

DRAFT



**USDA Indian Country Land Title
Mapping Initiative Overview:
National Geospatial Advisory Committee Presentation
Stephen Lowe
June 2013**



5.2 M People, 55 M Acres, 25.9% Poverty Rate

Voice of Native American High School Student...

“Life here is very hard to mouth. Out here, we don’t have the finer things. You get what you get and you don’t throw a fit. And I’m going to be honest with you, sometimes I don’t eat. I’ve never told anyone this before, not even my mom, but I don’t eat sometimes because I feel bad about making my mom buy food that I know is expensive. And you know what? Life is hard enough for my mom, so I will probably never tell her. My parents have enough to worry about...”



Attributes of the Land Title Problem

- **Private investment capital:** cadastral land title records do not support appraisal and collateralization of real property
- **Designated federal funding:** confused title rights for land ownership inhibit Native American program application
- **Data management:** Tribal land capacity building is severely limited by insufficient and/or antiquated asset management
- **Sovereign governance:** Tribal government decision-making is constrained by inadequate and inequitable data access
- **Complexity:** Public record density is compounded every day with highly diverse mix of ownership rights, jurisdictions, codes, rules, and increasing volume



Scope of Mapping Solution

- Address internal **USDA program equity** for Native Americans
- **Classification and description** of land ownership title rights (private fee land, public, tribal trust, band trust, trust allotment, etc.) and cultural heritage sacred sites
- Design and develop **prototype/proof of concept** mapping platform with rapid application development approach
- Create a searchable, **comprehensive catalog framework** (visual/data) for cadastral leveraging GIS tool functions
- Mapping prototype **validation/benchmark/test pilot** with Native American representatives
- Partner with **Tribes** for production management ownership



Indian Country Land Title Mapping Model

Complimentary Layers

(Econ Dev, Climate, Emergency, etc.)

Cadastral

(Real Property, Tenure, etc.)

Cultural Heritage

(Sacred Sites, History, etc.)

Base Maps

(Tribal Boundaries, Jurisdictions, Roads/Trails, Waterways, Utilities, Topographic, Cadastral Index, etc.)

Indian Country Geodetic Reference Framework

(Coordinates for Datum, GPS, Marks, etc.)

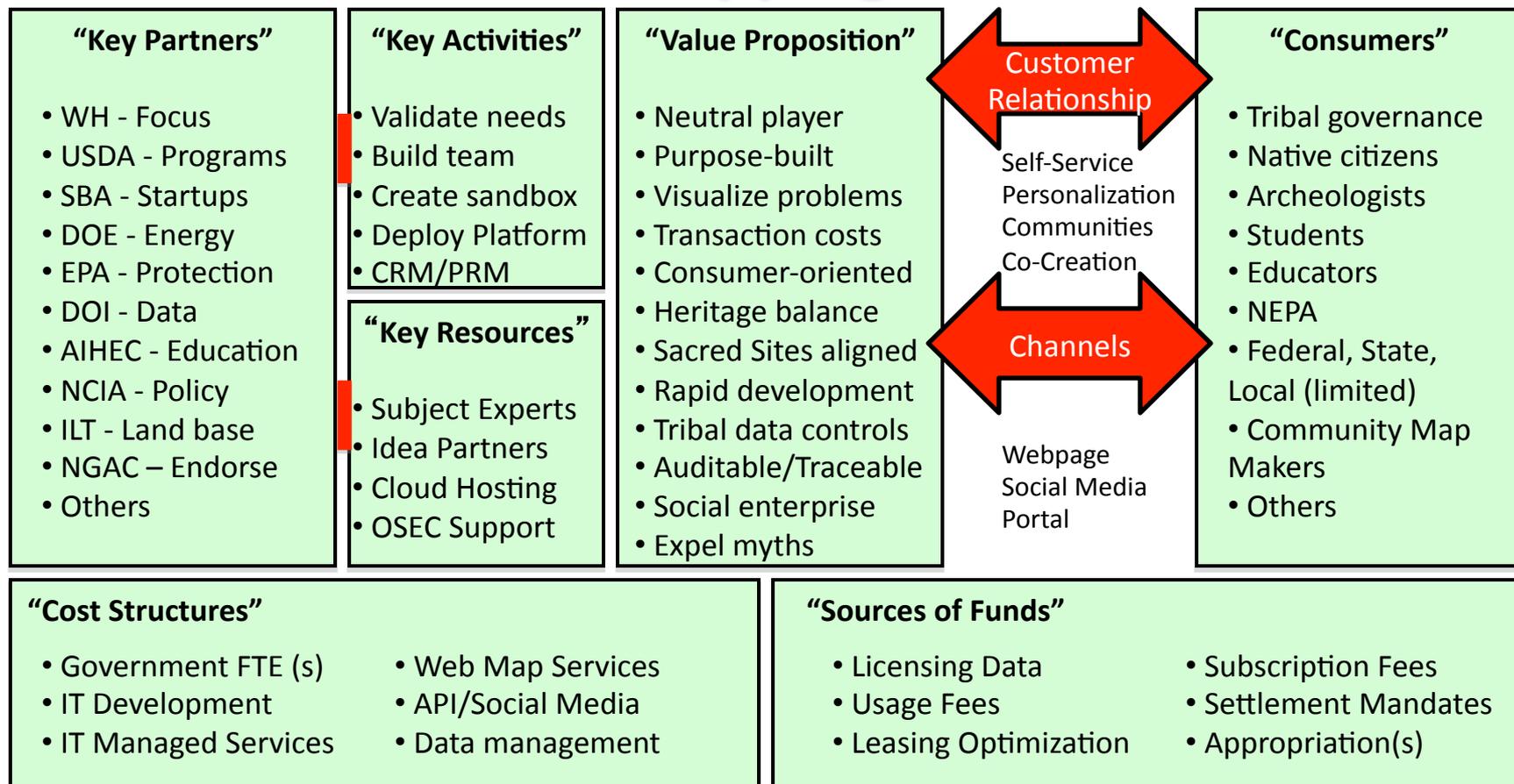
Reusable Templates

(Native American Names, Symbols, Conventions, Styles, etc.)

Roles: Create → Orchestrate → Provision → Consume



Tribal Land Title Mapping Business Model





Tribal Land Title Mapping Outputs-Outcomes

“Reshape Legacy Information Service Delivery”

“Assemble Viable Service Components”

“Generate Capital for Economic Development”

“Enable Innovation Across Tribal Ecosystem”

Solution Definition

Functional Targets

Investment

Capacity

Milestones

- Rationalize Core Data
- Standardize Data Products
- Foster Mature Metadata

- Geo Database of Holdings
- Boundary Definitions
- Simple Navigation/Search

- Microenterprise Develop.
- Business Development
- Community Services
- Consumer Finance

- Tribal Pilot Participation
- Respect for Heritage
- Confidentiality of Data
- Keepseagle Mandate

Service Enablers

- Develop Templates
- Establish Map Convention
- Formalize Map Symbols
- Facilitate Collaboration

- Unstructured Data
- Extend Tribal GIS Skills
- Expand Tribal Knowledge
- Exit Obsolete Technology

- CDFI Engagement
- Crowdfunding
- Venture Capital
- Revolving Fund Loans
- RBIC Infusion

- Tribal College Managed
- Single Source of Truth
- Data Access Controls
- Modularity/Branding

Return of Investment

- Rapidly Deploy Standards
- Catalog Best Practices
- Create Quality Controls
- Empower Ownership

- Single Source of Truth
- Secure Data Management
- Auditability/Traceable
- Change Management

- Leverage Collateral
- Community Viability
- Self-Sufficiency
- New Economic Institutions
- New Ventures

- Economic Dev. Planning
- Entrepreneurship
- Home Ownership
- Education



Tribal Map User Experience Sequence

Pilot Phase

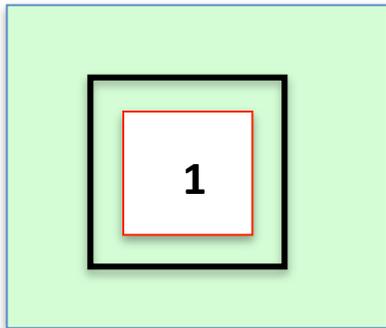
Deployment Phase

Production Phase

Multiple Phases: One Storyline in Geospatial Platform



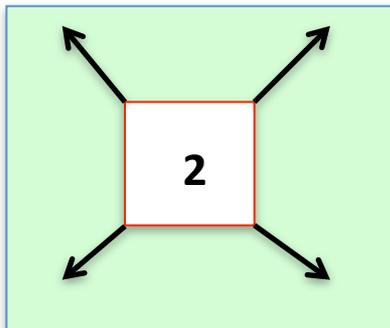
Static Map



Aug 2013

Show and Search info...

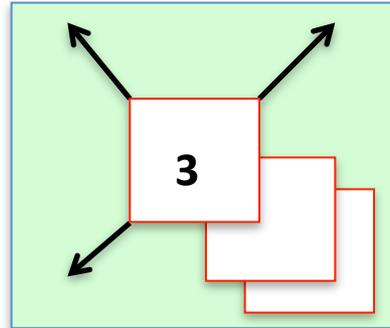
Dynamic Map



Oct 2013

Analyze info...

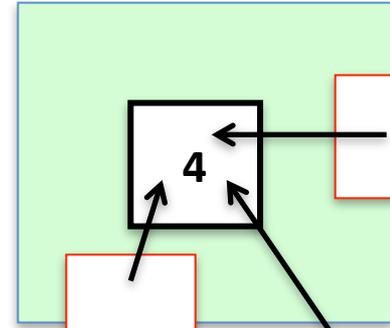
Collaborative Map



Winter 2013

Expand info...

Collective Map

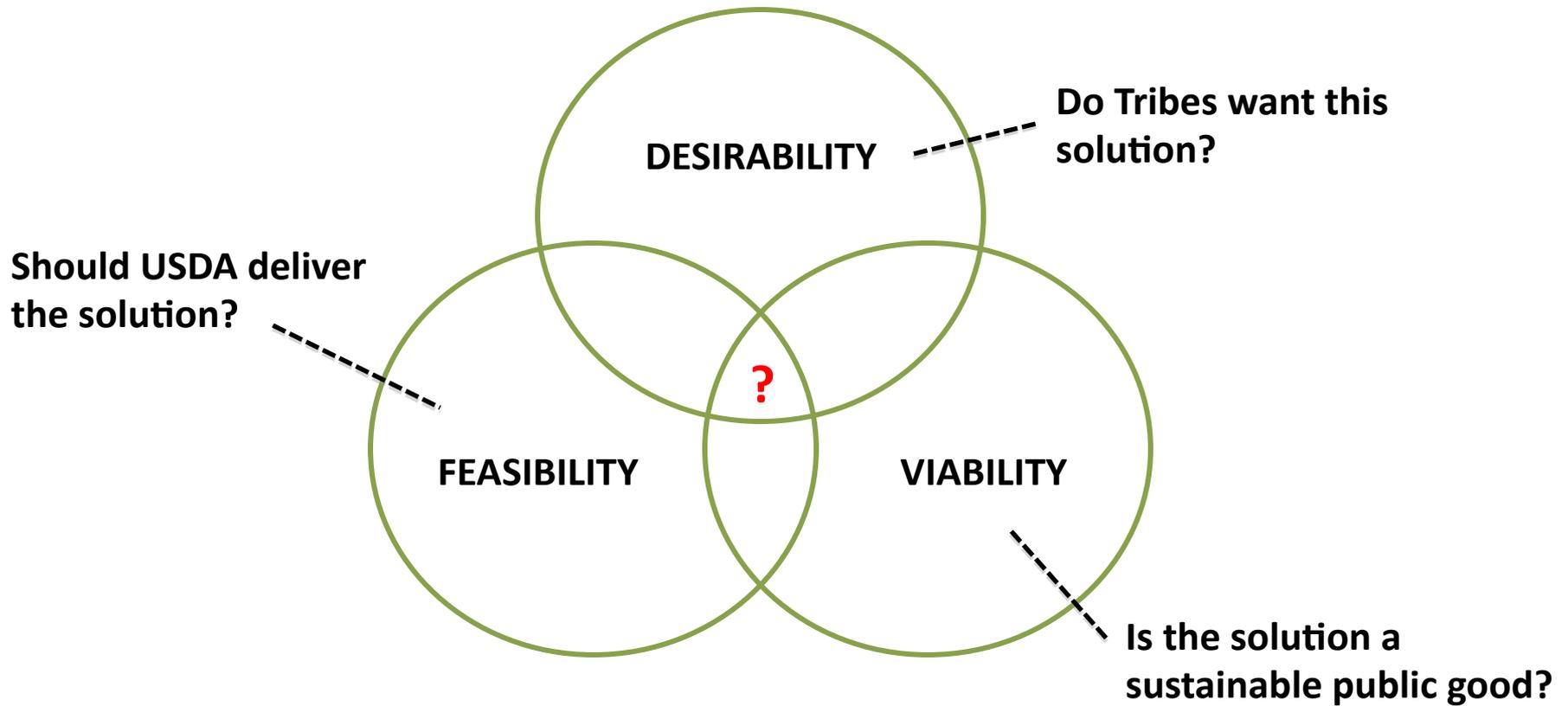


Spring 2014

Enhance info...



Predicting Solution Success





Native American Solution Design Approach

- Native American communities own and steward data
- Rapid Application Development with local field testing
- Incremental release of functions and/or data layers
- Measure Indian Country economic return on investment

“When Native nations make their own decisions about what development approaches to take, they consistently out-perform external decision makers—on matters as diverse as governmental form, natural resource management, economic development, health care and social service provision.”

- Harvard University Native American Program



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