DATA ITEM DESCRIPTION

Title: OPERATIONAL CONCEPT DESCRIPTION (OCD)

Number: DI-IPSC-81430A
AMSC Number: N7375
DTIC Applicable: No
Office of Primary Responsibility: N/SPAWAR
Applicable Forms: N/A
Use, Relationships:

Approval Date: 20000110
Limitation: N/A
GIDEP Applicable: No

The Operational Concept Description (OCD) describes a proposed system in terms of the user needs it will fulfill, its relationship to existing systems or procedures, and the ways it will be used.

The OCD is used to obtain consensus among the acquirer, developer, support, and user agencies on the operational concept of a proposed system. Depending on its use, an OCD may focus on communicating the user's needs to the developer or the developer's ideas to the user and other interested parties. The term "system" may be interpreted to apply to a portion of a system.

This DID contains the format and content preparation instructions for the data product generated by specific and discrete task requirements as delineated in the contract.

This DID is used when the developer is tasked to define and record the operational concept for a system.

This DID supersedes DI-IPSC-81430

Requirements:

1. Reference documents. None.

2. General instructions.

a. Automated techniques. Use of automated techniques is encouraged. The term "document" in this DID means a collection of data regardless of its medium.

b. Alternate presentation styles. Diagrams, tables, matrices, and other presentation styles are acceptable substitutes for text when data required by this DID can be made more readable using these styles.

3. Format. Following are the format requirements.

The description shall be in contractor format unless otherwise specified on the Contract Data Requirements List (CDRL)(DD 1423). The CDRL should specify whether deliverable data are to be delivered on paper or electronic media; are to be in a given electronic form (such as ASCII,

CALS, or compatible with a specified word processor or other support software); may be delivered in developer format rather than in the format specified herein; and may reside in a computer-aided software engineering (CASE) or other automated tool rather than in the form of a traditional document

4. Content. The description shall contain the following:

a. Title page or identifier. The document shall include a title page containing, as applicable: document number; volume number; version/revision indicator; security markings or other restrictions on the handling of the document; date; document title; name, abbreviation, and any other identifier for the system, subsystem, or item to which the document applies; contract number; CDRL item number; organization for which the document has been prepared; name and address of the preparing organization; and distribution statement. For data in a database or other alternative form, this information shall be included on external and internal labels or by equivalent identification methods.

b. Table of contents. The document shall contain a table of contents providing the number, title, and page number of each titled paragraph, figure, table, and appendix. For data in a database or other alternative form, this information shall consist of an internal or external table of contents containing pointers to, or instructions for accessing, each paragraph, figure, table, and appendix or their equivalents.

c. Page numbering/labeling. Each page shall contain a unique page number and display the document number, including version, volume, and date, as applicable. For data in a database or other alternative form, files, screens, or other entities shall be assigned names or numbers in such a way that desired data can be indexed and accessed.

d. Response to tailoring instructions. If a paragraph is tailored out of this DID, the resulting document shall contain the corresponding paragraph number and title, followed by "This paragraph has been tailored out." For data in a database or other alternative form, this representation need occur only in the table of contents or equivalent.

e. Multiple paragraphs and subparagraphs. Any section, paragraph, or subparagraph in this DID may be written as multiple paragraphs or subparagraphs to enhance readability.

f. Standard data descriptions. If a data description required by this DID has been published in a standard data element dictionary specified in the contract, reference to an entry in that dictionary is preferred over including the description itself.1. Scope. This section shall be divided into the following paragraphs.

g. Substitution of existing documents. Commercial or other existing documents may be substituted for all or part of the document if they contain the required data.

The numbers shown designate the paragraph numbers to be used in the document.

1. Scope. This section shall be divided into the following paragraphs.

1.1 Identification. This paragraph shall contain a full identification of the system and the software to which this document applies, including, as applicable, identification number(s), title(s), abbreviation(s), version number(s), and release number(s).

1.2 System overview. This paragraph shall briefly state the purpose of the system and the software to which this document applies. It shall describe the general nature of the system and software; summarize the history of system development, operation, and maintenance; identify the project sponsor, acquirer, user, developer, and support agencies; identify current and planned operating sites; and list other relevant documents.

1.3 Document overview. This paragraph shall summarize the purpose and contents of this document and shall describe any security or privacy considerations associated with its use.

2. Referenced documents. This section shall list the number, title, revision, and date of all documents referenced in this document. This section shall also identify the source for all documents not available through normal Government stocking activities.

3. Current system or situation. This section shall be divided into the following paragraphs to describe the system or situation as it currently exists.

3.1 Background, objectives, and scope. This paragraph shall describe the background, mission or objectives, and scope of the current system or situation.

3.2 Operational policies and constraints. This paragraph shall describe any operational policies and constraints that apply to the current system or situation.

3.3 Description of current system or situation. This paragraph shall provide a description of the current system or situation, identifying differences associated with different states or modes of operation (for example, regular, maintenance, training, degraded, emergency, alternative-site, wartime, peacetime). The distinction between states and modes is arbitrary. A system may be described in terms of states only, modes only, states within modes, modes within states, or any other scheme that is useful. If the system operates without states or modes, this paragraph shall so state, without the need to create artificial distinctions. The description shall include, as applicable:

a. The operational environment and its characteristics

b. Major system components and the interconnections among these components

c. Interfaces to external systems or procedures

d. Capabilities/functions of the current system

e. Charts and accompanying descriptions depicting inputs, outputs, data flow, and manual and automated processes sufficient to understand the current system or situation from the user's point of view.

f. Performance characteristics, such as speed, throughput, volume, frequency

g. Quality attributes, such as reliability, maintainability, availability, flexibility, portability, usability, efficiency

h. Provisions for safety, security, privacy, and continuity of operations in emergencies

3.4 Users or involved personnel. This paragraph shall describe the types of users of the system, or personnel involved in the current situation, including, as applicable, organizational structures, training/skills, responsibilities, activities, and interactions with one another.

3.5 Support concept. This paragraph shall provide an overview of the support concept for the current system, including, as applicable to this document, support agency(ies); facilities; equipment; support software; repair/replacement criteria; maintenance levels and cycles; and storage, distribution, and supply methods.

4. Justification for and nature of changes. This section shall be divided into the following paragraphs.

4.1 Justification for change. This paragraph shall:

a. Describe new or modified aspects of user needs, threats, missions, objectives, environments, interfaces, personnel or other factors that require a new or modified system

b. Summarize deficiencies or limitations in the current system or situation that make it unable to respond to these factors

4.2 Description of needed changes. This paragraph shall summarize new or modified capabilities/functions, processes, interfaces, or other changes needed to respond to the factors identified in 4.1.

4.3 Priorities among the changes. This paragraph shall identify priorities among the needed changes. It shall, for example, identify each change as essential, desirable, or optional, and prioritize the desirable and optional changes.

4.4 Changes considered but not included. This paragraph shall identify changes considered but not included in 4.2, and rationale for not including them.

4.5 Assumptions and constraints. This paragraph shall identify any assumptions and constraints applicable t the changes identified in this section.

5. Concept for new or modified system. This section shall be divided into the following paragraphs to describe a new or modified system.

5.1 Background, objectives, and scope. This paragraph shall describe the background, mission or objectives, and scope of the new or modified system.

5.2 Operational policies and constraints. This paragraph shall describe any operational policies and constraints that apply to the new or modified system.

5.3 Description of the new or modified system. This paragraph shall provide a description of the new or modified system, identifying differences associated with different states or modes of operation (for example, regular, maintenance, training, degraded, emergency, alternative-site, wartime, peacetime). The distinction between states and modes is arbitrary. A system may be described in terms of states only, modes only, states within modes, modes within states, or any other scheme that is useful. If the system operates without states or modes, this paragraph shall so state, without the need to create artificial distinctions. The description shall include, as applicable:

a. The operational environment and its characteristics

b. Major system components and the interconnections among these components

c. Interfaces to external systems or procedures

d. Capabilities/functions of the new or modified system

e. Charts and accompanying descriptions depicting inputs, outputs, data flow, and manual and automated processes sufficient to understand the new or modified system or situation from the user's point of view

f. Performance characteristics, such as speed, throughput, volume, frequency

g. Quality attributes, such as reliability, maintainability, availability, flexibility, portability, usability, efficiency

h. Provisions for safety, security, privacy, and continuity of operations in emergencies

5.4 Users/affected personnel. This paragraph shall describe the types of users of the new or modified system, including, as applicable, organizational structures, training/skills, responsibilities, and interactions with one another.

5.5 Support concept. This paragraph shall provide an overview of the support concept for the new or modified system, including, as applicable, support agency(ies); facilities; equipment; support software; repair/replacement criteria; maintenance levels and cycles; and storage, distribution, and supply methods.

6. Operational scenarios. This section shall describe one or more operational scenarios that illustrate the role of the new or modified system, its interaction with users, its interface to other systems, and all states or modes identified for the system. The scenarios shall include events, actions, stimuli, information, interactions, etc., as applicable. Reference may be made to other media, such as videos, to provide part or all of this information.

7. Summary of impacts. This section shall be divided into the following paragraphs.

7.1 Operational impacts. This paragraph shall describe anticipated operational impacts on the user, acquirer, developer, and support agency(ies). These impacts may include changes in interfaces with computer operating centers; change in procedures; use of new data sources; changes in quantity, type, and timing of data to be input to the system; changes in data retention requirements; and new modes of operation based on peacetime, alert, wartime, or emergency conditions.

7.2 Organizational impacts. This paragraph shall describe anticipated organizational impacts on the user, acquirer, developer, and support agency(ies). These impacts may include modification of responsibilities; addition or elimination of responsibilities or positions; need for training or retraining; and changes in number, skill levels, position identifiers, or location of personnel in various modes of operation.

7.3 Impacts during development. This paragraph shall describe anticipated impacts on the user, acquirer, developer, and support agency(ies) during the development effort. These impacts may include meetings/discussions regarding the new system; development or modification of databases; training; parallel operation of the new and existing systems; impacts during testing of the new system; and other activities needed to aid or monitor development.

8. Analysis of the proposed system.

8.1 Summary of advantages. This paragraph shall provide a qualitative and quantitative summary of the advantages to be obtained from the new or modified system. This summary shall include new capabilities, enhanced capabilities, and improved performance, as applicable, and their relationship to deficiencies identified in 4.1.

8.2 Summary of disadvantages/limitations. This paragraph shall provide a qualitative and quantitative summary of disadvantages or limitations of the new or modified system. These disadvantages and limitations shall include, as applicable, degraded or missing capabilities, degraded or less-than-desired performance, greater-than-desired use of computer hardware resources, undesirable operational impacts, conflicts with user assumptions, and other constraints.

8.3 Alternatives and trade-offs considered. This paragraph shall identify and describe major alternatives considered to the system or its characteristics, the trade-offs among them, and rationale for the decisions reached.

9. Notes. This section shall contain any general information that aids in understanding this document (e.g., background information, glossary, rationale). This section shall include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document and a list of any terms and definitions needed to understand this document.

A. Appendixes. Appendixes may be used to provide information published separately for convenience in document maintenance (e.g., charts, classified data). As applicable, each appendix shall be referenced in the main body of the document where the data would normally have been provided. Appendixes may be bound as separate documents for ease in handling Appendixes shall be lettered alphabetically (A, B, etc.).

END OF DI-IPSC-81430A.