Component-based SOA

Brad Cox
Chief Architect; Gestalt LLC
Representing GIGlite.org
Plain ol’ SOA (circa 2005)

NCES-SDK, FCS-SOSCOE, etc
But add the other stuff we need

Security and interoperability, for example

- Transport
- Authentication
- Authorization
- Confidentiality
- Mediation
- Non-reputation
- Availability
- Auditing
- Orchestration
- Integrity

Plain ol’ SOA
Component-based SOA (JBI)

- A better way
- Core Functionality
- Firewalled LAN Deployment
- Local (JBI) Bus
- Global (Enterprise) Bus
- Plain ol’ SOA
- Government Purpose Licensing Rights
- Distribution F
Component-based SOA (JBI)

Core Functionality

Wireless, Acoustic, Wireline, Satellite...
IP/TCP, UDP, IIOP, Multicast, ...
REST, SOAP, CORBA, HLA, ...
Best effort, real time, ...

Low-threat operational deployment
Component-based SOA (JBI)

Secure, interoperable SOA services composed from tested, off-the-shelf components. **No code changes.**

High-threat operational deployment
SCA: An even better way?

- Software Component Architecture is an emerging OASIS standard based on JBI ("Java Business Integration").
  - More emphasis on multi level (fully recursive) component architectures
  - Less emphasis on "Java" and "Business"
- Language independence (Java, C++, BPEL, etc)
- Graphical component assembly (UML/MDA?)
- Policy-driven component assembly
This has concentrated on how JBI relates to DOD’s SOA needs.

It has not described all its advantages, nor how to use it, nor its terminology, nor the reasoning behind its development. For that see:

- [http://www.oasis-opencsa.org/sca](http://www.oasis-opencsa.org/sca)
- [http://giglite.org](http://giglite.org)