Business Executive Overview: Benefits and Adoption of this New Standard

Business Working Group Co-presenters:

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Valerie Andrew – Elma Electronic
The SOSA Consortium is a C5ISR-focused technical and business collaborative effort

Army, Navy, Air Force, Space Force, other government agencies, industry and academia

…to develop a unified technical Open Systems Architecture standard for Radar, Electro-Optical/Infrared, Signal Intelligence, Electronic Warfare, and Communications – and the supporting business models

…improve sub-system, system, and platform affordability, re-configurability, upgradability, and hardware/software/firmware re-use; to shorten cycle times to counter emerging threats

…Development of an OSA via modular decomposition and associated interfaces between modules

Quantifiable Benefits, Advantages

Government

✓ Efficient and cost-effective acquisition
  – Adherence to the NDAA’21 MOSA mandate
  – Standardized system composition, known interfaces

✓ Improved lifecycle and supportability
  – Commonality and reuse of components across systems
  – Tech insertion:
    • New capability
    • Obsolescence

✓ Interoperability and interchangeability
  – Between & within SOSA systems
  – Across DoD deployed Product Families

Industry

✓ Reduces development cost, risk and time
  – Leverage:
    • Proven modular decomposition
    • Known interface definitions
    • Standards-based tooling

✓ Creates opportunities for strategic sourcing
  – COTS vendors
  – Small businesses and non-traditionals

✓ Facilitates product family development
  – SOSA Base product family architectures
  – Leverage inherent composability
  – Reuse opportunity
SOSA™ Builds On Existing Open Standards

The Sensor Open Systems Architecture™ Approach: Leverage Existing Open Standards

DoD MOSA Initiative*

Applications/Scope:
SIGINT (ELINT & COMINT), Radar, Electronic Warfare, EOIR and more

Government Initiatives & Standards
FACE™ (Tri-Service)
STANAG (NATO)
SCA (JTCN)

SOSA Technical Standard and Ecosystem
The Open Group® SOSA Consortium contributes: Army, Navy, Air Force, Other Government Agencies, Industry, and Academia
Defining Best Standards & Practices for Open Modular Sensor Systems

Industry Standards Bodies**
VITA
IEEE
SAE International
PICMG
ANSI
The Open Group
Wireless Innovation Forum

*In support of the US DoD MOSA Nondate memo.

** Representative group. Not all associated standards are listed.
SOSA™ Consortium Members

- **Sponsor Level**
  - Air Force Life Cycle Management Center
  - Collins Aerospace
  - Joint Tactical Networking Center
  - Lockheed Martin
  - NAVAIR
  - U.S. Army CCDC C5ISR
  - U.S. Army PEO Aviation
  - U.S. Army Project Manager Electronic Warfare and Cyber
  - U.S. Space Force Space and Missile Systems Center

- **Principal Level**

- **Associate Level**
  - 89 industry and academic members
SOSA™ Organization

- Develop & adopt **open systems architecture** standards for C5ISR
- Business, acquisition & outreach practices to foster innovation, industry engagement and competition
- Business Working Group (BWG):
  - BWG Chair: Mike Orlovsky
    - Michael.Orlovsky@L3Harris.com
  - Conformance Lead: Roy Keeler
    - roy.keeler@adlinktech.com
  - Outreach Lead: Valerie Andrew
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SOSA™ Navigation Guides

Business, Acquisition and Suppliers

✓ **Business Guide**: The Value Proposition and Business Strategy of the SOSA Approach

✓ **Conformance Program**: How to navigate the SOSA program to offer conformant products

✓ **SOSA Registry**: Provide a list of products certified as conformant to the SOSA Technical Standard

✓ **Acquisition Guide**: How to procure products conformant to the SOSA Technical Standard
  
  Guidance for acquisition professionals with examples of language for solicitations

✓ **Marketing Guidelines**: Tools to guide the use of the Consortium's logo and trademarks; how to best showcase membership participation, utilizing the SOSA Approach, outreach opportunities
SOSA Value Proposition - business case, rationale, benefits/challenges, programs and mandates

Open Business Model - acquisition process, legacy systems and backward compatibility, conformance Processes, data rights and IP

Overview of the SOSA Technical Standard

Examples of SOSA Adoption - new sensor, modernization of legacy sensor
Conformance Program

✓ Certification Policy and Guide
✓ Certification Agreement, Statement
✓ Certification Register
✓ Certification Website
✓ Trademark License Agreement
✓ Verification Matrix Guide
✓ Requirements Template
Certification Process – High Level

SOSA Verification Authorities

Suppliers choose a VA

- Ooo Ooo! Me! I'll do it! Pick me!
- Ooo Ooo! Me! I'll do it! Pick me!
- Ooo Ooo! Me! I'll do it! Pick me!
- Ooo Ooo! Me! I'll do it! Pick me!

Conformance Statement
Verification Matrix

Supplier
Passed!

Certification Authority

Suppliers Passed!

OK to put on Register

SOSA Certified Product

Certified!
Acquisition Guide

Procurement: Solicitations and proposals with SOSA™ requirements
SOSA Acquisition Guide at your disposal

**Addresses:**

- SOSA Conformance
- Rights in technical data (TD) and computer software (CS)
- Statement of work (SOW)
- Instructions, conditions, and notices to offerors
- Evaluation factors for award
Acquisition Flow

SOSA Registry

< Register Search

Search Results >

Acquirer

Sensor with SOSA Procurable Unit
Technical Data Package

Sensor Component Information

Supplier

Proposed Procurable Unit
Technical Data Package

Conformance Program

Verification Results
Certification Results

Veriﬁcation Authority
Certiﬁcation Authority

Revised 2021/02/16 BWG
SOSA™ Assets At Your Fingertips

Resources:

✓ Business Guide
✓ Procurement Guide
✓ Contracting Guide
✓ Supplier Guide
✓ Marketing Guidelines
✓ Outreach Collateral & Support Materials
SOSA™ Outreach

✓ **SOSA Website** - [https://www.opengroup.org/sosa](https://www.opengroup.org/sosa)
  - Member news releases and articles, events and webinars
  - Consortium and technical standards resources

✓ **Quarterly Member Newsletter**
  - Showcases standards updates and member activities

✓ **Collateral and show kits**

✓ **Events**
  - Member driven events, i.e. webinars & F2F trade shows
  - Interop demos (TSOA-ID), ecosystem plugfests
  - Industry panels & news conferences with expert speakers

✓ **YouTube tutorials, LinkedIn, Wikipedia**

✓ **Industry marketing opportunities**
Asset Examples

SOSA™ Consortium Overview
The Consortium empowers government and industry to collaboratively develop open standards and best practices.
In line with the 2019 MDA-issued direction from the Department of Defense, the SOSA Technical Standard addresses modular design and enables supported, composable-based, non-proprietary standards for key interfaces that are expected to:
- Accelerate the adoption of new capabilities
- Reduce integration cost and risk
- Streamline development
- Simplify reconfiguration and sustainment
- Mitigate obsolescence challenges
- Facilitate interoperability and more
- Enable rapid composition of capabilities from common elements

Sponsor Level Members

Principal Level Members

Associate Level Members

An integrative and inclusive standard to accelerate the development of affordable, agile, and composable sensor systems.

SOSA is a Consortium of The Open Group—a voluntary consensus standards body

Approved for public release: distribution unlimited (SSABW-2017-4754)
The SOSA Consortium Targets Release Date in early Summer 2021!

SOSA Technical Standard Version 1.0
• Join the Business Working Group and its Sub-Committees
  – The top-level BWG committee focuses on business aspects of the Consortium
  – Outreach SC – focuses on public-facing marketing activities
  – Conformance SC – helps to define the conformance process and program requirements
SOSA Inquiries – How to Reach Us

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