Document Approval

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Table 1 - Glossary of Terms, Acronyms, and Definitions ............................... 57
1 DCS Information

The Defense Collaboration Services (DCS) has been developed as the follow on DoD collaboration capability. DCS will enable secure communications and collaboration by providing two distinct services secured through PKI authentication. The web conferencing service includes a number of associated functions such as audio, webcam, white boarding, presentation sharing, desktop sharing, polling, recording, and a multi-user chat room.

To begin using DCS:

1. Go to https://www.dcs.apps.mil
2. Review training material as necessary located in the navigation column on the left for more detailed instructions.
3. Enter the DCS Home Page by selecting the DCS “Icon” button in the top banner.

Please contact the Global Service Desk if any error, malfunction, failure to function, or operation issue occurs. If you have any questions regarding DCS, please contact the Global Service Desk (disa.gsd@mail.mil) Toll-Free 1-844-347-2457 (Options 1, 1).
2 Registration and Accounts

2.1 Register and Use

DCS will be available to all users contained within the Defense Manpower Data Center (DMDC) identity database that maintain a Common Access Card (CAC) in the Unclassified Environment (UE) and PKI hard-token in the Classified Environment (CE).

DCS Web Meetings and DCS Chat Service do not require registration or sponsored accounts. If you have a valid CAC or other PIV signature hard token you will automatically have access to DCS. Note: There is no Username and Password associated with DCS. Users that currently maintain dual personas or have in the past will require the activation and selection of their PIV certificate on the CAC to enter DCS Chat Service.

2.2 DCS Security Configuration

The DCS team reminds Users that all Moderators are responsible for verifying the identities of their meeting attendees. Attendees who have entered the meeting without authenticating will have "(guest)" appended to their name.

Meeting Hosts are responsible for the moderating of sensitive material provided or displayed within the meeting. Any breach or spillage should be reported properly.

At this time the Defense Collaboration Services (DCS) system is not approved for transmission of PII and PHI information as identified in NIST SP 800-53, DoD 5400.11-R Department of Defense Privacy Program and DoD 6025.18-R DoD Health Information Privacy Regulation. For further reference please review these documents along with the Privacy Act and Health Insurance Portability and Accountability Act Core training document created by TRICARE.

2.3 DCS Public Key Integration

DCS uses DISA supported Identity and Access Management (IdAM) practices which focus on authentication of persona based identity through the use of Public Key Infrastructure (PKI) Enablement. Focus is placed on the Persona of the CAC being used for authentication. Under certain circumstances this may require the activation of the PIV certificate.

DCS is a customer of the IdAM process and policies and is unable to directly may any changes or updates for resolution or update. Please ensure you contact the DISA enterprise IdAM offices for support regarding access to DEPS or DCS.
3 DCS Sections

Navigation through DCS will be within four areas and referred to as the DCS Information Portal, DCS Home Page, DCS Meeting, and DCS Chat Client. Below are descriptions of each of the DCS interactive environments.

**DCS Information Portal:** The DCS Information Portal DEPS page contains the information needed to understand and operate the DCS service on NIPR/SIPR. Announcements posted by the DCS PMO regarding system availability will be posted along with training events and pertinent information regarding any future events for the DCS service. Please refer to 3.1 for further detailed information.

**DCS Home Page:** The DCS Home Page provides the user a platform for reservation creation after being authenticated. Users will be able to create and administer reservations with the ability to quickly start meetings as needed. Users will be able to access their recorded Meetings however will not be able to load or store files for use in Meetings. Please refer to 3.2 for further detailed information.

**DCS Meeting:** The DCS Meeting window comprises up to 6 different panels: Display, Chat, Web Cam, Poll, Screen Share and User. Within the DCS Meeting window the user will be able to interact with the presentation and other users at various permission levels. Audio and web cam integration are supported and can allow the user to interact with others at the Moderator, Presenter, User, and Guest permission levels.

**DCS Chat Service:** DCS allows for connection to a chat service through the Extensible Messaging and Presence Protocol (XMPP) by a PKI enabled chat client that accepts persona based credentials associated with the CAC. DISA provides an approved version with associated documentation for distribution; however, users may use any platform in which they are able to install.

3.1 DCS Information Portal

3.1.1 Portal Access and Design

To access DCS, close all previously opened browser Windows. Using a browser that supports access to the DISA Defense Enterprise Portal Service (DEPS), access the URL: https://dcs.apps.mil.
3.1.2 DCS Portal Buttons / Sections

The main sections of the DCS Home Page (Figure 2) are as follows: Disclaimer, Announcements, DCS Information, Access to DCS, Calendar, Training Information, XMPP Chat Information, Request Addition to Email List, Survey and FAQ information.

**Disclaimer:** Located at the bottom center of the Portal site, provides information regarding the type of information that is transmittable throughout the use of DCS.

**Announcements:** Within this section located in the left side of the DCS Portal page is information concerning day to day operations and information that is pertinent to users for conferencing abilities.

**Getting Started:** This button and link directs Users to a page where high level steps and information are provided to help a user with the minimum knowledge needed to start using DCS. This is the quickest method to start using DCS and identify needed resources.

**Resources:** The Resources and Information button provides the user with a listing of links for further information regarding the DCS Web Meeting and DCS Chat Service.

**DCS Frequently Asked Questions (FAQ):** Commonly asked questions and process are located at this site. This is to be referenced when questions arising from operations or difficulties in completing tasks are present.
3.2 DCS Home Page

The DCS Home Page provides general information, reservation management and reservation creation capabilities. There are no locations to store or distribute files or documents to personnel. There are no search capabilities located on the DCS Home Page.

3.2.1 Entrance and Access

To access the DCS Home page and the ability to create reservations to start meetings a user must authenticate and agree to the DoD IT warning statement. Select the “Launch Web Conference” button on the DCS Information Portal and use the appropriate certificate when prompted.

When prompted for authentication, select the DoD E-mail certificate. You will now be taken to the DoD IT Warning Statement page (see Figure 3). Read the terms of use and select accept to continue.

Users may require the use of a PIV certificate for entrance into DCS Web Meeting and DCS Chat Service. Please review how to activate a PIV certificate through use of the DMDC website if required. Activation of the PIV certificate is only required when an enterprise level account identifies the need for PIV activation based on the presences of multiple identified persona’s for a single user. Please contact the DMDC for information regarding identity and user enterprise level profiles.

Guest users attempting to enter the DCS homepage for meeting reservation system without the ability to authenticate via CAC (UE) or hard token (CE) will be taken to an error page due to the lack of ability for authentication. Guest users when supplied with a meeting URL will have the ability to join the meeting without the need of a CAC.
The DCS Home page provides an overview of your DCS Meeting reservations and activities. In it you are able to access your profile page and your account page. From the DCS Home page, you are able to create new reservations and view reservations you have previously created or may be invited to. The actions and abilities of the Reservation function are discussed in Section 3.2.4.
The Home page has three different sections: Navigation, Profile, and Reservations. These sections consist of horizontal banners with the color transitions on the Home Page as displayed in Figure 4. The Navigation section persists on all pages and provides the ability to return to the home pages and logout of the DCS service. The Profile banner provides the account information to verify that the user is in the correct account and navigation to the “Profile” and “Accounts” pages. The Reservation section displays all the reservations that the user maintains permissions in along with the button to create new reservations.

### 3.2.2 Profile Page

The Profile page (See Figure 5) provides general information about the user (Name as it appears on their CAC, E-mail, and organization). It also provides a summary of your recent activity in DCS. **Users are unable to change or edit information or images contained within the profile page.** All edits to user information contained on this page must be made through the Defense Manpower Data Center (DMDC) milConnect portal. The portal can be found at: [https://www.dmdc.osd.mil/milconnect](https://www.dmdc.osd.mil/milconnect).

![Figure 5 User Profile Page](image)

Access to the milConnect portal can also be gained through the “Edit Profile” link below the shadow image on the right hand side. The “Recent activity” and “Reservation” tabs located in the upper right corner provide a list of meetings that the user has participated in recently in two different formats.
Links found in the DCS banner at the top of the page are common across both the “Profile” and “Account” pages. The “My Home” link allows the user to return to the DCS Home Page. The drop down menu with the user name located over it provides a secondary method of access the “Profile” and “Account” page along with the ability to logout.

### 3.2.3 Account Page

The Account page, access found through the link in the DCS banner on the “My Home Page” or through the dropdown menu provided on the “Profile” page, provides users with information about their account (E-mail, User ID, Time zone).

*Users are unable to change or edit information or images contained within the Account page other than time-zone.* The information on this page can only be seen by the User. Adjusting the “Preferences” time zone drop down menu does not alter any other aspect of the DCS tool.

![Figure 6 DCS Accounts Page](image)

Links found in the DCS banner are common across both the “Profile” and “Account” pages. The “My Home” link allows the user to return to the DCS Home Page. The drop down menu with the user name located over it provides a secondary method of access to the “Profile” and “Account” page along with the ability to logout.

### 3.2.4 Reservations

Reservations are the visual placeholders that provide information pertaining to the instance Meetings. All meetings will require that the user creates a Reservation. Within the reservation pages Users are able to find tabs and links allowing the User to grant permission levels to participants, copy and provide the URL that will direct users/guests to the Meeting, start/stop Meetings, identify if the Meeting is to be recorded, and include how many participating users are anticipated for the Meeting.
No files can be stored in a reservation. Reservations will persist after a meeting has ended until a user deletes the reservation. If a User does not access a reservation for more than 180 days the reservation will be removed by the system and anything associated with the reservation will not function correctly. Permissions for other users may be granted for the reservation, but must be completed on a 1-by-1 process documented in Section 3.2.6.4.

Administrator: The Administrator has the highest level of permission over the web reservation. All Administrators have equivalent permissions with no one maintaining higher preference. An Administrator is able to change permissions of all users including themselves (Note: if no user has Administrator permissions there is no way to delete the reservation and this cannot be performed by the Service Desk or Tiered support administrators). The administrator maintains and controls the overall operation of the web reservation through the extra “Admin” tab within the reservation space. An Administrator of a reservation has the ability to edit reservation information, alter the meeting URL, download a recording, and start a meeting.

Moderator: The Moderator permission level differs from the Admin in the Reservation only. The inclusion of the user to the reservation will place a reservation placeholder within the Moderator’s home page allowing for the ability to reference the meeting at a later time. The Moderator has the ability to download recordings and start a meeting through the reservation.

3.2.5 Create a Reservation

To create a reservation,
1) Go to the Home page by clicking “My Home”;
2) Click the “Create a new reservation” button on the right hand side of the screen. This step will take you to a new page where you will need to provide a Reservation name and description, both fields are required.
3) The option to add a vanity URL is available under the “Desired Custom Meeting URL” field, but is not required.
4) When this is complete click “create”, you will be taken to your reservation’s home page, Figure 9.
A name must be provided to the requested field to give the reservation an identifying attribute for yourself and other users to identify. The information provided by users in this field will not be used in the meeting URL or as identifying features to guest users.
The Description field requires the User to provide information that would like to be shared with other users granted access to this reservation. The limitations to the vanity URL in the Desired Custom Meeting URL field are only numbers and characters allowed, no spaces or special characters. Once both fields are populated click on the “Create” button.

### 3.2.6 Reservation Home

The Reservations home page provides an overview of the created reservation (name of reservation, reservation description, users that recently joined) along with the abilities for reservation administrators, those granted admin permissions, to make edits to the reservation.

**Figure 9 Reservation Home Page**

Users that do not poses Admin permissions will view a page with different information and abilities than those as displayed in Figure 9 as seen in Figure 10.
3.2.6.1 Tab-Web Conference

The “Web Conference” tab (Figure 11) provides information on current run status of the web reservation. The Meeting URL, used to invite other DCS Users to your meetings, is displayed in the center of the page.

To invite another registered User or Guest User, copy and paste the URL into the method of communication being used to provide the meeting invitation message. DCS is not configurable to interact with other applications for scheduling interactions or applications.
3.2.6.2 Tab-Recordings

DCS provides recording and playback capabilities for web conferences. If meetings associated with the reservation have been recorded they will appear on the Recordings Tab (Figure 12). The recordings are saved in an MP4 format, and are available for 180 days from creation. Ensure you download your recordings to your computer once they are created.

![Figure 12 Recordings Tab](image_url)
To download a recording, select the “Download” link as shown in Figure 13.

![Figure 13 Recording Download](image)

Once you have selected download, a pop up will appear asking if you want to save or open the recording (Figure 14). If you select “save” DCS will save it to your Downloads Folder. If you select Open, DCS will open the recording in the local system preferred player.
3.2.6.3 Tab-People

The “People” tab (Figure 15) provides the User with information of all Users (Administrators or Moderators) associated with the Reservation. The integrated information provides insight on who is currently in the reservation along with Users identified as administrators. This is not the correct tab to add users to reservation.
3.2.6.4 Tab-Admin

The "Admin" tab provides the ability to configure the reservation, the ability to change the name or description (Figure 16), and the ability to add users to the Reservation. The inner tabs in the Admin section provide the ability to include Administrators or Moderators in the reservation space (Figure 17), and promote users privileges (Figure 19). The ability to delete or remove Reservations is available under the General Options sub tab in the Admin section. The button located on the bottom and highlighted in red allows an Administrator of the Reservation the ability to remove the Reservation. Once the Reservation is removed all permissions and recordings associated with the Reservation are lost and unrecoverable.

Permissions can be assigned to Users by any Admin within the reservation. It is recommended that at least two Users maintain Admin permissions within a reservation.

When looking to add a User, one may be searched under the admissions sub-tab in the Admin tab. When adding users to the reservation the Admin must type out the full email address of the user to perform the search. As directed, if the full email address is
unknown a search may be performed using the "*" operator to truncate the search field. This may not always provide the closet result.

Tip: When searching for Users, copy and paste the intended users email address from an email client. If unable to find the correct User or if presented with an error using the correct email address please contact the service desk for assistance.

![Add User to Reservation](image)

Figure 17 Add User to Reservation
Once the Admin has searched and located the intended User, the Admin is able to assign permissions to the User as identified in (see Figure 18). The Admin is able to provide the User with Admin or Moderator permissions allowing the User to have increased abilities and actions on the Reservation and in the Meeting.

Figure 18 User Permission Options
3.3 Meetings

Ensure and confirm that accessed network has been configured according to CTO 15-0019.

Users require a web browser capable of running Flash 11.2 or greater. To check the version of flash, visit Adobe’s Flash Version Check page.

As of Mac OS X 10.6, Apple stopped updating Flash. If a Mac user is running an out-of-date version of Flash, the version can upgraded by visiting the get Flash player page at Adobe (if permissible by local system admin policy).

To run the desktop sharing, the presenter (and only the presenter) needs to have Java v7u51 or greater installed and configured to web browsers on their system. You can test that Java is installed by visiting Java Test Page (there are download links on this page if you need to install Java).

For bandwidth, it is recommended at least 1Mbits download and 0.5 Mbits upload channel speed. Users may test their actual bandwidth using www.speedtest.net.

For hardware, it is recommended at least a Dual-core CPU with at least 4G of RAM memory. For Mac, it is recommended any Mac running Mac OS X operating system.

- If unable to verify your local versions of Adobe Flash and Java, contact your local system or network administrator.
• If experiencing Java applet load failure or blocked event verify with local system or network administrator that "*.apps.mil" is added to the trusted site list.

3.3.1 Meeting Permissions

**Moderator:** The Moderator has the highest level of permission over the Meeting. The moderator may control a User’s presence, audio status, chat ability, and presenting permissions within the Meeting and can only be overridden by another Moderator. **Moderators in a meeting are responsible for information displayed and Users admitted.** Dependent on information sensitivity level it is the Moderator’s responsibility to proctor attendees and displayed documents.

**Presenter:** The Presenter permission is only available within the meeting. The Presenter permission cannot be granted within the Reservation space. The permission persists only for the current meeting. If the meeting is restarted, a Moderator must re-assign the permission to the User. The selected Presenters will maintain the permissions as long as they stay Presenter. The Presenter may control and navigate the assigned presentation panel along with basic abilities in the User panel. The Presenter may upload and display files. The view of the Presentation panel and buttons available in the top left tool bar will differ from all other users. Guest Users may be granted Presenter permission by any Moderator.

**User:** Users enter the meeting with no capabilities or control functions as those identified be part of the Moderator or Presenter permission capabilities. The benefit of entering as an authenticated user is it allows the Moderator the ability to verify the Users identity. The User permission level is able to participate in the Chat panel, in both public and private chat. The User may download screen shots of the Presentation panel for reference. The User permission level is allowed to “Raise a hand” in the User panel, however most other features are limited and not available for use.

**Guest User:** Guest Users are those that are unable to authenticate as known persona Users. Access to meetings is based upon the validation of a Moderator upon request for entrance. Guest Users are able to enter and participate at the same level as a User in a meeting. Guest Users are not able to create or use Reservations. Guest Users are able to be granted the permission of Presenter in a meeting.
3.3.2 How to Begin a Meeting

Meetings can be entered in two separate ways. A User may enter a meeting through a provided URL, or any User associated with a reservation may start a meeting. *It is advised that reservation Admin’s provide at least two Users’ with Moderator or Admin permission levels for each reservation.* This assists with the ease of starting meetings and coordinating efforts during the meetings.

3.3.2.1 Administrator/Moderator

Administrators and Moderators are able to start Meetings. All other entering users must wait until an Admin or Moderator begins the meeting and begins to accept users into the meeting. To begin a Meeting the Admin/Moderator should select the “Start” button (Figure 20) in the Reservation panel provided after selecting the correct reservation from the DCS Home Page.

![Figure 20 Meeting Start Button](image)

Both the selection of the “Start” button and the “Preference” button will display a pop-up screen that allows the Admin/Moderator to select options for the Meeting. There is an option to fast start a Meeting. The separate button on the right hand side of the “Start” button will immediately start a Meeting with any predetermined preferences stored in the system. All options that are selected are persistent within the Reservation until change or removal of the Reservation (Figure 21).
Record Meeting: Meetings can be recorded in 60 minute increments. To allow for the ability to record a meeting this check box must be selected. Recording will be controlled by a Moderator in the Meeting window and be available to all Users associated with the Reservation in the “Recording” tab. Recordings are available in .MP4 format.

Audio: The audio function feature will allow the Admin/Moderator who starts the Meeting to determine if there will be in meeting audio allowed. If this check box is not selected the Meeting will load without the ability to participate in audio interactions. Currently the system does not begin to observe functionality degradation until more than 80 open audio channels are present on an individual conference server. If observing in Meeting audio issues please contact the Service Desk for assistance.

Number of Participants: DCS is designed to have an optimal performance capability with meetings that maintain 250 and less unique user connections. By providing the number of intended users for each meeting this allows the DCS system to better allocate resources available. The number of participants listed in this box is not a limit on the actual Meeting, however the closer the number to actual participants the higher likelihood of optimal performance within the meeting.

3.3.3 Joining a Meeting

3.3.3.1 User

In order to enter a meeting as a User you must have been provided a URL from the Meeting Moderator or Administrator. After accepting the US DoD IT warning statement you will be presented with a screen that identifies the status of the Meeting (Figure 22). The status indicator will automatically update on the screen to reflect the meeting.

If the meeting is identified as currently running the User is able to join the meeting. The User will be identified by their Public Display Name (PDN) that is also used in other enterprise applications. The PDN is static and cannot be changed through DCS.
3.3.3.2 Guest User

A Guest User is an invited participant to a meeting that does not have a DCS account and is unable to authenticate identity through the use of a CAC or Hard Token depending on the network. As an invited participant the guest user is unable to start a meeting and will be presented with a URL for access. If arriving before an Admin/Moderator has started the Meeting, the Guest User will have to wait until the Meeting begins.

To access DCS as an invited Guest User review your e-mail for a supplied URL, and click on the link provided, you will be directed you to the Meeting entrance page. The Guest User will be presented with the requirement for entering a name and organization for reference and identification. This information will provide the Moderator for a choice on admittance for the Guest User to the Meeting. Upon completion of the identification information the Guest User is presented with a “join now” (See Figure 23 and Figure 24 below).
3.4 Meeting Window

The meeting screen is broken into four types of different configurable and movable panels. Upon entering the meeting window a User will view the default configuration of meeting panels. The types of meeting panels are the Display, Chat, User, and Web cam panels. Each panel operates similar to a window, sizing can be performed by clicking and holding a corner and dragging, to minimize, maximize or close each panel see the buttons in the upper right corner.
DEFENSE COLLABORATION SERVICE

Best Practices

Audio/Microphones
- Only use the "Non-Audio" function when a speaking role is imminent. Microphone should only be enabled when absolutely necessary.
- If speaking role is necessary, Test Microphone – select "Share My Microphone" in top left, then select "Test Microphone or Change Microphone". Adjust "Record Level"
- Test Speakers - Select "Share My Microphone", select "Test Speakers". If no sound, please check local settings and configuration.

Presence/Pre-Meeting
- All presenters should upload any documents and polls prior to meeting.
- Audio/video checks should be performed prior to meeting start.
- Ensure all users have correct meeting URL and time. The correct URL can be found under the "Add Conference" tab in the meeting reservation at https://conference.apps.mil.

Users
- Log in using the email certificate from your Common Access Card (CAC).

If you experience any DCS issues during the conference contact the DCS Service Desk dcs.doc.af.mil dcs-support@mail.mil

Additional Information

Figure 25: DCS Meeting Panels
3.4.1 Meeting Panels

3.4.1.1 Presentation Panel

The Presentation panel is initially situated in the center of the meeting window. The Presentation panel will natively display an interactive slide that allows users to access documentation and information from the Meeting window without first accessing the Information Portal. There are three sections to the presentation panel actions, slides, and white-boarding.

![Presentation Panel](image)

**Figure 26 Presentation Panel**

3.4.1.1.1 Action buttons

The Presentation panel allows the Presenter to download and upload documents for presentation in the panel, navigate through slides in the panel, assign the panel to another presenter and adjust zoom view on each slide.
To download a screen shot of the current Presentation panel select the button on the left in (Figure 27), found in the bottom center of the Meeting screen. The ability to download files that are being displayed or have been uploaded is available as the second button from the left side of the Presentation panel.

![Figure 27 Meeting Document Control Button Panel](image)

If you want to upload a document as a presenter, select the button on the right in (Figure 28). Documents that are accepted for upload are Microsoft Word, Excel, PowerPoint, Adobe PDF, and JPEG images. DCS will automatically convert Microsoft Word, Excel, and PowerPoint to PDF files for display.

![Figure 28 Meeting Document upload button](image)

When, as a Presenter, the file upload button is selected a window as seen in Figure 29 will appear. Select the file you want to share and click upload.

![Figure 29 Document Upload Control Window](image)
3.4.1.1.2 White Board Editing Toolbar

The Presenter maintains the ability to edit and interact with a document in the Presentation panel. The Presenter is provided with a side bar (as seen in Figure 30) that allows for the ability to write on the document, create shapes (square, circle, triangle, line), add text, undo, undo all, and change editing color.

![Figure 30 White Board Control Panel](image)

3.4.1.1.3 Presentation Panel – Multiple Panels

The capability for multiple presentation panels is present. New panels may be added to each meeting by any Moderator and then assigned to a Presenter (See Figure 31). Any user may become a presenter and be independently in control of the assigned presentation panel.

![Figure 31 Add Presentation Panel](image)
3.4.1.2 User Panel

All participants are able to view the User Panel (Figure 33) within the meeting. The User Panel presents a list of all users currently in the meeting along with their permission status (presenter or viewer), full Persona Display Name, and current media in use (microphone, web camera, etc). **The User panel does not record meeting attendance nor is there a way to automatically record meeting attendance within DCS at this time.**

Moderators are provided with extra capabilities within the User panel. The additional permissions include being able to remove the participant from the meeting through the “kick” user option, promoting a User to a Moderator, lowering “raised hands”, enable/disable Presenter permissions, muting users, and locking features.
The red “stop sign” button when selected by a Moderator of the meeting this will end the meeting and logout all users. When selecting this option the Moderator will be prompted with a confirmation screen (Figure 35).

![Figure 33 User Panel](image)

![Figure 34 Setting Buttons](image)

![Figure 35 End Meeting Option](image)
The gear button, found in the low left of the User panel in Figure 33, allows the Moderator to lower all participant’s hands, mute all users, mute all users except the presenter, lock all users, lock users except presenter, and lock settings (see Figure 36). There is no ability in this list to lower individual user’s hands or unmute individual users after “Mute All Users” has been selected.

![Figure 36 Moderator options](image)

Along with capabilities provided to the moderators, the ability to lock general settings for other users is available in this operational menu (Figure 37). When selecting the “Lock Settings…” option a new menu appears. This menu allows for moderators to enable or disable different capabilities for a singular user or all users selected.

![Figure 37 Lock Settings](image)
The User Panel contains four columns that provide information and capabilities for both users and moderators of a meeting.

The status column provides information on permission level and is the location for Moderators to adjust or provide the Presenter permission to other users.

The media column provides information regarding webcam and audio connections. The moderator is able to enable or disable capabilities from this column for users to include removing users from a meeting.

The action column provides enterprise user information for all meeting participants to view. Moderators are able to elevate authenticated users to a Moderator permission level for the meeting instance through the Action column.

### 3.4.1.3 Chat Panel

The chat panel (see Figure 38) allows participants to conduct in meeting chat conversations with both the public group and with private user-to-user capabilities. The “Public” Tab shown in Figure 38 displays the Public facing chat abilities of DCS.

![Figure 38 Chat Panel](image)

The “Options” tab (Figure 39) allows for Users to engage in private chats with other users present in the meeting. Follow the instructions and select an available user to begin a chat with.

When a response is received from the User the tab will flash yellow indicating that a new message is available for viewing. The Options tab also allows for the User to change the size of the font in the chat panels to allow for easier viewing of messages.
Chat conversations can be migrated from the chat panel in the meeting window to a different source. This is provided through a copy and paste process (Figure 40). The participant must:

- Highlight a word in the chat panel.
- Left click the mouse button.
- Select the “Copy all text” option.
- The user can then past the text to a word document or notepad file.
The capability to add multiple chat panels to a single DCS meeting is available for use. Only a Moderator of a meeting is able to add multiple chat panels. The chat panels will only be available within the browser window that maintains the DCS meeting. Please use the add chat panel button from the Operations Toolbar in the upper left of the screen (See Figure 41).

3.4.1.3.1 Add Notes Panel

The ability to add a total of 9 different Notes panels is available through the use of the Add Note Window button located in the Operational Toolbar.
To edit each of the tabs the Moderator of the meeting may click on the “edit” button and provide text. The last Moderator to edit a Notes panel will overwrite any previous changes. Moderators must be cognizant on who the last user is to be editing the panel.

![Figure 43 Note Panels](image)

### 3.4.2 Meeting Toolbars

#### 3.4.2.1 Meeting Operations Toolbar

DCS allows you to enable or disable Meetings features, as shown in Figure 44. Click on the headphones to enable audio, click on the webcam to share webcam, click on the screen to share desktop, click the chart to enable polling. Version 1.1.4 brings about the addition of multiple panels for notes, chat and presentation purposes as well.

![Figure 44 Operations Tool Panel](image)

#### 3.4.2.1.1 Microphone / Headset

Clicking on the headphones icon in the upper left (“Join Audio”) will cause a prompt to be presented (Figure 45) and any ongoing meeting audio to be interrupted during the process. When using the feature the current audio from the ongoing meeting will be interrupted on your end and you will not be able to hear the audio until you exit the feature calibration.
Select “Allow” on the Adobe Flash Player Settings window. When presented with the window to configure audio and webcam select “Test or Change Microphone” to test and verify your microphone and select “Test Speakers” to verify your speakers (Figure 46).

To verify that your speakers are working does not require connection of your microphone. You may use the “Test Speakers” button and then cancel out of the settings window to verify that your speakers are connected the current volume level.

The Microphone configuration panel (Figure 47) will appear allowing for the options of changing the microphone option to connect to a local microphone or input device. If you are unable to connect or identify your microphone please consult your system manual or contact your local system analyst to resolve.
After selecting your microphone or audio input device a user is able to test the speakers associated with the system by selecting the button labeled “Test Speakers”. Once the button is depressed sound will be played from any connected speakers. To end the test, select the button once more. To complete the workflow, select the “Join Audio” button and return to the meeting panel.

Control of the local microphone of headset during the meeting can be performed in two different manners. If there is a local push-to-talk feature on the hardware this may be used to assist in speaker control. The use of the “Mute” (Figure 48) button in the tool bar may also be used. The Mute button will appear after the microphone has been connected and can be selected or un-selected to control your audio during a meeting.

![Figure 48 Input Toolbar (Mute Button)](image)

### 3.4.2.1.2 Web Camera

Within the tool panel exists the option to connect and control a webcam for meeting participation (Figure 49). This can be performed by selecting the second button in the tool panel, one that is in the image of a circular webcam.

![Figure 49 Input Toolbar (Web Camera)](image)

The Webcam Settings box will open up and will identify if the ability for a web camera is present or not, (Figure 50), along with ability to configure settings and to start sharing with other participants.

![Figure 50 Webcam Settings Box](image)
To configure the setting of the Webcam the “Change Webcam Settings” (Figure 50) and resolution settings buttons may be used. To identify a new input source select the “Change Webcam Settings” button and proceed in using the new pop-up panel (Figure 51) to identify a Webcam input source.

The resolution selection feature allows the ability to select how fine a resolution to provide and display. This will assist when attempting to resize the webcam panel within the meeting window. A lower resolution selected will allow for greater performance but only provide clarity in a smaller space, while the opposite is true for greater resolution selection. To close the webcam within in the meeting space the webcam button within the toolbar must be selected again.
3.4.2.1.3 Desktop Screen Share

Screen sharing is available within DCS. The Screen sharing feature allows the Presenter to share the entirety or a specified region of their screen. The screen share ability is affected by two limiting factors:

1) The Presenters local configuration allows for the use of Java v7u51 or greater within their web browser.

2) The speed of all connected networks will determine the screen refresh rate.

The screen share feature is available to one Presenter at a time. Specific applications or application screens are not available for selection or control. The feature shares all information that is present on the screen to include current resolution and color scheme.

TIP: It is recommended for best use that the lowest possible resolution is uses along with the smallest area of sharing.

To begin screen sharing as the Presenter identify the operation button in the upper left toolbar as see in Figure 52.

![Figure 52 Screen Sharing Button](image)

After selecting the screen share button a new panel will appear in the lower left corner. This panel will cover any panel that was previously in view. This does not close the underlying panel and may be moved
To load the DCS Screen Share feature the system of the Presenter must be loaded with Java v7u51 or greater and integrated with the web browser being used. **Local system administration policies regarding web browsers may cause usage issues.** When experiencing issues with Screen Sharing, please check with local system administrator prior to contacting DCS Service Desk.

Selecting the “Full Screen” option will allow the Presenter to share the main screen in their current configuration.

Selecting the “Region” option will allow the Presenter to share a defined region of any screen in their current configuration. The region conforms to the main display and may not resize to a User defined screen.

Once selecting the region of screen share, the local system will prompt the User for allowances (see Figure 54 and Figure 55) to continue with the use of the feature. Accept all prompts. This will result in two different options depending on the initial selection.
Figure 54 Trusted Connection Prompt

Figure 55 Browser Configuration
When using the regional a red square will appear on the screen. This square can be selected and moved to the region preferred. In the middle is a button that states “Start Sharing”. Once the correct region is identified, select the button (see Figure 57). The red square will persist but will not be present to the Users.

In the bottom right of the local Windows system a notification will be present see (Figure 58).

To close and end the screen sharing feature the Presenter will need to select the close button (see Figure 59) from the screen share panel.
After the “Close” button is selected a “Security Warning” screen is presented. Select “Allow” and continue with the presentation.

![Security Warning]

**Figure 60 Completed Screen Share**

### 3.4.2.1.4 Meeting Poll

DCS provides the ability for meeting users with the Presenter permission to create and display a poll to users currently in the meeting. To create and display a poll, select the “Create New Poll” button (Figure 61) from the tool bar located in the upper left corner of the meeting window.

![Create New Poll]

**Figure 61 Input Toolbar (Poll)**

A new poll setup panel will appear. Size is set and may appear differently in different browsers. To create a poll, the user must populate the Title, Question, and Answers fields to submit to the users (Figure 62).
Tip: If unable to see the bottom buttons, maximize the panel.

Once the fields are populated, the option to allow users to choose more than one response is available. After completion of the form select the “Preview” button to move to the next step.

Upon review of what the poll will look like to the users, the options to Modify, Publish, Save, or Cancel the poll are available to the Presenter. The option to save the poll will
save the current fields and place as an option for quick selection in the Input Toolbar for later use (Figure 64).

![Figure 64 Save Poll](image)

Tip: Create all polls for the meeting prior to the start of the meeting to assist with flow and timing of meetings.

Select the Publish button and broadcast the poll to all users that are currently present within the meeting. Any user entering the meeting after the poll has been published will not be able to view or vote in the poll event. The published poll will appear in the presenters screen and be a movable panel (see Figure 65).

![Figure 65 Published Poll](image)

To end the poll, select the “Stop Poll” button. Provided in Figure 66 are the options available once the “Stop Poll” option is selected. This provides the ability for the Presenter to “Repost” the Poll, “Share” the poll with the users within the meeting, or completely “Close” the poll.
3.4.2.2 Meeting Administrative Toolbar

Located in the upper right corner of the meeting window, this tool panel provides higher level settings and information regarding the status of the meeting. From this toolbar the user is able to set meeting entrance preferences, preserve meeting presence, and the ability to logout of the meeting.

3.4.2.2.1 Administrative Toolbar – User/Guest Admittance

This button is only available to Moderators. The wrench icon in Figure 67 enables the administrator to configure how participants are allowed into the meeting. The resultant menu applies a meeting policy option for the entrance policy for all users. To change the option the user must select another option.

The menu presents the options for the Moderator to set access permissions to users entering the meeting. The options are: “Ask moderator”, “Accept all users”, “Accept authenticated users”, and “Deny everyone” (Figure 68).
3.4.2.2.2 Administrative Toolbar – Meeting Activity Timer

The reset logout timer controls the ongoing timer for the meeting. The time is initially set at 120 minutes (see Figure 69). The timer will continue to count down unless the “Reset Logout Timer” button is activated or the user uses an associated microphone for communication in the meeting. Upon conclusion of the timer the meeting will end for the user. To continue the user will need to re-enter the meeting.

3.4.2.2.3 Administrative Toolbar – Logout

The “Logout Button” (Figure 70) will log you out of the Meeting.

3.4.2.2.4 Administrative Toolbar – Recording

The Recording button on the administrative toolbar will enable and disable the recording of the meeting.

The button will be present on the toolbar, if the option to record the meeting was selected (Figure 72) when you created or modified the reservation.

When you are ready to start recording the meeting, click the start icon (Figure 73).
3.4.2.3 Layout Manager Toolbar

The Layout Manager Toolbar (Figure 74) allows the user to select and display different combinations of the 5 panels to assist in interaction with meetings.

![Figure 74 Meeting Layout Panel](image)

The toolbar is located in the bottom right of the meeting window. The drop down menu (Figure 75) allows you to choose a visual layout of different assortments of panels for your Meeting.

![Figure 75 Custom Layout](image)

The first button from left to right allows the user to add the current layout contained within the meeting window. Selecting this button will create an entry in the drop down menu for future use. The toolbar allows a user to save these custom layouts. To save a layout the user MUST add the layout to the drop down list prior to selecting the save button (Figure 76). The save feature will save the drop down list and not the current layout.

![Figure 76 Save Layout Button](image)
To load a saved layout list the user selects the load button (Figure 77) and is presented with a screen to identify which file is to be uploaded to the meeting Layout Manager.

![Figure 77 Load Layout Button](image)

When users initially enter a meeting all participants, regardless of permission levels, by default have the ability to manipulate their meeting window panels how they would like. Users with the Moderator permission level all have the ability to lock a specific layout for users to be forced to view.

The button on the far right of the tool bar represented by the “lock” image (Figure 78) grants any user with Moderator permissions of the meeting the ability to lock their current layout of meeting panels and push the layout to all Users participating in the meeting.

![Figure 78 Lock Layout Button](image)

All users have the ability to capture information about the meeting occurrences whether in a meeting or during the “connecting” phase of a meeting. When contacting the Service Desk you may be requested to provide a “Log” of events that caused the issue. To do this after the log is opened, copy and paste the information to a Word document and save locally.

The Log Button on the Layout Manager Toolbar (Figure 79) captures a log of all activity that has occurred up to the time the log button is pushed. This information also contains information of user activity during the meeting.

![Figure 79 Log Button](image)

The information provided in the Log Window (Figure 80) can be copied and pasted into another document and provided to the Help Desk to assist in troubleshooting. After the information is copy and pasted, the moderator is able to perform a “Find” event in Word to search for the word “Joined”. This will allow the moderator to identify an attendance list if wanted.
Figure 80 Log Window
Page Break to identify material that still requires a review.
# Appendix A - Glossary of Terms, Acronyms, and Definitions

## Table 1 - Glossary of Terms, Acronyms, and Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td></td>
<td>The Administrator has the highest level of permission over the web reservation. All Administrators have equivalent permissions with no one maintaining higher preference. In a web meeting the Administrator enters a Moderator. (Note: if no user has Administrator permissions there is no way to delete the reservation and this cannot be performed by the Service Desk or Tiered support administrators). The administrator maintains and controls the overall operation of the web reservation through the extra “Admin” tab within the reservation space.</td>
</tr>
<tr>
<td>Moderator</td>
<td></td>
<td>The Moderator permission level differs from the Admin in the Reservation only. The inclusion of the user to the reservation will place a reservation placeholder with the Moderator’s home page allowing for the ability to reference the meeting at a later time. The moderator within a web meeting maintains control over all aspects of the meeting. A web meeting moderator may be either a reservation Admin or Moderator. All Moderators maintain the same capabilities and must coordinate actions to ensure they do not interfere with one another.</td>
</tr>
<tr>
<td>Presenter</td>
<td></td>
<td>The Presenter permission is only available within the meeting. The Presenter permission cannot be granted within the Reservation space. The permission persists only for the current meeting. If the meeting is restarted a Moderator or Admin must re-assign the permission to the User. There is only one Presenter at any given time within a meeting. The Presenter may control and navigate the Presentation panel through the use of extra controls only viewable to the presenter. The Presenter may upload and display files along with share a view of their screen.</td>
</tr>
<tr>
<td>User</td>
<td></td>
<td>Users maintain no extra permissions afforded to the Admin, Moderator, or Presenter. The benefit of entering as an authenticated user is it allows the Admin or Moderator the ability to verify the Users identity. The User permission level is able to participate in the Chat panel, in both public and private chat. The User may download screen shots of the Presentation panel for reference. The User permission level is allowed to “Raise a hand” in the User panel, however most other features are limited and not available for use.</td>
</tr>
<tr>
<td>Guest User</td>
<td></td>
<td>Guest Users are those that are unable to authenticate as verified Users. Access to meetings is based upon the validation of a Moderator or Admin upon request for entrance. Guest Users are able to enter and participate at the same level as a User in a meeting. Guest Users are not able to create or use Reservations. Guest Users are able to be granted the permission of Presenter in a meeting.</td>
</tr>
<tr>
<td>Term</td>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DCS Information Portal</td>
<td></td>
<td>The DCS Information Portal page contains the information needed to understand and operate the DCS service on NIPR/SIPR with the ability to selectively submit feedback to the program through interaction with the product service desk. Announcements posted by the DCS PMO regarding system availability will be posted along with training events and pertinent information regarding any future events for the DCS service. Please refer to section 2.1 for further detailed information.</td>
</tr>
<tr>
<td>DCS Reservation</td>
<td></td>
<td>Reservations are the visual placeholders that provide information regarding Meetings. All meetings will require that the user creates a Reservation. Within the reservation pages Users are able to find tabs and links allowing the User to grant permission levels to participants, copy and provide the URL that will direct users/guests to the Meeting, start/stop Meetings, identify if the Meeting is to be recorded, and include how many participating users are anticipated for the Meeting (max 250).</td>
</tr>
<tr>
<td>DCS Meeting</td>
<td></td>
<td>The DCS Meeting window comprises up to 4 different panels: Display, Chat, Web Cam, and User. Within the DCS Meeting window the user will be able to interact with the presentation and other users at various permission levels. The Meeting is where a user with proper permissions may be able to upload documents for use in presenting and whiteboard use. Audio and web cam integration is supported and can allow the user to interact with others at Moderator, Presenter, User, and Guest permission levels.</td>
</tr>
<tr>
<td>DCS Home Page</td>
<td></td>
<td>The DCS Home Page provides the user a platform for reservation creation after being authenticated through the use of their CAC or other PIV signature hard token if user is maintains dual persona accounts. Users will be able to create and administer reservations and invitations to scheduled Meetings. Users will be able to access their recorded Meetings however will not be able to load or store files for use in Meetings. Please refer to section 2.2 for further detailed information.</td>
</tr>
<tr>
<td>Extensible Messaging and Presence Protocol</td>
<td>XMPP</td>
<td>Extensible Messaging and Presence Protocol (XMPP) is a communications protocol for message-oriented middleware based on XML (Extensible Markup Language). The protocol was originally named Jabber, and was developed by the Jabber open-source community in 1999 for near real-time, instant messaging (IM), presence information, and contact list maintenance. Designed to be extensible, the protocol has also been used for publish-subscribe systems, signaling for VoIP, video, file transfer, gaming, Internet of Things (IoT) applications such as the smart grid, and social networking services.</td>
</tr>
<tr>
<td>Term</td>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Defense Information Systems Agency</td>
<td>DISA</td>
<td>DISA is a United States Department of Defense agency that provides information technology (IT) and communications support to the President, the Vice President, the Secretary of Defense, the military Services, and the Combatant Commands. <a href="http://www.disa.mil/">http://www.disa.mil/</a></td>
</tr>
<tr>
<td>Department of Defense</td>
<td>DoD</td>
<td>DoD, (also known as the Defense Department, USDOD, DoD, DoD, or the Pentagon) is the Executive Department of the Government of the United States of America charged with coordinating and supervising all agencies and functions of the government concerned directly with national security and the United States armed forces. <a href="http://www.defense.gov/">http://www.defense.gov/</a></td>
</tr>
<tr>
<td>Defense Collaboration Services</td>
<td>DCS</td>
<td>The Defense Collaboration Services are the follow on capabilities for the current DoD collaboration service.</td>
</tr>
<tr>
<td>Identity and Access Management</td>
<td>IdAM</td>
<td></td>
</tr>
<tr>
<td>Public Key Infrastructure</td>
<td>PKI</td>
<td></td>
</tr>
</tbody>
</table>