



DICOM ArmorCar™ 3.1 Frequently Asked Questions

Q: Do we need to allow incoming connections on our firewall for the DICOM ArmorCar™?

A: No, the DICOM ArmorCar (DAC) transfers medical data by initiating connections from within the firewall, so it does not require any incoming TCP connections.

Q: Is the transfer secure?

A: MMS encrypts the data using 256-bit Advanced Encryption Standard (AES) data encryption with SHA MAC and 1024-bit RSA public-key authentication. The military uses this same configuration.

Q: What are the specifications for the DICOM ArmorCar?

A: The DAC is a mini-PC with a 2.4GHz processor, 256MB RAM, a CD ROM Drive, 40GB hard drive and 1 or 2 10/100-BaseT auto-sensing network connections. It comes in an Aluminum case: 310mm(L) x 84mm(W) x 345mm(H). However, the specifications are subject to change.

Q: How many studies can a DICOM ArmorCar store at one time?

A: In most cases, the DAC can hold approximately thirty studies.

Q: How long does data stay on the DICOM ArmorCar?

A: The DICOM ArmorCar is not a storage system. Data will automatically be deleted after 35 days.

Q: What type of data can be sent to the DICOM ArmorCar?

A: The DAC accepts standard uncompressed DICOM files only. This should auto-negotiate with the MMS DICOM server.

Q: Can I use a DICOM ArmorCar if the radiology network does not have an internet connection?

A: Yes, we can configure your DAC with two NIC cards, one that connects to the radiology network and one that connects to the network with internet connectivity. We will need the required configuration information for both networks.

Q: Is the data compressed?

A: Lossless data compression at approximately 2:1 compression ratio.

Q: Will I need any additional hardware for this device?

A: You will only need to ensure that the DICOM ArmorCar has a port available to connect to your radiology network. If the radiology network is not Internet accessible, you will have to have a port available at the same location to connect to the Internet available network.

Q: How do I send data to the DICOM ArmorCar from my scanner, workstation or PACS?

A: The DAC can be recognized on your radiology network like any other DICOM device. You will merely have to set up the scanner, workstation or PACS to send data on port 104 to the IP address of the DAC using a specific AETITLE that is assigned to you by MMS. In some cases, this requires the scanner manufacturer to configure the scanner for that purpose. Please contact your service representative if you are unsure.

Q: How do I know if the DICOM ArmorCar is working?

A: If the ArmorCar is not working you will receive an error message on the sending modality. If the ArmorCar is working you will receive an email to verify the scan. If you receive an error message, please contact Technical Support at 603.298.5509 x387.

Q: Will the DICOM ArmorCar affect the performance of my scanner?

A: No. The data will flow off the sending modality at the same speed as any other DICOM device in the hospital.

Q: How does MMS know I am sending a study?

A: MMS continually monitors the activity of each DICOM ArmorCar. Studies sent to the ArmorCar are immediately displayed on our internal study status page.

Q: How much bandwidth will a typical transfer require?

A: A typical DICOM data set sent to MMS is from 100-400 images and each image is roughly 500Kb. The DAC compresses the data at a 2:1 ratio. Therefore average transmission is about 50MB. Depending upon the site, the number of transfers can range from 1 to 50 per month. This should be confirmed with the referring physician.

Q: How do I know if MMS has received a study sent via DICOM ArmorCar?

A: MMS offers a daily email notification for each customer, which includes all studies received that day. This study status information is also posted on a secure website:

<https://pems.medicalmetrx.com/ensindex.html>

Q: How do I know if the DICOM ArmorCar has retrieved a completed study?

A: MMS offers a daily email notification for each customer, which includes all studies shipped that day. "Shipped" does include studies sent via DAC. This study status information is also posted on a secure website:

<https://pems.medicalmetrx.com/ensindex.html>

Q: What does MMS need to configure your DICOM ArmorCar?

A: MMS needs:

- Customer-provided IP Address
- Subnet Mask
- Gateway address

To find the network information from a computer on the Radiology network running Microsoft Windows, open a command prompt and type: **ipconfig /all**.

Q: Where does the DICOM ArmorCar send the data?

A: The address for the MMS DICOM server is dicom.medicalmetrx.com.

Q: Where does the DICOM ArmorCar pull data?

A: The DAC retrieves data from ftp.medicalmetrx.com

Q: How does the DICOM ArmorCar communicate with MMS?

A: The DICOM ArmorCar establishes a secure connection between the ArmorCar and the MMS DICOM server via an SSH connection using Port 22 for data transfer purposes. The access control is listed below:

Accepts connections on ports:

- 104/tcp – DICOM
- 80/tcp – Status Page
- 22/tcp – Administration/Troubleshooting

Creates outgoing connections for ports:

- 22/tcp
- 25/tcp – System status messages (SMTP)
- 123/udp – Time Synchronization (NTP3)

Q: How do I verify a study?

A: When the ArmorCar receives a study, an email is sent to the designated contacts (identified at DAC setup). The email contains patient and scan information as well as a link to a verification page within the secure PEMS website. By visiting: <https://pems.medicalmetrx.com> and selecting Study Status from the tabs along the top, you can review, edit, and approve a study waiting on the DAC. Processing of a study will begin once verification has been received by MMS.

For More Information Contact

MMS Technical Support
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fax: 603.298.5523
Email: dac-support@medicalmetrx.com

Or visit: www.medicalmetrx.com

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