EMPOWERING TRIBAL GOVERNMENTS WITH ENTERPRISE GIS

Implementation, Support and Solutions

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Back story - In the beginning....

1 machine, 1 GPS, a 15 year old plotter, an antiquated scanner and 10 gigabytes of information

Supported 7 Departments, Sections or Groups

- Reality
- Cultural
- DPS
- Construction
- Public Works
- Environmental
- Education
Back story - Year 1: The Transformation...
Back story - Year 2....
Back story - Year 3....
Back story - Year 4....
Back story - Year 5....
Success Factors...

- Internal Marketing and Networking
- GIS/IT relationship
- Tribal support for hardware
- Documentation

- Personality matters
- Rapport produces confidence
- Confidence creates Commitment
- Commitment forms Foundations
Tribal GIS’ are sometimes cumbersome and frustrating. Design and planning often take a backseat to urgent needs like ad hoc maps or even to perform duties in a non GIS title. GIS ambiguity from Tribe to Tribe can often shadow the path to success. By enhancing vision and strategy, we can administratively steer a standard GIS to an Enterprise GIS. My presentation highlights administrative checkpoints and showcases goals for successfully implementing an Enterprise GIS.
Outline:

- The birth of an enterprise GIS
- Evaluation of an existing system – GIS Physical
- Program design
  - Who x What x Where x Why = How
- Return on investment justification
The Birth of an Enterprise GIS

- ESRI GIS is evolving to meet the needs of technology and customers.
- GIS supports many professions and it is often expected that it is cross compatible through software and hardware.
- ESRI’s vision of GIS for everyone is changing the platform from one to many to many to one.
GIS Physical – Preparing for Enterprise

- Annual exams can be important in maintaining healthy programs
  - GIS infrastructure age
  - Strategic plan updates
  - Business plan development
  - Enhancement planning
  - Sufficient storage (insurance)

How many Tribal Enterprise GIS are in the room? How many are moving towards one?
Designing an Enterprise Solution: The Who

- Evaluate the needs of the organization through a survey that is designed around user input in order to drive the direction of the Tribal GIS.

- The questionnaire can be digital and will assist in writing a GIS management/strategic plan.

- Needs assessments can identify:
  - GIS data requirements
  - GIS functionality/acceptance
  - Human capacity/training
  - Computing infrastructure/IT
Designing an Enterprise Solution: The What -

- A cross platform geographical decision enhancing solution that can communicate with other Tribal Enterprise systems
- ELA licensing –
  - ArcGIS (latest version) with Portal
- Enterprise Geodatabases like SQL or Oracle
- Hardware configured for Enterprise access
- Plotting/ GPS solutions/ Computers/ mobile devices
- The platform of the future
- Documentation
Designing an Enterprise Solution - Documentation: The What continued....

- Needs assessment
- Mission Statement
- SOP’s
- Management Plan
- Business Plan
- Strategic Plan
- Product delivery standards
- Training/education guidelines
- Certification standards

“To better the San Manuel Tribal Community; Through the application of geospatial technology, data management and analysis; Facilitating efficient business work-flows, improve departmental operations and collaboration, and increase geographical awareness; Resulting in greater resources protection, cultural preservation, and efficient business processes; By fostering the exchange of knowledge, ideas, ambitions, experiences, and promotion of its’ value and benefits interdepartmentally”
Designing an Enterprise Solution: The Where

• Where will GIS fit in your organization? GIS has many functions.
  § How can you:
    n Network to educate use
    n Support the goals of the Tribe
    n Educate users

• Structurally, What makes sense for this system and a Tribe?
  § Visibility/ Competency
    n Budget
    n Are there developmental choke points?
Designing an Enterprise Solution: The Why -

- Honed Enterprise Tribal GIS’ are able to support and integrate with multiple departments that have the same common goal.
- Documentation keeps a well oiled machine running regardless of employment turnover.
- Training and education and consistent trusted support become a marketing tool that funds the future.
- The GIS trade is starting to infiltrate the masses and one will need to configure a solution that will answer the call.
By understanding your existing platform, one can dissect it and configure it to support the organization with a multitude of geospatial solutions.

By developing and designing the Who x What x Where x Why = How method, one essentially forms and designs the framework for an Enterprise GIS.
GIS Return on Investment: Program Justification

**GIS Return on Investment**

- **Increase Productivity**: GIS helps locate your company’s assets and streamline processes, saving money and improving efficiency.
- **Save Time**: GIS software provides online maps and data access, speeding up decision-making and reducing wait times.
- **Save Money**: GIS helps organizations build, improve, and maintain their infrastructure, reducing costs and enhancing profitability.
- **Make Better Quality and More Effective Decisions**: GIS improves the collection, integration, and analysis of data, helping make informed decisions.
- **Improve Data Accuracy**: GIS allows data to be accessed, edited, and shared easily, ensuring accuracy and saving time.
- **Automate Workflow Procedures**: GIS streamlines processes, automates tasks, and reduces errors.
- **Save Lives**: GIS can help rescue efforts and public health officials in emergency situations, saving lives.
Questions?