## **Resources and Value Statement**

## **Problem**

- 1. Long-term access to objects and items of interest to researchers, scholars, collectors, and others, is notoriously difficult to ensure. People and things move and links rot.
- 2. Persistent linking systems are available, but expensive.
- 3. And, those systems impose their own metadata and other requirements, instead of letting users supply their own.

#### Solution

- 1. ARKs provide long-term access to information objects.
- 2. ARKs are affordable: there are no fees to assign or use ARKs. And, you can host ARKs on your own web server for example, with help from the N oid (Nice Opaque Identifiers) open source software.
- 3. ARKs are flexible: In some ways, ARKs can be thought of as a "one-size-fits-all," in that they perfectly fit simple as well as complex use cases.
  - $^{\circ}\;$  ARKs let you supply whatever metadata you already have or no metadata at all!
  - ARKs help you avoid huge, long links for your registered objects
  - o and ARKs have a number of features that advanced users enjoy, such as storing persistence statements

# **Key Metrics for Success**

- Publish the ARK specification through the Informational RFC process
- Number of subscribers to ARK mailing list
- Process for assigning majority of ARK NAANs is automated
- Number of code contributors to N2T's Eggnog (successor to Noid) and other tools
- Number of ARK integration projects for library and repository systems in GitHub
- Number of N2T clients in GitHub
- Number of N2T replicas maintained around the world

#### Resources Required

- Familiarity with specification review process (similar to scholarly peer review process)
- Experience with community outreach, ability to execute a communications plan and ensure continuous level of activity that promotes and involves
  the community while ensuring prompt response to issues
- · Ability to analyze workflows and create scripts to automate routine system functions
- Software development skills in current N2T technologies (Perl, MongoDB, Bash)
- Ability to learn existing systems/architectures and add incremental improvements
- Financial or hardware support for the community from participating organizations/individuals

# Contributor Profiles--Organizations

- Research Universities
- National Libraries
- · Government Research Agencies
- Digital Preservation Repositories and Archives
- History and Genealogy Services

## Contributor Profiles--Individuals

- Technical Leads/Managers
- Programmers/Developers
- Digital Preservation Experts
- Metadata Experts
- Genealogists
- Digital Librarians

### Contributor Channels

- Expressions of Interest\*
- Users
- Event networking
- Advisory Group
- Regular communication (outreach)
- Referrals

EZID promotion

#### **User Profiles**

Target audience and early adopters

- · anyone who needs to identify:
  - o digital objects documents, databases, images, software, websites, etc.
  - o physical objects books, bones, statues, etc.
  - o living beings and groups people, animals, companies, orchestras, etc.
  - o intangible objects places, chemicals, diseases, vocabulary terms, performances, etc.
- Who will your early adopters be?
  - o libraries, archives, museums, publishers, research institutes, data centers, and educational institutions.

### **User Channels**

- · Event networking
- Regular communication (outreach)
- Referrals
- EZID promotion

# **Unique Value**

ARK identifiers offer affordable, flexible long-term access to global cultural and scientific heritage.

#### Unique features:

- Implementations can consist mostly of off-the-shelf technologies.
- · ARKs pioneered persistence statements that can reflect variations in persistence policy, including a limited lifespan.
- Open infrastructure: unlike other persistent identifiers, ARKs don't lock you into one specific, often fee-based, management and resolution infrastructure.
- ARK syntax uniquely supports relationship analyses of groups of ARKs, as might be conducted over search results to make collapsing or expanding them fast and powerful.
- "Inflections": special characters (?, ??) at end of an ARK string will bring back an ARK's metadata. This means you don't need a programmer's help.
- "Suffix passthrough": a special technique that allows you to register one ARK to have usable persistent links to thousands of your objects. This
  means a huge savings in time and attention for you!

#### Footnote:

\*The development of this statement was based on materials and instruction for the Open Canvas exercise published by the Mozilla Foundation: http://bit.ly/2ES416M