Global Justice Information Sharing Initiative

Infrastructure/Standards Working Group
Service-Oriented Architecture Subcommittee
Meeting Summary

Williamsburg, Virginia
November 10, 2003

Meeting Background and Purpose

The Office of Justice Programs (OJP), U.S. Department of Justice (DOJ), convened the Global Justice Information Sharing Initiative (Global) Service-Oriented Architecture Subcommittee (GSOA or Subcommittee) meeting November 10, 2003, in Williamsburg, Virginia. The GSOA is a newly established subcommittee under the direction of the Global Infrastructure/Standards Working Group (GISWG). The GSOA was convened for the purpose of addressing SOA issues in the context of information sharing. Mr. Tom Henderson, GISWG Chair and the Executive Director for the Government Relations Office, National Center for State Courts, facilitated the meeting and set forth the following agenda:

- GSOA Goals
- SOA Definition
- Real-Life Demonstrations of SOA
  - National Law Enforcement Telecommunication System (NLETS)
  - Southwest Alabama Law Enforcement Tactical System (LETS)
  - Workforce Connections
- Critical Attributes of SOA
- Justice Scenarios
- Next Steps

GSOA Subcommittee Participants

Mr. Henderson convened the GSOA Subcommittee meeting and invited the participants to introduce themselves and express their topics of interests with regard to SOA. The following GSOA members, observers, and presenters were in attendance:

Mr. Tom Clarke
Supreme Court of Washington
Olympia, Washington

Mr. Hugh Collins (Courts Observer)
Supreme Court of Louisiana
New Orleans, Louisiana

Mr. Steven Correll
National Law Enforcement Telecommunication System
Phoenix, Arizona

Mr. Scott Fairholm
National Center for State Courts
Williamsburg, Virginia

Mr. Tom Henderson
National Center for State Courts
Arlington, Virginia

Mr. Martin Hudson (Presenter)
Development InfoStructure
Arlington, Virginia

Mr. Brand Niemann
U.S. Environmental Protection Agency
Washington, DC

Ms. Donna Rinehart
Institute for Intergovernmental Research
Tallahassee, Florida

Ms. Monique Schmidt
Institute for Intergovernmental Research
Tallahassee, Florida

Mr. Bob Slaski (Presenter)
Advanced Technology Systems, Inc.
McLean, Virginia

Mr. John Terry
Institute for Intergovernmental Research
Tallahassee, Florida

Mr. George Thomas
U.S. General Services Administration
Washington, DC

Ms. Susan Turnbull
U.S. General Service Administration
Washington, DC

Mr. Robert Wessels (Observer)
Harris County
Houston, Texas

GSOA Goals

Mr. Henderson led the meeting with a discussion on SOA goals, objectives, and background information. The Subcommittee goal is to develop materials that can be used to orient two sets of justice practitioners to SOA. The first set of justice practitioners is the policymakers who are sympathetic to technology; for example, members of the Global Advisory Committee (GAC), which need to be briefed on the business case of SOA. The second set is the technology managers; for example, members of the Global Working Groups, which need to understand the technical underpinnings, standards, and emerging trends.

The third goal of this meeting was to develop a definition of SOA that is clear to policymakers in the justice arena. The approach was to establish an understanding of SOA and contrast it with a traditional approach to systems development. In addition, the subcommittee would like to develop various real-life scenarios that can be used to engage vendors. The vendors would be able to facilitate software development for a demonstration to the GAC. Finally, any changes to Global as a result of the SOA strategies must be identified.

The subcommittee spent considerable discussion on the Enterprise Architecture (EA) approach versus the SOA methodology. The Subcommittee noted that National Association of Chief Information Officers recommends the term EA. Mr. Brand Nieman, U.S. Environmental Protection Agency, stated that he had produced a crosswalk between the EA and the SOA. He added that SOA is a promising implementation of the federal EA. The Subcommittee recommended that they capture the blend of business and technical process in generating definitions. Mr. George Thomas stated that SOA is the implementation guide (i.e., business process) and the technical details (i.e., how it gets done). EA in and of itself does not guide implementation. The Subcommittee reached consensus that the EA is the design (i.e., answers the "what" question), and the SOA is the implementation (i.e., answers the "how" question).

In closing, Mr. Henderson discussed the proposed SOA strategy. He noted that the challenge is to effectively and efficiently share justice information and that SOA meets this challenge.

SOA Definition

The Subcommittee participated in an activity to define and then revise the SOA definition with regard to the following factors:

1) Statement of need
2) Abstract definition
3) Linkage to Web services

The Subcommittee crafted the following definitions with the caveat that editing is still needed:

SOA is a strategy for electronic access to share information about persons and cases in any database you have the authority to access, at the local, state, and national level.

SOA is a policy-driven process to enable interoperability among existing information systems. When combined with the appropriate policies, SOA allows practitioners to get justice data on demand from local, state, and national sources and make it available to decision makers.

SOA is a business-driven, open standards software technology system development process, built on existing infrastructure (e.g., NLETS, LETS, and the U.S. Department of Labor) to enable information sharing at the local, state, and national levels that respects current diversity and heterogeneity.

An example of current best practices is the Travelocity Web site. SOA would be implemented incrementally in selected scenarios.

SOA moves the focus of information system interoperability from point-to-point integration of monolithic stand-alone applications to messages that cross agency and business boundaries based on Web services that use open Internet standard transports and protocols. Web services are a practical implementation of SOA. SOA requires as much attention to development of policies, such as interagency agreements, security, and privacy, as to resolving the underlying technology issues.

From a management perspective, it has the added advantage of allowing incremental information sharing development instead of requiring a holistic approach. The result is a system that can readily accommodate changes in business practices, technology, and new players.

Real-Life Demonstrations of SOA

NLETS

Mr. Bob Slaski, Advanced Technology Systems, Incorporated, demonstrated integrated justice examples using the Accelerated Information Sharing for Law Enforcement (AISLE) project in conjunction with NLETS to showcase Web services and SOA. AISLE supports mission-critical public safety operations, and it automates current transactions. AISLE utilizes Web services, not just XML, and it is a good example of SOA.

Southwest Alabama Law Enforcement Tactical System (LETS)

Mr. Henderson presented information on behalf of Mr. Jim Pritchett regarding the Southwest Alabama LETS, which is an Internet-based information delivery system designed for Alabama's law enforcement community. Mr. Pritchett successfully solved the data integration problem across 22 different data systems to deliver driver's license photos and integrate arrest records with court records through the use of Web services and SOA.

Workforce Connections

Mr. Martin Hudson, Development InfoStructure, presented Workforce Connections, which is next-generation authoring and content delivery. The objective of Workforce Connections is to collaborate with experts to identify and demonstrate innovative approaches for the twenty-first–century workplace. It provides a self-service approach, where content experts directly manage their own data and where development occurs directly in the content environment online. In addition, multiple developers can collaborate online simultaneously.

Critical Attributes of SOA

The following table listing the attributes of SOA was developed during a Subcommittee exercise. The Subcommittee reached consensus that an additional category should be developed which describes the transitional process from the traditional approach to SOA.

Traditional Approach	Service-Oriented Architecture
Hardwired/Monolithic	Loosely Coupled
Proprietary	Open Environment
Monolithic	Modular/Components
Noncomposable	Composable
Homogenous and Controlled	Respects Autonomy of the Parties
Centralized	Distributed
Constrained	Extensible
Faith-based	Testable
Develop New Systems	Leverages Current System
Some things to Some things	Any thing to Any thing
Database Focus	Interface Focus
Waterfall Development (Sequential)	Incremental (Iterative)
Difficulty of Codevelopment Outside Business	Ease of Codevelopment by Expanding Circle of Partners
Predefined Use	Reusability
Vertical	Horizontal
Proprietary	Platform and Operating System Independent
Functionally Driven	Process-Driven
Static	Dynamic Services
Closed Constituency/System Replacement	Business Agility
Focus Inside Firewall	New Security Mitigations (Focus Outside Firewall)
Command	Open Market System
Vender Lock-In	Interoperability

Justice Scenarios

The Subcommittee participated in an exercise that used different justice scenarios to demonstrate the capabilities of SOA. Participants expanded on the scenarios in order to better illustrate the SOA concepts. In addition, the participants made the following suggestions:

- General comment/issue for resolution: Do we want to present an "ideal" SOA scenario, an "interim" SOA scenario, or ***both*** (to be contrasted)?
- Scenario A:
  - Add a dimension to the story wherein the Judge tries to obtain information he is not authorized to access; e.g., HIPPA data or a sealed case.

        - Perhaps the information should have come back in a "pick list" format, so the Judge could **select** the germane information and NOT be overwhelmed with superfluous material.
        - Make the scenario *short*—basically, "the guy was released because the Judge did not have access to all the pertinent information."
    - Scenario B: The scenario could be refined to meet the "SOA-illustrative" need.

Action Items

1. Institute for Intergovernmental Research staff will be the wordsmith on the definition of SOA.
2. In consideration of proffered comments and need for further refinement, a Scenario Task Force should be assembled to help develop the revisions.
3. Further examination should take place regarding the nexus/contrast between SOA and EA.
4. Address the technical issues.
5. Develop a white paper.
6. Determine the SOA impact on Global, with integration of expertise from those "around the table."

Mr. Henderson thanked all the participants for their expertise and participation on this important subject. A conference call will be set up to plan for the action items. With no further business, Mr. Henderson adjourned the GSOA Subcommittee.