**Digital Considerations within the Lifecycle Sustainment Plan (LCSP)**

**Introduction**

*The product support strategy should align with the model-based acquisition strategy – as defined below:*

* Modeling objectives are used to select one of the model-based acquisition types:
  + **Model-supported acquisition**: models are used to support various engineering activities, including the production of key documents for contractual purposes
  + **Model-integrated acquisition:** Models form part of the contractual artifacts but as secondary or complementary artifacts
  + **Model-centric acquisition:** Models are primary artifacts (with the capability to generate required documentation)

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1. **Product Support Strategy (Section 3)**

* This section directly relates to the Acquisition Strategy Sections 5.5 and 6.2, and therefore should address the model-based acquisition strategy (e.g., model-supported, model-integrated, model-centric)
* Summarize the product support strategy for meeting sustainment requirements necessary to satisfy the model-based acquisition strategy requirements (Technical Data Strategy/Intellectual Property Strategy)
* Use of digital twin for product support decisions

1. **Cybersecurity (Section 3.1.4) Address considerations for cybersecurity within the program protection plan (PPP) that is of course an annex to the LCSP.**

* Address supportability and/or sustainment efforts support compliance with the Program Protection Planning (PPP) and the AFLCMC System Security Engineering Standard Processes within the model-based environment

1. **Influencing Design and Sustainment (Section 5)**

* Identify model-based requirements that affect system’s design and performance
* Identify impacts of the model-based requirements to a system’s product support strategy, planning, and implementation

*Beyond this section, the LCSP addresses each of the 12 product support elements*

1. **Design Interface (Section 9.1)**

* Should articulate model-based requirements as a design-consideration – as outlined in the SEP (systems engineering plan)

1. **Sustaining Engineering (Section 9.3)**

* Document the Failure Reporting, Analysis, and Corrective Action System (FRACAS) to include how the FRACAS data will be used from initial modeling and analysis through the fielding of the system.

1. **Maintenance Planning and Management (Section 9.4.3)**

* Outline the maintenance concepts for hardware and software, to include considerations for maintenance (depot activation requirements) in a model-based environment
* Considerations include manpower skills, support equipment needs, how the program will determine repair time, testability requirements, etc. within a model-based environment
* Identify use of preventative maintenance strategies that rely on model-based environment like CBM+
* Identify how the program will acquire and manage necessary data to populate the supply and maintenance systems that support maintenance concepts in a model-based environment (CBM+?)

1. **Supply Support (9.4.4)**

* Should include considerations for provisioning and cataloguing processes (provisioning technical documentation delivery/storage) in a model-based environment

1. **Packaging, Handling, Storage, and Transportation (PHS&T) (9.4.5)**

* Identify the program strategy for safely packaging, handling, storing, and transporting the system as well as any special requirements and interfaces with agencies or DoD components responsible for transporting the system within the model-based environment. Product support requirements for tracking shipped components.

1. **Technical Data (9.4.6)**

* Define the technical data strategy for support of a model-based environment
* Define the program's approach to managing the data during acquisition and sustainment (e.g., access, method of delivery, format, and storage) within a model-based environment
* Technical data rights strategy in support of the model-based requirements
* If operating in an integrated data environment, consideration for network compatibility issues and mitigation steps for operating in the model-based environment
* Document logistics data enterprise architecture generated which identifies electronic data repositories, information exchange requirements, and/or usage
* Identification of preliminary engineering/products support data needed
* Process by which the TOs will transfer from Acquisition to Sustainment

1. **Support Equipment (9.4.7)**

* Requirements for overall support strategy for SE to include identification of the following: support equipment documents, supply support, interim spares, manpower, training, technical data, maintenance level and maintenance task requirements, computer resource support, calibration, facility requirements, support equipment for SE, hand tools and depot level support equipment
* Identify the support equipment strategy aligned with the model-based requirements (maintenance concept, acquisition strategy) (e.g., Support equipment drawing delivery in 3D?) Would we require delivery of the support equipment drawing in a PDF? Or 3D model?
* Considerations for newly designed support equipment technical data that can be used in a model-based environment
* Delivery of support equipment technical packages in model based environment
* Considerations for development versus non-development

1. **Training and Training Support (9.4.8)**

* Address potential security issues for working in an integrated environment (e.g., integration of training systems with vendors)
* Trainers and simulators – digital twin technology

1. **Manpower (9.4.9)**

* Manpower requirements aligned with the maintenance and support equipment strategy
* Considerations for manpower requirements for operating in a model-based environment

1. **Facilitates and Infrastructure (9.4.10)**

* Address use of digital facilities drawings
* Civil engineering considerations

1. **Computer Resources (9.4.11)**

* Identify, plan, resource, and acquire facilities, hardware, software, documentation, manpower and personnel necessary for planning and management of mission critical computer hardware and software systems. Programs should coordinate and implement agreements necessary to manage technical interfaces, manage work performed by maintenance activities, and establish/update plans for periodic test and certification activities required throughout the life-cycle.
* Program’s support plan for software/system in an integrated data environment
* Identification of all systems/software used for operating in the model-based environment
* Licensing agreements for operating within the model-based tools
* Configuration management approach to include obsolescence, deficiency, modification, hardware/software baseline, and requirements management within model-based environment
* Software baseline delivery methods Owning and managing the technical baseline
* Strategy for managing the technical baseline into sustainment (e.g., access to data)
* Considerations for open system architecture (document the OSA strategy)
* Hosting and infrastructure strategy
* Cybersecurity compliance