

“Keeping it Tight” Integrating ArcGIS & SAP

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Overview

- **Bespoke SAP/GIS Solutions**
 - Common Solutions & Business Benefits
- **Case Study – NTG Asset Management**
 - Requirements Blueprint
 - Solution Architecture
 - Challenges
- **“Keeping It Tight”**
 - GEO.e
 - Tight SAP/GIS integration

Common Business Benefits

- High-value insight for both operational and strategic decision making
- Improved internal and external customer service
- Extensive power to leverage spatial data with your reporting analytical capabilities

Common Solutions

- **Most common ways to integrate GIS with SAP**
 - SAP RFC Connectors
 - BAPI Connectors (Business App. Programming Interface)
 - Third-Party Connectors
 - SAP Generic GIS Connector
 - Partnered Solutions

Case Study: NTG Asset Management System

Requirements Blueprint



- **Replace Existing Systems**
 - Roads Reporting Website
 - Buildings/Homes Website
- **Added Functionality**
 - SAP Integration
 - Linear asset management
 - Internal Asset Mapping
 - Single-SignOn
 - Mobile

Solution Design

- **Single, configurable Web Application**

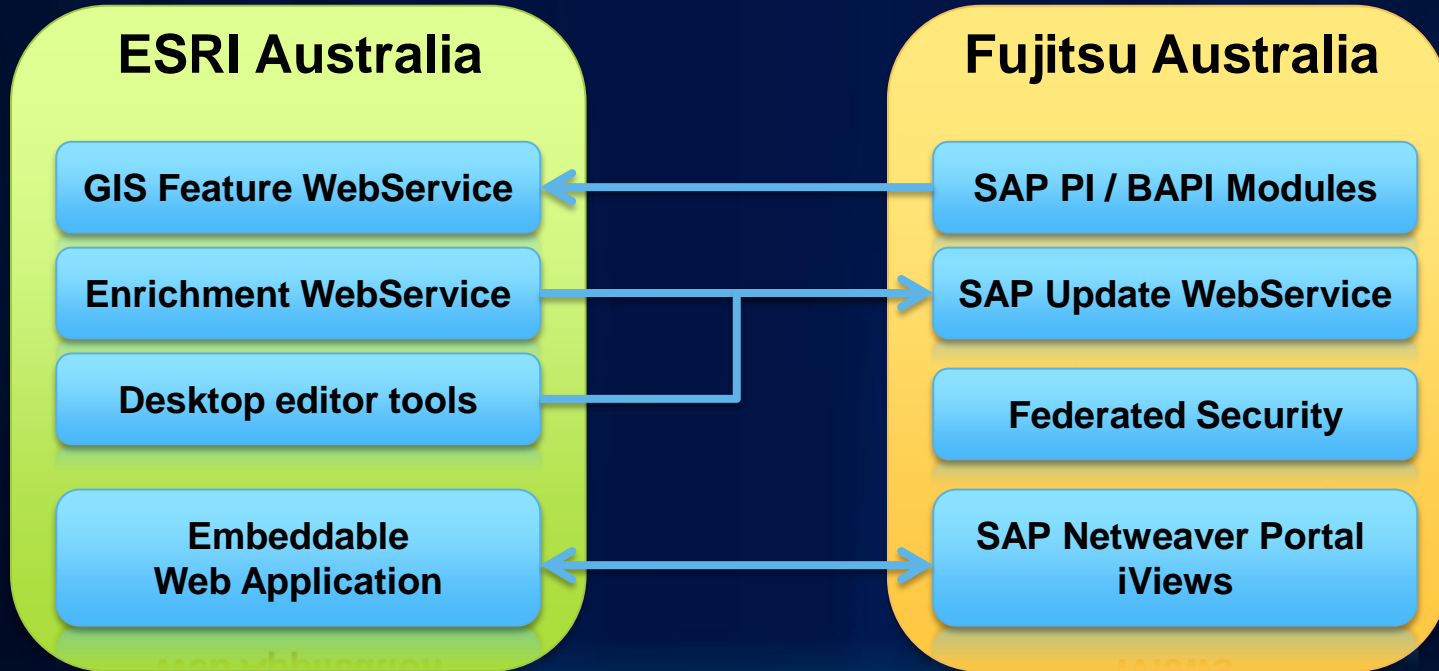
- Multiple implementations
- Dynamic UI
- Functionality defined by role security

- **Highly Decoupled for 3rd Party Integrator**

- SAP is single “Source of Truth”
- SAP Informs GIS of all asset updates
- Assets are Spatially enriched for SAP by the GIS
- GIS stores a replica of assets
- WebServices (SOAP/WSDL) for all Interfaces



Project Architecture



Challenges - Environmental

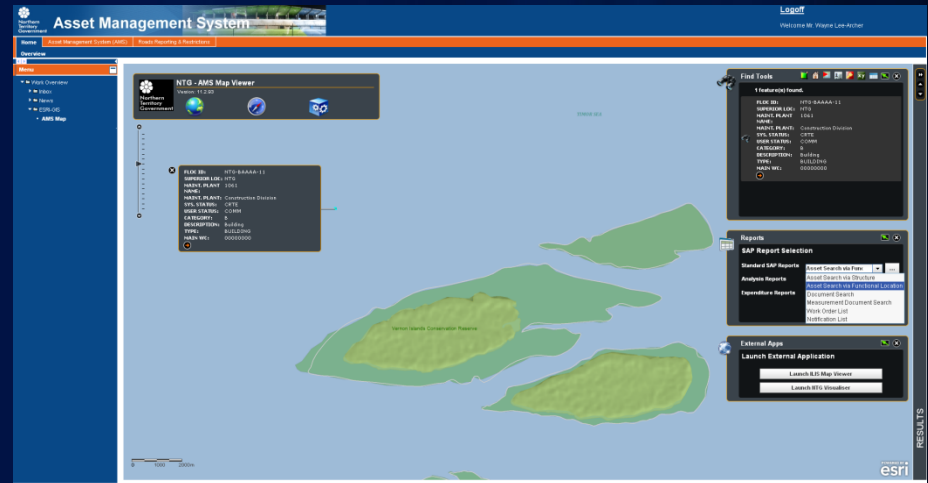
- **Remote Development**
 - Limited local NT resources.
 - Remote deployment and testing.
 - Resource turnover / continuity
- **3rd Party Integration - Fujitsu**
 - Mandated / Maligned business processes.
 - Existing technical boundaries
 - Remote operations / outsourcing
- **Domain Knowledge**
 - Unfamiliar / Complex terminology.
 - Linear Asset Enrichment

Challenges - Technical

- **Single Sign-On in an embedded Web Application**

1. Outer portal does Authentication
2. Token is stored as domain cookie
3. AMS Map is embedded as an IFRAME on a different domain.
4. Same-Origin policy prevents access to token!

10+ years of Browser Security hardening at work against us!

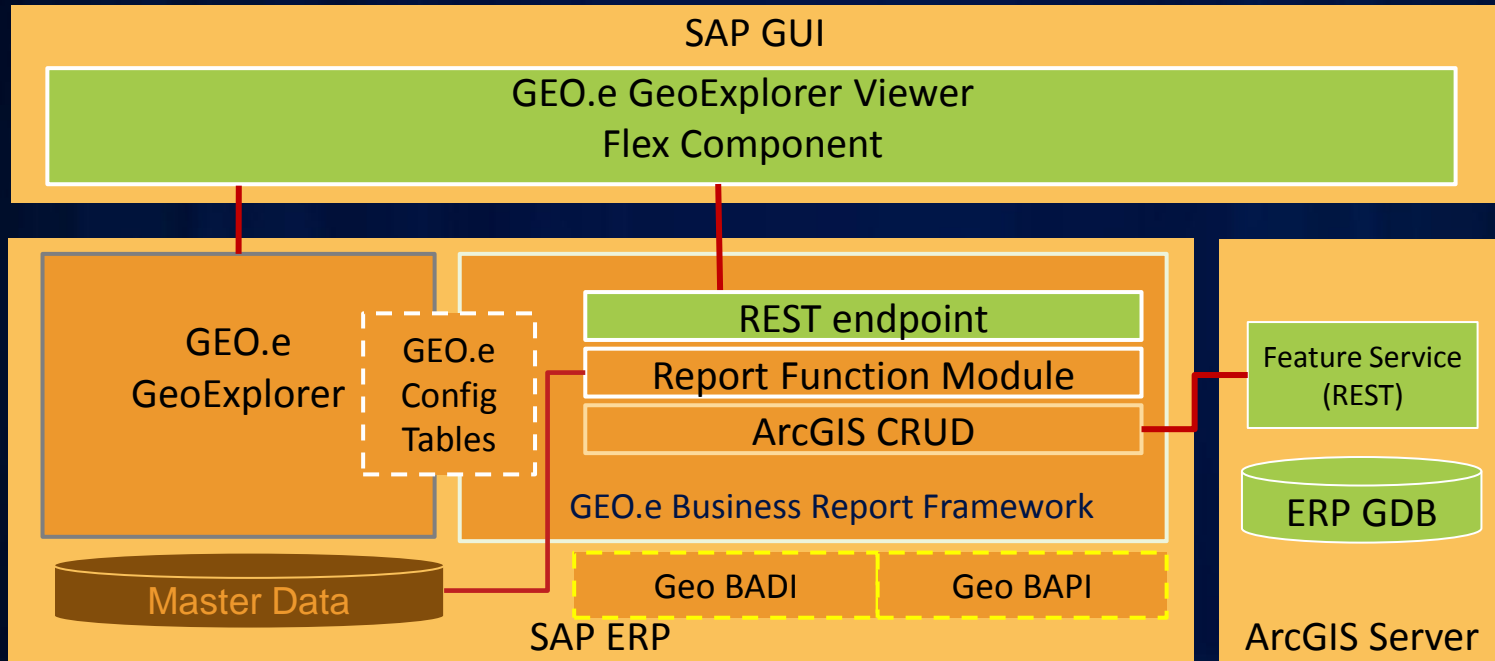


Challenges - Technical

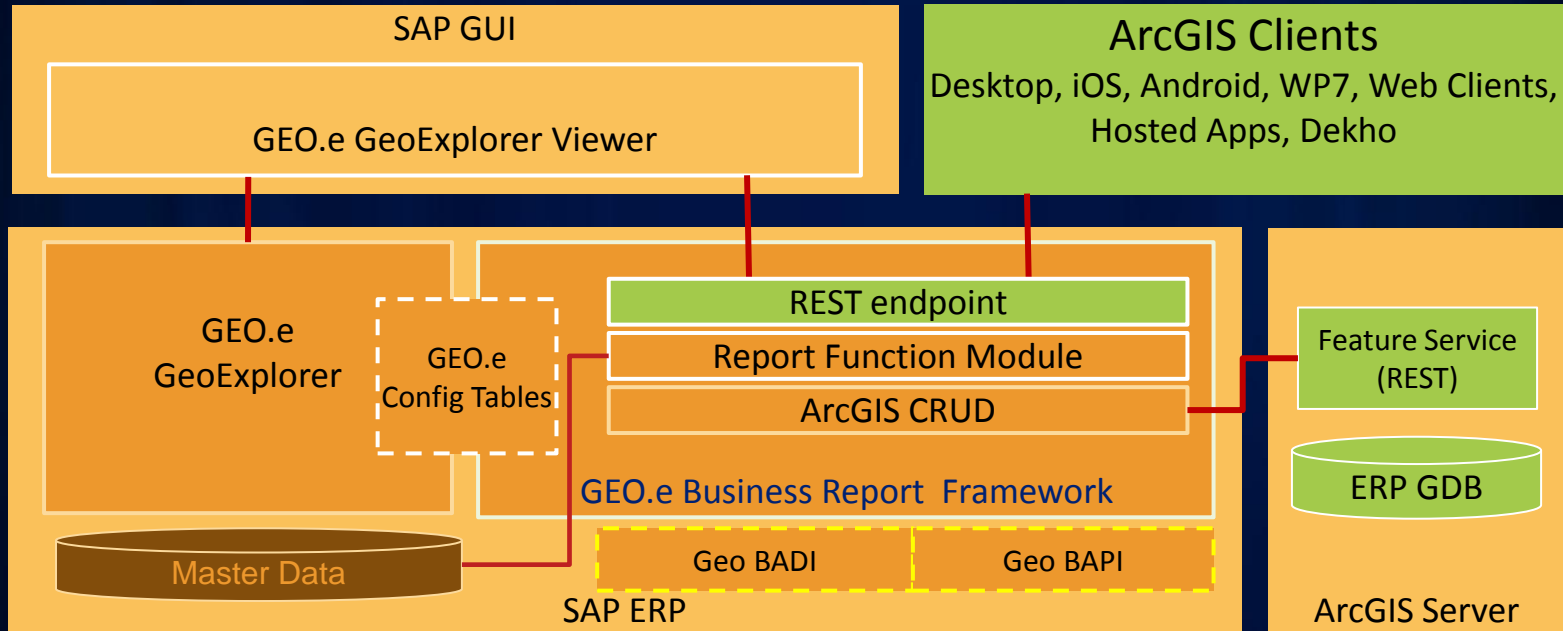
- **WebServices**
 - Partial non-compliance to standards
 - limited WS-* support
 - No Asynchronous Processing
- **GIS Enrichment of Assets**
 - Complex business rules
 - Supports Linear Referencing
 - Time consuming
 - Resource intensive
 - Slows data migration

Demo: GEO.e ... Tight SAP / ESRI integration

GEO.e Simplified Architecture



GIS & GEO.e SAP ERP



-  = Native Esri Components
-  = GEO.e Components

Thank you

Questions?



esri Australia