

Learning Lessons the Hard Way: A Large Utility's Experience Upgrading from 9 to 10

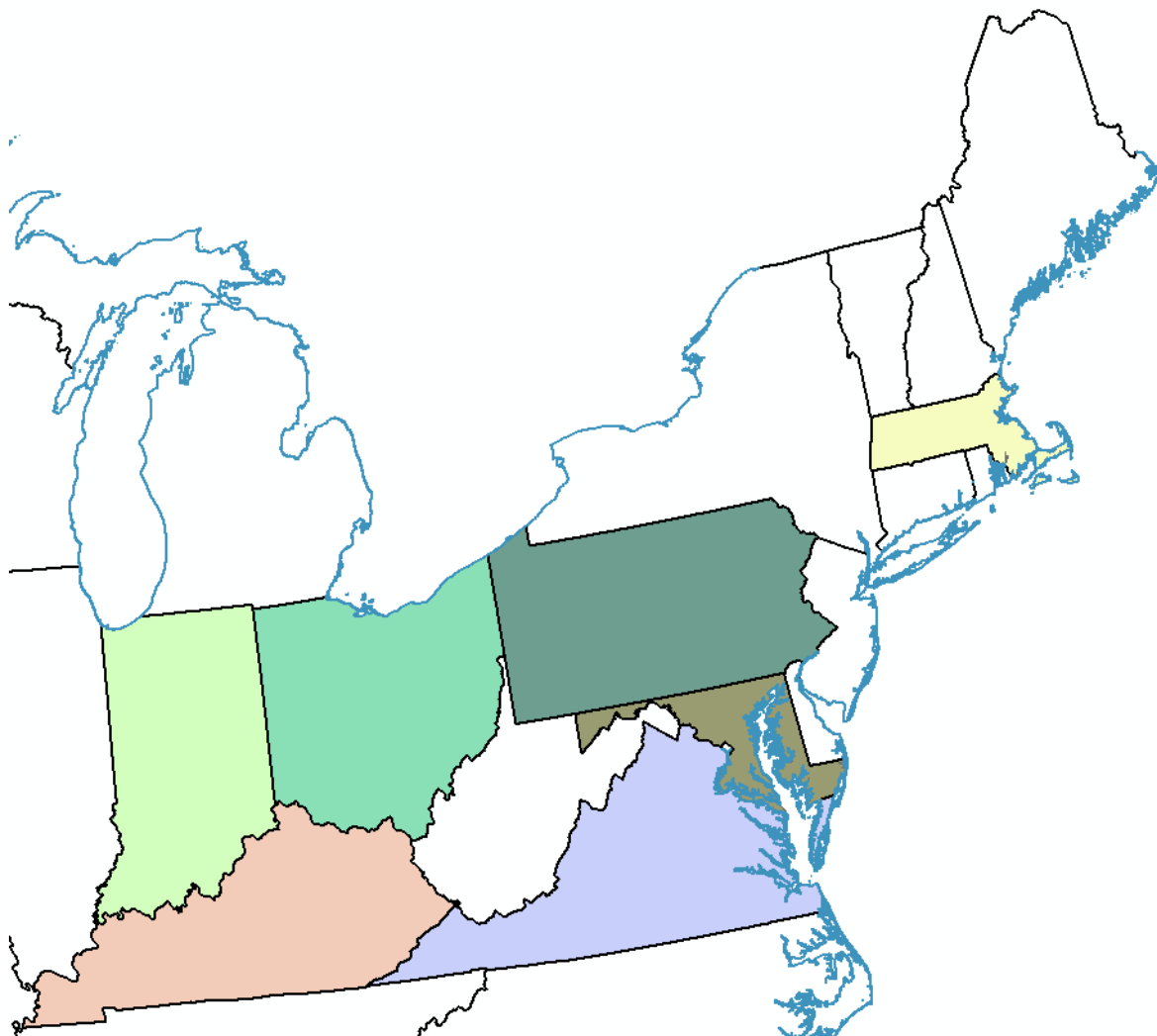
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Esri Electric and Gas User Group
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NiSource



- **NiSource Gas Distribution**
 - 3.3 million gas customers
 - ~ 60,000 miles of pipeline
- **NiSource Electric Operations**
 - 470,000 electric customers
- **Columbia Pipeline**
 - ~15,000 miles of pipe in 20 states

SSP Innovations

- Ten-year old GIS and operations consulting company
- Team of 19 based in the Denver area
- Work exclusively in the U.S. utility/telecom industries
- 100% of our work is performed at utilities that have Esri and Schneider Electric based GIS departments
- Began as a services company – now perform services and offer a line of software products

What and Why?

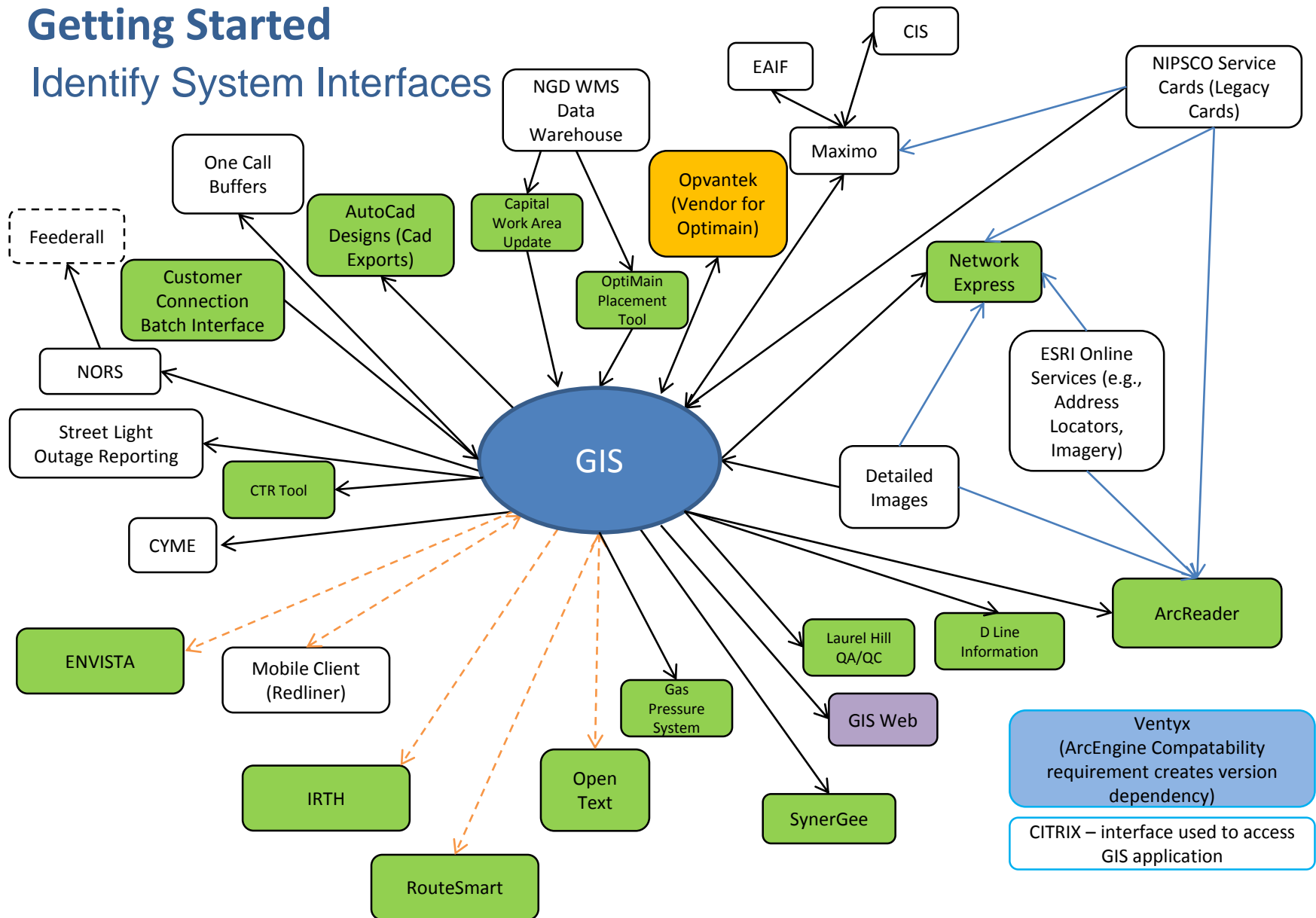
- Application
 - Using ArcGIS 9.2 – non-supported version
 - ArcFM 9.2
 - 220 customized code functions
- Environment
 - Development, Test, Training, and Production Environments
 - Six SDE instances for each environment
 - Age and condition of hardware – replace 7 year old equipment
 - Upgrade server environment from Oracle 10g to Oracle 11g
 - Upgrade Citrix – server hardware and software version
- Timeline
 - Project Kickoff July 2013
 - Scheduled Production Release December 2103

Getting Started

- Identify key stakeholders
 - This is beyond executive sponsors
 - Periodically review membership
 - Key stakeholders influence implementation
- Establish the project team
 - Project manager
 - Business analyst
 - Testers
 - Trainers
 - Technical experts & technical support
 - Corporate

Getting Started

Identify System Interfaces



Ventyx
(ArcEngine Compatibility requirement creates version dependency)

CITRIX – interface used to access GIS application

Testing

- Make sure to have enough time for user acceptance testing
- Tests describe steps and expected results

Step 1	Log into ArcFM with a user ID that does not have the authorization to create system stored displays.	Log into ArcFM
Step 2	Do not open a session	Blank map opened.
Step 3	Add the data to your TOC that you want to work with	Selected features on display
Step 4	Set up the symbology that you want	Symbology used
Step 5	Build and turn on labels	Symbology viewed
Step 6	Group the Table of Contents (TOC)	TOC organized
Step 7	Pan and zoom to create a screen area to save as a stored display	View reflects proper zoom and view
Step 8	Select Stored Display	Will get a dialog to save system stored display
Step 9	Set Type to System so that others can use it.	Display type is System
Step 10	Click on Save	Error message that user is not authorized to create a system stored display
Step 11	Log out of ArcFM.	Logged out.

- Detailed documentation for failed tests
- Retain test scripts

Testing

- Test individual functions
- Business process testing in addition to functional testing
- Include batch processes (non-human factor)
- Test in the environment in which the users will operate
- Going live with unresolved defects

Migration

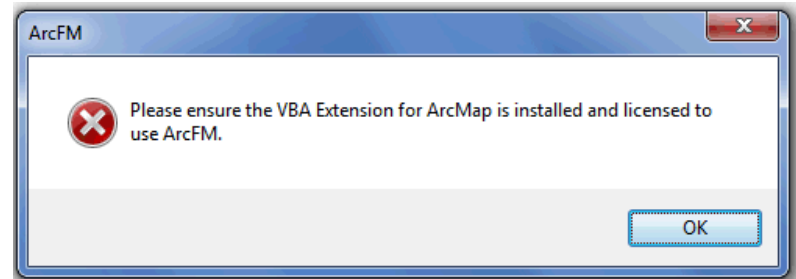
- You do not need to be at State 0! ★
- If you are on 9.2 to go to 10.x, you must first upgrade to 9.3
- Minimize customizations
- Migration of data is impacted by the number of versions, sessions, and user documents

Migration

- Dry run for data loads.
 - Comprehensive cut over plan
 - Know who is expected to do what and when
- Validation
 - Data comparisons
 - Feature counts
- Go/no-go meetings
 - In the end it provided good input
 - Also provided overall buy in
 - Stakeholders need to participate

Other Advice

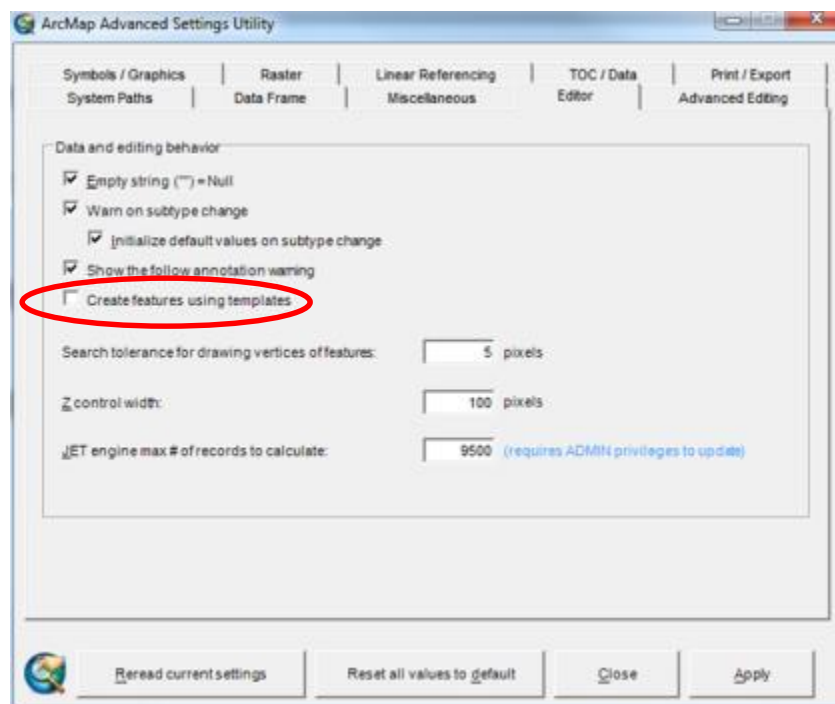
- Esri's Visual Basic Extension Required for ArcFM 10.1
 - Obtained via Esri customer support



- Issue migrating user stored displays containing joins and relates
 - Join points to the table in the SDE database from which migration is occurring
 - Repair joins to point to the table in the newer SDE database
 - Best solution is to reload the system stored display while in the session and save the session

Other Advice

- Geodatabase Manager (GDBM)
 - Monitor the queue initially
 - Consider prioritizing queue processes
- Esri QIP
 - The Esri QIP made a HUGE difference for us
 - Greatest impact was to the version differences tool
- Esri templates
 - Some of our edit processes use the old editor template
 - Turning it off helped with performance



Deployment

- Training
 - Structured with the assumption that users already had experience with the 9.2 application
 - Content emphasized the differences between the current version and new version
- Avoid the holidays!
 - We planned to go live at the beginning of December.
 - Schedule changes pushed us into mid-January

Celebrate accomplishments along the way



Questions?

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