



## The Atlas Databridge: Just Do It

*The future of information technology for the field will be shaped by the way information flows in/out/ around our organizations. How can a foundation remain in control of such a vital force?*

### Just Why Again Are We Doing This?

For the past five years, the community foundation field has engaged in a bold experiment: to band together to address the inadequacies of the systems supporting their work. So crucial was this need that they contributed \$4.1 million of their own funds in order to make it happen. The final report of the Technology Steering Committee tells this story.

- ✓ **Point #1:** five years ago, vendors were not meeting the needs of the field. Not only was the piecemeal status quo not working, but it was only covering a portion of their operating needs.

Perhaps the center piece of the TSC initiative was the goal of data integration. *No matter what whiz-bang new applications were developed, if they did not integrate to the legacy systems (FIMS and FoundationPower), they were dead on arrival.* The "why" has its roots in the way systems come into being: they are formed to meet requirements.

Philanthropy's requirements are complicated: somehow people learn of human needs and are moved to give, somehow the gift finds its way to the need and is not stolen, somehow it avoids creating relationships of dependency, sycophants, and elitism, and somehow the community benefits.

A system that fails to grasp this complexity will breed dysfunction. But in the real world, tight focus on set of problems yields the best systems. This creates a dilemma.

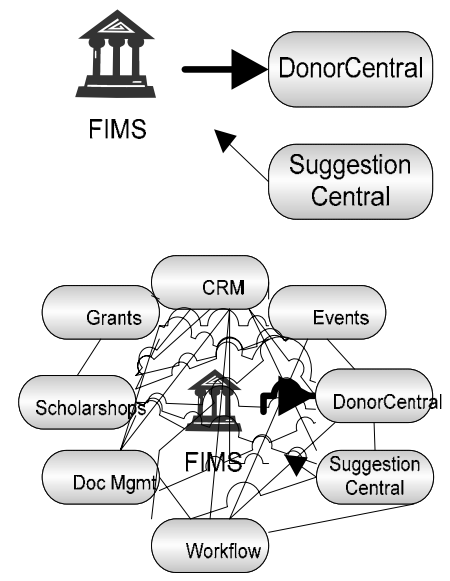
- An accounting system, for instance, is designed around the movement, classification, control and reporting of funds.
- It is not designed as a word processor.

When the need for editing surpassed elementary text, legacy systems such as FIMS, FP, Backbaud FE and Bromelkamp Pearl developed an interface to take advantage of it.

Over time, the number of "outside" solutions that could address specific functionality grew. Efforts were made, with varying degrees of success, to provide direct integration, called point to point, between these systems and core legacy systems.

The top graphic on the right shows how such simple integrations have been an effective solution to simple needs.

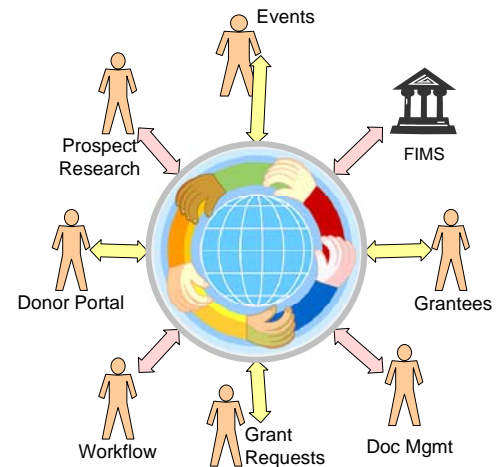
However, even if the interfaces did keep pace, the solutions would have become unmanageable. The graphic on the lower right shows what happens when such point to point solutions proliferate. Each application has to be aware of each other one, and each will need to be modified each time any other is updated with a new version.





The Atlas Data Bridge is the TSC solution for this technical challenge. The proliferation of point to point connections is instead replaced by a hub and spoke model. Each system has a single connector to the hub, and can ignore the state of another system.

The sole purpose of the Atlas Data Bridge is to enable the adoption of specialized tools to advance the capacity and efficiency of a foundation. It will gather these specialized tools into a meta system, embracing over time the depth and dynamics of philanthropy.



## ***Built by the Field, For the Field, but...***

Building the Atlas solution has taken a long time. Promises were made by vendors, in the form of contracts, first to deliver API's by Q3 of 2004, and then to deliver the Atlas Data Bridge by Q3 2006. A seemingly endless series of delays plagued these projects.

- ✓ **Point #2:** Despite its priority and considerable funding over the five years, integration projects have been delayed time and time again.

When the final design of the Atlas Data Bridge was presented to the field in 2006, skeptics praised its design, but questioned its chances of success. Such questions focused on the feasibility of any outside application being able to untangle the FIMS system sufficient to be able to create and update records; other questions speculated about legal challenges to such a system; and finally, they questioned the technology itself.

- ✓ **Point #3:** As of May, 2007, the Atlas project had fully demonstrated and tested the ability of a third party program to directly write to FIMS. Thanks to thoughtful leadership at MicroEdge, the speculations of legal issues were put to rest.
- ✓ **Point #4:** As of June, 2007, the technology used for the Atlas Data Bridge was found to be sound, and that indeed it exceeded expectations.

These ongoing delays in the delivery of the Atlas Data Bridge added up to a real business problem for community foundations. It put the leadership of these foundations, many of them large investors in the TSC, in the un-enviable position of needing to hedge their bets and explore alternative means of exchanging data. The fact that the Atlas project had removed certain obstacles made it easier for the vendor community to respond to these needs with proposals for point to point integrations.

- ✓ **Point #5:** the past 8 months has witnessed a flurry of vendor projects (many now coming online) to provide point to point integration.

✓

Today, January, 2008, multiple vendor options are in reach for foundations wishing to integrate their back offices to a new generation of software. **This is good news, no matter what solution is chosen!**

An offering directly from a vendor is not without its merits. They will often have a low short term costs, and offer the promise of support from a trusted business partner. They demonstrate that vendors are capable of responding to client needs.

### Why choose the Atlas Data Bridge?

As seen at the bottom of page 1, even if vendors were to provide all of the connectivity desired by foundations, the basic approach will lead to enormous complexity. And as noted in Point #1 above, there is no guarantee they will keep up with the demands for such interfaces.

The Atlas system is designed from the ground up to meet the needs of the field. Moreover, it is designed to evolve with those needs and expand to handle an ever growing body of information concerning the foundation's business and relationships. It represents the fruits of a system with a price tag of over \$1 million.

- ✓ **Point #6:** the Atlas Data Bridge is up and running, providing a superior platform for foundations looking to move ahead.

The system is also designed to evolve. Several new adapters are under development to extend the list of systems connected.



So what? What does this technical achievement mean to an individual foundation?

- **Case:** The Kalamazoo Community Foundation is an early Atlas adopter. Its extended information ecology includes uses FIMS, DonorCentral (a donor portal), Community Impact System (for grants), eGrants (scholarship application) and Kintera PIN (prospect research).
  - With a Point to Point architecture, this would represent four separate interfaces to manage, four separate security configurations, and four separate technologies. Under this system the “child” applications will only be able to share data held in common with FIMS.
  - With the Atlas Hub & Spoke architecture: all systems use the same secure interface, and only one actual interface to FIMS is managed. All systems are able to interact as peers, contribute special data to the core warehouse and sharing it as the peers are able to.
  - The addition of a new “child” application (e.g. Salesforce) would add another layer of interface to manage in point to point, but would have no affect on the local Atlas adapter feeding data in and out of FIMS.
    - A proof of concept interaction between Atlas and Salesforce was developed in one week elapsed time (20 hrs coding), and this by a brand new programmer (no familiarity with Atlas OR Salesforce).
  - Support: Atlas is supported by the firm Jacobson Consulting Applications (<http://www.jcainc.com>) that is in the nonprofit integration business. Its focus is solely on the interaction between systems.



### How does Atlas position a foundation for the Future?

What is the future of business information technology? A hallmark of success in today's business world is the open exchange of data across organizational boundaries. Businesses that share information with partners and customers are able to quickly learn and respond to changing needs.

This open exchange of information has been described as an Information and Communications Technology (ICT) Ecosystem. Open standards bind it together and open ICT ecosystems drive interoperability. These businesses have figured out what information is privileged and how to protect it while at the same time taking advantage of Web 2.0 advances.

The community foundation field has been struggling with the legacy of a "closed" information ecology. The vast majority of information that passes into or out of foundations has to be keyed-in or printed in hardcopy. Imagine sustaining the irrigation of a large farm by watering by hand, or handing individual fruits to customers from the field.

#### Openness is a nice idea, but what does it mean?

The Berkman Center for Internet & Society, Harvard University, studied the movement towards open information ecologies and developed a benchmarking tool. The page that follows presents two profiles from that study, one that resembles life in a point to point world; the other one designed using the same principles as the Atlas Data Bridge.



- The conditions created by the Atlas Data Bridge will foster the definition and documentation of common goals, standards, and practices, enabling cost/benefit analysis and encourage open communications to share frameworks and components.
- Compare this vision with the perpetuation of vendor based point to point solutions, which will constantly seek to play cards close to the vest, to inhibit communication, documentation and shared practices. The study found that this culture ignores the outputs of collaborative communities.

These two world views stand in stark contrast to each other. It is not that one is "good" and the other "bad", just that they are motivated by different values. If openness, standards and shared frameworks represents your foundations values, then it is imperative that this be communication to your vendors. Otherwise, your foundation will find itself with systems that do not match where it wants to go.

\*The Technology Steering Committee (TSC) is co-sponsored by the Community Foundations Leadership Team of the Council on Foundations and Community Foundations of America. The Technology Initiative is a series of integrated and prioritized development activities to build community foundation technology readiness, capacity and infrastructure over the next three years.

These updates are part of a communications effort to keep colleagues in the field informed about the TSC's work. Information in these documents may be freely distributed by TSC members providing that: 1) precise language in the updates is used (for clarity and consistency); 2) the TSC attribution language (provided to the left) is included; and 3) readers are referred to source documents on the COF or CFA Web sites.



## Comparative Systems Analysis

	Vendor Based/ Point to Point	Atlas Data Bridge/ Data Warehouse
<b>1. Interoperability enabled</b>	Any interoperability is unplanned, though need may be understood.	Open ICT vision, goals, principles, components and baseline are defined and documented. Agencies are actively improving interoperability.
<b>2. Use of open technologies</b>	Use of open standards and open source is ad hoc, uncoordinated and often unsanctioned.	Standards profiles/ frameworks and use of open components are defined, accepted and cost-benefit evaluated.
<b>3. Architecture framework</b>	Documentation of business processes and ICT standards is informal and inconsistent.	Service-oriented business, information, architecture and technical frameworks are being defined by open standards.
<b>4. Architecture development models</b>	Use of modular components and service-oriented processes is minimal. Any development of open standards/open source is unofficial.	Participation in development of open standards and technologies increasing, based on established guidelines, processes and documentation.
<b>5. Communication &amp; compliance</b>	Use of open technologies is not communicated among agencies.	Well established channels of communications for sharing frameworks, policies and best practices for open standards and components.
<b>6. Business process led or linked</b>	Linkages between business needs/processes and ICT are rare.	Explicit linkage to and documentation of business strategies, needs and processes.
<b>7. Linkages among operating units/ agencies</b>	Little sharing of best practices.	Some linkages between business processes and systems among agencies.
<b>8. Active management</b>	Little active management of ICT ecosystem, though committees may be forming and processes planned.	Management is actively defining and developing open standards and frameworks.
<b>9. Acquisition strategy/ ICT investment</b>	At best individual agency may occasionally do procurements that reference open technologies. Most acquisitions are done in isolation with few examples of open and closed technologies competing.	Use of open standards in procurement practices of agencies, but no central rules or governance of acquisition strategies.
<b>10. Collaborative communities</b>	Any contact with or use of outputs from collaborative communities is unofficial and irregular.	Some official encouragement of collaborative processes for defining and developing open components.

Note: Comparative model from "The Openness Maturity Model", The Roadmap for Open ICT Systems, The Berkman Center for Internet & Society, Harvard University, September 9, 2005. <http://cyber.law.harvard.edu/epolicy/resources>. This model applies the Capability Maturity Model (CMM) to systems interchange, and indicates that vendor based point to point solutions would be rated at a level 1 (0-5), where as the Atlas Data Bridge is at a level 3, (meaning it still has room for improvement).