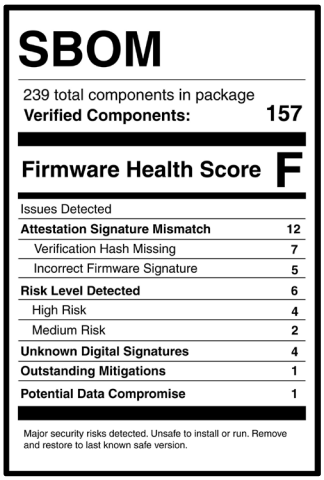
AMI Meridian™

Aptio® MegaRAC®

Software Bill of Materials (SBOM)



What is SBOM?

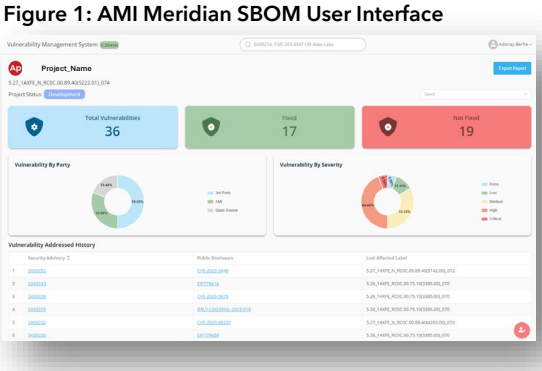
A software bill of materials (SBOM) declares the inventory of components used to build a software artifact such as a software application. According to CISA, SBOM "..is a nested inventory , a list of ingredients that make up software components."

It is a key building block in software security and software supply chain risk management. An SBOM report details the firmware components, libraries, tools, utilities, and build environment of an image (binary). AMI's SBOM utilities support AMI Aptio and MegaRAC projects. Once licensed, developers can generate spec-compliant SBOM reports for their projects.

AMI SBOM Offering Overview

Product	SBOM Format	Version
Aptio V	CycloneDX	1.5
	SPDX	2.3
MegaRAC SP-X	CycloneDX	1.5
	SPDX	2.3
MegaRAC OneTree	SPDX	2.3

Figure 1: AMI Meridian SBOM User Interface



Key Features

- Full/Complete Report Generation
  - ✓ Open-source components
  - ✓ AMI IP
  - ✓ Silicon Vendor IP
- Partial Report Generation (Non-NDA)
  - ✓ Open-source components
  - ✓ Third-Party IP
  - ✓ Can be shared Publicly
  - ✓ Can be embedded into FW binary
- Module-level Report Generation
- Security Patch Tracking
- Security Advisory and CVE Mapping
- Active Module Filtering
- IDE (VeB) and CLI Support
- Intuitive Web-UI and API Support
- Regulatory Compliance (NIST, CISA, etc.)
- Legacy Project SBOM Support Enablement
- SBOM integration into Final Firmware Image (ACPI)
- Integration with AMI Vulnerability Management Service (VMS)

SPDX-CycloneDX Mapping

This table maps baseline attributes across SPDX and CycloneDX. In addition to the baseline attributes, Authors should conform to the specifications of their chosen SBOM format.

Table 1: Mapping baseline component information to existing formats

Attribute	ISO/IEC 5962:2021 (SPDX v2.3)ISO/IEC 5962:2021	ISO/IEC 5962:2021 (SPDX v3.0)	CycloneDX v1.2-1.6
Author Name	(6.8) Creator:	Core.CreationInfo.createdBy	bom.metadata.authors
Timestamp	(6.9) Created:	Core.CreationInfo.created	bom.metadata.timestamp
Type	(6.10) CreatorComment:	Software.Sbom.sbomType	bom.metadata.properties[]
Primary Component	(11.1) Relationship: DESCRIBES CONTAINS	Software.Sbom.rootElement	bom.metadata.component[]
Component Name	(7.1) PackageName:	Software.Package.name	bom.components[].name
Version String	(7.3) PackageVersion:	Software.Package.	bom.components[].version
Supplier Name	(7.5) PackageSupplier:	Software.Package.	bom.metadata.supplier bom.components[].supplier
Cryptographic Hash	(7.10) PackageChecksum: (7.9) PackageVerificationCode:	Software.Package.	bom.components[].hashes[]
Unique Identifier	(6.5)SPDX Document Namespace (7.2) SPDXID:	(6.5)SPDX Document Namespace (7.2) SPDXID:	bom.components[].cpe bom.components[].purl bom.components[].swid bom.components[].omniborId bom.components[].swhid
Relationships	(11.1) Relationship: DESCRIBES CONTAINS	(11.1) Relationship: DESCRIBES CONTAINS	bom.dependencies[]
License	(7.15) PackageLicenseDeclared: (7.13) PackageLicenseConcluded: (7.14) LicenseInfoFromFiles:	(7.15) PackageLicenseDeclared: (7.13) PackageLicenseConcluded: (7.14) LicenseInfoFromFiles:	bom.components[].licenses[]
Copyright Holder	(7.17) PackageCopyrightText:	(7.17) PackageCopyrightText:	bom.components[].copyright

CISA document: https://www.cisa.gov/resources-tools/resources/framing-software-component-transparency-2024