As a part of the U.S. Department of Justice’s Global Justice Information Sharing Initiative’s (Global) effort to support information sharing activities spanning jurisdictional boundaries—within and outside of traditional justice communities—in the past year, the Justice Reference Architecture (JRA) has been renamed the Global Reference Architecture (GRA).

This change did not introduce any significant technical modifications, but instead underscores a more inclusive service-oriented architecture (SOA) model that addresses a broader need for interoperability between justice, public safety, homeland security, health and human services, industry, and additional stakeholders. The GRA, therefore, is designed to be an information sharing architecture that will meet the needs of government at all levels and help achieve the goal of improved collaboration across communities.

These lean times show little sign of improving.

Leveraging Global solutions like the GRA—as opposed to reinventing the wheel—conserves diminishing resources, saving time, saving money, and freeing assets for your other pressing business needs. How? This information exchange solution was designed to cut 80 percent of implementation time and costs through reuse of established promising practices in information technology (IT) architecture and design. In addition to working smarter (i.e., less time, less money), early adopters of the GRA have discovered the practical benefit of increased agility, deploying new projects more rapidly, reaping the benefits from their IT initiatives faster.

Implementing an SOA may seem challenging—even intimidating—to professionals in the integrated justice field. To offer fellow practitioners reassurance and highlight a real-world SOA implementation (and resulting business benefits), the Pennsylvania Justice Network team (pictured below) outlines how Global solutions, including the GRA, can provide a solid foundation for your next information sharing project.

The Pennsylvania Justice Network (JNET) is in the process of moving from a pure messaging infrastructure to a services approach for public safety integration improvement. This new approach allows JNET to better meet the needs of the more than 35,000 local, county, state, and federal justice professionals across Pennsylvania who make up the JNET community by providing business process and interoperable information exchange from various back-end state resource feeds. Pennsylvania has long recognized that many of these in-state data resources are necessary not only for law enforcement, but for agencies outside the criminal justice field as well. The limitations of JNET’s messaging infrastructure have hampered its ability to accommodate these potential users. Since JNET’s formal adoption of the Global Reference Architecture (GRA) and completion of its SOA implementation, JNET is well-positioned to more quickly meet and provide value to its many business partners.
Pennsylvania was able to resolve integration challenges and improve public safety and criminal justice integration by taking a business- and service-oriented approach to providing data sources through the new JNET Integrated Service Bus (ISB). This SOA approach follows the GRA and uses the National Information Exchange Model (NIEM) and many of the GRA technical documents. The GRA-based solution set enables JNET to provide services to both criminal justice and noncriminal justice consumers.

JNET found the GRA and supporting documents extremely useful in providing technical guidance for its new service approach. Through this approach, JNET has created a set of shared services, which can be reused across the commonwealth enterprise. JNET also followed the GRA Service Specification Guideline to ensure a consistent and reusable service understanding and packaging for future customers. The services built to date support JNET and its member agencies and consist of the following:

- Pennsylvania Department of Transportation driver information (including photos)
- Pennsylvania Department of Transportation vehicle information
- Master charge code
- Consolidated warrant search
- Consolidated photo search
- Fish and Boat Commission information
- Electronic reporting for parole and probation
- Electronic reporting for corrections
- All-terrain vehicle (ATV) information
- Snowmobile information
- Vehicle, plate/tag police pickup interface

While the services listed above were created for various projects, we anticipate that both the services and the documentation will serve as a basis for new Web service customers and future service needs. This will provide JNET with a dynamic, cost-effective, and flexible technology infrastructure to address future needs.

JNET has also been able to essentially reuse some of these services on newer projects. For example, during the development of the Pennsylvania Department of Transportation driver and vehicle services, the Department of Public Welfare (DPW) found it also needed these business services to fulfill the requirements of the newly legislated Children’s Health Insurance Program Reauthorization Act (CHIPRA). JNET had already built and integrated the PennDOT driver Information when DPW inquired about reusing this service for CHIPRA. Since the service was already complete and being used internally, the work was agreed to and completed with minimal effort and ahead of schedule, thanks to the flexibility and interoperability of the JNET ISB and service approach. Had the GRA approach not been used, this “change” would have cost the commonwealth significantly more time, money, and potentially an integration opportunity.

In sum, the JNET service enablement for the ISB, which leveraged the GRA, now empowers agencies seeking a broad and deep cross-jurisdictional information sharing solution to provide interoperable and reusable business components and associated documentation, and to experience direct cost savings.

---

About the author: In addition to his “day job” as Technical Service Manager for JNET, Mr. James Dyche is a long-standing, active Global participant, serving as the Vice Chair of the Global Security Working Group and Global Federated Identity and Privilege Management Delivery Team and a member of the Global Outreach Working Group. You can contact Mr. Dyche with specific information sharing questions at jdyche@state.pa.us.

Welcome, New GAC Members!

Chief Art Acevedo (left), Austin Police Department, Global Advisory Committee representative from the Major Cities Chiefs Association

Mr. James Ingalzo, Chief Information Officer (Acting), Pennsylvania Office of Attorney General, Global Advisory Committee representative from the National Association of Attorneys General