

## CAC Configuration and Installation

**Make sure you have a CAC reader first.** If you don't have a reader, they are available for a very reasonable cost online. See the CAC Reader Information on the [CAC Resource Center](#) page. There are many good readers. A good choice is the SCR 331 USB. Some new laptops have a reader built in. Many new PCs sold have an optional keyboard with a reader.

There are five things that *must* be done to be able to use your CAC to log in to AKO/DKO. They should be done *in the order listed*. They are:

- DoD certificates installed in your Web browser (Internet Explorer or browser of choice)
- CAC middleware installed on PC
- CAC reader installed on PC
- register CAC with Web browser
- register CAC with AKO

**1) DoD Certificates Installed** - Visit the CAC Middleware2 KC [DoD Certificate Installation Files](#) folder in the channel to the right of this one. There are two small programs to download and run - [InstallRoot v3.06A](#) [InstallRoot v3.06B](#) (zip files - see contents below).

InstallRoot is a small utility used to manage DoD supported root certificates on computers. InstallRoot can be run locally, from a floppy disk, across a network, or even as a logon script.

V3.06A installs all of the trusted DoD PKI root and intermediate root certificates as well as the ECA root certificates.

V3.06B Installs all of the trusted DoD IECA root and intermediate root certificates.

The root certificates are important because they enable a user's system to trust, or have confidence in, any certificates issued by any of the certificate servers under each root. If a user does not have the root certificates installed and they receive a secured message from another user, they will receive an error message saying that the user is not trusted.

There are three versions of the application available in this zipped file download:

These are in zipped file format so they will need to be saved to the PC then unzipped. Running these programs will install the certificates CA3 through CA20 and saves the time of installing each certificate individually.

**Important** - If you have already run the InstallRoot and are worried about seeing the "FAILED" messages in the DOS window, then the program has detected previously installed Intermediate Root Certificate Authorities. If you receive the message "Type the return key to terminate", then the InstallRoot has installed correctly. If you don't know which InstallRoot to run, then you can run them both.

**2) CAC Middleware Software on PC** - Review the [CAC Middleware disclaimer](#) before you download the middleware and installation instructions from the KC. It's recommended to always install the middleware first *before* connecting the reader to the PC. The [instruction document](#) includes the middleware and reader steps for a common reader model. Look for the Windows Vista version in the ActivClient 6.1 64Bit Vista folder. **New!** [Instruction document with screen shots](#)

**3) CAC reader Installed on PC** - For Windows XP PCs, the driver for nearly every card reader make/model is already there. Installing an external USB reader is usually as easy as plugging it in to the running PC. Windows XP will do the rest. Refer to the instruction document in step 2 above for the installation.

**4) Register CAC with Browser** - Register your CAC with the Web browser on your PC using the utility features in the middleware. The CAC must be registered with the local PC (middleware) so that your personal certificates can be read. ActivClient 6 essentially detects the reader then the certificates with no problem. In ActivClient 6 go to Tools > Advanced > Make Certificates Available to Windows.

**5) Register CAC with AKO** - Registering with AKO/DKO will establish your CAC information with AKO/DKO. For detailed instructions on registering your CAC with the Web browser and AKO/DKO, please review the document, [CAC Registration and Troubleshooting Guide for Internet Explorer](#). This document will step you through registration process and help you troubleshoot common problems.

**That's it. You're finished.**