

**Table I. Change table for req\_type and verification\_method changes only.**

L4 ID	object_key	rel	req_type	req_status	verification_status	verification_method	L4 Text
C-CSS-00010	5260	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS services at the SMC shall be configured to support the SMC function of Gathering and Disseminating System Management Information's availability requirement of .998 and a Mean Down Time of < 20 minutes during times of staffed operation.
C-CSS-00020	5222	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS services shall have no single point of failure for functions associated with network databases and configuration data.
C-CSS-00500	9348	IR1	functional	approved	unverified	<a href="#">inspection</a>	The CSS client services software shall be made available in the form of a CSS toolkit to the developers.
C-CSS-02050	5163	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of receiving science data's Availability requirement of .999 and Mean Down Time requirement of 2 hours or less during times of staffed operation.
C-CSS-02052	5165	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of Archiving and Distributing Data's Availability requirement of .98 and Mean Down Time requirement of < 2 hours during times of staffed operation.
C-CSS-02054	5167	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of User Interfaces to Client, Interoperability, Data Server, and Data Management (IMS) services at Individual DAAC Site's availability requirement of .993 and a mean down time requirement of < 2 hours during times of staffed operations.
C-CSS-02056	5160	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of information searches on the ECS directory's availability requirement of .993 and a mean down time requirement of < 2 hours during times of staffed operations.
C-CSS-02058	5171	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of Metadata Ingest and Update's availability requirement of .96 and a mean down time requirement of < 4 hours during times of staffed operations.
C-CSS-02060	5173	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of Information Searches On Local Holding's availability requirement of .96 and mean down time requirement of < 4 hours during times of staffed operations.
C-CSS-02062	5175	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of Local Data Order Submission's availability requirement of .96 and a mean down time requirement of < 4 hours during times of staffed operations.
C-CSS-02064	5177	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of Data Order Submission Across DAAC's availability requirement of .96 and a mean down time requirement of < 4 hours during times of staffed operations.

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C-CSS-02066	5179	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI shall be configured to support the SDPS function of Client, Interoperability, Data Management and Data Server (IMS) Data Base Management and Maintenance Interface's availability requirement of .96 and a mean down time requirement of < 4 hours during times of staffed operations.
C-CSS-02068	5181	A	RMA	approved	unverified	<a href="#">analysis</a>	The CSS-DCHCI elements and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.
C-CSS-02070	5184	A	RMA	approved	unverified	<a href="#">analysis</a>	The maximum down time of the CSS-DCHCI shall not exceed twice the required MDT in 99 percent of failure occurrences.
C-CSS-02120	7237	B0	<a href="#">evolvablefunctional</a>	approved	unverified	<a href="#">analysis</a> <a href="#">test</a>	The CSS-DCHW CI Enterprise Communications Server processor shall be upgradeable/replaceable within the same product family without major software modification or replacement of any peripheral or attached component.
C-CSS-03700	7298	B0	performance	approved	unverified	<a href="#">analysis</a> <a href="#">test</a>	The CSS-DCHW CI Enterprise Communications Server shall be capable of 100 percent growth in the processing speed specified in Appendix A of the current version of 304-CD-005 without modifications or upgrade to software.
C-CSS-03940	7310	B0	RMA	approved	unverified	<a href="#">analysis</a> <a href="#">test</a>	The CSS-DCHW CI Enterprise Communications Server at the SMC shall be configured to support the SMC function of Gathering and Disseminating System Management Information's Availability requirement of 0.998 and an Mean Down Time of 20 minutes during times of staffed operation.
C-CSS-10500	7311	B0	interface	approved	unverified	<a href="#">demonstrate</a>	The CSS DCCI shall accept virtual terminal service request from the User.
C-CSS-10540	7315	B0	interface	approved	unverified	<a href="#">demonstrate</a>	The CSS DCCI shall provide virtual terminal service to the User.
C-CSS-10570	7318	B0	interface	approved	unverified	<a href="#">demonstrate</a>	The CSS DCCI shall provide bulletin board to the User.
C-CSS-10600	7321	B0	<a href="#">securityinterface</a>	approved	unverified	test	The CSS DCCI shall accept User authentication request from CLS.
C-CSS-10620	7323	B0	<a href="#">securityinterface</a>	approved	unverified	test	The CSS DCCI shall provide User authentication response to CLS .
C-CSS-	7325	B0	<a href="#">securityinterface</a>	approved	unverified	test	The CSS DCCI shall accept User authorization request from IOS.

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10640							
C-CSS-10660	7327	B0	<a href="#">securityinterface</a>	approved	unverified	test	The CSS DCCI shall provide User authorization response to IOS .
C-CSS-10680	7329	B0	<a href="#">securityinterface</a>	approved	unverified	test	The CSS DCCI shall accept User authorization request from DMS.
C-CSS-10700	7331	B0	<a href="#">securityinterface</a>	approved	unverified	test	The CSS DCCI shall provide User authorization response to DMS.
C-CSS-20030	565	A	functional	approved	unverified	<a href="#">inspection</a>	The CSS Directory Service shall provide the capability to partition the namespace and distribute and maintain them at different hosts on the network.
C-CSS-20040	566	A	functional	approved	unverified	<a href="#">inspection</a>	The CSS Directory Service shall provide the capability to replicate partitions of the namespace on different hosts.
C-CSS-20050	567	A	functional	approved	unverified	<a href="#">inspection</a>	The CSS Directory service shall provide multiple directory agents which cooperate among themselves through referral and chaining to perform directory operations.
C-CSS-20060	568	A	functional	approved	unverified	<a href="#">inspection</a>	The CSS Directory service shall provide a way to denote the relative root of the namespace.
C-CSS-20070	569	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Directory Service client shall maintain local cache to keep recently lookup information from the namespace for more efficient further lookups.
C-CSS-20110	573	A	functional	approved	unverified	<a href="#">inspection</a>	The CSS Directory service shall determine which naming service to use from a given context.
C-CSS-20120	574	A	functional	approved	unverified	<a href="#">inspection</a>	The CSS Directory service shall provide a mechanism to communicate with both X.500 and DNS naming services in resolving lookups.
C-CSS-20130	413	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Directory Service shall provide namespaces that are compatible with the existing NASA X.500 and DNS directory services.
C-CSS-21005	11102	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security service shall provide the functionality to get a unique session key for each client session.

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C-CSS-21010	11103	A	<a href="#">securityfunctional</a>	approved	unverified	test	The CSS Security service shall not transmit its authentication information in clear text across networks.
C-CSS-21050	580	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security Service shall provide an API to refresh login contexts before they expire.
C-CSS-21060	11105	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security Service shall provide an API to accept server keys (i.e. passwords) associated with services interactively at the startup of a service.
C-CSS-21070	582	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security Service shall provide an API to store server keys associated with servers to a disk file.
C-CSS-21080	583	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security Service shall provide an API to retrieve the server keys associated with services from a disk file at startup time to authenticate the service.
C-CSS-21090	584	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">test</a>	The CSS Security Service shall provide an API to change the identity of an application process through server keys.
C-CSS-21100	2412	IR1	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">test</a>	The CSS Security service shall provide an API to challenge the client/server to authenticate itself at the following three levels. a. connect level b. request level c. packet level
C-CSS-21105	11106	A	<a href="#">securityfunctional</a>	approved	unverified	test	The CSS shall notify MSS upon the failure or success of each authentication request.
C-CSS-21110	11107	A	<a href="#">securityfunctional</a>	approved	unverified	test	The CSS Security service shall provide the functionality to authenticate the principal before checking whether the principal is authorized to access a service/resources.
C-CSS-21160	591	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security service shall provide the following APIs to MSS security management applications to retrieve/modify the access control lists associated with the ECS services/resources. a. to identify the permissions available to a principal b. to identify all the ACL managers protecting an object c. to get the printable representation of the permissions d. to locate the server with the writable copy of the ACL e. to read an ACL

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							f. to write an ACL g. to test if the calling principal has some permissions h. to test if another principal has some permissions.
C-CSS-21170	592	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security service shall provide an API to maintain the integrity of the data passing between processes by using checksums at the following three levels: a. connect level b. request level c. packet level
C-CSS-21180	593	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security service shall provide an API to encrypt and send the data passing between processes at the following three levels: a. connect level b. request level c. packet level
C-CSS-21190	594	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security service shall provide an API to receive and decrypt the data passing between processes at the following three levels: a. connect level b. request level c. packet level
C-CSS-21210	595	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">inspection</a>	The CSS Security service shall provide the capability to log audit information into security logs whenever authentication and authorization services are used. The audit information will contain the following: a. Date and time of the event b. User name c. Type of event d. Success or failure of the event e. Origin of the request
C-CSS-22000	596	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message service shall provide an API for senders to send messages to receivers asynchronously without waiting for the receivers to receive it.
C-CSS-22010	597	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message service shall provide an API for senders to send messages to receivers in a deferred synchronously manner through an intermediary where by they can contact the intermediary at a latter time to receive the result.
C-CSS-22040	600	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall provide an API for the sender to designate multiple receivers for asynchronous messages.
C-CSS-	601	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall support multiple message queues so different groups of processes can use different message queues.

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22050							
C-CSS-22065	426	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall log event messages to the MSS management agents whenever the message service could not deliver a message to any receiver in the time period set by the sender of the message.
C-CSS-22070	603	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall store undeliverable messages and retrieve and transmit them later.
C-CSS-22090	605	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall provide the capability to locate and send (push model) the messages to receivers.
C-CSS-22100	606	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall provide a non blocking API for the receiver to contact the message queue and get (pull model) the message.
C-CSS-22110	607	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message service shall support guaranteed delivery of the message to the receiver.
C-CSS-22120	608	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message service shall provide an API for the sender of the message to get the acknowledgment information the message service receives from the receivers.
C-CSS-22130	609	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message service shall associate the receiver to a returned value and maintain that information locally until the sender requests that information.
C-CSS-22140	610	A	functional	approved	unverified	<a href="#">test</a>	The CSS Message Service shall provide an API for the sender of the message to receive return information stored at the message queue.
C-CSS-28000	2344	IR1	functional	approved	unverified	<a href="#">test</a>	CSS Event Logger Service shall provide capability to record event and history data to a application specific log file.
C-CSS-28010	9333	IR1	functional	approved	unverified	<a href="#">test</a>	CSS Event Logger Service shall accept and record event time (when the event was generated, obtained from the Time Service) information.
C-CSS-28020	4810	IR1	functional	approved	unverified	<a href="#">test</a>	CSS Event Logger Service shall accept and record the application information (name and version of the calling application).
C-CSS-28040	4812	IR1	functional	approved	unverified	<a href="#">test</a>	CSS Event Logger Service shall accept and record the event type information. (Type of the event: fault, performance)

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C-CSS-28070	9335	IR1	functional	approved	unverified	<a href="#">test</a>	CSS Event Logger Service shall record the operator/principle information that is relevant for the generated event.
C-CSS-28080	9336	IR1	functional	approved	unverified	<a href="#">test</a>	CSS Event Logger Service shall record the environment information for the generated event.
C-CSS-30080	11128	A	<a href="#">securityfunctional</a>	approved	unverified	test	The Process Framework shall provide interfaces to the underlying distributed infrastructure to set the following security parameters: a. Server principal name b. Keytab file name c. ACL database filename
C-CSS-60310	487	A	<a href="#">securityfunctional</a>	approved	unverified	<a href="#">demo</a>	The CSS File Access Service shall support access control for the remote files.
C-CSS-60340	7374	B0	functional	approved	unverified	<a href="#">demonotes</a>	The CSS File Access Service shall guarantee the accessed file to be in its most recent version.
C-CSS-60350	7375	B0	functional	approved	unverified	<a href="#">demonotes</a>	The CSS File Access Service shall provide capability to change directory (cd) on the remote host.
C-CSS-60630	9339	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS File Access Service shall provide capability to list remote files
C-CSS-60920	11118	A	<a href="#">securityfunctional</a>	approved	unverified	test	The CSS File Access Service shall accept authentication information for file transfers.
C-CSS-62010	9346	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall support multiple (configurable) bulletin boards (newsgroups).
C-CSS-62030	9347	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall provide concurrent access to multiple users (registered or non-registered).
C-CSS-62040	9349	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow multiple messages for each bulletin board.
C-CSS-	510	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall support download of ECS toolkits.

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62070							
C-CSS-62080	511	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall collect and maintain access history and statistical information for the service.
C-CSS-62100	9350	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall provide capabilities to authorized users (M&O staff) for: <ul style="list-style-type: none"> <li>a. creating new bulletin board</li> <li>b. deleting existing bulletin board</li> <li>c. deleting message(s) from a bulletin board</li> <li>d. backing up bulletin boards</li> <li>e. forcing users off a bulletin board or the entire bulletin board service for backup</li> <li>f. collecting access history and/or statistical information.</li> <li>g. backing up bulletin boards.</li> </ul>
C-CSS-62130	516	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall provide a "What's new" feature which informs the user of the new information available on the bulletin boards.
C-CSS-62300	9352	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall be available to the users in interactive mode.
C-CSS-62305	9353	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow user to subscribe to bulletin boards.
C-CSS-62310	9354	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow user to unsubscribe bulletin boards.
C-CSS-62317	7379	B0	functional	approved	unverified	<a href="#">demonotes</a>	The CSS Bulletin Board Service shall provide on-line help functionality.
C-CSS-62320	9355	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow user to select a subscribed bulletin board for viewing summary of all messages in it.
C-CSS-62340	9357	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall provide capability: <ul style="list-style-type: none"> <li>a. to search for a string in message headers or in message text.</li> <li>b. to search by author</li> <li>c. to search by subject.</li> </ul>
C-CSS-	9358	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall provide a catch-up feature which excludes user specified messages from appearing in the bulletin board when it is viewed next time.

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62350							
C-CSS-62360	9359	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow the users to post messages to bulletin board(s).
C-CSS-62380	9360	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow users to copy/save a message to their local system.
C-CSS-62390	527	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow attaching ASCII or binary files to a message.
C-CSS-62820	530	A	functional	approved	unverified	<a href="#">demo</a>	The CSS Bulletin Board Service shall allow a message to be posted to multiple bulletin boards.
C-CSS-63000	9361	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Virtual Terminal shall provide a virtual device which hides the physical terminal characteristics and handling conventions from both the operator and the server host.
C-CSS-63010	9362	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Virtual Terminal shall provide means to enhance characteristics of the basic virtual device by mutual agreement between the two communicating parties (option negotiations).
C-CSS-63020	9363	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Virtual Terminal shall be based on industry standard and accepted protocols (telnet and ktelnet).
C-CSS-63040	9364	IR1	functional	approved	unverified	<a href="#">demo</a>	The CSS Virtual Terminal shall provide guest access to non-registered users to log into the ECS guest server.
C-CSS-63050	462	A	<del>functional</del> <a href="#">securityfunctional</a>	approved	unverified	<a href="#">test</a>	The CSS Virtual Terminal shall support kerberized version of the telnet protocol for secure authentication of users.
C-CSS-63060	398	A	functional	approved	unverified	<a href="#">test</a>	The CSS Virtual Terminal shall support X applications.
C-CSS-64030	11147	A	<del>functional</del> <a href="#">securityfunctional</a>	approved	unverified	test	The CSS gateway shall log all authentication requests
C-CSS-64060	11149	A	<del>functional</del> <a href="#">securityfunctional</a>	approved	unverified	test	The CSS gateway shall reject requests from a provider unless a valid authentication request is received

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C-CSS-64080	11151	A	<del>securityfunctional</del>	approved	unverified	test	The CSS gateway (a version of) shall be capable of obtaining a well known Kerberos identity with which to encrypt the username and password if needed
C-CSS-64090	11152	A	<del>securityfunctional</del>	approved	unverified	test	The CSS gateway (a version of) shall be capable of encrypting or providing data integrity (as provided for by Kerberos) as desired by the client