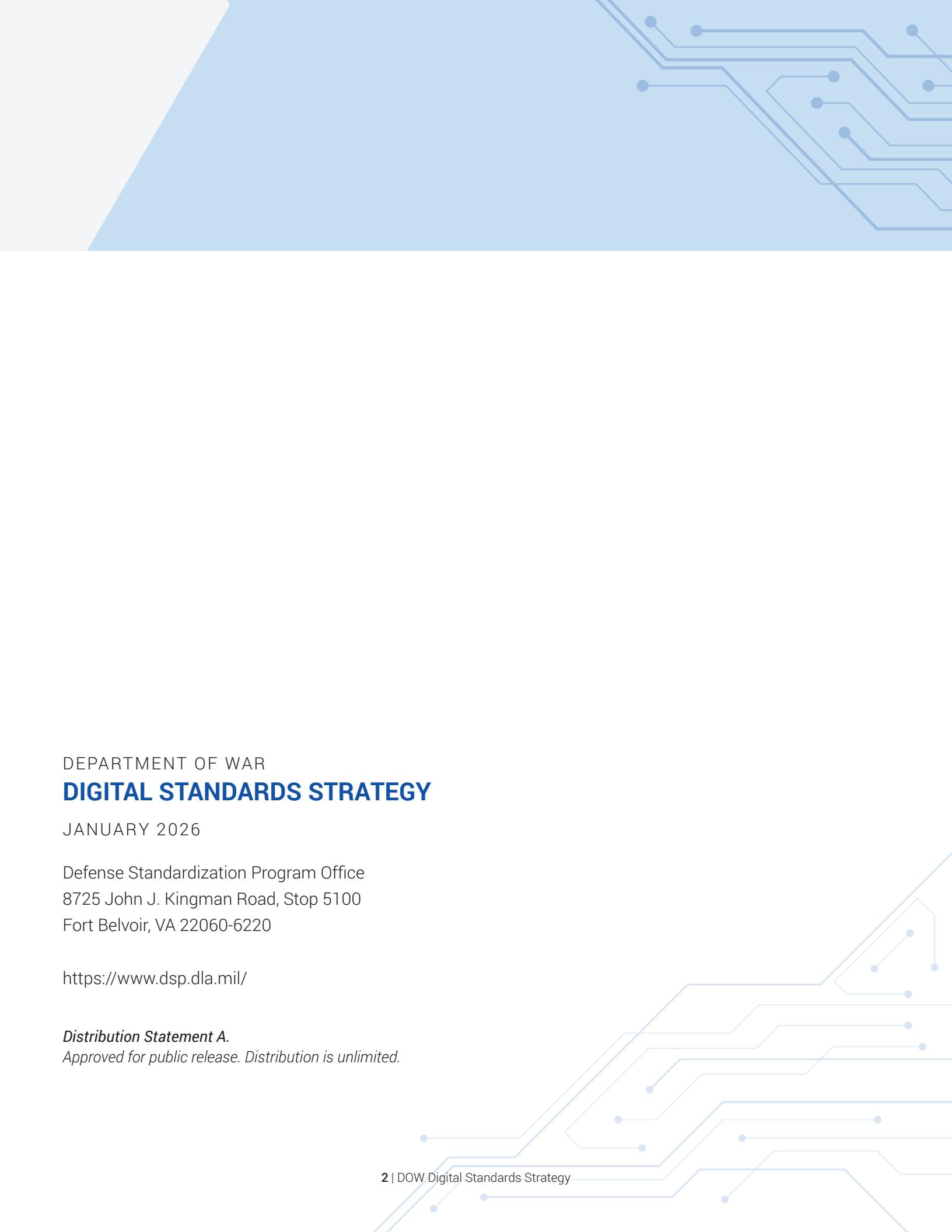DEPARTMENT OF WAR

DIGITAL STANDARDS STRATEGY

Defense Standardization Program Office

January 2026

DEPARTMENT OF WAR
DIGITAL STANDARDS STRATEGY

JANUARY 2026

Defense Standardization Program Office
8725 John J. Kingman Road, Stop 5100
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https://www.dsp.dla.mil/

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FOREWORD

This Department of War (DOW) Digital Standards Strategy outlines the Department's five strategic lines of effort to implement a digital standards initiative. These efforts will promote the use of digital standards to help achieve the desired end state of a fully integrated digital ecosystem. They also address the need to modernize the standards landscape itself to meet this intent.

The Secretary of War notes the importance of driving urgent action to put America First and achieve Peace Through Strength, requiring the United States to sharpen its competitive edge to maintain military dominance (Interim NDS Strategic Guidance 2025). To ensure national security over the long term, accelerated technology advancement and innovation are required. To align with this intent, the Department needs to enable defense standardization activities to meet the current and future warfighter needs.

Furthermore, the *Acquisition Transformation Strategy* (ATS) aims to reform our acquisition processes and rapidly field emerging technologies, in part, by digitizing acquisition and modernizing systems engineering (ATS, Nov 2025).The ATS states the Department will digitize acquisition by scaling "efforts to leverage digital and AI tools…to enable greater speed and quality, centralize decision making…and accelerate approval authorities…" Further:

> *The Department will modernize systems engineering across all acquisition pathways to enable agile development, technology insertion, improved technology and manufacturing risk management, and reduced need for testing, rework, and re-testing to certify a system… These tools, properly applied, inherently reduce requirement and design defects and test in build-up and scope required when verifying, validating, and certifying end items* (ATS, Nov 2025).

This transformation is critical, given the rapid modernization of technology and the increased use of software acquisition, advanced computing, artificial intelligence, and model-based acquisition.

Acquisition Transformation Strategy, Nov 2025

Thomas W. Simms
Defense Standardization Executive

These ATS efforts reemphasize the implementation of the *2018 Digital Engineering Strategy* that established the vision for a shift from paper-based to digital engineering practices using "an integrated, digital, model-based approach." In accordance with Department of Defense Instruction (DoDI) 5000.97, *Digital Engineering*, the Department has begun "using and integrating digital models and the underlying data to support the development, test and evaluation, and sustainment of a system."

The increase in digital engineering initiatives and practice brings with it a corresponding need for digital standards. The transition to "digital standards" will enable standards content (i.e., technical requirements) to be managed, accessed and used efficiently by engineers, acquisition professionals, and other stakeholders as the Department and defense industry transition to digital processes, products, and tools.

This strategy is the result of extensive research and collaboration among the DOW Components, standards development organizations, and defense industry partners involved in standards development, use, and management. It describes the tasks necessary to foster the use, development, and management of digital standards. To carry it out, the Department Standardization Officers will work with the Defense Standardization Program Office to develop a roadmap to promote effective implementation of the strategy across the Department.

Thomas W. Simms
Defense Standardization Executive

"A DOW Digital Standards Strategy empowers the DOW to deliver faster, more secure, and interoperable solutions by establishing a common framework for data, tools, and systems—reducing redundancy, enhancing agility, and ensuring long-term mission readiness."

Mr. Myles Miyamasu

Former United States Army Component Standardization Executive

"As the Department of the Navy drives to fully implement our Digital Engineering Transformation Strategy, leveraging the opportunity that digital standards provide will remain a key priority throughout the life-cycle of our systems. The increasing complexity and capabilities of our systems results in the need for both broad and deep standardization to achieve open and modular designs, interoperable systems, integrated capabilities, and ultimately increased speed of capability to the Fleet & Force. Digital standards affords the ability to quickly reference and apply standards to our Navy and Marine Corps systems and capabilities."

Mr. Peter Reddy

United States Navy Component Standardization Executive

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I. INTRODUCTION

In a time of great danger, prioritizing defense of the United States (U.S.) homeland requires constant review of strategic demands to support vital U.S. national security interests (Interim NDS Strategic Guidance, 2025). This includes the need for continued and rapid modernization of defense capabilities to counter threats in a multi-domain environment, and for co-production of defense capabilities with allies and partners. As the Department works to develop, modernize, and sustain defense systems in this context, it should prioritize advancing standards to help define, drive, and sharpen the competitive edge of the U.S.

"Establish and maintain accessible repositories of interface specifications and supporting documentation in **machine-readable** format that enable third party integration without original equipment manufacturer coordination...."

Memorandum for *Transforming the Defense Acquisition System into the Warfighting Acquisition System to Accelerate Fielding of Urgently Needed Capabilities to our Warriors,* Nov 2025

Traditionally, the Department of War (DOW) has relied on the use of human-readable, document-based standards to garner requirements for engineering or technical methods, processes, and practices. The Department's move toward digital transformation of engineering, acquisition, and sustainment processes has allowed evolution beyond document-based artifacts and processes to digital platforms and formats, such as models, simulations, and digital tools, that help to accelerate processes.

To facilitate further innovation and ensure continued progress, the Department is transforming document-based standards development and management practices to support accessible, integrated digital and model-based approaches, helping meet the demand to (1) deliver capabilities at the speed of need and (2) deter current and emerging threats.

Digitalizing standards will involve principles, processes, and methods similar to other digital efforts under way within the DOW (e.g., digital engineering, digital twins, and model-based systems engineering). It will revolutionize the way standardization management activities (SMAs) and the user community develop and manage standards and consider opportunities for interoperability. Although engineering is not the only domain in which digital standards have applications and potential for automation and greater efficiency, digital engineering perhaps creates the strongest demand signal for digital standards today. Digital standards will move the DOW forward toward a fully integrated digital ecosystem.

Digital standards are standardization products (e.g., specifications, standards, Data Item Descriptions (DIDs)) published in machine-readable and machine-interpretable formats that enable use in digital tools and processes. This includes models and other standardized products that are not document-based.

This transformation to digital standards benefits the users by reducing human labor (e.g., copying and pasting written requirements) and errors involved in design and engineering, acquisition, and sustainment tasks. It also has potential to reduce human labor and errors in developing and managing standards, thereby improving the quality of the standards and the technical requirements they contain. Using digital standards will allow SMAs to benefit from enhanced searchability, traceability of requirements, and interoperability between various file formats.

In order to maximize the benefit of digital standards, standards developers must publish in common digital formats and develop best practices for developing and using digital standards. In parallel, the DOW relies on collaboration with industry counterparts and allies and partners to develop consensus-based standards, published with fair licensing terms, ensuring wider dissemination and use. For example, the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) have recognized the importance of digital standards and have developed a SMART Model to drive the digital evolution of international standards to address the needs of standards users (ISO/IEC SMART, 2022). The DOW has adapted the ISO/IEC SMART Model to provide the initial framework for digitalization of standards, with each level indicating the extent to which standards can be read and acted upon by a machine, as shown in Figure 1.

> **EXAMPLE**
>
> Part standards can be developed as 3-D computer-aided design (CAD) models, and these CAD models can be published as the authoritative source standard as opposed to developing the standard as a document-based artifact with 2-D drawings or images. In advanced manufacturing practices, the 3-D CAD model part standard can enable contractors and suppliers to deliver parts for DOW weapon systems faster.
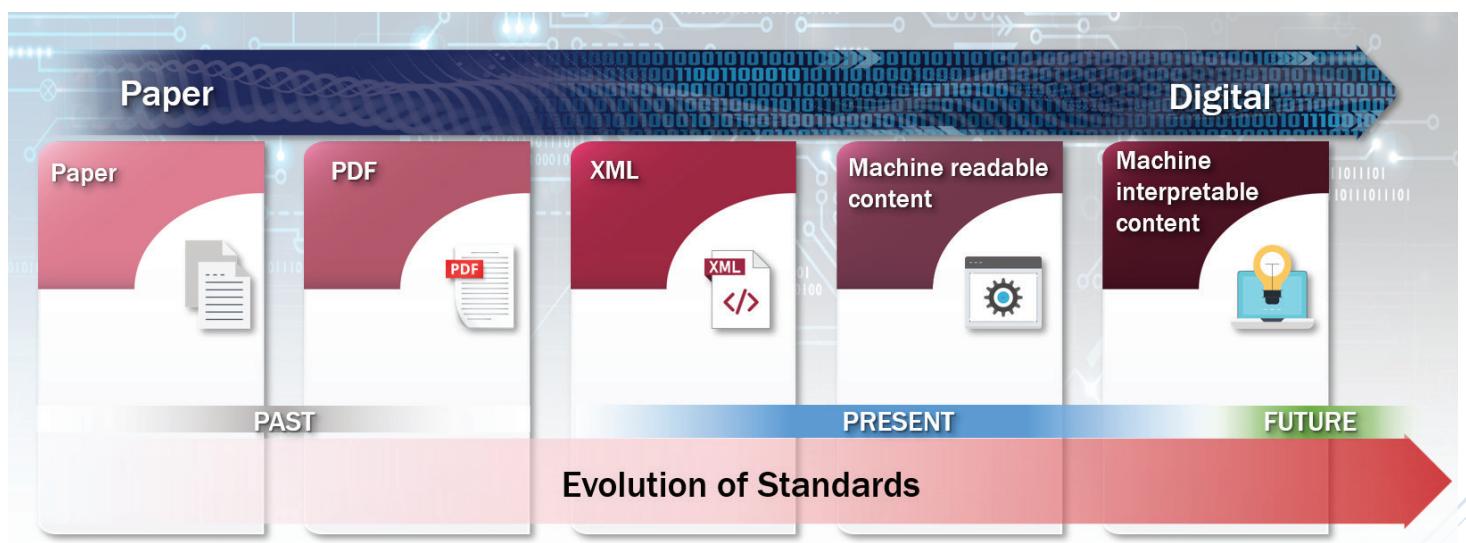

Figure 1. DOW Implementation of the ISO-IEC/ISO SMART Model

II. PURPOSE

The strategy is intended to guide the evolution of digital standards to meet the needs of standards users as the DOW digitally transforms the way it does business, ensuring timely delivery of critical and emerging capabilities to the warfighter in multi-domain operations. This strategy presents a shared vision and action, to equip the DOW with the tools necessary to digitize defense standardization documents and data to support and advance digital efforts, as shown in Figure 2. The concepts described in the strategy could be applicable to the digitalization of standards beyond the defense industry. The guidance in the strategy is not intended to be prescriptive, such that DOW programs will have additional requirements for the use of digital standards.

As the day-to-day manager of the Defense Standardization Program (DSP), the Defense Standardization Program Office (DSPO) will lead the collective path forward for the DOW and will engage the Departmental Standardization Officers (DepSOs) to develop a roadmap to execute the vision, goals, and guiding principles of this strategy.

Digital Standards Initiatives

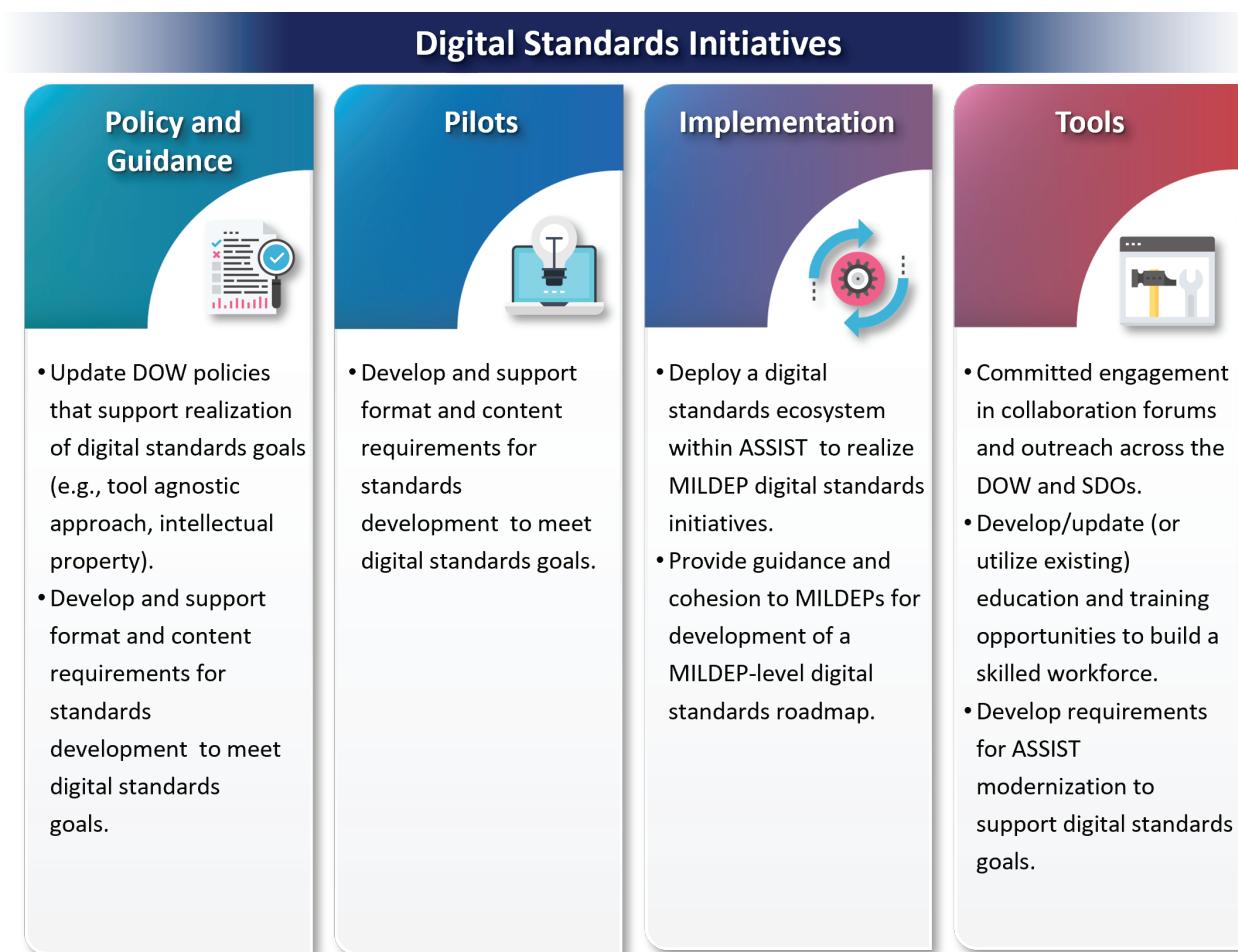| Policy and Guidance	Pilots	Implementation	Tools
• Update DOW policies that support realization of digital standards goals (e.g., tool agnostic approach, intellectual property). • Develop and support format and content requirements for standards development to meet digital standards goals.	• Develop and support format and content requirements for standards development to meet digital standards goals.	• Deploy a digital standards ecosystem within ASSIST to realize MILDEP digital standards initiatives. • Provide guidance and cohesion to MILDEPs for development of a MILDEP-level digital standards roadmap.	• Committed engagement in collaboration forums and outreach across the DOW and SDOs. • Develop/update (or utilize existing) education and training opportunities to build a skilled workforce. • Develop requirements for ASSIST modernization to support digital standards goals.

Figure 2. DSPO Digital Standards Leadership Initiatives
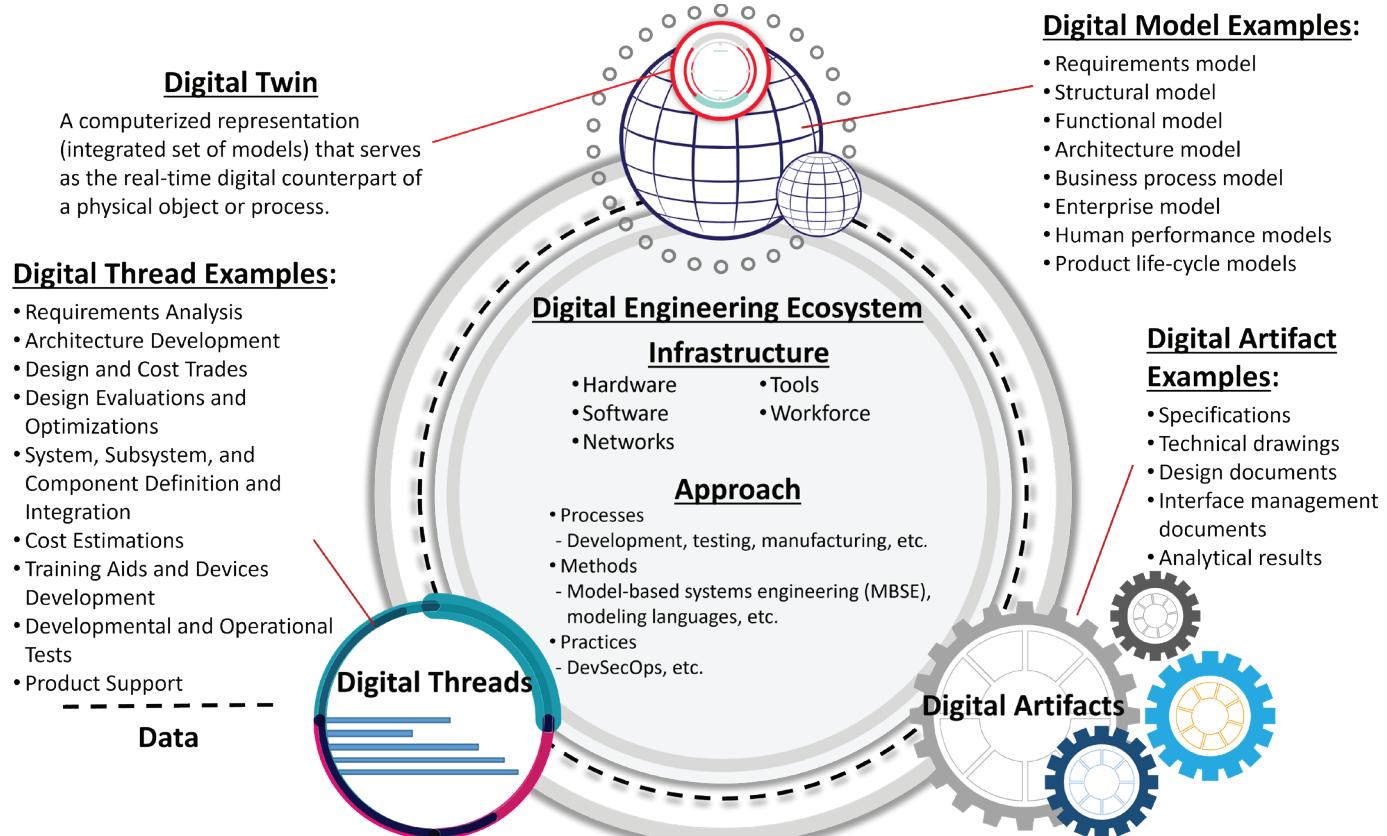
III. WHY DIGITAL STANDARDS?

DOW organizations are making fundamental changes to day-to-day operations in favor of digital approaches, including digital engineering, thus providing a demand signal for the development of digital standards. The DOW and defense industry will benefit from the use of digital standards to manage requirements effectively and work toward the goal of building a fully integrated digital ecosystem.

To support this effort, the DOW has established policy and guidance to promote resourcing digital engineering and digital process initiatives, as shown in Table 1. Many of these documents emphasize integrating digital engineering into current acquisition and sustainment workflows to advance modernization and readiness objectives. They advocate for replacing traditional documentation with models and structured data as the authoritative sources of truth, while highlighting the importance of standards to support interoperability and effective implementation.

As the DOW continues to implement digital engineering into current and future weapon systems development, there is a growing need for requirements from standards to be developed and displayed in relevant digital formats to support further derivation of digital artifacts. The Military Departments (MILDEPs) are already digitalizing standards, an indication that the DOW needs overarching guidance for the Department regarding the future of standards development. Although the MILDEPs each have their own digital priorities, they are all moving toward digital products and processes, with interest and support from senior DOW/MILDEP-level leadership.

Table 1. Listing of DOW and Military Department Level Policy and Guidance for Digital Processes and Digital Engineering

DOW Policy and Guidance
DoDI 5000.97, *Digital Engineering*
2018 DoD Digital Engineering Strategy
DoD Digital Modernization Strategy 2019
FULCRUM: The DoD Information Technology Advancement Strategy
Overarching Plan for Enabling Adoption of Modern Engineering Tools
Military Department Policy & Guidance (not exhaustive)
Army
Army Directive 2024-03, *Army Digital Engineering*
AR 70-1, *Army Operation of the Adaptive Acquisition Framework*
DA PAM 70-3, *Army Acquisition Procedures*
Army Digital Transformation Strategy
Navy
SECNAVINST 5000.2G, *Department of the Navy Implementation of the Acquisition System and the Adaptive Acquisition Framework*
Naval Digital Systems Engineering Transformation Strategy
NAVWAR Digital Engineering Strategy
Air Force
AFMCI 63-1201, *Integrated Life Cycle Systems Engineering and Technical Management*
DAFI 63-101/20-101, *Integrated Life Cycle Management*
DAFPAM 63-128, *Integrated Life Cycle Management*
Digital Building Code for Digital Engineering and Management

Digital Twin
A computerized representation (integrated set of models) that serves as the real-time digital counterpart of a physical object or process.

Digital Model Examples:
- Requirements model
- Structural model
- Functional model
- Architecture model
- Business process model
- Enterprise model
- Human performance models
- Product life-cycle models

Digital Thread Examples:
- Requirements Analysis
- Architecture Development
- Design and Cost Trades
- Design Evaluations and Optimizations
- System, Subsystem, and Component Definition and Integration
- Cost Estimations
- Training Aids and Devices Development
- Developmental and Operational Tests
- Product Support

Data

Digital Engineering Ecosystem

Infrastructure
- Hardware
- Software
- Networks
- Tools
- Workforce

Approach
- Processes
  - Development, testing, manufacturing, etc.
- Methods
  - Model-based systems engineering (MBSE), modeling languages, etc.
- Practices
- DevSecOps, etc.

Digital Threads

Digital Artifact Examples:
- Specifications
- Technical drawings
- Design documents
- Interface management documents
- Analytical results

Digital Artifacts

Data management should adhere to DoD Data Strategy goals – make data visible, accessible, understandable, linked, trustworthy, interoperable, and secure

Source: DoDI 5000.97

Figure 3. Digital Artifacts as a Key Enabler in the Digital Ecosystem

Digital standards serve as key digital artifacts within the digital engineering ecosystem (DoDI 5000.97). DoDI 5000.97 defines digital artifacts (shown in Figure 3) as digital products and views that can be dynamically generated directly from digital models, thereby replacing traditionally document-based artifacts containing technical requirements and applying common technologies to extract information from standardization documents. For example, the MILDEPs have expressed interest in using digital standards in a model-based environment to more easily extract requirements and to connect authoritative sources of truth. Digital standards enable data to be ingested into and between digital tools to support full digital engineering, acquisition, and sustainment processes. Likewise, the wide variety of digital and systems engineering tools and products also warrants the need for different digital standards and formats to support requirements development, architecture design, software development, testing, and data exchanges.

With the push for digital standards, the MILDEPs recognize the need for policy and guidance to drive creation, accreditation, management, and use of digital standards.

Common desires within the MILDEPs regarding the use of digital standards include the following:

- Ecosystem-level style guides to standardize digital standards

- The validation of digital standards

- Tools or platforms that will be used for native creation of, process workflow for, and access to digital standards.

The MILDEPs have identified the following as potential obstacles in the shift toward the use of digital standards:

- What digital formats are most useful to users?

- What knowledge gaps exist among stakeholders, users, and creators of standards?

- How will knowledge regarding digital standards be shared with stakeholders?

- How will intellectual property and license rights and security considerations be addressed in digital standards?

- How will translation and exchange problems between digital tools be addressed for modeling languages?

Beyond these concerns, if modeling and simulation efforts are tied to program funding rather than ecosystem-level initiatives, the funding could be more unstable, and issues could arise regarding preferred tool usage, which may result in vendor lock and interoperability problems.

The goal of this strategy and future roadmap is to address these desires and challenges and provide guidance to forge an ecosystem-level path forward.
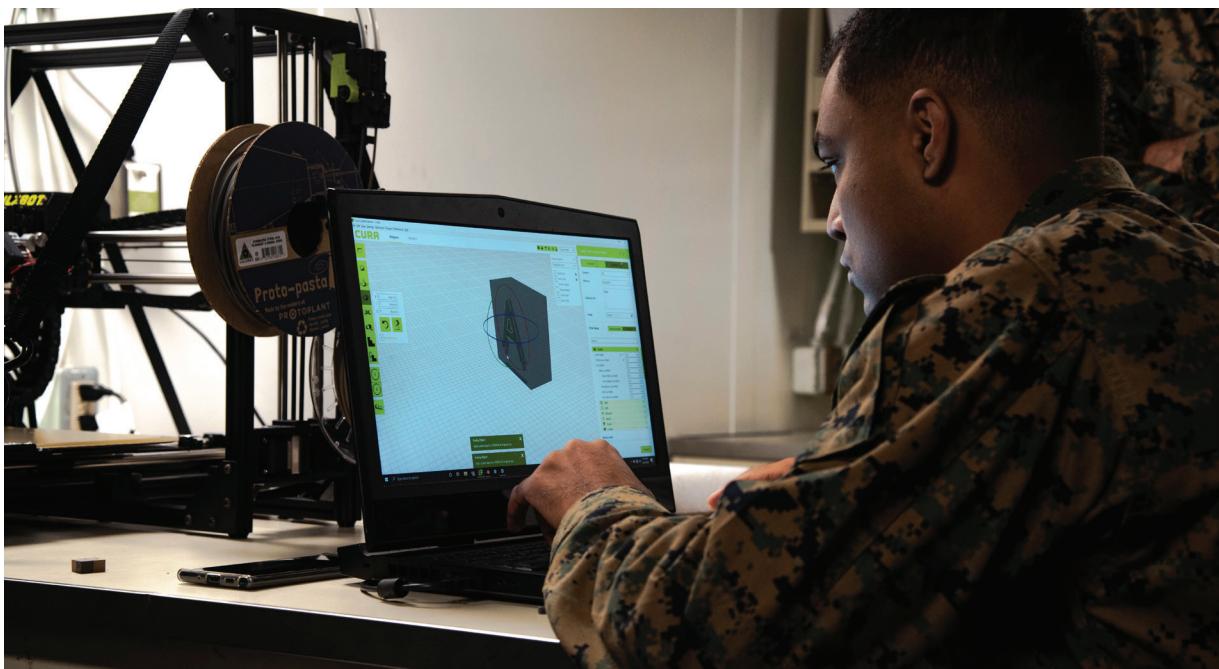
IV. GUIDING PRINCIPLES

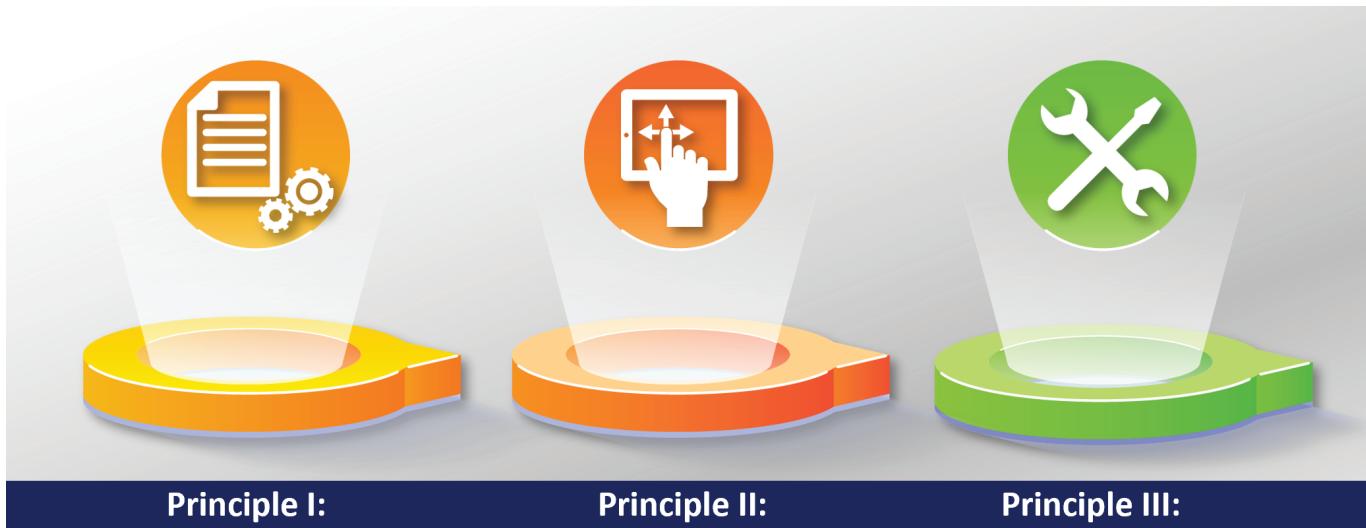The strategy includes three guiding principles to support its execution, as shown in Figure 4.

Principle I:	Principle II:	Principle III:
Digital standards adhere to standards management processes.	Publish digital standards in relevant (i.e., usable) formats.	Utilize a tool-agnostic approach to digital standards development and use.

Figure 4. Guiding Principles for the Digital Standards Strategy

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GUIDING PRINCIPLE I: **The development process for digital standards must provide the same rigor and foster the same trust in digital standards that standardization products receive today.**

The type of standard, regardless of its format, dictates the processes used for its development, management, and distribution needed to enforce rigor and establish trust. The processes provide the necessary requirements and guidance regarding ownership, configuration management, and governance. This remains the same for digital standards. For this discussion, the differences between standards management processes of defense standardization documents and non-government standards (NGSs) are noted.

DEFENSE STANDARDIZATION DOCUMENTS

Defense standardization documents (e.g., MIL-STD, MIL-SPEC) include requirements specific to military applications and, therefore, are applicable to the DOW. Defense standardization documents are managed through the DSP in accordance with Department of Defense Manual (DoDM) 4120.24, *Defense Standardization Program (DSP) Procedures*. The DSP procedures for defense standardization document development implement the same principles described below for NGSs to develop military unique requirements.

NON-GOVERNMENT STANDARDS

NGSs include requirements that may be used and adopted by the DOW but are developed, managed, and published by private sector standards development organizations (SDOs). NGSs should be developed and adhere to general standards development and management processes, the principles of which are described in the SD-9 (adapted below) (SD-9 2018).

- Openness—Participation is open on a non-discriminatory basis to all individuals directly and materially affected without unreasonable financial barriers.

- Lack of Dominance—No single interest category, individual, or organization excludes fair and equitable consideration of other viewpoints.

- Balance—Fair and representative diversity of interests.

- Due Process—Documented and publicly available policies and procedures, adequate notice, sufficient time to review drafts and prepare views/objections, access to views and objections, and a fair and impartial process for resolving conflicting views.

- Written Procedures—Written procedures govern the methods used for standards development and are available to any interested person.

- Appeals Process—Written procedures contain an identifiable, realistic, and readily available appeals mechanism for the impartial handling of procedural complaints.

- Consensus—General agreement, but not necessarily unanimity.

GUIDING PRINCIPLE II: Digital standards will be published in relevant formats (i.e., usable) to support digital engineering, acquisition, and sustainment processes.

DIGITAL FORMAT TYPES

The formats of interest for this strategy include the following: human-readable, machine-readable, and machine-interpretable.

Human-Readable

Human-readable formats can be easily read and understood by humans. Examples of human-readable formats include paper documents and PDFs. Paper standardization documents have been in use for more than a century. From paper documents, the DOW transitioned to use of PDF documents in the 1990s. This technology is still in use today, in a major capacity, for standards development. PDF files allow for electronic publishing and access on demand. They allow for limited electronic manipulation (if optical character recognition (OCR) capable) to allow search and copy/paste capabilities.

Machine-Readable

Machine-readable formats provide structured content that can be recognized and validated by software. Examples of machine-readable content include the use of XML, Comma-Separated Values (CSV), or JavaScript Object Notation (JSON) for data exchange by defining structure or syntax of data, allowing it to be easily transferred and transposed into other formats at ease, such as Hypertext Markup Language (HTML) and PDF.

Machine-Interpretable

Machine-interpretable formats provide semantic content that can be acted upon by software. Examples of machine-interpretable content include models developed in Systems Modeling Language (SysML) or using computer-aided design (CAD), and computer-aided manufacturing (CAM). For example, SysML can be used to model complex systems, providing a visually and semantically rich representation of systems engineering information that stakeholders can easily represent and analyze. Semantic meaning can also be added to data exchange formats to facilitate machine interpretation. This is achieved by adding metadata and attributes, and using schemas (e.g., XSD), controlled vocabularies, and ontologies.

CONTINUED NEED FOR HUMAN-READABLE STANDARDS

While this strategy focuses on the shift of defense standardization documents to machine-readable and machine-interpretable formats, these formats do not eliminate the need for human-readable documents. Human-readable documents often can be autogenerated from machine-readable and machine-interpretable formats, meaning that they provide the same exact representation as the digital formats. The following is a sampling of use cases for human-readable documents.

Use Case #1: Lack of User Access

Some stakeholders may have limited or no access to digital tools; therefore, human-readable documents are the only option to provide access to standards. As the DOW adopts digital approaches to engineering, acquisition, and sustainment processes, ecosystem-wide access to digital tools will be essential.

Use Case #2: Lack of User Experience

The DOW workforce currently lacks skill in standards development and model-based engineering as well as digital tools, which furthers the case for providing human-readable documents. To support DOW increasing proficiency with digital tools, the government, industry, and academia could emphasize training as part of a continuous learning culture and increase understanding of how and why processes are changing.

Use Case #3: The Transition Period of DOW's Digital Transformation

The use of digital engineering, acquisition, and sustainment processes is under way in the DOW, and it is a major shift in perspective and workforce culture. While the use of digital processes and tools provides tremendous positive impact to the DOW in the long term, in the short term, the transition to digital processes can be slow moving and difficult, especially for current and legacy programs that are subject to funding and resource pitfalls. As not all DOW programs are fully "born digital," the need for a form of human-readable documentation will remain.

There is a steep learning curve to use digital tools and processes, which takes time to resolve. Initial development of standards in machine-readable and machine-interpretable formats can be met with iterative error fixes. Having human-readable documents on hand during these transitional periods can be beneficial.

Use Case #4: Relevancy of Format

Feedback from the users of a standard is an essential decision aid in determining content and formatting requirements. Stakeholder needs must be evaluated and considered at the time of development or revision of a standard. The value in developing a new or converting a pre-existing standard to a digital standard, and the degree to which it is digitized, is based on stakeholder needs and based on Figure 1, the DOW's Implementation of the ISO/IEC SMART Model. For example, many process standards (e.g., best practice guides) are intended to be human-readable documents, designed for print. These types of standards may not be fit for digitalization and may never become digital standards.

Extensible Markup Language (XML)

```
<sec id="SEC5_1_1" specific-use="SECTION_L3">
    <label>5.1.1</label>
    <title>Materials to be removed</title>
    <p>. The chemical used in the cleaning shall
present in the sewage piping system.</p>
    </sec>
    <sec id="SEC5_1_2" specific-use="SECTION_L3">
        <label>5.1.2</label>
        <title>Sewage system deterioration</title>
        <p>. The chemicals used in the cleaning (inc
components when used within the constraints established in
        </sec>
    </sec>
    <sec id="SEC5_2" specific-use="SECTION_L2">
        <label>5.2</label>
        <title>Cleaning chemical product corrosion rate
        <p>. Permissible limits on the corrosion rates
        <sec id="SEC5_2_1" specific-use="SECTION_L3">
            <label>5.2.1</label>
            <title>Corrosion testing</title>
            <p>. Corrosion rates shall be obtained by ex
anticipated for possible shipboard application.  The corros
in table I shall be equal to or less than the rates listed
        </sec>
```
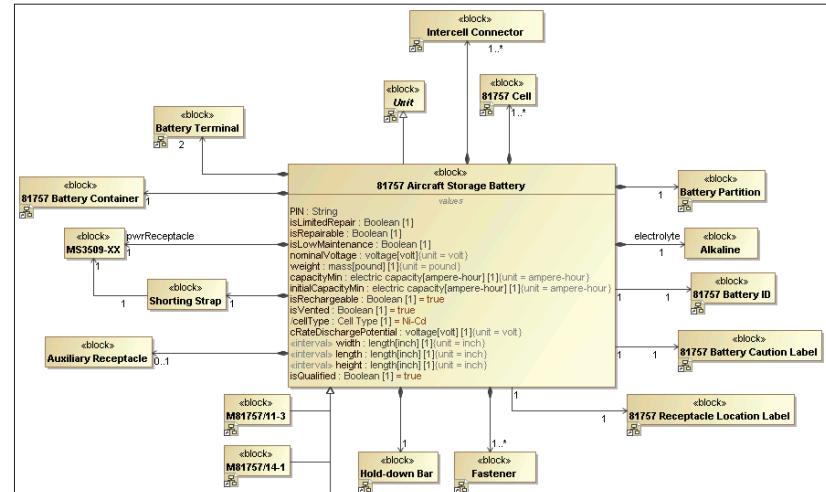
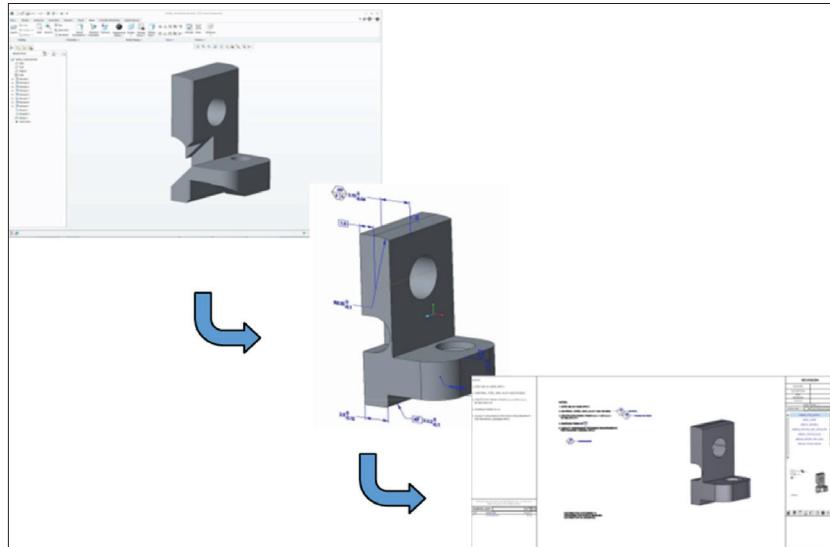MIL-STD-3026A, Chemical Cleaning of Sewage

Systems Modeling Language (SysML)

MIL-PRF-81757, Batteries and Cells, Storage, Nickel-Cadmium, Aircraft General Specification For

Source: AFLCMC Air Vehicle Government Reference Architecture

Computer-Aided Design/Manufacturing (CAD/CAM)

MIL-STD-31000C, Technical Data Packages (example of 3-D native model (vice 2-D drawing) creating a 3-D part)

Figure 5. Examples of Varying Output Formats from Different Digital Standards

GUIDING PRINCIPLE III: Digital standards guidance will be tool-agnostic to allow for wider use and applicability. Likewise, the guidance will support current and future MILDEP efforts for digitalization of standards.

The implementation of digital standards for the DOW must be tool-agnostic to avoid vendor lock, ensure access to the standards, and minimize the cost of training. This approach ensures that digital standards are not tailored into a specific vendor's tool, which may inhibit accessibility, hamper interoperability and reuse, and increase the cost associated with standards. It also highlights the ongoing importance of developing appropriate skill sets for standards development. Digital standards are usable only if the individuals who build them have a strong foundation in developing standards within their technical area of expertise.

V. CONSIDERATIONS

INTELLECTUAL PROPERTY AND LICENSING RIGHTS

The Use of Non-Government Standards

Office of Management and Budget (OMB) Circular A-119, *Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*, directs the preferential use of voluntary consensus standards (referred herein as non-government standards) in lieu of government-unique standards, except where inconsistent with law or otherwise impractical.

Using NGS in a digital context raises questions regarding intellectual property (IP) and licensing rights. Stakeholders need to ensure that property rights for both SDOs and for the government are preserved. While digital standards bring with them the benefits of interoperability and reuse afforded by enabled data and model exchanges, the DOW has a responsibility to identify and protect copyrighted material associated with digital standards. Data sharing for standards (whether in digital format or not) must adhere to the existing licensing rights as agreed upon between the government and the interested parties (e.g., SDOs, industry partners). DOW practitioners need to use caution when integrating digital NGSs in government model environments. The following are a few examples of IP and licensing rights concerns that may arise from using digital standards.

Examples – Showcasing IP and Licensing Rights Concerns for Digital Standards

- Digitizing and modeling NGSs

- Cross-referencing standards (and their requirements) in digital formats

- Modifying digital NGSs without appropriate and prior consent

- Sharing digital NGSs without appropriate and prior consent

Following the Law

The DOW adheres to appropriate federal and departmental statutes and regulations to guide use, sharing, and modification of digital standards, including but not limited to:

- Title 10 of the United States Code (Sections 3771–3775)–*Technical Data Rights*

- Title 17 of the United States Code–*U.S. Copyright Laws*

- Part 27 of the Federal Acquisition Regulation

- Defense Federal Acquisition Regulation Supplement Subpart 227.71 and 227.72.

Infringement of these IP and licensing rights laws may result in legal action and a loss of trust between the DOW and industry and SDO partners, inhibiting future collaboration efforts.

DOW personnel should refer to the guidance, *Intellectual Property Guidebook for DoD Acquisition*, from the Office of the Under Secretary of War for Acquisition and Sustainment (OUSW(A&S)) IP Cadre, to garner more information regarding IP and licensing rights.

The Increasing Use of Artificial Intelligence (AI)/Machine Learning (ML)

The rise of AI and ML tools creates growing concerns regarding IP and licensing rights and the potential unauthorized use and disclosure of copyrighted material in standards. To avoid infringing on copyright, the DOW and its industrial base should adhere to the law and to licensing terms and conditions for the use of copyrighted material developed by SDOs and industry partners.

Both government and industry are recognizing the impact of AI and ML and have begun to develop their own policies and best practices. For example, ASTM International and SAE International have released policies regarding the use of their standards and related IP in AI tools.

Executive Order 14179, *Removing Barriers to American Leadership in Artificial Intelligence*, provides overarching policy regarding the need for the U.S. to sustain and enhance its globally dominant position in AI to promote human flourishing, economic competitiveness, and national security. As of April 2025, the White House has also release two revised OMB memorandums, *Accelerating Federal Use of AI through Innovation, Governance, and Public Trust and Driving Efficient Acquisition of Artificial Intelligence in Government*, providing guidance to remove barriers to the use of AI to promote American innovation and leadership. The National Institute of Standards and Technology (NIST) continues to develop standards regarding the broader use of AI.

As the technical area of AI and ML continues to grow and evolve, additional guidance will be required pertaining to the use of digital standards and related IP and licensing rights issues.

SECURITY

Security requirements must be satisfied in the development and implementation of digital standards. The DOW's continued digital efforts, including the use and development of digital standards, require increased protection of data and data exchanges.

Digital standards must be handled in the same manner as human-readable documents, including data classification and aggregation, to ensure the availability and integrity of the data. Digital standards may contain information that is publicly releasable, controlled unclassified, or classified. It is the responsibility of DOW personnel to ensure that content in digital standards is handled, distributed, protected, and destroyed appropriately in accordance with the following documentation:

- DoDM 5200.01 Volumes 1–3, *DoD Information Security Program*

- DoDI 5200.48, *Controlled Unclassified Information*

- DoDI 5230.24, *Distribution Statements on DoD Technical Information*.

VI. LINES OF EFFORT

Figure 6 illustrates the five lines of effort that will be used to implement the digital standards strategy. The lines of effort highlight key areas of interest and exploration as determined by the MILDEPs and input from other stakeholders.

Figure 6. Five Lines of Effort of the Digital Standards Strategy

LINE OF EFFORT 1: COLLABORATION AND COORDINATION

The first line of effort establishes the need for continued coordination and collaboration within the DOW, other government fora, and SDOs to identify needs, use cases, pilots, and best practices. In an ever-evolving digital environment, technologies, tools, and processes are in constant flux. It is imperative that the DOW keep a close watch on government and industry initiatives to provide additional guidance for further development, management, and governance of digital standards. This line of effort requires DOW Components to provide resources for participation in cross-functional working groups and standards development in accordance with DoDI 4120.24. It also requires monitoring of industry and SDO initiatives.

Participation in SDOs

First, standards developers will bring the most benefit to the users of digital standards by publishing digital standards in common product and file types. SDOs publish documents in accordance with their own policies and procedures, so participation is key to gaining alignment between SDOs and their products.

Furthermore, federal agencies already participate in the development and use of NGS and conformity assessment activities, in accordance with the *National Technology Transfer and Advancement Act* and OMB Circular A-119. DOW personnel are encouraged to participate in SDO initiatives. The benefits of DOW participation in standards development include gaining access to the commercial industrial bases, accessing the latest technologies and dual-use products, meeting national goals, maintaining and developing expertise, influencing how industry standards are shaped to meet DOW requirements, spurring innovation, and providing superior products.

A number of industry and SDO initiatives are relevant references for DOW standards developers. See Appendix A for a representative list of initiatives that show the growing landscape and need for addressing digital standards and Appendix B for a representative list of collaborative fora for engagement.

LINE OF EFFORT 2: CONVERSION OF HUMAN-READABLE TO MACHINE-READABLE CONTENT

The second line of effort marks the initial transition from human-readable to machine-readable content. The DOW has chosen XML because it is a ubiquitous machine-readable format. The focus for this line of effort will be the conversion of existing defense standardization documents to XML, starting with defense standards and specifications. DSPO will develop best practices and guidance, including templates and style sheets for formatting and publishing content in ASSIST. Standardized templates and stylesheets will be critical to publish future defense standards and specifications in XML and promote interoperability and reuse. Machine-readable content will remain exportable as PDFs and retain human readability. These efforts will inform software change requests for ASSIST to support the addition of machine-readable products, as well as changes to DSP policies and procedures.
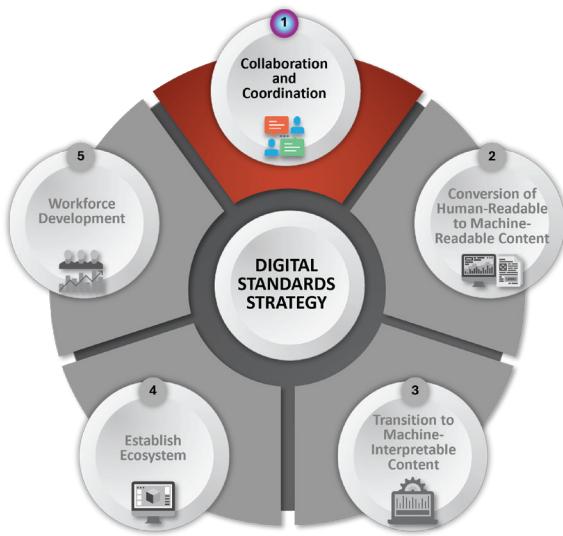
LINE OF EFFORT 3: TRANSITION TO MACHINE-INTERPRETABLE CONTENT

The third line of effort focuses on the use and reuse of digital standards in other formats (e.g., models). This leads the way for more digital formats of machine-readable and machine-interpretable content to be supported in ASSIST related to digital standards.

As mentioned before, MILDEPs and defense agencies are ultimately responsible for identifying relevant machine-readable and machine-interpretable formats and supporting requirements for model and data portability. Most often, the formats will be determined through pathfinders such as model-based standards in additive manufacturing and modular open systems approaches (MOSA). Best practices and lessons learned from these pathfinders will be garnered to support further updates to DSP policies, procedures, and tools.

DOW ecosystem-level model and data standardization for digital standards is needed to ensure models are developed in a consistent manner and can be validated and verified by SMAs. This is essential to enable integration, consistency, readability, navigation, and reuse. Style guides will be developed to standardize modeling of digital standards generated in or from the models.

These efforts will also inform future requirements and software change requests for ASSIST to support the addition of machine-interpretable products.

LINE OF EFFORT 4: ESTABLISH ECOSYSTEM

The fourth line of effort focuses on developing an ecosystem for native creation, governance, and configuration management of digital standards. This line of effort is intertwined with the DOW's continued modernization of ASSIST to support current and future standardization products. The outputs of this line of effort will include software change requests to enhance ASSIST and address the evolution of digital standards.

A digital standards ecosystem must address the needs of SMAs for standards development and management. Although the tools for developing digital standards are expected to evolve, the general processes and governance of digital standards will adhere to DoDM 4120.24, Defense Standardization Program (DSP) Procedures. With this in mind, the following considerations will be noted for ASSIST modernization:

- Automated compliance of digital standards to formatting standards (e.g., MIL-STD-961, *Defense and Program-Unique Specifications Format and Content*, and MIL-STD-962, *Defense Standards Format and Content*, etc.) to include standardized templates and style guides to support interoperability and reuse

- Workflow integration for owners and users to develop, review, and provide comments for digital standards.

LINE OF EFFORT 5: WORKFORCE DEVELOPMENT

The fifth line of effort focuses on educating the workforce regarding the use of digital standards to support existing and future digital efforts. This effort focuses on providing workforce training opportunities to understand the benefits of digital standards and use tools (agnostic) to develop and maintain them. It requires an intensive deep dive into understanding the current landscape of training related to digital standards development and performing a gap analysis to determine areas for future training considerations. The audience for this line of effort is targeted to SMAs, who are responsible for standards development and management.
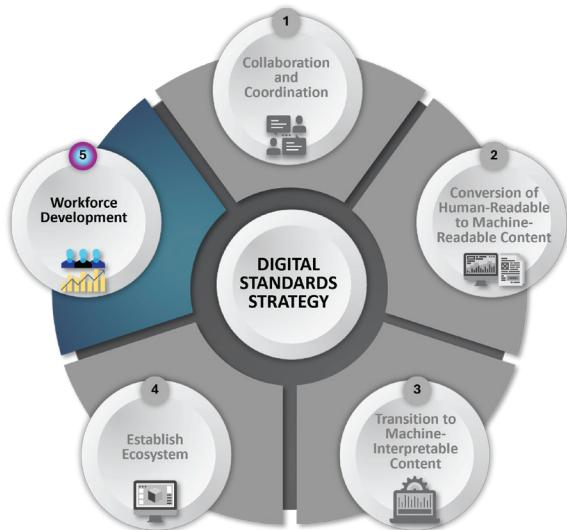
Available Training

The concepts for developing, managing, and using digital standards are not new, but the end state is constantly evolving to encompass cutting-edge technologies and ideas. Training opportunities will be explored and tracked to assist the DOW in learning more about digital standards: the benefits, concerns, areas of exploration etc.

Updates to Existing Coursework

As the DOW continues to embrace digital processes, digital standards concepts and best practices will need to be integrated into existing coursework available at the Defense Acquisition University. This includes updates to any coursework related to standards, the DSP, and complementary technical areas that touch on aspects of digital literacy and tool incorporation to realize the benefits of digital processes and digital engineering.

Training for Tools Use

In conjunction with ASSIST modernization efforts, SMAs will be provided with training opportunities to become familiar with the updated tools and workflow processes to support the curation of digital standards in ASSIST.

VII. CONCLUSION

The DOW's progress toward digital practice in engineering, acquisition, and sustainment signifies a needed shift in standards development practices, to enable further innovation, interoperability, and modernization of defense capabilities, thus supporting delivery to the warfighter at the speed of need and in multi-domain environments. Providing requirements in human-readable formats will not suffice in a model-based ecosystem environment.

The lines of effort identified in this strategy present a plan for the DOW to continue making strides in achieving a fully integrated digital ecosystem. The MILDEP DepSOs will take action to achieve the goals outlined in this strategy through the development of a roadmap. Collaboration across government and industry stakeholders will be a key aspect of the continued drive toward developing, delivering, and using digital standards.

The DOW will continue to explore digital formats and tools to meet the demand for digital standards. Digital technology, tools, and processes will continue to evolve, and digital standards must keep pace into the future. The Department needs standards to foster innovation in current and emerging technical areas, making them vital in an increasingly digital world.

VIII. APPENDICES

APPENDIX A – STATE OF PRACTICE

The U.S. Government, allies and partners, industry or private sector, and standards development organizations (SDOs) have initiatives under way to address the digitalization of standards. As the state of the art continues to evolve, there is significant need for continued work toward the end state of fully integrated digital engineering ecosystems.

The DOW looks to SDOs to understand the current and emerging drivers for standards development and garner best practices and lessons learned. As SDOs shift toward the use of digital standards, it is important for the DOW to keep pace with the private sector and collaborate with SDOs to establish commonality (e.g., formats, best practices, interoperability requirements) for digital standards. Likewise, it is integral for the DOW to participate in the development of and to use international standards to help protect U.S. technology interests, promote the use of standards and digital standards in joint and coalition operations, and co-produce defense systems with allies and partners.

There are challenges to overcome in this arena, including the cost of implementing digital initiatives (e.g., digital processes, training and tools) and the need for human intervention for verification and validation of digital standards. Upfront investment is required to establish the appropriate infrastructure to develop and use digital standards. Likewise, existing documents do not always translate over into digital formats easily. Problems may arise with structuring, labelling, and extracting numerical or textual data from human-readable formats.

Digital Standards Initiatives

Since the early 2000s, several SDOs have experimented with publishing standards in digital formats, with portable document format (PDF) being the most commonly used digital format; however, the growing demand for machine-readable and machine-interpretable content, and technological advancements in tools to support this need, has generated interest across government, industry, and SDO stakeholders in working closer together to establish commonality for digital standards.

Department of War

Across the DOW, digital engineering initiatives have resulted in efforts to implement standards as models to make them usable in digital tools. Combined with efforts by SDOs and the private sector, these separate efforts have been successful in proof of concept, and they suggest the need for overarching guidance to provide a holistic vision for the DOW to pursue.

Currently, the DOW has a centralized robust repository for human-readable defense standardization documents such as military standards, military specifications, data item descriptions (DIDs) etc., which are housed in ASSIST. The first fully digital DID (DI-SESS-82426, *Model-Based Engineering Failure Modes, Effects, and Criticality Analysis Profile, SysML Version*) was released in October 2023, and it serves as a significant milestone for the integration of a machine-readable SysML profile within a DID and constitutes the first machine-readable standardization product published in ASSIST.

As the MILDEPs implement digital tools and methodologies, they have begun modeling and developing digital standards. For example, the Department of Air Force has taken the concept of digital standards one step further by piloting initiatives to develop models for military standards and link them to policy, guidance, and architectures.

DAF Digital innovation and Integration Center of Excellence (DIICE) performed a feasibility study on MIL-STD-882E, *System Safety*, as an object-oriented JavaScript Object Notation (JSON)-based model using the METRA application programming interface (API), Cameo MagicDraw plug-in. This study showcases a document-type agnostic approach providing the capability to link standards and DOW policy and guidance to enable practitioners to trace requirements and view secondary and tertiary downstream effects of changing/updating requirements.

Likewise, DAF is working to develop an Air Vehicle (AV) Government Reference Architecture (GRA) based on MIL-STD-881, *Work Breakdown Structures for Defense Materiel Items*. Housed in the DAF Launchpad Environment, AV GRA contains numerous standards underneath its framework, with individual models included in a reference model library (>70). These standards include military standards and specifications (e.g., MIL-DTL-6162, *Generators and Starter-Generators, Electrical Direct Current, Nominal 30 Volts, Aircraft General Specification for*, and MIL-STD-704, *Aircraft Electric Power Characteristics*). AV GRA has generated interest across MILDEP because its development could create larger model reuse of common structures and allow for specific tailoring of requirements at the domain level.

Like the Air Force, the Department of Army is exploring the use of digital methodologies to develop and revise defense standardization products, particularly technical manuals by converting them from PDF to Extensible Markup Language (XML), with stylesheets and templates. AR 25-30, *Army Publishing Program*, and DA PAM 25-40, *Army Publishing Program Procedures*, point to requirements to acquire Extensible Markup Language (XML) data for new and revised technical manuals, and compliance of these manuals to MIL-STD-40051, *Preparation of Digital Technical Information for Technical Manuals* (or alternatively MIL-STD-3031, *Army Business Rules for S1000D: International Specification for Technical Publications Utilizing a Common Source Data Base*).

Since 2003, the Army Logistics Data Analysis Center's (LDAC's) Technical Publications Branch, the policy office for all standards and specifications related to technical and equipment publications, has been moving to digitalize all DA Authenticated Publications using an XML model. The model was first released in 1996 as a Standard Generalized Markup Language (SGML) Document Type Definition (DTD), using a balanced approach of content and structure tagging, and in 2003 it was released as an XML DTD. In the last five years, LDAC has expanded its digital path by converting standards and specifications using XML as the source for producing the PDF output. A stylesheet and modified DTD from DocBook (a semantic markup language for technical documentation) have been developed to define structure and tag elements and attributes in the XML.

In addition, the Department of the Navy is piloting a project that uses Quality Information Framework (QIF), a unified XML framework standard, for metrology in support of model-based quality assurance.

Allies and Partners

Similarly, allies and partners and SDOs are investing in options to adopt the ISO/IEC SMART Model and piloting initiatives in digital standards calibration and conformance (European Committee for Standardization). This includes the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), the Association Française de Normalisation (AFNOR), the German Institute for Standardization (DIN), and the German Commission for Electrical, Electronic and Information Technologies (DKE).

AFNOR is leading the Machine Applicable Readable Standard and Standardization (MARSS) project to transform technical and business management standards into 100% digital objects, thereby reducing errors associated with manual requirements identification and extraction by human users (Association Française de Normalisation, 2023).

> Only when standards developers deliver standards content in usable, common formats do we bring benefit to the user of the standards.

DIN and DKE have teamed together to establish the Digital Standards Initiative (iDIS). iDIS has initiated pilots with QI Digital to develop a digital quality infrastructure that links private and public stakeholders (to include standards, conformity assessments, metrology etc.). Digital certificates are available for calibration conformity testing, including a Digital Certificate of Conformity (in accordance with DIN EN ISO/IEC 17065, *Certification of Products, Processes and Services*) and a Digital Calibration Certificate (in accordance with DIN/EN ISO/IEC 17025, *Testing and Calibration Laboratories*). In the calibration certificate, measurement data is recorded in a standardized manner and made available in machine-readable form via XML data exchange format (QI Digital).

Other Initiatives

- Digital Metrology Standards Consortium (DMSC)—Developed a unified XML framework quality information framework (QIF) standard, allowing for capture and reuse of metrology information through Product Lifecycle Management and Product Data Management domains (Digital Metrology Standards Consortium, 2024).

- SAE International®—Developed a digital model for AS5669A, Joint Architecture for Unmanned Systems/Software Defined Protocol Transport Specification (SAE International OnQue).

- Object Management Group® (OMG®)—Developed the Unified Modeling Language (UML®) and Systems Modeling Language (SysML®) standards, which have been used as the modeling languages of choice for DOW modeling efforts. Created an XML metadata interchange (XMI) standard for transferring models between tools (except diagrams) (OMG Specifications Catalog).

This list is merely representative of current initiatives as of 2025 and is not exhaustive.

Tools and Systems for Digital Standards

SDOs have experimented with digital formats and publishing methods primarily independently, driven by each organization's preferences and business models. While there have been efforts to standardize the delivery of standards content in digital formats (e.g., NISO Standards Tag Suite (STS)), each SDO maintains their own publishing tools and systems for digital standards tailored to meet the needs of their user-base. For example, the SDOs that published the highest number of standards adopted by the DOW —ASTM International, SAE International® and Aerospace Industries Association (AIA)—have each developed systems for delivering standards in digital formats. In some cases, digital standards are published as derivative products, as in AIA's 3-D Model CAD Library of National Aerospace Standards (NAS). This library invokes quality assurance and accuracy across the community through consistency of part designs used, thereby reducing time and duplicative rework while improving engineering productivity (AIA NAS Part Standards). Others, such as ASTM Compass®, provide access to the standards, with the ability to add notes and images, view changes via color-coded highlighting and share information within your organization (ASTM Japan, 2024). The SAE International® OnQue™ Digital Standards System also allows for efficiency in searchability of parts and materials and delivers standards in formats suitable for data transfer to support exchanges pulling standards directly into engineering tools and documents and real-time notification of standards updates or revisions (SAE International® OnQue™).

Additionally, ISO/IEC has developed an Online Standards Development Platform to be used for the native creation of SMART ISO/IEC standards, providing standards developers with digital tools to draft, edit, author, and coordinate standards. This allows for end-to-end online standards development and configuration management processes. With this, ISO/IEC is also exploring the business models for distributing and commercializing SMART standards and identifying related legal implications in a newly digital market (ISO/IEC SMART, 2022).

To keep pace with industry, DSPO is modernizing ASSIST to enhance its functionality and features, including allowing for the distribution of standardization documents as digital standards in formats that meet the needs of its intended users. DSPO is piloting tools to convert text-based standardization documents into machine-readable formats (e.g., XML). Additionally, the MILDEPs are investing in tools to access model-based formats of standards and system specifications. For example, to address the need for centralized repositories for digital products, like standards, the United States Marine Corps Advanced Manufacturing Operation Cell is developing and populating a Digital Manufacturing Data Vault to store engineering data and design solutions and enable access to data from anywhere, allowing for spare parts to be built with 3-D printers with ease (U.S. Naval Institute News, 2021).

Best Practices for Digital Standards

Consistent structures in digital standards and the ability to make connections will help promote reuse of standards and tailoring of requirements and reduce interoperability issues. These principles are needed to ensure that the trust and rigor of digital standards are comparable to standards that exist today.

The Open Group® Consortium has developed two documents that provide a robust understanding of standards and guidance needed to support establishing trust and rigor in digital standards: Principles for Open Digital Standards and Digital Practitioner Body of Knowledge™ Standard. The standard promotes an understanding of what it means to be digital, and the need to establish best practices for organizations providing a digital customer experience (The Open Group Digital Practitioner). The principles document provides guidance to developers and reviewers of standards regarding how to develop a set of coherent and cohesive standards for the digital market (The Open Group Principles).

At a high level, these principles include:

- Business Principles—agile development for continuous delivery of products of value, meeting the needs of practitioners

- Content Principles—standards development and relationships

- Quality Principles—consistency in style, format, and cross-referencing.

The principles in this document provide a starting point for DOW and other SDOs to determine guiding principles for the evolution of digital standards (The Open Group Principles).

APPENDIX B – DIGITAL STANDARDS COLLABORATION FORA

As part of Line of Effort 1, the DOW recognizes the need for continued collaboration and coordination within the DOW, other government fora, and SDOs regarding digital standards. The following collaboration fora have been identified as opportunities for DOW engagement in digital standards discussions and their role in digital initiatives.

- Digital Standards Alliance—A digital standards consortia formed by the SAE Industry Tech Consortia® with goals to set the benchmark for digital practices in the standardization space, supporting the future of technology and driving toward excellence (SAE Industry Tech Consortia).

- North American Smart Standards Forum—A community knowledge exchange under National Information Standards Organization (NISO) focused on spreading and garnering best practices, for the use and delivery of smart standards.

- ISO/IEC SMART Initiative—A joint partnership between ISO and IEC to drive the evolution of digital standards (in the international space) to address the needs of users (ISO/IEC SMART, 2022).

- Object Management Group® (OMG®) Model-Based Acquisition (MBAcq) User Community—A broad industry body (with DOW and industry participation) with goals to develop standards and guidance to deploy MBAcq to the larger community. Model-based acquisition is a technical approach to acquisition that uses models and other digital artifacts as primary means of information exchange, rather than documents (MBAcq User Group).

- The Open Group® Consortium Digital Portfolio Work Group—A group focused on developing and promoting an understanding of digital concepts and establishing best practices for organizations (DPWG).

- Joint Strategic Quality Council (JSQC) Model-Based Quality and Mission Assurance Working Group—A government and industry collaborative piloting one aspect of the digital thread, first article inspection (FAI) for model-based quality. The group is drafting a DID for FAI, with goals to require contractors to submit FAI data via a contract data requirements list (CDRL) in a standardized DID-defined model format. This will be integrated in the OMG MBAcq efforts as a domain overlay (JSQC Working Group, 2024).

GLOSSARY

Term	Definition
Digital Artifact	A product or output, in computer (i.e., digital) format, created within or generated from the digital engineering ecosystem. Digital artifacts provide data for alternative views to visualize, communicate, and deliver data, information, and knowledge to stakeholders. (DoDI 5000.97)
Digital Engineering	An integrated digital approach that uses authoritative sources of systems' data and models as a continuum across disciplines to support lifecycle activities from concept through disposal. (*DAU Glossary*)
Digital Engineering Ecosystem	The interconnected infrastructure, environment, and methodology (process, methods, and tools) used to store, access, analyze, and visualize evolving systems' data and models to address the needs of the stakeholders. (*DAU Glossary*)
Digital Standard	Digital standards are standardization products (e.g., specifications, standards, Data Item Descriptions (DIDs)) published in machine-readable and machine-interpretable formats that enable use in digital tools and processes.
Human-readable	Information that can be easily read and understood by humans.
Machine-interpretable	Semantic content that can be acted upon by software.
Machine-readable	Structured content that can be recognized and validated by software.
Model	A representation of an actual or conceptual system that involves mathematics, logical expressions, or computer simulations that can be used to predict how the system might perform or survive under various conditions or in a range of hostile environments. (*DAU Glossary*)

Non-Government Standard	A national or international standardization document developed by a private sector association, organization, or technical society that plans, develops, establishes, or coordinates standards, specifications, handbooks, or related documents. This term does not include standards of individual companies. (DoDM 4120.24)
Simulation	A method for implementing a model. It is the process of conducting experiments with a model for understanding the behavior of the system modeled under selected conditions or of evaluating various strategies for the operation of the system within the limits imposed by developmental or operational criteria. Simulation may include the use of analog or digital devices, laboratory models, or "testbed" sites. Simulations are usually programmed for solution on a computer; however, in the broadest sense, military exercises and wargames are also simulations. (*DAU Glossary*)
Specification	A document prepared to support acquisition that describes the essential technical requirements for purchased materiel and the criteria for determining whether those requirements are met. (DoDM 4120.24)
Standard	A document that establishes uniform engineering or technical criteria, methods, processes, and practices. (DoDM 4120.24)
Standardization Document	A generic term for a document used to standardize an item of supply, process, procedure, method, data, practice, or engineering approach. Standardization documents include defense specifications, standards, and handbooks; federal specifications and standards; guide specifications; CIDs; and NGSs. (DoDM 4120.24)
Standards Management Activity	A generic term to describe any DoD activity listed in Reference (u) that functions as an LSA, DSA, DMA, or IRA. Reference u: Defense Standardization Program Standardization Directory SD-1, "Standardization Directory," April 1, 2014 (DoDM 4120.24)

ACRONYMS

AFMCI	Air Force Materiel Command Instruction
AFNOR	Association Française de Normalisation
AI	Artificial Intelligence
AIA	Aerospace Industries Association
API	Application Programming Interface
AR	Army Regulation
ATS	Acquisition Transformation Strategy
AV	Air Vehicle
CAD	Computer-Aided Design
CAM	Computer-Aided Manufacturing
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
DAFI	Department of Air Force Instruction
DAFPAM	Department of Air Force Pamphlet
DA PAM	Department of Army Pamphlet
DID	Data Item Description
DIN	German Institute for Standardization
DIICE	Digital innovation & Integration Center of Excellence
DKE	German Commission for Electrical, Electronic and Information Technologies
DOW	Department of War
DepSO	Departmental Standardization Officer
DMSC	Digital Metrology Standards Consortium
DoDI	Department of Defense Instruction
DoDM	Department of Defense Manual
DSP	Defense Standardization Program
DSPO	Defense Standardization Program Office
FAI	First Article Inspection
GRA	Government Reference Architecture
HTML	Hypertext Markup Language
IEC	International Electrotechnical Commission
IP	Intellectual Property

ISO	International Organization for Standardization
JSON	JavaScript Object Notation
JSQC	Joint Strategic Quality Council
MBAcq	Model-Based Acquisition
MIL-DTL	Detail Specification - Defense
MIL-SPEC	Defense Specification
MIL-STD	Defense Standard
ML	Machine Learning
MOSA	Modular Open Systems Approach
NAS	National Aerospace Standards
NDS	National Defense Strategy
NGS	Non-Government Standard
NISO	National Information Standards Organization
OCR	Optical Character Recognition
OMB	Office of Management and Budget
OMG	Object Management Group
OUSD(A&S)	Office of the Under Secretary of Defense for Acquisition and Sustainment
PDF	Portable Document Format
QIF	Quality Information Framework
SECNAVINST	Secretary of the Navy Instruction
SDO	Standards Development Organization
SMA	Standardization Management Activity
SysML	Systems Modeling Language
UML	Unified Modeling Language
XML	Extensible Markup Language

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