DISA Continuity of Operations and Test Facility (DCTF)
Global Combat Support System (GCSS)
Segment Certification
Executive Summary

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The DCTF GCSS Segment Certification
Executive Summary

1.0 The DCTF and the Global Combat Support System (GCSS). The DCTF is responsible for the Registration, Evaluation, and Certification of all GCSS segments under the Defense Information Infrastructure (DII) Common Operating Environment. These three processes form the core of the DCTF GCSS segment certification mission. Segment development, Development/ Operational Test and Evaluation (D/OT&E), distribution, maintenance, and user support remain the responsibility of the government agency or activity sponsoring the segment or application.

2.0 The DCTF GCSS Process. GCSS developers and users exist throughout DOD. GCSS users comprise a number of separate, large, and, in many cases, functionally dissimilar communities that provide logistics, personnel management, procurement, and a number of other services supporting DOD operations world wide. The GCSS segment certification process must, therefore, support a wide variety of customers. DCTF GCSS processes were derived from a variety of sources, primarily the DII COE Integration and Runtime Specification (I&RTS), the DII COE Developer's Conference of February 1996, and the DISA Operations Support Facility (OSF) Configuration Management Software and Documentation Delivery Requirements. Where applicable, processes and other information from these sources were used. In many cases, however, information either was not available, or, for the following reasons, did not apply.

a. GCSS is significantly different from GCCS, both as to its customer base and its approach. GCCS is treated as a single entity . Different versions of GCCS are released over time, but all are under the same version control, share the same functionality, and are aimed at essentially the same customer base. GCSS refers, on the other hand, to a family of applications, each with its own unique functionality, customer base, and version control. The DII COE represents the only guaranteed commonality within the GCSS family. Thorough user functional testing across such a broad expanse, therefore, is not practical at this time. GCSS application distribution and support are similarly complex.

b. The DCTF GCSS mission is significantly different from the OSF GCCS mission. DISA JIEO in many ways acts as the GCCS sponsor in that Joint Interoperability and Engineering Organization (JIEO) has largely taken on many of the program management functions of GCCS. As such, major JIEO organizations, such as the OSF, are very involved in the design, development, integration, evaluation, distribution, and support of GCCS. With GCSS, however, each super application, although based on the DII COE, has its own program manager and sponsor, and, besides the DII COE, often have little in common with other GCSS applications.

3.0 DCTF GCSS Segment Certification Standard Operating Guide (DCTF GCSS SOG). The SOG details the DCTF GCSS processes, and identifies the specific DCTF components involved in GCSS segment certification. The SOG also explains the relationship between the DCTF and GCSS, and provides instructions for GCSS segment certification at the DCTF.

4.0 The DCTF GCSS Process Overview. The DCTF GCSS process consists of three main phases: registration, evaluation, and certification. This section provides a brief overview of the three phases and how they fit together to execute the DCTF segment certification GCSS mission. As has been mentioned, the DCTF provides GCSS certification to segments submitted to the DCTF.

4.1 Prerequisites. As a prerequisite to DCTF involvement, the following must have occurred:

a. An authorized Government activity (sponsor) has determined that a new GCSS segment, application, or combination of segment or application is needed. The DCTF verifies that a sponsor is authorized to develop and submit a GCSS segment for certification through DISA D63, or the GCSS Chief Engineer.

b. The sponsor has tasked a developing activity (developer) to integrate existing DII COE segments or applications with any newly migrated or developed software functionality required.

c. The sponsor has approved a developer plan for the design, implementation, and test of the new GCSS segment or application.

4.2 Segment Registration. Upon completion of the above, and before development begins if possible, the proposed GCSS segment or application should be registered with the DCTF. The information exchanged during registration is critical for effective planning by the sponsor, developer, and the DCTF. Registration will be in accordance with the DCTF GCSS Registration and Delivery Package (Attachment 1 to Appendix A of the DCTF GCSS SOG). Failure of the sponsor or developer to register a segment early in development may impact the ability of the DCTF to complete segment certification within the time frame requested by the sponsor or developer. Registration must occur before the segment or application is accepted by the DCTF for certification evaluation. Registration is required to:

a. Notify DCTF that the sponsor has tasked a developer to migrate or develop a GCSS segment or application.

b. Authorize a developer access to DII COE tools, object libraries, and other resources essential for successful GCSS segment development.

c. Ensure segment attributes such as the system prefix and home directory name meet strict I&RTS guidelines to preclude the developer having to make changes later on.

d. Schedule a DCTF GCSS certification evaluation window.

e. Provide the DCTF with the information required (such as licensing requirements) to ensure that both the resources and schedule time are available to properly evaluate the GCSS

segment for GCSS certification.

f. Ensure sponsors/developers will provide the information required for certification evaluation to the DCTF at the time of segment delivery. This agreement may require the sponsor to modify contracts or seek other sources for segment specific information the DCTF requires to evaluate and certify the software.

4.2.1 Registration Information. Due to the limited nature of the DCTF GCSS certification mission (DII COE compliance only), the information required for a specific application varies little. While it is important for the developer and sponsor to complete the registration information as soon as possible, the DCTF recognizes that not all the information is available early on. As the information becomes available, as it should during the normal course of development, it should be provided. To complete registration, the following information is required:

a. Sponsor, program management, and technical points of contact identification to allow the DCTF to coordinate actions and obtain or pass information.

b. The segment name, system prefix, and version number are needed to uniquely identify the segment, and the prefix must be unique to operate in the DII COE.

c. The type of segment (one or more of the six defined in the I&RTS). The segment type is one determinant on what testing must be done.

d. The name of the home directory where the segment will be loaded (the name must meet certain I&RTS compatibility guidelines).

e. The name of the supported application (required for proper testing).

f. Information required to ensure the DCTF has the right resources available for the evaluation, such as the platform and class (client or server) on which the segment will operate, an estimate of the amount of memory required by the segment for installation and operation, and any supporting software required.

g. A projected delivery date to the DCTF (required for DCTF resource planning).

h. Information required to enter the segment in the Defense Software Repository System (DSRS), such as the GCSS functional area supported, purpose and features, and keywords.

I. A completed Segment Delivery Package Agreement. This agreement allows the developer, sponsor, and DCTF to agree beforehand on what information will be delivered with the software, and in what format.

4.2.1.1 The Segment Delivery Package Agreement. This agreement is, by definition,

tailorable. While the Standard Document Requirements list (see below) identifies what is normally expected, if the developer or sponsor can show where the information can otherwise be found, or is not needed, the agreement will reflect this. The agreement therefore protects all parties and ensures required information is available when needed. The Standard Documents Requirements list identifies generic documents where required information is usually located, and is, with two exceptions, a subset of that required for GCCS software and documentation deliveries. The two additional documents required aid in the evaluation of the segment. These are the VerifySeg Tool Output and the Completed I&RTS Compliance Questionnaire, both of which should have been done by the developer during development testing. The DCTF does not require specification, database design, and other documentation the OSF requires in its mission. Additionally, the DCTF does not require, or want, source code.

4.3 Segment Evaluation. The GCSS evaluation process begins when the developer or sponsor delivers the segment for evaluation and ends when the results of the evaluation are forwarded to the Commander, DCTF, by the DCTF GCSS Certifier.

4.3.1 Segment Delivery. When a registered GCSS segment is delivered to the DCTF for certification, it undergoes an acceptance process to ensure that :

a. All information required for evaluation and certification is delivered.

b. All information provided at segment delivery agrees with information provided during the registration process (to ensure planning based on that information is still valid).

c. The DCTF has the resources required to evaluate the segment to the DII COE compliance level sought, and within the time frame requested (if a. and b. are successful, this step merely ensures plans have been carried out).

4.3.2 GCSS Certification Evaluation. Upon acceptance of the segment delivery by the DCTF, the DCTF GCSS certification evaluation begins. The first of two parts is the COE Compliance evaluation in which the DCTF examines both the software and its supporting documentation for compliance with established DII COE standards. The second part, Operational Compliance, puts the software through limited functional testing, not to evaluate the software functionality against user requirements, but, rather, to ensure that the software will behave within the DII COE when operating. The DCTF evaluators gather data throughout both parts of the evaluation using detailed checklists. Upon completion, the results and any comments or recommendations, are forwarded to the GCSS certifier.

4.4 GCSS Certification. Upon receipt of the evaluation results, the GCSS certifier determines the level of certification (per the DII I&RTS) achieved. The DCTF forwards the determination, along with any explanatory comments or recommendations, to the sponsor and developer for appropriate action.

5.0 DCTF GCSS Organizational Responsibilities. While many portions of the DCTF assist in the execution of the DCTF GCSS mission, two DCTF divisions, both located in the Plans, Engineering, and Integration Department, are primarily responsible for DCTF GCSS segment certification. These are the Configuration Management (CM) Division and the Integration and Test (IT) Division. CM responsibilities are defined in Appendix A, the Configuration Management Plan (CMP) of the DCTF GCSS SOG. IT responsibilities are as defined in Appendix B, the Test Plan (TP).

5.1 The CM Division. The CM Division is responsible for, and conducts, GCSS segment registration, the acceptance of the delivered product for evaluation, providing configuration control of the segment when under evaluation, the physical control of all segment materials, and provides the DCTF response to the developer and sponsor. The CM Division provides the formal interface between the Developer and the DCTF.

5.2 The IT Division. The IT Division, assisted by the UNIX and Windows NT Teams of the Systems Management Department, performs the actual GCSS evaluation and certification per the DCTF GCSS SOG. Attachments 1 and 2 to Appendix B of the DCTF GCSS SOG, the DII COE Compliance Evaluation Checklist and the Operational Compliance Checklist, respectively, are used to conduct the evaluation.

6.0 Summary. The DCTF GCSS segment certification process has been specifically designed to support the DCTF GCSS mission. It was derived from existing related process, particularly those in use at the OSF, but tailored to meet the DCTF mission requirements. The DCTF recognizes that this is not a perfect process and welcomes any specific comments or recommendations. Please provide any comments or recommendations, along with appropriate rationale, to the DCTF.

7.0 Additional Information. Additional information regarding GCSS can be obtained via the World Wide Web on the GCSS Home Page (www.disa.mil/line/gcss.html). The DISA D63 Point of Contact is Ms. Evelyn DePalma, (703) 681-2124, depalmae@ncr.disa.mil. The GCSS Chief Engineer's Office includes the Chief Engineer, Major Rich Petrassi, (703) 681-2085, petrassr@ncr.disa.mil; and the Deputy Chief Engineer, Major Joe Wojszynski, (703) 681-2095, wojszynj@ncr.disa.mil. The DCTF can be reached by phone at (504) 639-3169, and by electronic mail at GCSSDCTF@slidell.disa.mil. The DCTF Home Page URL is http://www.slidell.disa.mil.