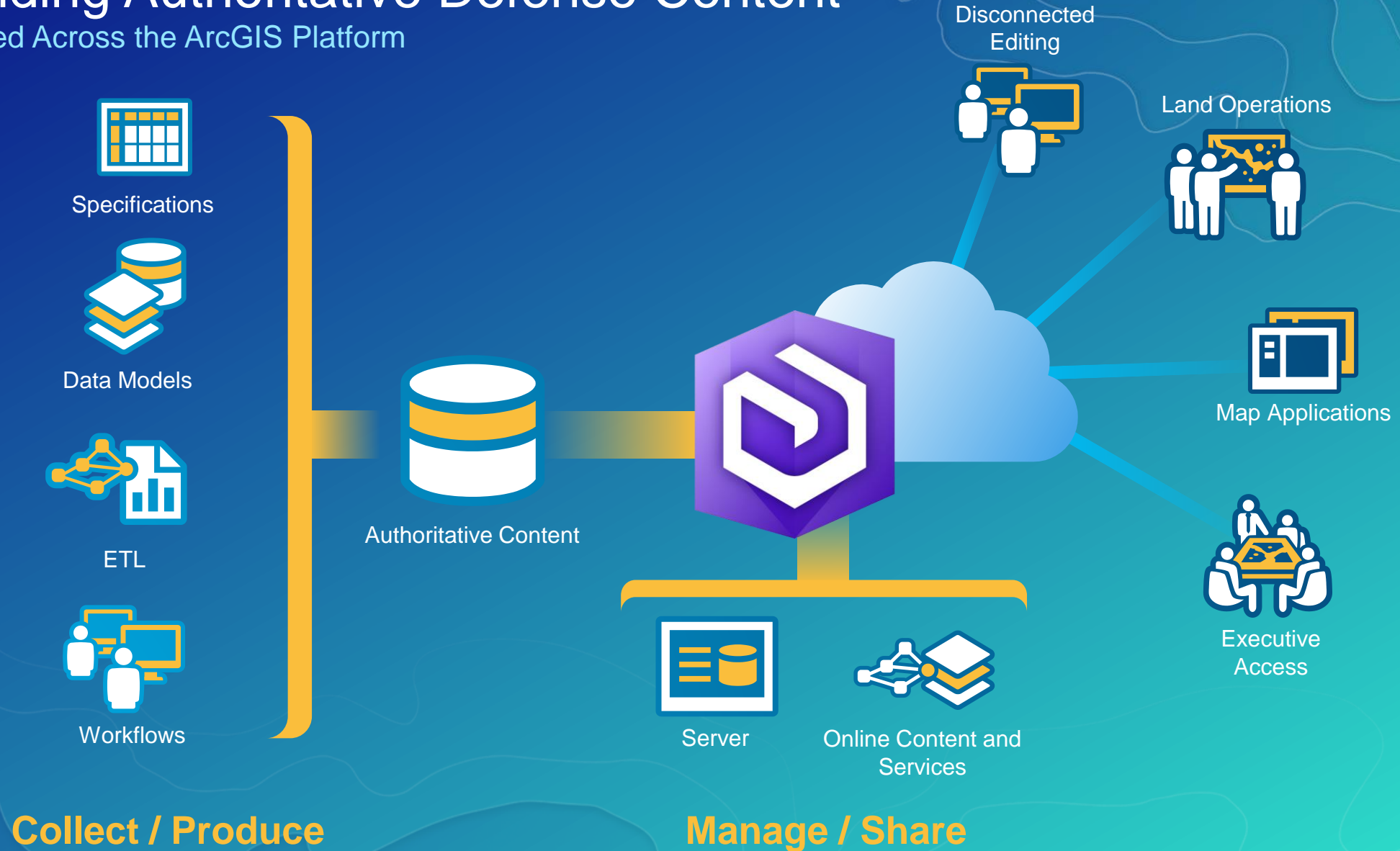
Enabling Defense Authoritative Content Producers and Users

- Defense Mapping as a Platform
 - Produce Authoritative Content
 - Manage Production Environment
 - Share and Collaborate



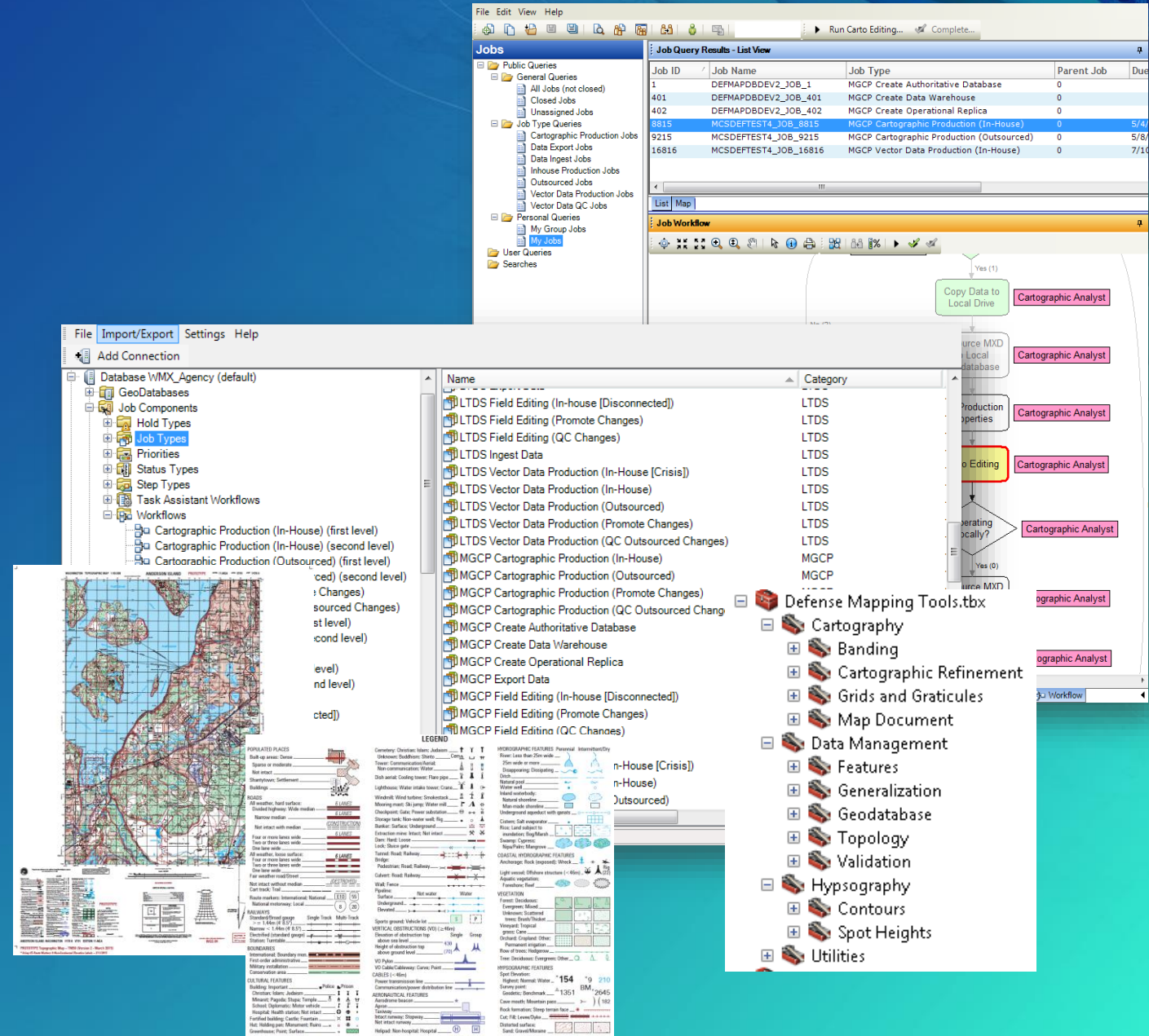
Providing Authoritative Defense Content

Integrated Across the ArcGIS Platform



Defense Mapping in ArcMap and ArcCatalog

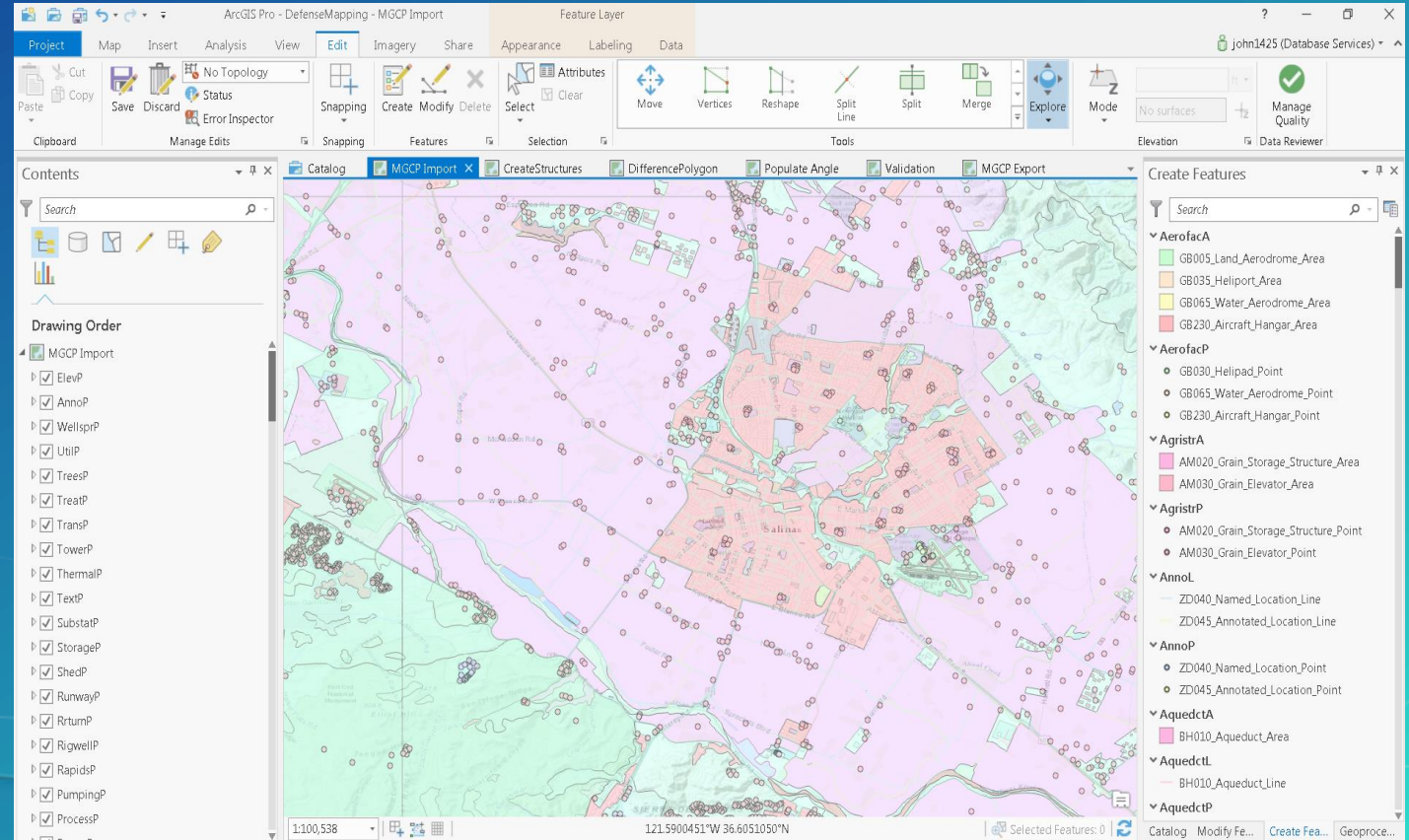
- Specifications
- Geoprocessing Tools
- Predefined Edit Templates
- Quality Assurance/Control
- Defense Cartographic Symbolology



Esri Defense Mapping

Defense Mapping in ArcGIS Pro 2.0

- Data Ingest
- Data Collection/Maintenance
- Data Validation
- Data Dissemination



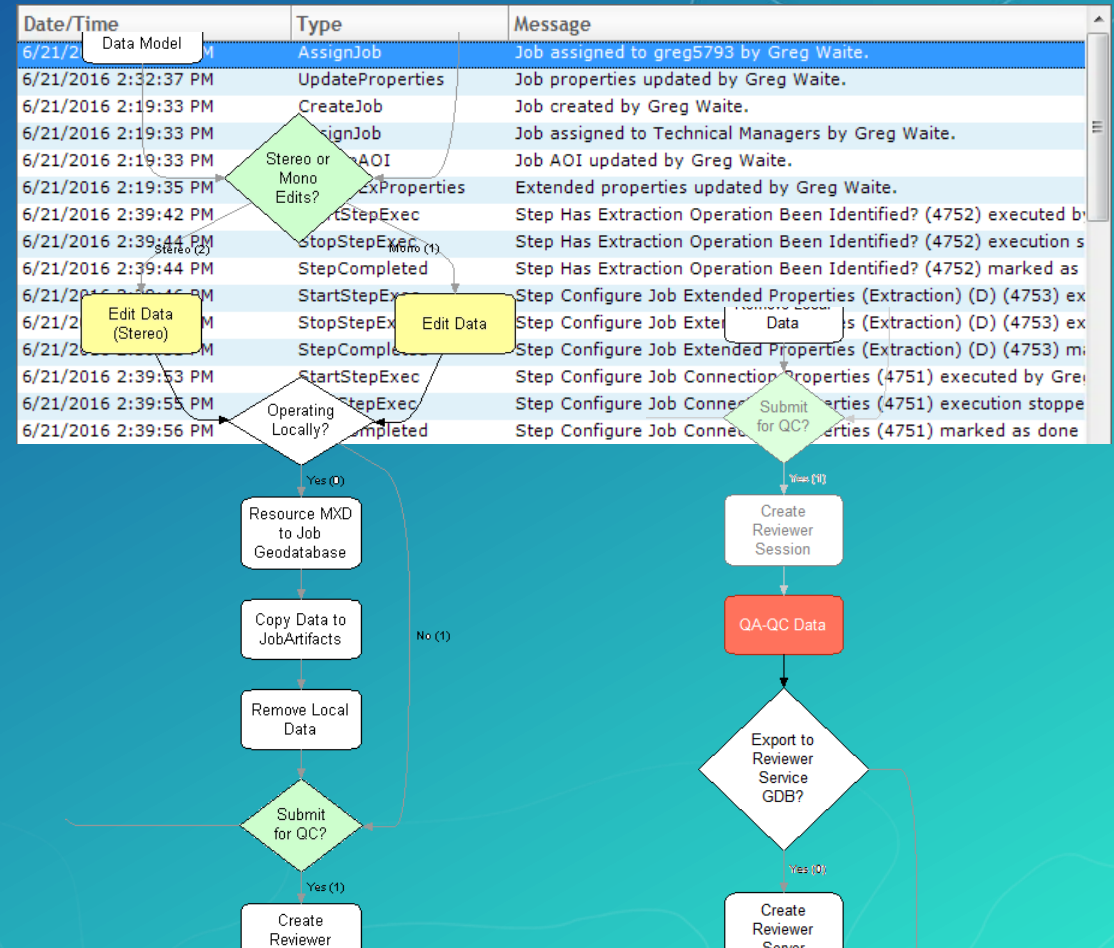
Enterprise Production Management

INTRODUCTION TO THE EPM SOLUTION

Enterprise Production Management

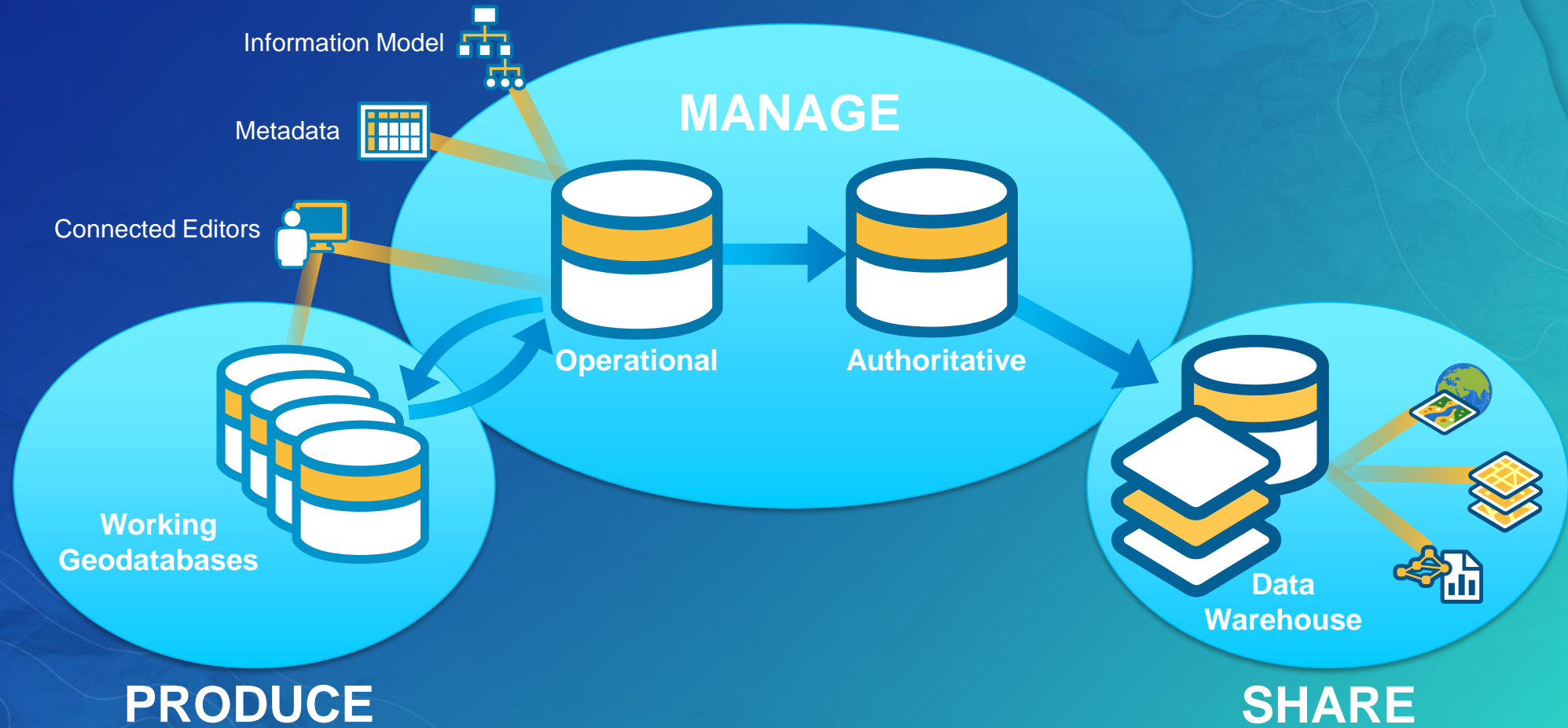
Objectives of the Enterprise Production Management (EPM) Solution

- Using workflow driven systems to:
 - Increase productivity through:
 - Preconfigured and repeatable processes
 - Simplification and automation
 - Build in quality through:
 - Process control/configuration management
 - QA/QC process enforcement
 - Accountability
 - Manage the workforce



Enterprise Production Management

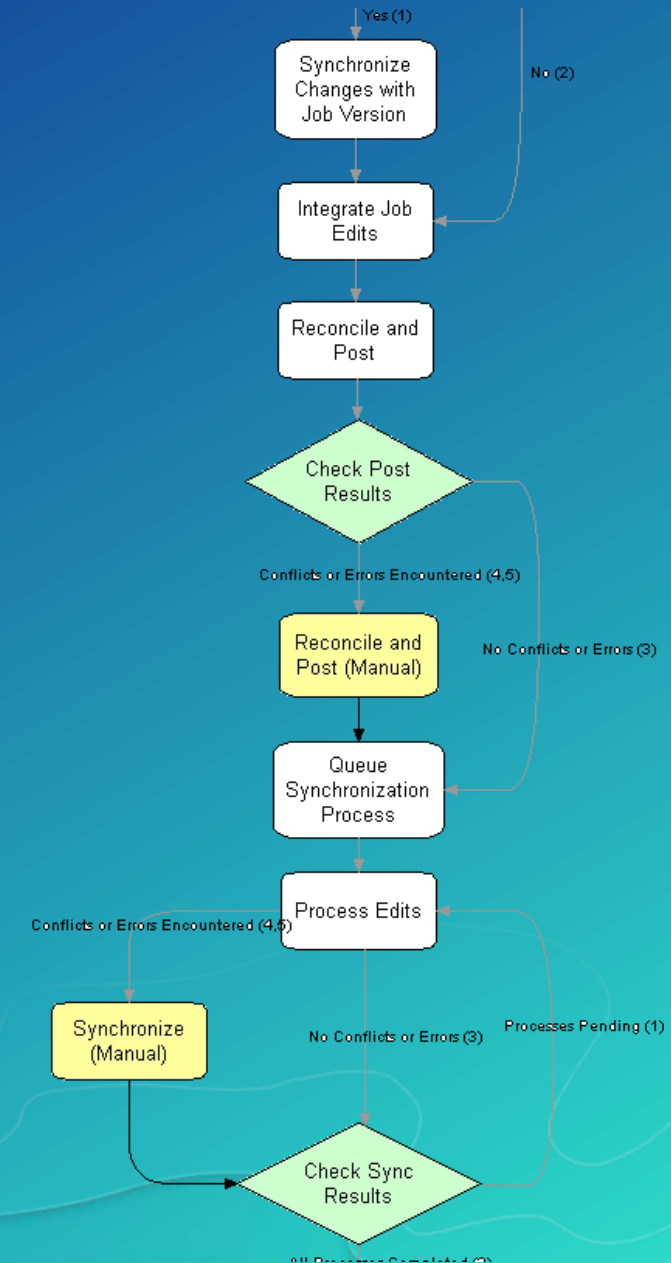
Enterprise Data Management



Enterprise Production Management

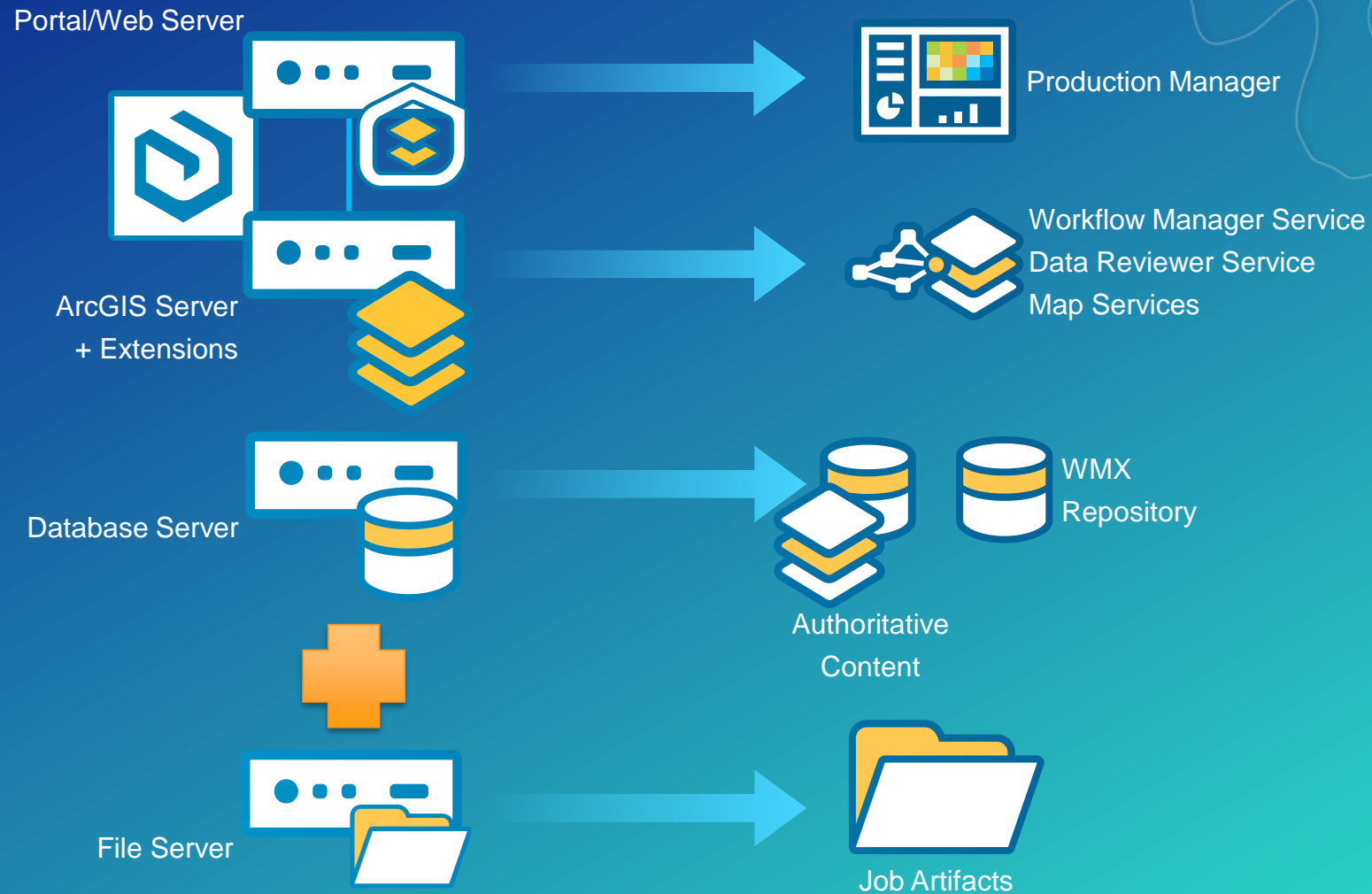
Replication, Versioning, and Data Promotion

- Fully automated process
 - Creating and synchronizing replicas
 - Creating and deleting job versions
 - Posting changes to the default version
- Required to ensure only valid data is promoted



Enterprise Production Management

Minimum Deployment Pattern



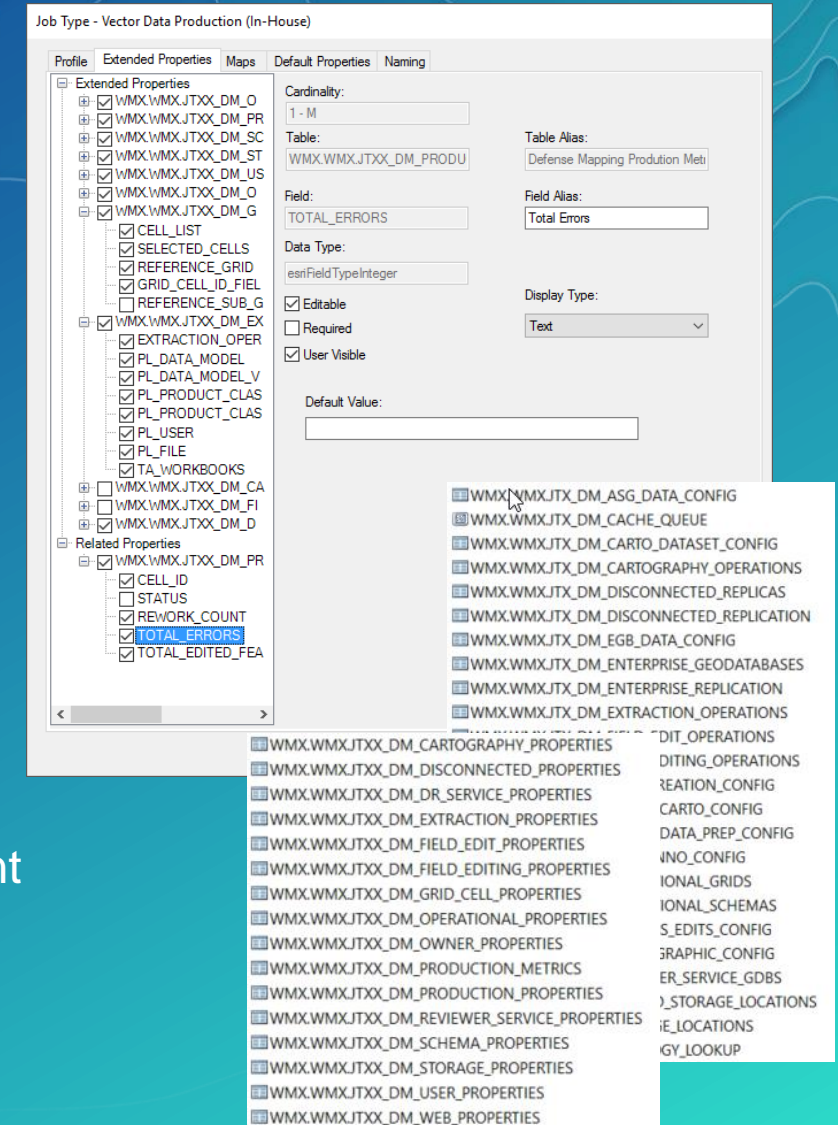
Configuring the Environment

SETTING UP THE WORKFLOWS TO MANAGE YOUR ENTERPRISE

EPM System Tables

Extending the WMX Repository for EPM

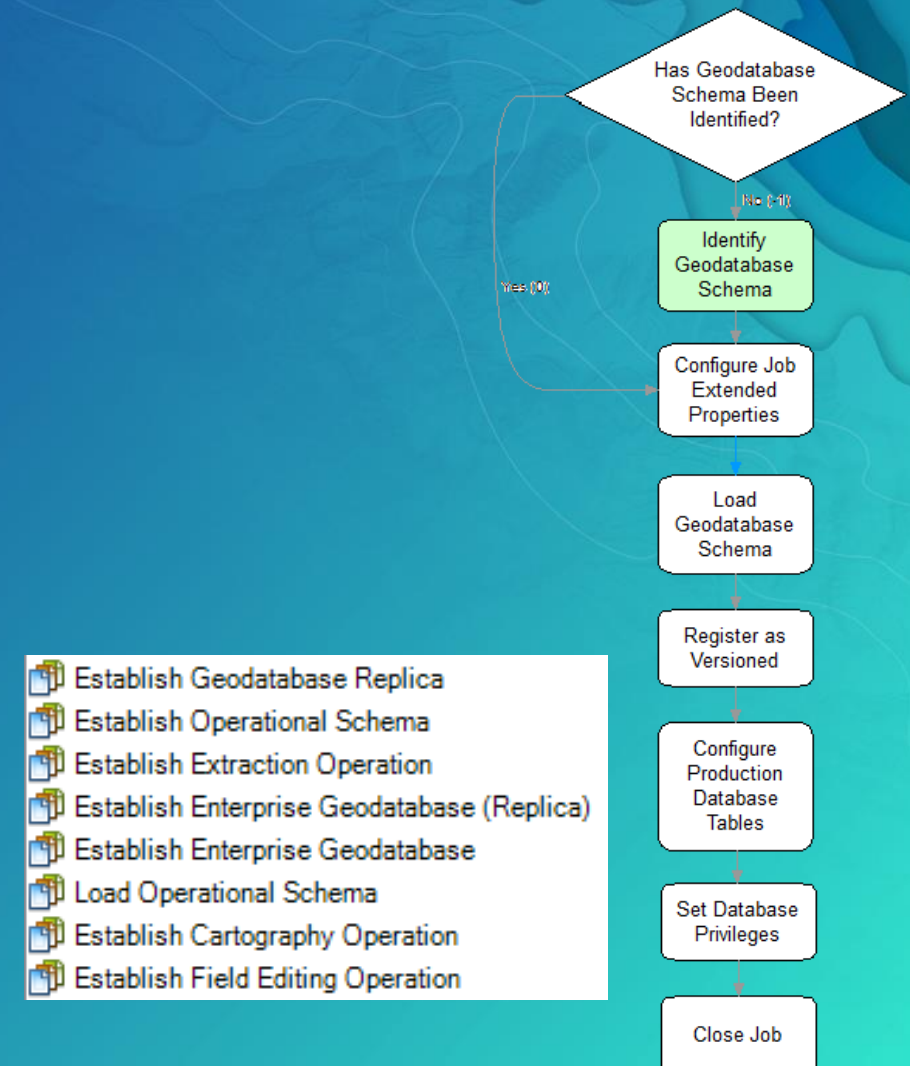
- Additional repository tables required to
 - Manage enterprise configuration information
 - Enterprise geodatabases
 - Shared storage locations
 - Schemas
 - Replicas
 - Operation type
 - Record information gathered during workflow execution
 - Control workflow logic through token argument string replacement
- Loaded after establishing the initial WMX repository tables
 - But prior to importing the WMX configuration file



EPM Management Job Types

Using Workflows to Configure your Enterprise Environment

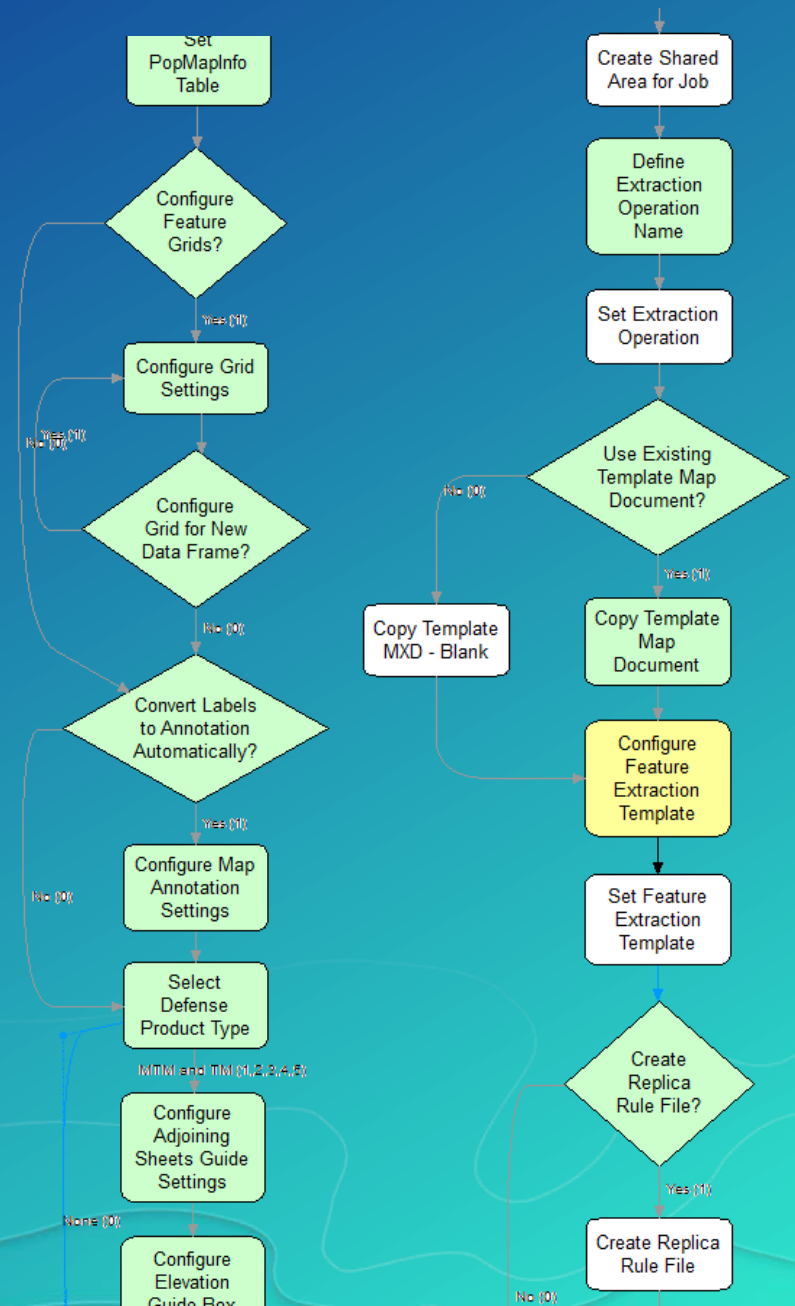
- For new enterprise implementations:
 - Simplify and automate your enterprise configuration
 - Establish enterprise components using best practices
- For existing enterprise users:
 - Record existing components for use with EPM
 - Control established processes in well defined workflows



Introducing Operation Types

Reducing Workflow Management Overhead

- Use a single workflow and job type for multiple use cases
 - Eliminate redundancies in your workflows
 - Simplify the job types available to users
- Management job types used to configure system information
- Operations can have unique:
 - Map templates
 - Product libraries
 - Replicated versus extracted data sources
 - Cartographic configuration options



Create Job(s)

Job Type: Establish Extraction Operation

Job Properties

Assignment: G.C. Rice

Start Date: ☒ 7/10/2017

Due Date: ☒ 7/15/2017

Data Workspace: [None]

Parent Version: ...

Priority: 0 (Low)

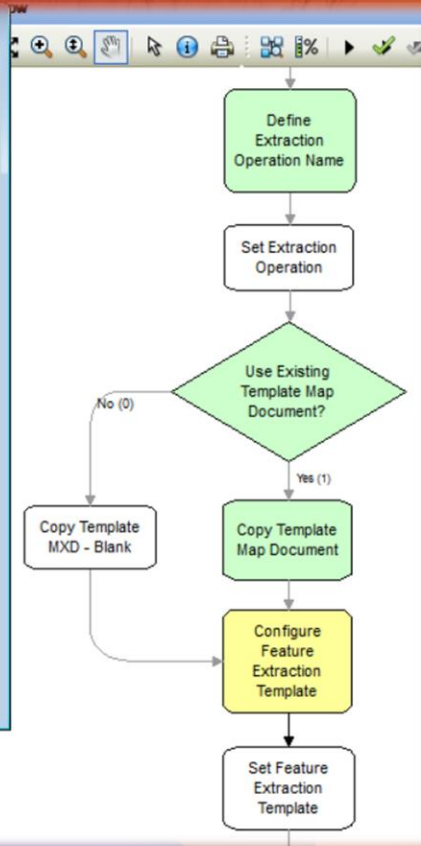
Parent Job: ...

Job Description:

Job Owner: G.C. Rice

Job Name: ☐ Prefix
☐ Suffix

Advanced... Creating 1 job(s). OK Cancel

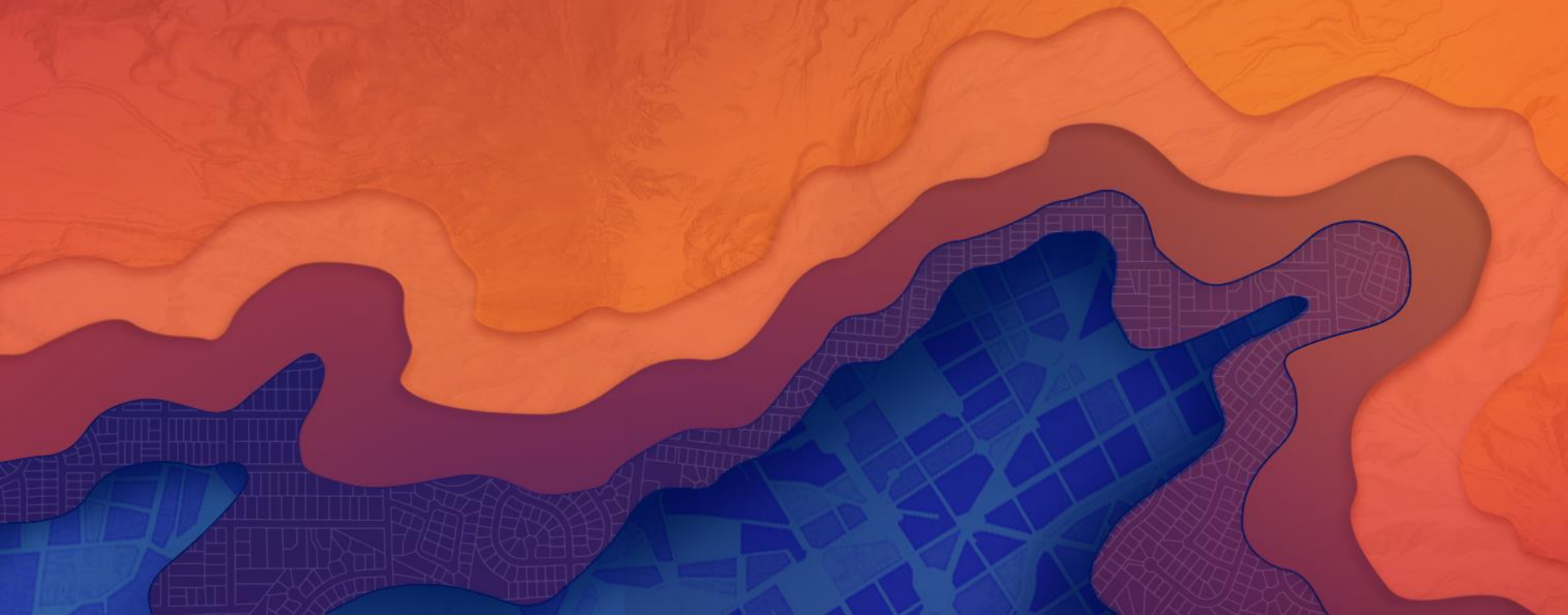


Demonstration

DEFINING A NEW EXTRACTION OPERATION

Beyond the Desktop

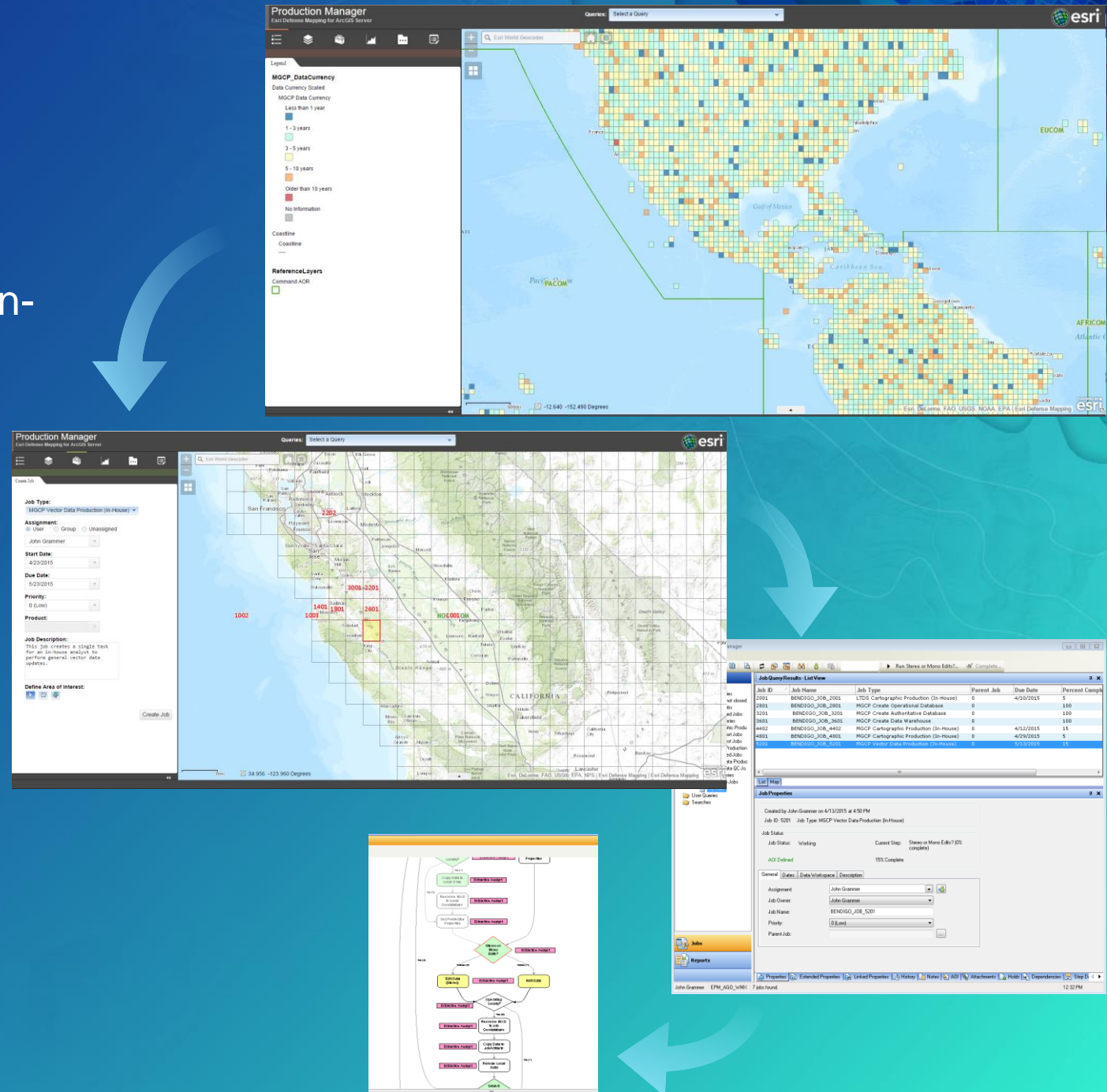
SUPPORTING NON-GIS BUSINESS MANAGERS



Production Manager

A thin client for EPM

- Extend support to non-GIS and/or non-ArcGIS users
- Visualize live production status information including error reporting
- Create and manage jobs
- Mashup WMX derived layers with other operational layers
- Improve decision making regarding resources and schedule
- Decrease production cycle time and increase visibility
- Control access using ArcGIS Portal



Production Manager

Available with Esri Defense Mapping for Server

- Share Production Manager with your organization
- Create maps in ArcGIS Portal
- Share your maps using the Production Manager app
- Configure the app to support your line of business

The screenshot displays the ArcGIS Portal interface for the 'Production Manager for Esri Defense Mapping' application. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, My Content, and My Organization. The application title 'Production Manager for Esri Defense Mapping' is prominently displayed. Below the title, there is an 'Overview' tab and a 'View Application' button. The application is described as a 'Web Mapping Application' created by 'esri_apps' on December 1, 2015. The description states that the dashboard provides a modern centralized application for efficiently prioritizing, synchronizing, and managing production jobs across business units and domains. It also mentions the ability to track, monitor, and report on work status. The 'Details' section shows 0 ratings, 10 views, a size of 1 KB, and a purpose of 'Ready To Use'. The owner is 'esri_apps'. The tags include 'production, manager, PM, jobs, tracking'. The URL is 'https://defensemapping.esri.com/portal'. At the bottom, there are 'BACK' and 'CANCEL' buttons.

Home Gallery Map Scene Groups My Content My Organization portal

Production Manager for Esri Defense Mapping

Overview

Prioritize, synchronize, and manage production jobs across your business units and domains.

by esri_apps
Last Modified: December 1, 2015

Web Mapping Application

Add to Favorites

View Application

Share

Details

0 ratings, 10 views
Created: December 1, 2015
Size: 1 KB
API: JavaScript
Purpose: Ready To Use

Owner
esri_apps

Tags
production, manager, PM, jobs, tracking

Credits (Attribution)
No acknowledgements.

URL
https://defensemapping.esri.com/portal

Create a New Web App

Configurable Apps Web AppBuilder

Select a configurable app.

Search

Production Manager for Esri Defense Mapping

Public Information

Simple Map Viewer

Simple Scene Viewer

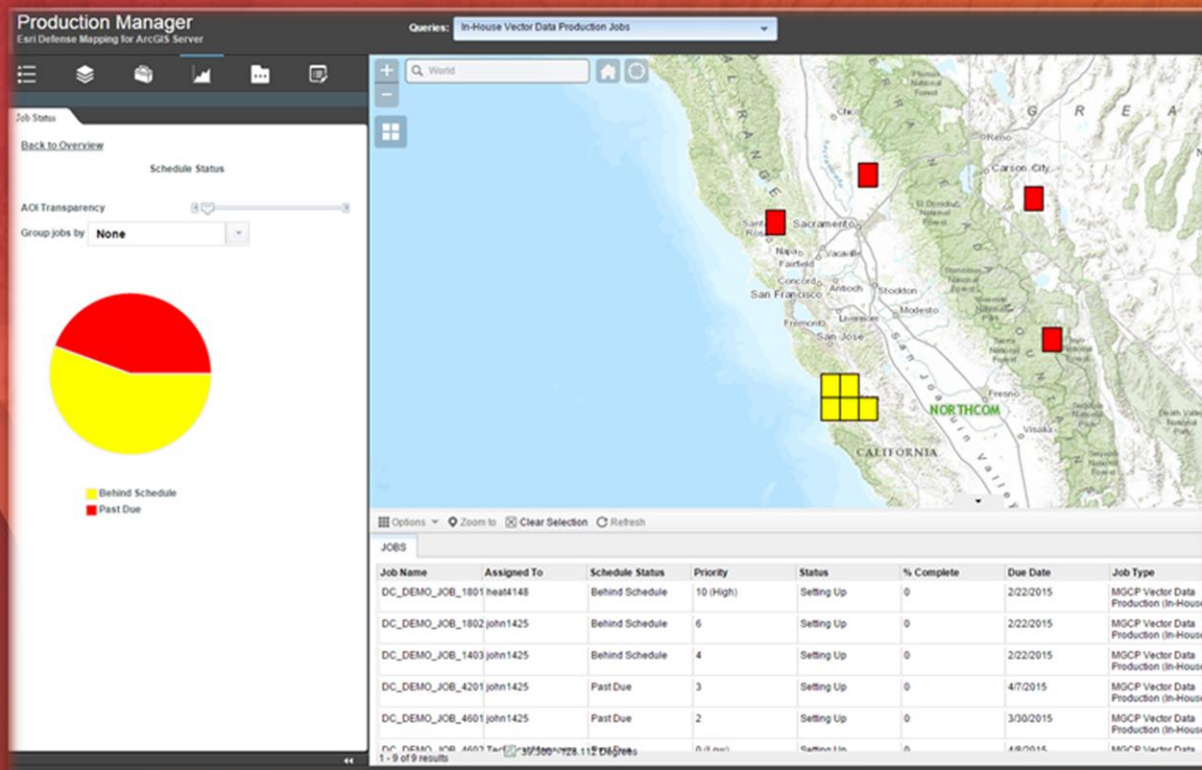
Story Map Basic

Story Map Cascade

Story Map Journal

Story Map Series

BACK CANCEL



Demonstration

PRODUCTION MANAGER APPLICATION

The Production Workflows

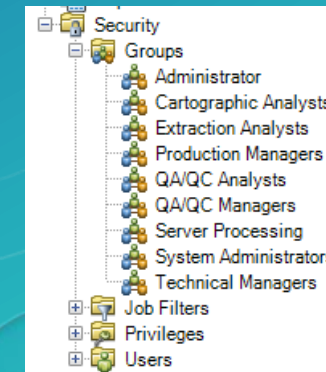
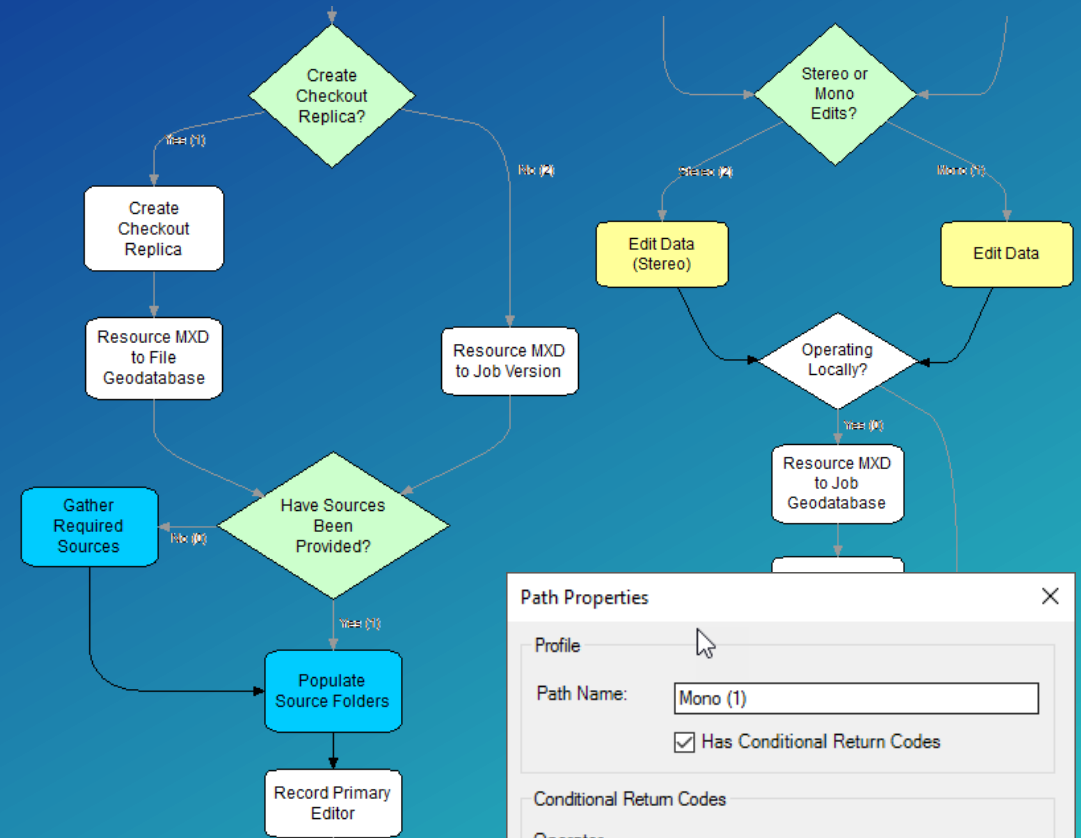
ENFORCING STANDARDIZATION OF COMMON PRACTICES



The Production Workflows

Introduction to the workflow environment

- Categorized by general business process
 - Vector Data Production
 - Cartographic Production
 - Field Editing
- Executable by assignment
 - Controlled by group access
- Color coded steps for ease of use
- Branching and step continuation based on return value



Path Properties

Profile

Path Name: Mono (1)

☒ Has Conditional Return Codes

Conditional Return Codes

Operator: =

New Return Code: 0

1

Add Remove

Assignment: Extraction Analysts

Status:

OK Cancel

Stages of Production

Based on common industry practices





Demonstration

EPM VECTOR DATA PRODUCTION
WORKFLOW

Web GIS

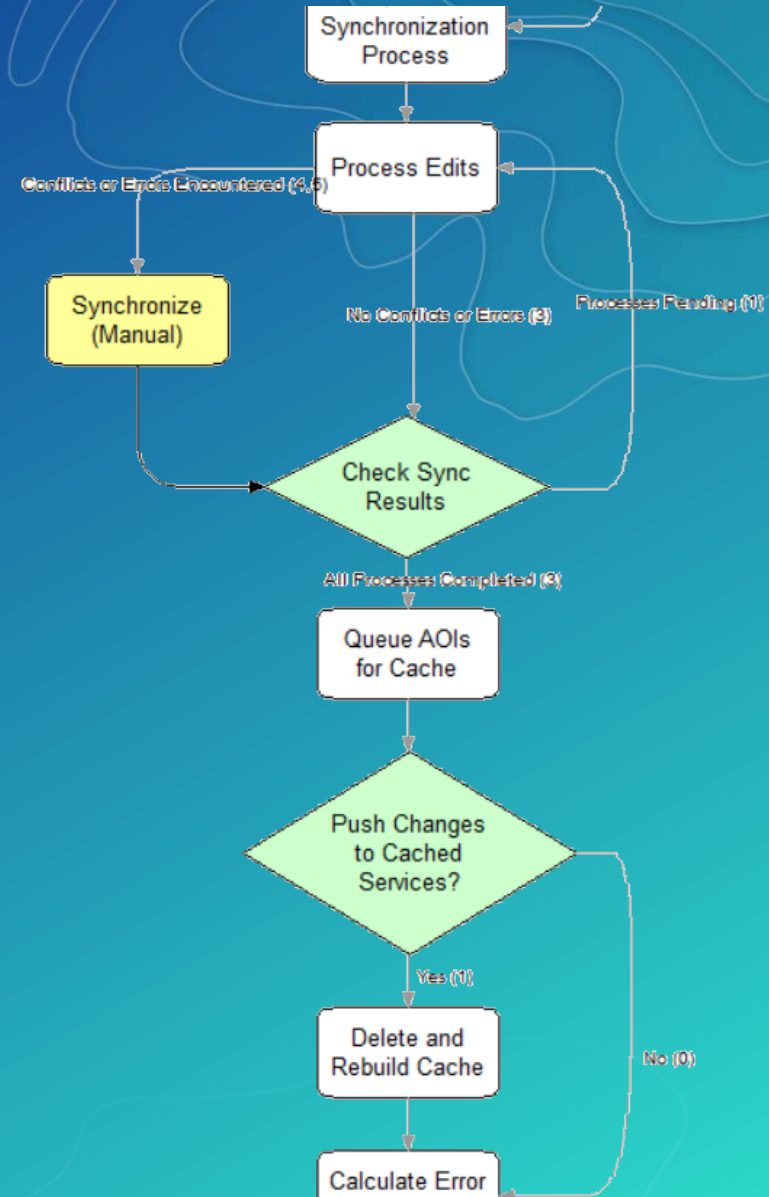
AUTOMATING SUPPORT FOR CRITICAL SERVICES



Integrating EPM into Web GIS

Automated updates of critical web services using EPM

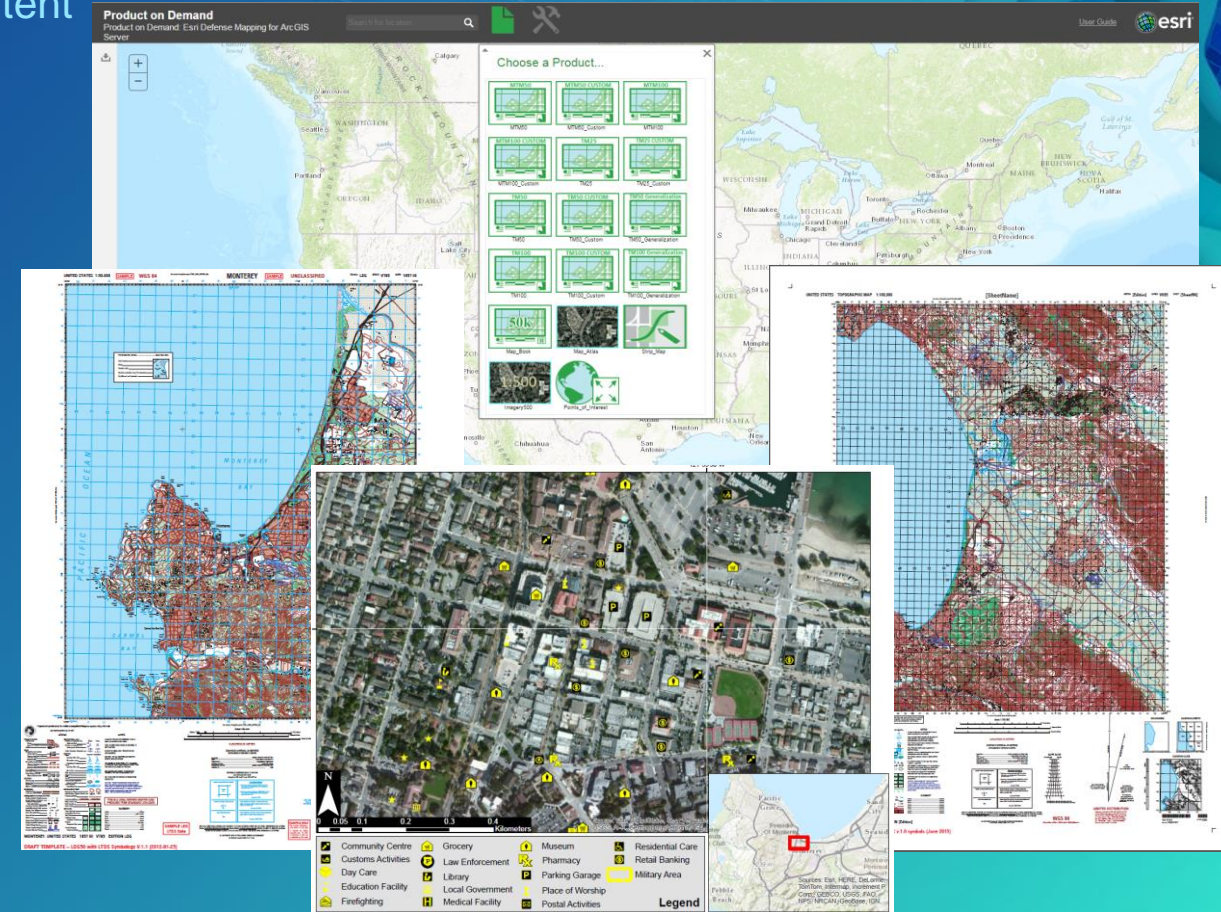
- Dynamic Services
 - Updated immediately through synchronization
- Cached Services
 - Updated nightly or immediately through workflow
 - Record area of change
 - Queue job changes for cache
 - Track cache status
- Fully automated processes

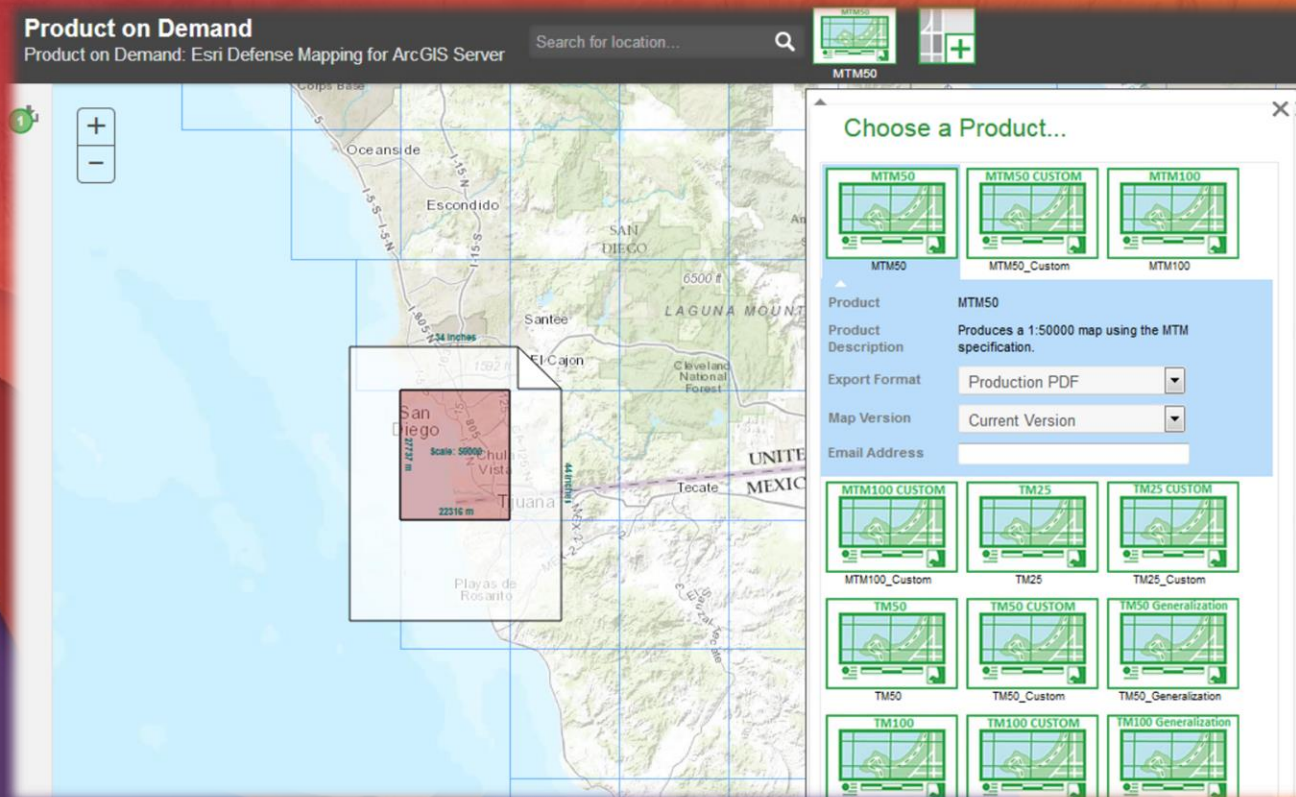


Defense Product on Demand

Generating fit-for-use products directly from authoritative content

- High-end cartography over the web
 - Vector/high resolution output
 - Standardized map products
 - Symbology
 - Scale and extent
 - Map sheet boundaries
 - Page layout
- Incorporating Defense cartographic workflow:
 - Cartographic process
 - Standard Defense Products
 - Configurable





Demonstration

SUPPORTING DYNAMIC
SERVICES AND APPLICATIONS

Please Take Our Survey on the Esri Events App!

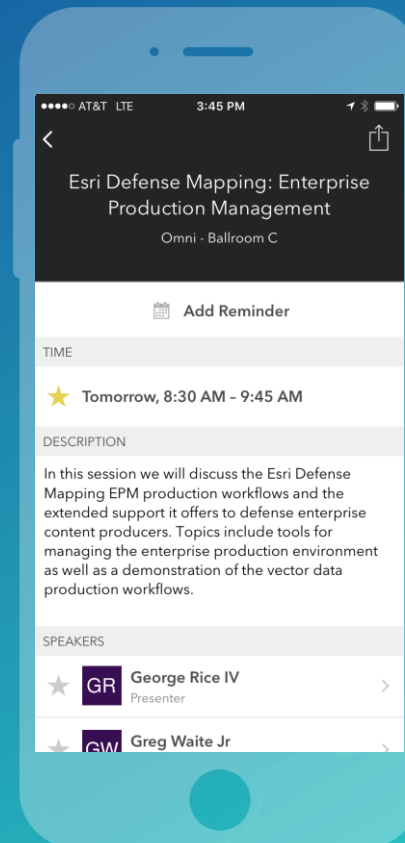
Download the Esri Events app and find your event



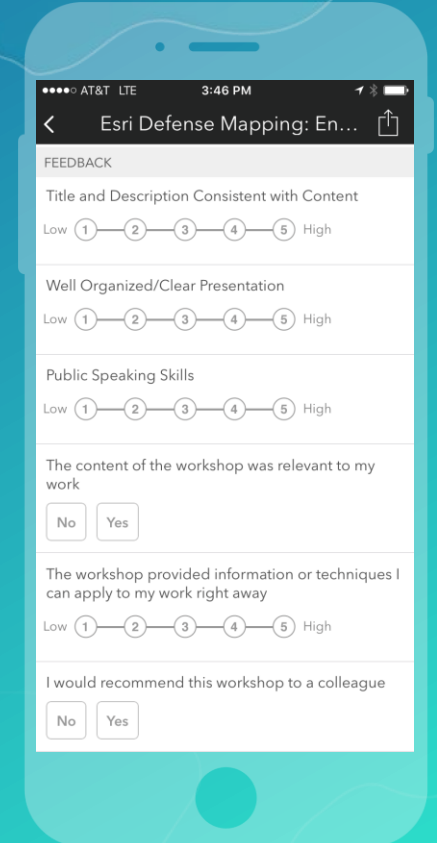
Select the session you attended



Scroll down to find the survey



Complete Answers and Select "Submit"



Esri Defense Mapping Team

Esri User Conference 2017

- Esri Showcase, Defense and Intelligence, SDCC Exhibit Hall B1
 - Tuesday 9:00 am – 6:00 pm
 - Wednesday 9:00 am – 6:00 pm
 - Thursday 9:00 am – 1:30 pm
- Support & Demos
- Technical Workshops
 - Esri Defense Mapping: Cartographic Map Production
 - Wednesday, 8:30 am – 9:45 am, Omni – Ballroom D
 - Esri Defense Mapping for Server: Defense Product on Demand
 - Thursday, 1:30 pm – 2:45 pm, Omni – Ballroom C

Want to learn more?

Online Resources

- Documentation
 - [Esri Defense Mapping](#)
- Training
 - [Introduction to Esri Defense Mapping](#)
- Resources
 - [ArcGIS Help: Esri Defense Mapping](#)
 - [GeoNet: Esri Community Forum](#)

Questions



esri

THE
SCIENCE
OF
WHERE