GUIDANCE PAGES TO BE DELETED WHEN PUBLISHED

ASDEFCON (SUPPORT)

SECTION 1: GUIDANCE FOR DSD-ENG-SW

(Software Support SERVICES)

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| Note: This DSD has been developed to provide clauses that act as a STARTING POINT for the development of Software support services requirements. Many programs are likely to have different requirements and THE CLAUSES IN THIS DSD WILL NOT ALWAYS BE SUITABLE. Please consider your requirements carefully before developing this DSD, while being aware of the need for consistency with other DSDS for engineering and Software-related Services. |

Status: Optional

Purpose: To identify the requirements for ongoing Software support Services (including ‘Software maintenance’ through Minor and Major Changes).

Policy: DEFLOGMAN Part 2 Volume 10 Chapter 4, *Configuration Management*

Guidance: This DSD is required where the scope of Software support to be provided under the Contract includes the development of Software changes and non-change Services that require similar Software skills and organisational capability. These Services are considered to be different to, and generally beyond the scope of Help Desk Services and ICT Systems administration.

Note that within the *ASDEFCON (Support)* template Software support, including ‘Software maintenance’, is treated as an Engineering function and not as a Maintenance function. This is because, in general terms, Maintenance aims to restore a Product to a previously approved Configuration Baseline; whereas Engineering includes the development of changes to the established design and a corresponding update of its Baseline. As even minor ‘Software maintenance’ results in a configuration change, it is treated as an Engineering Service. Likewise, ‘restorative maintenance’ (eg, a Failure resolution that requires data back-up and recovery), which re-establishes a previous state (ie, Baseline) has been included in ICT Systems administration, as a Maintenance Service.

This DSD is intended for an ongoing requirement with many Software support Services being provided as Recurring Services (the default payment form set at clause 2 of the SOW), while establishing the framework for conducting the more significant Software changes as S&Q Services. S&Q Services may also be performed by an appropriately resourced Contractor Standing Capability (CSC), incorporated into the Contract using the CSC Module; however, depending on the approach taken, the drafter could convert all Services provided through this DSD to CSC Tasks. Drafters will need to indicate clearly to tenderers, which Services are to be provided as anything other than Recurring Services and the expected level of effort (through supporting tender information).

While the DSD can be used to manage Major Changes, the Commonwealth Representative may ultimately choose to undertake a more significant Software development program using a new Contract (Acquisition), which may, or may not, be linked to the Contract (Support).

This DSD requires additional tailoring, depending upon the Software support Services to be provided. For example, some Services may not be required due to arrangements with other providers (eg, vendor support). The DSD may also be tailored to suit the management framework proposed. For example, if the Contract includes a CSC with a Software support capability, then tailoring may reflect availability of the CSC workforce to perform S&Q Services, rather than having a large amount of Recurring Services to maintain a skilled workforce when the long-term volume of work is mostly unknown.

The list of Software Products Being Supported (including applications, modules, data libraries and other ‘objects’) must be included in Annex A to the SOW. The list(s) of Software at Annex A need to be tailored to identify different support functions to be provided to each of the Software Products; for example, the Contractor is likely to have different responsibilities for bespoke or customised Software when compared to Software that is sourced from OEMs and other vendors. If this list of Software is not known (or knowable) at the Effective Date (eg, if the Contract is linked to and accompanying a Contract (Acquisition)), then Annex A will need to be updated through CCP action when the information is known, generally at some time after the Contract (Acquisition) Detailed Design Review and prior to the Contract (Support) Operative Date.

Related Clauses/Documents:

DSD-ENG-SERV, DSD-ENG-CM, DSD-MNT-SA, DSD-OPS-HLPDSK and DSD-ENG-CSC

DID-ENG-CEMP, DID-ENG-CMP, DID-ILS-SW-SWSP and (optionally) DID-ENG-SW-SWMP

Optional Clauses: None

# 4 INTER-RELATIONSHIPS

Status: Core

Purpose: To identify the principle inter-related sections of the SOW, including other DSDs.

Policy: Nil

Guidance: Clause 4 should be updated to reflect the inter-related DSDs that are included in the draft Contract.

Through clause 4.2, this DSD is inter-related with other Engineering Services including the overall management of Engineering Services defined in DSD-ENG-SERV and the Approved Contractor Engineering Management Plan (CEMP), and DSD-ENG-CM for Configuration Management, when applicable.

Drafters may need to tailor clauses 4.3 to 4.5 for the other inter-related Services (ie, those not included within Engineering Services) required by the Contract.

DSDs primarily related to ICT Systems (or just Software) are DSD-OPS-HLPDSK, DSD-MNT-SA, and this DSD. Depending on the scope of the Services, not all DSDs may be needed. In some cases, if only one or two clauses are required from one of these DSDs, it may be more efficient for management purposes to transfer the required clauses into another DSD and not use the original DSD.

Related Clauses/ Documents:

DSD-ENG-SERV for the management of Engineering Services, including for change proposals.

DSD-OPS-HLPDSK for the provision of help desk Services.

DSD-MNT-SA for the provision of systems administration Services.

DSD-MNT-MGT and DSD-MNT-SERV for the management and maintenance of ICT Systems hardware.

Optional Clauses: None

# 6.2.1 Software Support Planning

Status: Core

Purpose: To identify the planning requirements for the Software support Services (including Software maintenance).

Policy: Nil

Guidance: If support Software Services are required, then an appropriate level of planning is required in order to manage the program and to provide the Commonwealth Representative with an applicable level of visibility. The level of planning, and therefore the type of plan required, is dependent upon the scope and complexity of the Services.

If the scope of Software support required under the Contract is minor, the Software Support Plan (SWSP) may be included within the CEMP. In exceptional cases, where the CEMP has been ‘rolled up’ into the SSMP, the SWSP can be included within the engineering planning section within the SSMP.

Rolling the planning requirement up into the CEMP or SSMP is unlikely to be adequate for a moderate or high level of on-going Software support Services and a dedicated Software Support Plan (SWSP) is more appropriate. When required, the SWSP is to be prepared in accordance with DID-ILS-SW-SWSP, which is a DID that has been sourced from the *ASDEFCON* (*Strategic Materiel*) templates.

The Software engineering aspects of this DSD have been aligned with AS/NZS ISO/IEC 12207 (Systems and software engineering – Software life cycle processes), which covers all Software life cycle phases. The SWSP is intended to capture the Contractor’s tailoring of AS/NZS ISO/IEC 12207 (although the SWSP DID is based on Appendix B to *MIL-HDBK-1467, Acquisition of Software Environments and Support Software*) and integrate applicable Software safety standards including data deliverables, as applicable for the Contract and the Contractor’s internal procedures. ISO/IEC 14764:2006, *Software Engineering – Software Life Cycle Processes - Maintenance*, is more applicable to ongoing maintenance (rather than enhancement-related changes) and is the basis for the Software Corrective, Preventive, Adaptive and Perfective Maintenance clauses.

Clause 6.2.1 includes options for the governing plan for Software support. Drafters should select the governing plan for all Software support management from either Option A, the stand-alone SWSP, or Option B for a rolled-up plan and inserting either the CEMP or SSMP where indicated.

Drafters should note that both *ASDEFCON (Strategic Materiel)*, and (optionally) *ASDEFCON (Complex Materiel) Volume 2*, require the Contractor (Acquisition) to develop an SWSP, which should be ‘pulled into’ this Contract if a combined RFT is being considered. If a dedicated SWSP is required, drafters should consider including the Approval of this plan within the Operative Date clause of the COC. If Option A has been selected, selecting Option A-1 allows the drafter to include reference to the plan developed under the Contract (Acquisition). If not required, Option A-1 may be deleted.

Having selected Option A or B, drafters must then insert the matching plan into the subclauses that follow. The selected plan will help to ensure that the Commonwealth has adequate visibility and control of Contractor activities to be able to exercise effective Governance of the support Services.

Note that to achieve the level of planning and engineering governance that is appropriate for Major Changes to Software, a Software Management Plan (SWMP) may be required. This can be approached in one of two ways, either with a general SWMP updated (eg, with an annex) for each Major Change to Software, or with an SWMP developed for each Major Change. In both cases a Software Change Proposal is required and the content for this data item is defined by the drafter in an annex to DID-CM-MGT-ECP. For a general SWMP, the optional clause below may be used in conjunction with the requirement, in DID-CM-MGT-ECP, for updates / annexes to be developed and delivered for each Major Change. Otherwise, DID-CM-MGT-ECP may be developed by the drafter to require an SWMP to be developed for each Major Change to Software.

Related Clauses/ Documents:

DID-ILS-SW-SWSP, DID-ENG-CEMP and DID-SSM-SSMP

DID-CM-MGT-ECP and DID-ENG-SW-SWMP where a SWMP is required for planning Major Changes to Software.

Optional Clauses:

The Contractor shall develop, deliver, and update a Software Management Plan (SWMP), to govern the Software development program for Major Changes to Software, in accordance with CDRL Line Number ENG-XXX.

# 6.2.2 Software Change Request Management

Status: Optional (but required if clauses 6.2.4 or 6.2.5 are included)

Purpose: To identify the requirement for managing Software Change Requests (SWCRs).

Policy: Nil

Guidance: This clause requires the Contractor to acknowledge the applicable sources of SWCRs applicable to the Services, classify, log and manage those requests, and report on their progress. The management of SWCRs will be required whenever Software changes under clauses 6.2.4 or 6.2.5 are required, which includes most applications of this DSD. It is also unlikely that clause 6.2.3 would be included without this clause. If this clause is not required, clauses below the heading clause 6.2.2 may be deleted and replaced with a single ‘Not used’.

Clauses 6.2.2.1 and 6.2.2.2 require the Contractor to acknowledge the source(s) of SWCRs applicable to the Services. Drafters should tailor these clauses for Contractor’s responsibilities as addressed by other DSDs included in the Contract. For example, in 6.2.2.1a, if the Contractor operates the help desk and service requests may result in SWCRs then reference to DSD-OPS-HLPDSK should be retained, but if an Associated Party operates the help desk then the subclause should be amended to refer to help desk service requests from an Associated Party (or include the name of that party if known). The Contractor is also required to raise SWCRs to incorporate OEM-sourced changes (ie, identified through Software licence agreements and Software monitoring) applicable to the Contract. This may be amended, or deleted, if the Contractor will not have this role.

Clause 6.2.2.3 requires the Contractor to maintain a log of all SWCRs and includes a default list for data to be recorded in the log. This list should be reviewed by the drafter and updated if required. Clause 6.2.2.4 requires the Contractor to provide the Commonwealth with access to the log. This clause does not require tailoring, however, the drafter may also consider including the log as a requirement for the Contractor’s Data Management System, as per SOW clause 2.3, in order to provide on-line access to the log.

Clause 6.2.2.5 requires the Contractor to report the status of SWCRs in the Combined Services Summary Report (CSSR). Note that on-going updates to the status of SWCRs, including any resulting Software Change Proposals (SWCPs), are reported through the Engineering Services section of the CSSR. This clause should be reviewed but, in general, no change is required.

Clause 6.2.2.6 identifies the requirements to be met for the closure of a Software Change Request. This clause should be reviewed and may be amended if necessary.

Related Clauses/ Documents:

Clause 6.2.3, Software Change Analysis

Clause 6.2.4, Development of Minor Changes to Software

Clause 6.2.5, Development of Major Changes to Software

Clause 2.3 of the SOW, Data Management System

DSD-OPS-HLPDSK, Help Desk Services

DSD-MNT-SA, Systems Administration Services

DID-SSM-CSSR, which defines requirements for the Combined Services Summary Report

DID-ILS-SW-SWSP, DID-ENG-CEMP or DID-SSM-SSMP, defining the governing plan for Software support Services

Optional Clauses: None

# 6.2.3 Software Change Analysis

Status: Optional (but required if clauses 6.2.4 or 6.2.5 are included)

Purpose: To identify the requirements for analysing Software Change Requests.

Policy: Nil

Guidance: This clause requires the Contractor to analyse all SWCRs. Clause 6.2.3 integrates with clause 6.2.4 of DSD-ENG-SERV, Analysis of Change Requests, essentially adding Software-specific requirements to the standard engineering process. As an analysis of each SWCR is a prerequisite for the other Software support Services in the DSD, whether a Software change proceeds or not, this is a necessary clause.

Clauses 6.2.3.1 and 6.2.3.2 define the requirements for prioritising SWCRs and integrate with the Analysis of Change Requests process defined under clause 6.2.4 of DSD-ENG-SERV. Drafters should review clauses 6.2.3.1, 6.2.3.2 and clause 6.2.4 of DSD-ENG-SERV (and any changes drafted for that clause), and then amend clauses 6.2.3.1 and 6.2.3.2 if necessary to ensure consistency.

A Major Change is a change that alters the function of the Software Product. A Minor Change does not alter functionality but may improve the efficiency of the code or remove any latent defects to ensure compliance with the approved configuration. A Minor Change may also change an aspect of the user interface, menus, help or some other aspect of the Software that is visible to the operator / user, but it does not change the Software Product’s function. Drafters should review the definitions for Major Change and Minor Change in the Glossary (which apply to both hardware and Software changes), and revise if necessary.

Drafters should also be aware that clause 6.2.5 of DSD-ENG-CM, Configuration Control (which is inter-related via clause 6.2.4 of DSD-ENG-SERV), requires the Contractor to submit proposed configuration changes to the Commonwealth. This process seeks Commonwealth Approval for Major Changes and review of Minor Changes. Clause 6.2.5 of DSD-ENG-CM also allows the Commonwealth to reclassify a Minor Change as a Major Change if the Commonwealth Representative believes that the proposed change will change the Software Product’s function significantly and the process requires greater Commonwealth visibility. Alternatively, the Commonwealth Representative may decide that a change in function is sufficiently small to be managed as a Minor Change. Such changes will be based on evidence at the time, and possibly for ADF regulatory / assurance framework requirements.

Depending on the classification as either a Major Change or a Minor Change, and subsequent Approval or Review, clauses 6.2.5 and 6.2.4 respectively, define the requirements for the implementation of those changes.

Clauses 6.2.2.3 and 6.2.3.4 require the Contractor to classify, as part of the analysis, the Software change as a particular type of Software maintenance and, where more than one classification applies, the amount of work that applies to each classification. These classifications are also recorded in the log under clause 6.2.2.3. Drafters should review these clauses but, in general, they do not require amendment.

Clause 6.2.3.5 identifies that the analysis of SWCRs may be performed as an S&Q Service but only when the circumstances are not included under clause 6.2.3.6. Note that this approach is similar to that taken for the analysis of change requests in DSD-ENG-SERV and if combined hardware and Software changes are likely to occur, these clauses should be consistent. Drafters should review clause 6.2.3.6 and, if necessary, amend the situations where the Services should be included as Recurring Services and paid for within the Recurring Services Fee. Types of changes that should not be included as Recurring Services are enhancements / functionality improvements requested by the Commonwealth as the scope and cost of such changes cannot be estimated in advance. Additionally, activities with significant Commonwealth involvement are generally not suitable. See also clause 6.2.4.7 and 6.2.5.7 for the implementation of Software changes as Recurring Services.

An alternative payment approach is through the inclusion within the Contract of a CSC with a Software support capability. The CSC can perform activities identified as S&Q Services that have been allocated to it. If the analysis of Software change requests is to be performed by S&Q Services (only) or by a CSC performing tasks identified as S&Q Services, then clauses 6.2.3.5 and 6.2.3.6 may be replaced with the optional clause below.

Related Clauses/ Documents:

Clause 6.2.2, Software Change Request Management

Clause 6.2.4, Development of Minor Changes to Software

Clause 6.2.5, Development of Major Changes to Software,

Clause 6.2.4 of DSD-ENG-SERV, Analysis of Change Requests

Clause 6.2.5 of DSD-ENG-CM, Configuration Control

DSD-ENG CSC, Contractor Standing Capability

DID-ILS-SW-SWSP, DID-ENG-CEMP or DID-SSM-SSMP, defining the governing plan for Software support Services

Optional Clauses:

Note to drafters: To conduct the analysis of Software change requests as S&Q Services, replace clauses 6.2.3.5 and 6.2.3.6 with the following clause.

The Contractor shall conduct analysis of all SWCRs, which are requested by the Commonwealth Representative under clause 6.2.2, as S&Q Services.

# 6.2.4 Development of Minor Changes to Software

Status: Optional

Purpose: To identify the requirement for the Contractor to provide Services to develop Minor Changes to Software Products.

Policy: Nil

Guidance: This clause requires the Contractor to undertake Minor Changes to the Software Products. Not all contracts using this DSD require the development of Minor Changes to Software; hence, this clause is optional. If Minor Changes to Software is not applicable to the Services, then the clauses below the heading clause 6.2.4 may be deleted and replaced with a single ‘Not used’.

Clause 6.2.4 outlines a process for developing Minor Changes. While the explanations below apply to the template clauses, further development may be required for individual Contracts. In further developing this clause, drafters must be cognisant of the integration of Minor Changes to Software with the Engineering Services in DSD-ENG-SERV and the Configuration Management Services in accordance with DSD-ENG-CM.

Clause 6.2.4.1 identifies the Software Products for which the development of Minor Changes can apply, when needed, by reference to SOW Annex A. Within Annex A, the Software Products are identified (by default) as those for which the Contractor has an Engineering responsibility. However, if the Contractor has other Engineering responsibilities for Software that are applied differently to developing changes, Annex A may need to be tailored with additional columns or indices to separate the different Services required. Where this change in SOW Annex A is required clause 6.2.4.1 will need to be updated to refer to the applicable table column or designator.

Clause 6.2.4.2 requires the Contractor to raise SWCPs for each Minor Change. The content required for a SWCP is defined by the drafter in an annex to DID-CM-MGT-ECP. Drafters are also to insert the name of the management plan that is used to manage Minor Changes to Software and the governing plan for Configuration Management into clause 6.2.4.2c.

Clause 6.2.4.3 is an optional clause that requires Minor Changes to be submitted to the Commonwealth’s Configuration Control Board (CCB) prior to Approval. Otherwise, in accordance with DSD-ENG-SERV, Minor Changes are only reviewed rather than being subject to Approval.

Clause 6.2.4.4 requires the Contractor to inform the Commonwealth if it decides to reclassify a Minor Change as a Major Change if, during the course of development, it is discovered that the change would be more correctly classified as a Major Change. Subsequent action is to be determined by the Commonwealth Representative, including the Approvals process for Major Changes applied via the Commonwealth CCB and those clauses under heading clause 6.2.5 that may no longer apply or should be modified due to the work already completed. This clause should be reviewed but, in general, does not require amendment.

Clause 6.2.4.5 requires the Verification and Validation (V&V) of each Minor Change. Drafters are to insert the name of the management plan that is used to manage Minor Changes to Software Products Being Supported and the governing plan for Configuration Management.

Clauses 6.2.4.6 to 6.2.4.8 provide options for assigning Minor Changes to a method of payment, either (Option A) as S&Q Services or (Option B) a combination of S&Q Services and Recurring Services.

Under Option A, clause 6.2.4.6, Minor Changes to Software are to be performed as S&Q Services. Where the Contract includes a CSC, this means that the work could be performed either by the CSC, under Approved CSC Tasks, or as ‘normal’ S&Q Services.

Under Option B, clauses 6.2.4.7 to 6.2.4.8, Minor Changes to Software will only be performed as S&Q Services under clause 6.2.4.7 (or by the CSC) if they do not fit into one of the categories in clause 6.2.4.8. Clause 6.2.4.8 lists the types of Minor Changes to be undertaken as Recurring Services, with payment included in the fee for Recurring Services. The use of Recurring Services for Minor Changes is intended for changes that are necessary to keep the system operating as intended (ie, these do not include new capabilities or functional enhancements). However, if the scope of such a change is significant (eg, through cost or complexity or Commonwealth involvement) then they may be considered as S&Q Services, subject to the agreement of the Commonwealth Representative. Drafters need to review and update the list of Minor Changes to be performed as Recurring Services, particularly subclause c which ensures system availability except for key areas, such as security-related changes when this requires a significant amount of Commonwealth involvement (making it difficult for the Contractor to estimate and manage the effort required). Being undertaken as a Recurring Service generally means less Commonwealth involvement and less visibility, which may be preferable to allow the Commonwealth to focus its resources on other activities, such as Major Changes.

Drafters are to select the optional clauses for method of payment that best suits the needs of their Contract and which, when necessary, is consistent with the method of payment for Major Changes performed in accordance with DSD-ENG-SERV.

Related Clauses/ Documents:

Clause, 6.2.3, Software Change Analysis

Clause 6.2.7, Additional Requirements for Preventive Maintenance Involving Change

Clause 6.2.8, Additional Requirements for Corrective Maintenance Involving Change

Clause 6.2.9, Additional Requirements for Adaptive Maintenance Involving Change

Clause 3.3 of the SOW, Quoting for Survey and Quote Services

Section 5 of Annex A to the SOW, Software Products

DSD-ENG-SERV, Engineering Services

DSD-ENG-CSC, Contractor Standing Capability

DID-CM-MGT-ECP, Engineering Change Proposals (including Software Change Proposals)

DID-SSM-S&Q, Quote for S&Q Services

DID-ILS-SW-SWSP, DID-ENG-CEMP or DID-SSM-SSMP, defining the governing plan for Software support Services

DID-ENG-CM, Configuration Management

Optional Clauses: None

# 6.2.5 Development of Major Changes to Software

Status: Optional

Purpose: To identify the requirement for the Contractor to provide Services to develop Major Changes to Software Products.

Policy: Nil

Guidance: This clause requires the Contractor to undertake Major Changes to the Software Products. Not all contracts using this DSD require the development of Major Changes to Software; hence, this clause is optional. If Major Changes to Software is not applicable to the Services, then the clauses below the heading clause 6.2.5 may be deleted and replaced with a single ‘Not used’.

Clause 6.2.5 outlines a process for developing Major Changes. While the explanations below apply to the template clauses, further development may be required for individual Contracts. In further developing this clause, drafters must be cognisant of the integration of Major Changes to Software with the Engineering Services in DSD-ENG-SERV, particularly clause 6.2.5, and the Configuration Management Services performed in accordance with DSD-ENG-CM.

Clause 6.2.5.1 identifies the Software Products for which the development of Major Changes can apply, when needed, by reference to SOW Annex A. However, if the Contractor has other Engineering responsibilities for Software that are applied differently to developing changes, Annex A may need to be tailored with additional columns or indices to separate the different Services required. Where this change in SOW Annex A is required clause 6.2.5.1 will need to be updated to refer to the applicable table or column designator.

Note that for a Major Change the SWCR, following analysis and recommendations under clause 6.2.2.6, must be Approved by the Commonwealth; hence, the Software Products affected by each Major Change will be explicitly defined.

Clause 6.2.5.2 provides an option for a Software Management Plan (SWMP) to be used when managing Major Changes to Software. Major Changes to Software could be managed in accordance with a SWSP or a SWMP. If the level and complexity involved is expected to be significant, and exceed the requirements specified in DID-ILS-SW-SWSP for a SWSP, drafter’s should consider requiring an SWMP be developed in accordance with DID-ENG-SW-SWMP (sourced from the *ASDEFCON* (*Strategic Materiel*) templates). The SWMP requires that a formal Software engineering program be adopted for the development of all Major Changes, similar to the management regime for major Software development projects. Note that the Contractor only needs to develop an SWMP once, and then individual program details for each Major Change would be annexed to this plan for Approval (ie, the CDRL would require an update to the SWMP following the Approval of each SWCR for a Major Change).

If less complex and more moderately scaled development activities are envisaged, management in accordance with the SWSP may be sufficient. Where Major Changes to Software are primarily expected to accompany Major Changes to hardware, a Systems Engineering Management Plan could be relied upon instead. The requirement for an SEMP is included in clause 6.2.5 of DSD-ENG-SERV.

If an SWMP is required, drafters are to include the optional clause 6.2.5.2 for an SWMP, review DID-ENG-SW-SWMP, amend the CDRL, and include the CDRL Line Number on the clause where indicated. Alternately, if the SWSP is sufficient, or if the SEMP will be used exclusively for Major Changes, drafters should delete this option.

Clause 6.2.5.3 requires the Contractor to design, develop, implement, Verify and Validate each Major Change for Software in accordance with applicable plans, standards (as tailored by plans), DSD-ENG-CM for Configuration Management Services, and DSD-ENG-SERV clause 6.2.5, Developmental Activities for Major Changes. Importantly, DSD-ENG-SERV clause 6.2.5 requires:

1. an appropriate level of planning;
2. the need to raise an ECP, which includes the requirements for a SWCP, prepared in accordance with DID-CM-MGT-ECP; and
3. implementation of a standard engineering change development cycle, tailored by the ECP/SWCP plans and S&Q Orders / CSC Task Plans, when applicable.

Although each Major Change program will be tailored through the ECP/SWCP, the DSD-ENG-SERV clause provides a robust framework to be tailored and applied. What remains for DSD-ENG-SW, through clause 6.2.5.3, is to define the Software-specific requirements for Major Changes. Additionally, DSD-ENG-CM defines the requirements for planning and implementation of related Configuration Management Services, hence its inclusion under clause 6.2.5.3.

Clause 6.2.5.3e requires that AS/NZS ISO/IEC 12207:2013, ‘Systems and software engineering – Software life cycle processes’ be appropriately tailored for the program through the applicable plan. If another standard, or additional standards are to apply, drafters should tailor the clause accordingly. Drafters are also to insert the name of the management plan or plans to be used to manage Major Changes to Software into clause 6.2.5.3e(i), being the SWSP, SWMP and/or SEMP, as discussed above.

Clauses 6.2.5.4 and 6.2.5.5 define the nature of the additional V&V requirements for Software, and the need for test reference builds of the Software, if used to provide evidence for the purposes of Acceptance V&V, to be retained until Acceptance has been achieved. These requirements are not included in, and are therefore additional to, the generic change process defined in DSD-ENG-SERV. Drafters should review these clauses but, in general, they should not require amendment.

Clause 6.2.5.6 is an optional clause requiring cooperation and coordination with CIOG and Associated Parties when the modified Software is to be hosted on a Defence corporate IT network, such as the Defence Restricted Network or Defence Secret Network. In this instance the Associated Party is likely to be the CIOG contractor providing systems administration for the applicable network. When this requirement does not apply to the Contract (eg, the Software is hosted on military equipment or stand-alone system) the optional clause may be deleted. If applicable, additional details regarding liaison and accreditation may be required and the clause may need to be amended accordingly.

Clauses 6.2.5.7 and 6.2.5.8 define the requirements for a migration plan. As, by definition, a Major Change often involves a change in functionality, a migration plan addresses the introduction of that change including, if applicable, the changes that will affect the end users of the Software Products.

Clauses 6.2.5.9 to 6.2.5.11 provide options for assigning Major Changes to a method of payment, either (Option A) as S&Q Services or (Option B) a combination of S&Q Services and Recurring Services.

Under Option A, clause 6.2.5.9, Major Changes to Software are to be performed as S&Q Services. Where the Contract includes a CSC, this means that the work could be performed either by the CSC, under Approved CSC Tasks, or as ‘normal’ S&Q Services.

Under Option B, clauses 6.2.5.10 and 6.2.5.11, Major Changes to Software will only be performed as S&Q Services under clause 6.2.5.10 (or by the CSC) if they do not fit into one of the categories listed under clause 6.2.5.11. Clause 6.2.5.11 lists the types of Major Changes to be undertaken as Recurring Services. As Major Changes often introduce new functionality or enhancements to exiting functionality, which by their nature are difficult to predict, the list of Major Changes to be included as Recurring Services is fairly limited.

Drafters are to select the optional clauses for method of payment that best suits the needs of their Contract and which, when necessary, is consistent with the method of payment for Major Changes performed in accordance with DSD-ENG-SERV.

Related Clauses/ Documents:

Clause 6.2.3, Software Change Analysis

Clause 6.2.7, Additional Requirements for Preventive Maintenance Involving Change

Clause 6.2.8, Additional Requirements for Corrective Maintenance Involving Change

Clause 6.2.9, Additional Requirements for Adaptive Maintenance Involving Change

Clause 3.3 of the SOW, Quoting for Survey and Quote Services

Section 5 of Annex A to the SOW, Software Products

DSD-ENG-SERV, Engineering Services

DSD-ENG-CM, Configuration Management Services

DSD-ENG-CSC, Contractor Standing Capability

DID-CM-MGT-ECP, Engineering Change Proposals (including Software Change Proposals)

DID-SSM-S&Q, Quote for S&Q Services

DID-ENG-MGT-SEMP, Systems Engineering Management Plan, if required under DSD-ENG-SERV

DID-ILS-SW-SWSP, Software Support Plan (sourced from the *ASDEFCON* (*Strategic Materiel*) templates)

DID-ENG-SW-SWMP, Software Management Plan (sourced from the *ASDEFCON* (*Strategic Materiel*) templates)

DID-ENG-CMP, Configuration Management Plan

Optional Clauses: None

# 6.2.6 Software Releases

Status: Optional

Purpose: To define a required process for the regular and coordinated release of Software changes.

Policy: Nil

Guidance: This clause is optional and may be used when Software changes need to be managed through a regular Software Release program coordinated with the Commonwealth Representative and Associated Parties. For example, Software Releases may need to be timed to coincide with updates from OEMs (eg, to include adaptive changes) or a Defence-coordinated update cycle involving nominated trial sites / users before the complete roll-out to all users. If a Software Release program is not applicable to the roll-out of Minor Changes and Major Changes to Software Products, then clauses below the heading clause 6.2.6 may be deleted and replaced with a single ‘Not used’.

This clause is primarily defining and agreeing the content for each Software Release in terms of the applicable Minor Changes and Major Changes to be included in the scope of each Software Release.

Clause 6.2.6.1 defines the periodicity for the Software Release program; for example, as a quarterly, six-monthly or annual cycle. Drafters need to determine and insert an appropriate period into this clause. The period between each Software Release may be driven by external factors, such as regular updates provided by Software OEMs or simply to enable efficient management of the roll-out of Software changes to users. If there are two levels of Software Release (eg, major ‘updates’ once a year and minor ‘fixes’ on a quarterly basis) then the drafter will need to modify this clause accordingly.

Clauses 6.2.6.2 to 6.2.6.4 include options to plan the scope of each Software Release as (Option A) part of Engineering Support Performance Reviews (ESPRs) or (Option B) through independent planning meetings. The selection of Option A or Option B by the drafter will depend on whether the ESPRs are included in SOW clause 5.3 and also that they are conducted at a suitable frequency. If Option B is selected the applicable timeframes must be inserted where indicated. In this case the first meeting is likely to be affected by whether or not the Contract is linked to a Contract (Acquisition) and the start date is linked to a specific milestone such as the establishment of a Software support facility.

Clause 6.2.6.5 states that the Commonwealth is responsible for setting the priority order for the Software changes that are to be developed for and included in each Software Release. The actual number of changes to be included within each Software Release are then likely to be limited to the highest priority changes that can be addressed within the available resources. This clause should be reviewed but in general does not require amendment.

Clauses 6.2.6.6 to 6.2.8 allow for the Major Changes and Minor Changes included within the agreed scope of each Software Release to be changed when new high priority changes are required. The reasons for changing the scope of a Software Release are appropriately limited as making any change is likely to result in inefficiencies and potential delays as changed priorities are acted upon. Changing the scope of a Software Release requires a meeting between the Contractor and Commonwealth to determine the feasibility of the change in scope and what other Major Changes and/or Minor Changes in development will need to be deferred to a later release (or if additional resources for S&Q Services would be required). These meetings are implemented under the Contract as Ad hoc Meetings as defined under clause 3.4.3 of the SOW.

Related Clauses/ Documents:

Clause 6.2.4, Development of Minor Changes to Software

Clause 6.2.5, Development of Major Changes to Software,

Clause 3.4.3 of the SOW, Ad Hoc Meetings

DSD-MNT-SA, Systems Administration

Optional Clauses: None

# 6.2.7 Additional Requirements for Preventive Maintenance Involving Change

Status: Optional (but required if clause 6.2.4 and/or clause 6.2.5 are included)

Purpose: To identify the additional requirements for undertaking the Preventive Maintenance of Software as part of a Minor Change or Major Change.

Policy: Nil

Guidance: Preventive Maintenance is defined in the Glossary to have the meaning given by ISO/IEC 14764:2006, *Information Technology – Software Maintenance*. Unlike Corrective Maintenance it is generally expected that the need for Preventive Maintenance will be identified by system administrators / the Contractor. For example, system administrators may identify the need when reviewing system event logs that indicate unexpected events, excessive memory usage or failures that have not yet been noticed by users and, therefore, not reported as a Failure that would require Corrective Maintenance. Preventive Maintenance may be performed as either a Minor Change (to achieve an existing Baseline) or, if the solution requires significant or functional change, a Major Change.

The drafter should review the Glossary (Attachment M) definition for Preventive Maintenance. The core definition from ISO/IEC 14764 should be retained; however, further clarity may be required and added to the definition, depending on the nature of the Software Products Being Supported.

Clause 6.2.7 is ‘Not used’ but is included as a placeholder for drafters to insert any additional requirements for Preventive Maintenance, involving a change, that are not addressed through clause 6.2.4 (primarily) and clause 6.2.5.

The optional clause (below) may be copied to clause 6.2.7 in order to identify the requirements under this clause as being additional to (ie, not alternatives to) the requirements of clauses 6.2.4 and 6.2.5.

Related Clauses/ Documents:

Clause 6.2.4, Development of Minor Changes to Software

Clause 6.2.5, Development of Major Changes to Software

Section 5 of Annex A to the SOW, Software Products

DSD-ENG-CSC, Contractor Standing Capability

Optional Clauses:

When performing Preventive Maintenance of Software, involves either a Minor Change or a Major Change, the Contractor shall comply with the requirements of this clause 6.2.7 in addition to the requirements of clauses 6.2.4 and 6.2.5.

# 6.2.8 Additional Requirements for Corrective Maintenance Involving Change

Status: Optional (but required if clause 6.2.4 and/or clause 6.2.5 are included)

Purpose: To identify the additional requirements for undertaking the Corrective Maintenance of Software as part of a Minor Change or Major Change.

Policy: Nil

Guidance: Corrective Maintenance in this DSD has the meaning from ISO/IEC 14764:2006, *Information Technology – Software Maintenance*, being the ‘modification of a Software product performed after delivery to correct discovered problems’. Corrective Maintenance is different to other forms of Software maintenance in that the Software is not functioning and this will most likely be noticeable and reported by the operator / user through a help desk. Corrective Maintenance may be performed as either a Minor Change (to achieve an existing Baseline) or, if the solution requires a significant or functional change, a Major Change.

Corrective Maintenance includes the rectification of faults / latent defects remaining from initial development, possibly a Contract (Acquisition) or a previous in-service development program. Warranty conditions from the Contract (Acquisition), or a preceding Contract (Support), may therefore be applicable and result in some tasks being performed under warranty instead of being charged under this Contract. If so, drafters should investigate the terms of extant Warranties and seek advice regarding appropriate Warranty clauses for the Software that was developed under earlier contracts – a suggested clause is included in the optional clauses below.

Clause 6.2.8.2 is an optional clause that refers to the Failure classifications and service request resolution times that are defined under clause 6.2.4 of DSD-OPS-HLPDSK. Resolution times for the various Failure classifications include the time taken to perform any associated Corrective Maintenance. However, a user’s service request may be ‘resolved’ via a workaround solution while a permanent solution, involving a Software change or other action, is found. Note that the Commonwealth may agree to an alternative schedule through the Approval of a SWCP or by scheduling the development and release of the change for a particular Software Release (when the Software Release clause in this DSD is included).

Where changes will need to be undertaken within the resolution times specified for the help desk, drafters need to tailor DSD-OPS-HSPDSK cognisant that a resolution may need to be met through Software changes provided in accordance with this DSD (and also systems administration activities under DSD-MNT-SA, when applicable). Drafters need to insert resolution times into the table and define ‘Mission Critical Capabilities’ and ‘Non Mission Critical Capabilities’ within the Glossary. If help desk Services are not included in the Contract, then the drafter may need to transfer the table and associated clauses to clause 6.2.8 of this DSD, or develop an alternative solution.

The table from DSD-OPS-HSPDSK enables a severity class 4 Failure to be addressed in a subsequent Software Release. Drafters should insert the appropriate timeframes into this clause while considering the possibility of minor corrections delaying the testing and roll-out of the release, should the time period be too short.

Another additional requirement that may be added to this clause is the need to confirm if a Failure would be more appropriately addressed by the warranty provisions of a preceding contract, such as the Contract (Acquisition) under which the Software was developed. Drafters may copy the optional clause (below) to the clauses to be used as the basis for developing this requirement.

Related Clauses/ Documents:

Clause 6.2.4, Development of Minor Changes to Software

Clause 6.2.5, Development of Major Changes to Software

Clause 8.1 Notification of Defects and 8.2 Latent Defects of the COC (which may require amendment for defects arising from previous contracts)

Section 5 of Annex A to the SOW, Software Products

DSD-OPS-HLPDSK

DSD-ENG-CSC, Contractor Standing Capability

DID-ILS-SW-SWSP and DID-ENG-CEMP

Optional Clauses:

*If Warranty is to be considered before performing Corrective Maintenance*:

Prior to commencing a Corrective Maintenance task, the Contractor shall notify the Commonwealth Representative regarding the applicability of Warranty from preceding contracts.

# 6.2.9 Additional Requirements for Adaptive Maintenance Involving Change

Status: Optional (but required if clause 6.2.5 is included)

Purpose: To identify additional requirements for undertaking the Adaptive Maintenance of Software as part of a Major Change.

Policy: Nil

Guidance: Adaptive Maintenance is defined in the Glossary to have the meaning given by ISO/IEC 14764:2006, *Information Technology – Software Maintenance*. It is generally expected that the need for these maintenance activities will be identified by system administrators / the Contractor. For example, the need may be identified when a proposed third-party Software Update or change to the standard operating environment (not yet rolled-out) is expected to impact on the Software Products supported by the Contractor. As this requires a change in the function of the supported Software, Adaptive Maintenance is defined as a Major Change.

The drafter should review the Glossary (Attachment M) definition for Adaptive Maintenance. The core definition from ISO/IEC 14764 should be retained; however, further clarity may be required, depending on the nature of the Software Products Being Supported.

Clause 6.2.9 is ‘Not used’ but is included as a placeholder for drafters to insert any additional requirements for Adaptive Maintenance, involving a change, that are not addressed through clause 6.2.4 and clause 6.2.5.

The optional clause (below) may be copied to clause 6.2.9 in order to identify the requirements under this clause as being additional to (ie, not alternatives to) the requirements of clauses 6.2.4 and 6.2.5.

Related Clauses/ Documents:

Clause 6.2.4, Development of Minor Changes to Software

Clause 6.2.5, Development of Major Changes to Software,

Section 5 of Annex A to the SOW, Software Products

DSD-ENG-CSC, Contractor Standing Capability

Optional Clauses:

When performing Adaptive Maintenance of Software, which involves either a Minor Change or a Major Change, the Contractor shall comply with the requirements of this clause 6.2.9 in addition to the requirements of clauses 6.2.4 and 6.2.5.

# 6.2.10 Data Manipulation

Status: Optional

Purpose: To identify the requirement for manipulating and preparing data to achieve one or more nominated outputs.

Policy: Nil

Guidance: This clause requires the Contractor to manipulate data in data sources, including databases, data libraries, data warehouses and other structures in order to prepare data or provide information to meet one of more requirements defined within clause 6.2.10. For example, data manipulation could be used to support the transfer of data (eg, the import/export of data with other systems), analyse and correlate sensory data (eg, to analyse structural stresses versus performance data), support technical investigations into system health (eg, reliability trends), prepare operational libraries, and investigate options for the Perfective Maintenance of the databases / libraries themselves. Data manipulation is an optional clause and if these Services are not required, then the clauses below the heading clause 6.2.10 can be replaced with a single ‘Not used’.

Note that this function is distinct from data back-ups or managing user accounts, which are part of systems administration. Data manipulation may also support Defence data mining for certain operational data and business information; this may be considered an instance of Operating Support (SOW Clause 4) and if this is expected to be a significant and on-going task, could be the basis of a new Operating Support DSD (with considerable further development).

Clause 6.2.10.1 requires the drafter to identify the types of data manipulation Services required. These should identify the type of data manipulation by name and include a short description and/or be supported by the Glossary to define the nature of the Service. Drafters also need to identify the data sources to be used in section 5 of Annex A to the SOW, with an applicable column or index marker, which can be referenced from this clause (ie, for which the Contractor has ‘data management responsibilities’).

Where the requirement for data manipulation is on-going (eg, daily, weekly or monthly tasks) and can be reasonably well scoped and conducted as a Recurring Service, drafters may find it effective to include a definition of work scope as an annex to the DSD, which can be referenced from clause 6.2.10.2.

Clause 6.2.10.3 allows for ad hoc tasking for data manipulation to be requested by the Commonwealth. Through clause 6.2.10.6 these activities will be performed as S&Q Services.

Clause 6.2.10.4 allows for a written request to be submitted by the Contractor to the Commonwealth when, in their professional judges, a data manipulation Service is required. If agreed by the Commonwealth, then through clause 6.2.10.6 these activities would be performed as S&Q Services.

Clause 6.2.10.5 identifies the common requirements for initiating and undertaking data manipulation activities, including defining the objectives, timeframes and deliverables.

Clause 6.2.10.6 defines the payment method for the different groups of data manipulation Services by reference to the preceding clauses. The most consistent and predictable, in terms of level of effort, should be treated as a Recurring Service and listed under clause 6.2.10.2. Those that are more ad hoc tasks would be paid for as an S&Q Service initiated by either the Commonwealth (clause 6.2.10.3) or the Contractor (clause 6.2.10.4). Note that those data manipulation Services that could be performed as S&Q Services could also be undertaken as CSC Tasks where a CSC is included in the Contract and has the necessary skills to perform these tasks. Drafters need to consider the range of data manipulation Services required and for those that are on-going or Commonwealth initiated, list them under the applicable clause.

Related Clauses/ Documents:

Clause 3.3 of the SOW, Quoting for Survey and Quote Services

Section 5 of Annex A to the SOW, Software Products

DSD-ENG-CSC, Contractor Standing Capability

Optional Clauses: None

Detailed Service Description

1. DSD NUMBER: DSD-ENG-SW-
2. TITLE: Software Support SERVICES
3. Description and inteNded use

This DSD defines the requirements for the provision of Services to support applicable Software Products, including:

Software support planning;

Software change management;

Minor Changes and Major Changes to Software Products;

the implementation of Software release programs; and

data manipulation.

1. INTER-RELATIONSHIPS

This DSD forms part of the SOW.

This DSD shall be undertaken in conjunction with Engineering Services defined within the Engineering requirements of the SOW and related DSDs.

Note to drafters: Amend the following clause to suit the scope of the Services.

This DSD shall be undertaken in conjunction with DSD-MNT-MGT and DSD-MNT-SERV for the management and conduct of hardware modifications.

This DSD shall be undertaken in conjunction with DSD-OPS-HLPDSK, for direct help desk support provided to system operators and support staff.

This DSD shall be undertaken in conjunction with DSD-MNT-SA for system administration Services.

1. Applicable Documents

Note to drafters: Drafters may either edit the list of documents in the table below to suit the requirements of this DSD or include the note to tenderers below, requesting the tenderers to identify their own standards. Do not include both approaches (unless the note to tenderers is modified to request alternative standards to the ones proposed by the drafter). If modifying the list of documents, do not include reference to Defence policy (eg, DI(G)LOG) unless the obligations for contractors are explicitly set out in the referenced policy; otherwise, these types of documents can be open to interpretation within a contract.

The following documents form a part of this DSD to the extent specified herein:

Note to tenderers: Tenderers are to nominate in their response to Annex G to Attachment A to the conditions of tender, a recognised standard for Software maintenance and upkeep that they intend to use for the delivery of Software support Services.

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| --- | --- |
| 1. AS/NZS ISO/IEC 12207:2013 | 1. *Systems and software engineering – Software life cycle processes* |
| 1. MIL-HDBK-1467 | 1. *Acquisition of Software Environments and Support Software* |
| 1. ISO/IEC 14764:2006 | 1. *Software Engineering – Software Life Cycle Processes - Maintenance* |

1. Service Description
   1. Introduction
      1. Scope of DSD

The Contractor shall provide Software support Services, as described in this DSD, for the Software Products listed at Annex A to the SOW for which the Contractor is identified as having Software support responsibilities.

* 1. Services
     1. Software Support Planning

Note to drafters: The drafter needs to decide whether a stand-alone SWSP is required or if Software-support planning will be rolled up into the CEMP or SSMP. Based on this decision, one of the following options should be selected and the CDRL adjusted accordingly. Refer to guidance for the transfer of an SWSP from a linked Contract (Acquisition).

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| Option A: For when a stand-alone SWSP is required:  The Contractor shall develop, deliver, and update a Software Support Plan (SWSP) in accordance with CDRL Line Number ENG-750.  Option A-1: For when the Contract will be tendered in conjunction with a linked Contract (Acquisition).  The Contractor shall use the SWSP developed under the Contract (Acquisition) as the basis for the SWSP required under clause 6.2.1.1.  Option B: For when the Software support requirements are to be addressed through the CEMP or SSMP.  The Contractor shall address the management and planning of Software support in the […INSERT 'CEMP' OR 'SSMP'…]. |

Note to drafters: Insert the applicable plan into the following clauses.

The Contractor shall make available to the Commonwealth, within 10 Working Days of a request, all associated plans, processes, procedures, logs, instructions and data supporting the Approved […INSERT 'SWSP', 'CEMP' OR 'SSMP'…].

The Contractor shall provide Software support Services in accordance with the applicable documents listed at clause 5, as tailored by the Approved […INSERT 'SWSP', 'CEMP' OR 'SSMP'…].

The Contractor shall ensure all Software support Services provided by Subcontractors are consistent with the Approved […INSERT 'SWSP', 'CEMP' OR 'SSMP'…].

The Contractor shall maintain a schedule of known Software support activities, projecting work effort for a period of not less than one year in advance, or until the end of the Term where that period is less than one year.

The Contractor shall provide a copy of the Contractor’s Software support schedule in the format requested and within five Working Days (or other timeframe agreed between both parties) of a request for a copy of this schedule from the Commonwealth Representative.

* + 1. Software Change Request Management

Note to drafters: Amend the following clause to suit the specific requirements of the Contract. References to DSD-OPS-HLPDSK and DSD-MNT-SA should be deleted if help desk and ICT System Administration Services are provided by a party other than the Contractor.

The Contractor acknowledges that Software Change Requests (SWCRs) may be raised by the Contractor, the Commonwealth or an Associated Party (with the agreement of the Commonwealth Representative) including as an outcome of, or in response to:

a help desk service request raised under DSD-OPS-HLPDSK;

a system event under DSD-MNT-SA that requires a Software change to resolve;

Software monitoring Services, Software licence management Services, and Software retirement Services in accordance with DSD-MNT-SA; and

when requested by the Commonwealth, in writing, requests to enhance the Software Products.

Unless otherwise agreed by the Commonwealth Representative, the Contractor shall raise SWCRs to implement Software Updates developed by OEMs of the applicable Software Products, and shall process those SWCRs in accordance with this clause 6.2.2.

The Contractor shall maintain a SWCR log for recording and managing SWCRs that includes, for each SWCR:

a unique identifier;

the date and time raised;

the person that raised the SWCR (ie, the originator);

when applicable, reference details of any related Engineering Change Proposal (ECP) and/or S&Q Service Request;

the priority and change categorisation (eg, Minor Change or Major Change);

the type(s) of Software change classification, as per clause 6.2.3.3;

the configuration of the hardware and Software environment, and any associated changes to the configuration, when applicable to the Software change;

current status;

resolution details or change development progress, as applicable; and

closure details (including date, time and the person or Configuration Control Board (CCB) authorising closure).

Note to drafters: The SWCR log may be included in the DMS under clause 2.3 of the SOW.

The Contractor shall provide all facilities and assistance reasonably required by the Commonwealth in order for the Commonwealth to access the Contractor's SWCR log for the Term.

The Contractor shall report the following information on the status of SWCRs (including subsequent Software Change Proposals (SWCPs)) in the Combined Services Summary Report:

the number raised during the reporting period;

the number closed during the reporting period;

a summary of the disposition of all open SWCRs; and

a summary of the progress of all open SWCPs.

The Contractor shall only close SWCRs:

for Minor Changes, following completion of the implementation of the change; or

for Major Changes, subsequent to the completion of the change and when agreed by the Commonwealth Representative or the Commonwealth CCB.

* + 1. Software Change Analysis

The Contractor shall analyse and report on each SWCR:

based on the priority of the SWCR, taking into account the potential impact of the proposed Software change on operations, health and safety, the environment, and other Contract work (ie, SWCRs are to be analysed in priority order); and

in accordance with the timeframe(s) and other requirements specified in clause 6.2.4 of DSD-ENG-SERV, and clause 6.2.3.2 of this DSD.

Unless otherwise specified by the Commonwealth Representative, the Contractor shall provide the following information, which is additional to the requirements of clause 6.2.4 of DSD-ENG-SERV, when analysing SWCRs:

the identification of the Software units, associated Technical Data and Software rights, associated Software (such as application kits and installation scripts), and the versions thereof that need to be developed or changed;

the identification of the Verification to be applied to both modified and unmodified parts of the system to Verify that the update has met requirements and has not introduced any unintentional changes; and

the identification of any associated hardware changes, if applicable.

The Contractor shall classify each Software change requested as one or more of the following types:

Preventive Maintenance;

Corrective Maintenance;

Adaptive Maintenance;

Perfective Maintenance; and

no Software support required (eg, a hardware Failure incorrectly identified as being Software-related).

Where a SWCR involves a mix of the types identified in clause 6.2.3.3, the Contractor shall provide an estimate of, and the associated rationale for, the proportion of each type that should be attributed to the Software change.

Note to drafters: Note that clause 6.2.4 of DSD-ENG-SERV analyses change requests as either Recurring Services or S&Q Services. Software changes may also be undertaken by a Contractor Standing Capability (CSC). See guidance for additional information.

Subject to clause 6.2.3.6, the Contractor shall analyse all SWCRs as S&Q Services. For clarity, when a SWCR is associated with an ECP that is analysed under clause 6.2.4 of DSD-ENG-SERV as an S&Q Service, both hardware and Software aspects of the change shall be analysed under the one S&Q Order.

Except when otherwise agreed in writing by the Commonwealth Representative, when a SWCR, including a SWCR raised by the Commonwealth Representative, relates to maintaining the serviceability of Mission Systems and/or the extant functionality of ICT Systems, or safety and/or regulatory requirements, the Contractor shall analyse and report on the Software change within the fee for Recurring Services.

* + 1. Development of Minor Changes to Software

The Contractor shall provide the Software support Services required under this clause 6.2.4 for the Software Products for which the Contractor is identified as having Engineering responsibilities at Annex A to the SOW.

The Contractor shall develop a SWCP for each Software-related Minor Change in accordance with:

Note to drafters: As these are Minor Changes, the associated SWCPs are not required to be Approved by the Commonwealth Representative in accordance with DSD-ENG-CM. If Approval of these SWCPs is required, drafters will need to modify this clause to use the standard wording for referencing CDRL Line Numbers.

DID-CM-MGT-ECP;

DSD-ENG-CM; and

Note to drafters: The first selection in the following clause relates to the governing plan for Software support, while the second selection relates to the governing plan for CM. Drafters are to make the appropriate selections and, if necessary, further tailor the clause.

the Approved […INSERT 'SWSP', 'SEMP' OR 'CEMP'…] and the Approved […INSERT 'CMP' OR 'CEMP'…] in regards to Configuration Management.

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| Option: For when Minor Changes to Software Products will require Approval and the optional CCB clause has been included in clause 6.2.4 of DSD-ENG-SERV.  The Contractor acknowledges that the Commonwealth Representative will not provide Approval to proceed with the development of a SWCP under clause 6.2.4.2 until after the Commonwealth’s CCB has considered the Contractor’s analysis of the associated SWCR under clause 6.2.4 of DSD-ENG-SERV. |

If, after commencing the development of a SWCP, the Contractor determines that the proposed Software change should be reclassified as a Major Change, the Contractor shall promptly notify the Commonwealth Representative and follow any subsequent reasonable directions given by the Commonwealth Representative for the implementation of the Software change as a Major Change.

Note to drafters: The first selection in the following clause relates to the governing plan for Software support, while the second selection relates to the governing plan for CM. Drafters are to make the appropriate selections and, if necessary, further tailor the clause.

The Contractor shall develop, implement, Verify and Validate the Software-related Minor Change in accordance with the SWCP, the Approved […INSERT 'SWSP', 'SEMP', 'CEMP' OR 'SSMP'…] and the Approved […INSERT 'CMP', 'CEMP' OR 'SSMP'…].

Note to drafters: The following options allow Minor Changes to Software to be undertaken as (Option A) S&Q Services, including CSC Tasks when a CSC is included in the Contract, or (Option B) a combination of Recurring Services and S&Q Services depending on the nature of the change. Refer to guidance for further information.

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| Option A: For when all Minor Changes to Software will be conducted as S&Q Services (or as CSC Tasks).  The Contractor shall undertake the work required under this clause 6.2.4 as S&Q Services. |

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| Option B: For when Minor Changes to Software will be Recurring Services or S&Q Services, depending upon the nature of the change.  Subject to clause 6.2.4.8, the Contractor shall undertake the work required under this clause 6.2.4 as S&Q Services.  Except when otherwise agreed in writing by the Commonwealth Representative (eg, due to Defence activities in developing or testing the proposed Minor Change or due to significant cost), the Contractor shall undertake the Minor Change to Software within the fee for Recurring Services if the Minor Change:  is required to be undertaken due to legislation or the other provisions of the Contract, including provisions for Defects and Latent Defects;  is already provided for through a Subcontract;  Note to drafters: The Commonwealth may not be able to identify applicable exclusions when drafting the Contract. Under these circumstances, it may be appropriate to include a note to tenderers here requesting their input on potential exclusions as part of the tender responses.  is to maintain the availability of one or more of the major Products (ie, those Products that form the basis of the Capability), with the exception of any Minor Change that involves:  […INSERT APPLICABLE EXCLUSIONS (EG,'security-related changes to an ICT System'…]; |

* + 1. Development of Major Changes to Software

The Contractor shall provide the Services required under this clause 6.2.5 for the Software Products for which the Contractor is identified as having Engineering responsibility at Annex A to the SOW.

Note to drafters: Some programs, including those requiring regulatory approval, may mandate that a Software Management Plan (SWMP) be prepared in accordance with DID-ENG-SW-SWMP (sourced from ASDEFCON (Strategic Materiel)). If required, include the following option, include the SWMP in clause 6.2.5.1 of DSD-ENG-SERV, and amend the CDRL accordingly.

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| Option: Include the following clause when an SWMP is required to manage Major Changes to Software. Refer to guidance for additional explanation.  The Contractor shall develop, deliver and update a Software Management Plan (SWMP) in accordance with CDRL Line Number […DRAFTER TO INSERT LINE NUMBER…] |

The Contractor shall design, develop, implement, Verify and Validate (as applicable) each Major Change for Software in accordance with:

this DSD, including this clause 6.2.5 and clauses 6.2.6 to 6.2.9, as applicable;

clause 6.2.5 of DSD-ENG-SERV, including the SWCP(s) developed as part of or in lieu of the Engineering Change Proposal;

clauses 6.2.7 and 6.2.10 of DSD-ENG-SERV;

DSD-ENG-CM;

Note to drafters: Amend the following subclause if a different standard is to be the basis of Software engineering activities to develop Major Changes. Also, select the appropriate governing plan for managing Major Changes to Software.

the requirements of AS/NZS ISO/IEC 12207:2013, as tailored by:

the Approved […INSERT 'SWSP' AND/OR 'SWMP' AND/OR 'SEMP'…]; and

the supplementary management plans for the Major Change in accordance with clause 6.2.5 of DSD-ENG-SERV; and

clause 3.15 of the COC, when the development of a Major Change is undertaken as an S&Q Service.

In addition to the requirements of clause 6.2.5 of DSD-ENG-SERV, the Contractor shall Verify that:

the Software change has not affected the original, unmodified requirements;

the modified Software Products do not compromise existing systems; and

the application kits and install scripts install correctly in the execution environment.

In addition to the V&V requirements of clause 6.2.5 of DSD-ENG-SERV and until Acceptance of the modified Software Products, the Contractor shall retain (for traceability) the test reference builds (including modified Software Products, application kits and/or install scripts) used for the conduct of each phase of Acceptance V&V activities and for each applicable execution environment.

Note to drafters: Where Software is deployed on CIOG infrastructure, CIOG accreditation of the Software and release package is required. The following clause aims to ensure that accreditation is obtained when applicable.

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| Option: For when CIOG accreditation for installation on Defence networks is also required.  Where the changed Software Product(s) are to be installed on the Defence Standard Operating Environment (SOE), or the deployable SOE, the Contractor shall consult, coordinate and cooperate with the Commonwealth Representative, CIOG and other Associated Parties, as applicable, for:  the conduct of Verification activities, including compatibility testing, necessary for accreditation by CIOG; and  preparation of the Software Updates, application kits and install scripts, as necessary for distribution and installation in the applicable operating environment. |

For the implementation of each Major Change, or set of changes, the Contractor shall:

develop and document a migration plan to control the Software change and its impact on the parent system;

provide the migration plan to the Commonwealth Representative for Approval; and

implement the Software change for the affected Software Product(s) in accordance with the Approved migration plan.

The Contractor shall address the following in the migration plan:

requirements analysis and definition of migration;

development of migration tools;

conversion of Software Product(s) and associated data;

migration execution, including the extent to which old and new Software Products may be used in parallel;

migration Verification;

information requirements and notifications to be provided to Personnel affected by the migration, including all user actions that may be applicable; and

the extent of, and arrangements for, the support of the previous (legacy) Software Products in the future.

Note to drafters: The following options allow Major Changes to Software to be undertaken as either (Option A) S&Q Services, including as CSC Tasks when a CSC is included in the Contract, or (Option B) a combination of Recurring Services and S&Q Services depending on the nature or source of the change. Refer to guidance for further information.

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| Option A: For when all Major Changes to Software will be S&Q Services (or as CSC Tasks).  The Contractor shall undertake the work required under this clause 6.2.5 as S&Q Services.  Option B: For when Major Changes to Software will be either Recurring Services or S&Q Services depending upon the nature or source of the change.  Subject to clause 6.2.5.11, the Contractor shall undertake the work required under this clause 6.2.5 as S&Q Services.  Except when otherwise agreed in writing by the Commonwealth Representative, the Contractor shall undertake the Major Change to Software within the fee for Recurring Services if the Major Change:  is Adaptive Maintenance required for the implementation of changes to another Product Being Supported (ie, hardware and/or Software) that is to be, or has been, modified by the Contractor under a separate Minor Change or Major Change (but which was not included within the scope of that other change);  is already provided for through a Subcontract; or  is undertaken to incorporate new or enhanced functionality through component Software Products that will be, or have been, provided by the Commonwealth, OEM or third-party. |

* + 1. Software Releases

Note to drafters: This clause requires Software changes to be grouped and released through a periodic Software Release program (eg, six-monthly, because the OEM uses a time-boxed approach to Software Release, or because the CCB desires a staggered update program). If not required, the following clauses should be replaced with a single ‘Not used’.

Clause 6.2.6 may need further development, particularly when the roll-out program requires certain users and/or locations to be prioritised. See guidance for additional information.

Drafters must insert an appropriate timeframe into clause 6.2.6.1. If the procurement team is unable to define the timeframe, the following note to tenderers may assist to obtain the required information. If the procurement team is able to define the timeframe, the note to tenderers should be deleted. See guidance for additional information.

Note to tenderers: Tenderers are requested to advise the likely frequency of Software Releases associated with the Software Products Being Supported.

The Contractor shall implement an on-going Software Release program, incorporating Minor Changes and Major Changes to the Software Products through a […INSERT TIMEFRAME (EG, 'quarterly' or 'six-monthly')…] update cycle.

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| Option A: For when the scope of Software Releases will be discussed at Engineering Support Performance Reviews.  The parties shall jointly determine the scope of each Software Release, including both the Major Changes and Minor Changes to Software to be included in the Software Release, as part of Engineering Support Performance Reviews conducted in accordance with clause 5.3 of the SOW. |

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| Option B: For when the scope of Software Releases will be discussed at separate planning meetings. Drafters must insert appropriate timeframes into the following two clauses.  The parties shall conduct the first meeting to discuss and agree the Software Release program […INSERT TIMEFRAME, EG, 'three months after the Operative Date'…].  At least […INSERT TIMEFRAME, EG, 40…] Working Days before each Software Release is scheduled for release, the Contractor shall meet with the Commonwealth Representative to determine the proposed Major Changes and Minor Changes to be included in the scope of subsequent Software Releases. |

The Commonwealth Representative shall, following consultation with the Contractor, be responsible for determining the priority of Major Changes and Minor Changes considered for inclusion in each Software Release and for any subsequent change to the agreed scope of a Software Release.

Once the scope of a Software Release has been agreed, the set of Major Changes and Minor Changes included within that Software Release shall only be changed when:

the need for an additional Software change is required:

as a result of a class 1 or class 2 Failure (as defined in DSD-OPS-HLPDSK) of an existing Software Product has occurred;

as a result of the Software Product having caused, or contributed to, a Failure in an interfacing system, which the Commonwealth considers to be the equivalent of a class 1 or class 2 Failure; or

to address an operational imperative (eg, in a Contingency situation);

the parties agree that the proposed change to the scope of the Software Release is achievable; and

the Commonwealth Representative is satisfied with the re-prioritisation of Software changes including, when applicable, the deferral of other Major Changes and/or Minor Changes to a subsequent Software Release.

When either party wishes to change the agreed scope of a Software Release in accordance with clause 6.2.6.6, the parties shall meet to discuss the impact of the proposed change(s) on the Products (including both Software and hardware, if applicable) and the Services, including any impact on the scope, schedule and resources needed for the Software Release and subsequent Software Releases.

When a meeting is required in accordance with clause 6.2.6.7 which cannot be scheduled as part of an appropriate Periodic Performance Review, the parties shall conduct the meeting as an ad hoc meeting in accordance with clause 3.4.3 of the SOW.

* + 1. Additional Requirements for Preventive Maintenance Involving Change

Note to drafters: Refer to guidance for further information regarding this clause.

Not used.

* + 1. Additional Requirements for Corrective Maintenance Involving Change

When performing Corrective Maintenance of Software, which involves either a Minor Change or a Major Change, the Contractor shall comply with the requirements of this clause 6.2.8 in addition to the requirements of clauses 6.2.4 and 6.2.5.

Note to drafters: The following optional clause allows Corrective Maintenance to be linked to the service request resolution times for a help desk operated by the Contractor. If the Failure classification scheme identified in DSD-OPS-HLPDSK is required, but that DSD is not being used, then drafters should copy the required subclauses and table from clause 6.2.4 of DSD-OPS-HLPDSK into this location. The following clause should then be modified accordingly. If not applicable, the optional clause should be deleted.

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| Option: For use when Corrective Maintenance will be subject to resolution times for service requests specified in DSD-OPS-HLPDSK.  Unless otherwise agreed by the Commonwealth Representative (eg, within an Approved SWCP or agreed Software Release package), the Contractor shall resolve Failures in the Software Products consistent with the achievement of the service request resolution times, for the class of Failure, as identified in clause 6.2.4 of DSD-OPS-HLPDSK. |

* + 1. Additional Requirements for Adaptive Maintenance Involving Change

Note to drafters: Refer to guidance for further information regarding this clause.

Not used.

* + 1. Data Manipulation

The Contractor shall provide data manipulation Services, including related analysis, data preparation and reporting, as appropriate, for those Software Products for which the Contractor has been identified as having data manipulation responsibilities at Annex A to the SOW.

The Contractor shall provide data manipulation Services to:

Note to drafters: Data manipulation involves working with databases to provide specific Services and/or Deliverables required by the SPO or Defence system user. The data manipulation Services listed under this clause must be able to be scoped as Recurring Services. Examples of data manipulation activities that could be required include:

* generation of operational libraries for Software loads on a regular basis;
* on-going data mining activities for trend analyses and reporting purposes; and
* data manipulation for to enable inputting data transfer to and from other external data sources and exporting data to other sources on a regular basis.

[... DRAFTER TO INSERT ...] in accordance with [... INSERT ANNEX OR OTHER REFERENCE...]; and

[... DRAFTER TO INSERT ...] in accordance with [... INSERT ANNEX OR OTHER REFERENCE...].

Note to drafters: The following requirements for data manipulation Services are those which cannot be reasonably scoped, and will therefore be the subject of S&Q Services or CSC Tasks. Examples of the types of data manipulation activities that could be required include:

* the generation of bespoke reports;
* initial investigation of Major Changes, prior to raising a Software Change Request;
* Commonwealth investigations into interfacing systems; and
* end-to-end investigations, where the Products Being Supported are part of a larger networked system.

When requested by the Commonwealth in writing, the Contractor shall undertake data manipulation Services, which may or may not be related to the specific outcomes required under the Contract (eg, to analyse the Failure data for a Product Being Supported in order to analyse the impact on an interfacing system), for which Contractor the has technical capability and expertise, including:

[... DRAFTER TO INSERT ...]; and

[... DRAFTER TO INSERT ...].

The Contractor shall raise requests for data manipulation Services based on its expert judgement, for issues that are not addressed by clause 6.2.10.2 or clause 6.2.10.3, and that have potential benefits for the Commonwealth, as stated in the request.

A data manipulation Services request raised by either party, under clause 6.2.10.3 or 6.2.10.4, shall detail:

the scope and objectives of the data manipulation Service;

the estimated duration and/or due date;

any required data deliverables, such as libraries, output reports or transfer files;

reporting requirements, including report format, if applicable; and

any other requirements applicable to the data manipulation Service.

Subject to clause 6.2.10.2, the Contractor shall undertake data manipulation Services conducted in accordance with clauses 6.2.10.3 and 6.2.10.4 as S&Q Services.