

## TELEPROCESSING REQUIREMENTS

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### 1.0. GENERAL

The common means of communication between the TRICARE Management Activity (TMA) and the contractor for sending and receiving data is a teleprocessing connection. An alternate method may be approved by TMA if there are good reasons to do so. Each contractor on the telecommunication network is responsible for furnishing to TMA at the start-up planning meeting (and update when a change occurs), the name, address, and telephone number of the person who will serve as the technical point of contact on teleprocessing matters. Contractors shall also furnish a separate computer center number to TMA which the TMA computer operator can use for resolution of problems related to data transmissions.

### 2.0. DATA COMMUNICATION TECHNICAL REQUIREMENTS

#### 2.1. Network Communication Requirement

##### 2.1.1. Dedicated 56 Kbps DDS Circuit from DMC-Denver to Contractor

This circuit shall be used for all data communication services between the contractor and TMA, unless other arrangements are authorized by TMA.

##### 2.1.2. Dedicated 56Kbps DDS Circuit from TMA to Contractor

This circuit shall now be used for TCP/IP data communication link between the contractor and TMA Communications Change. This circuit was previously used as a backup for the primary circuit between the contractor and DMC-Denver. The router at the contractor site shall be provided and configured by TMA. The contractor is responsible for installing and maintaining the router provided by TMA. The contractor is responsible for providing internal network connectivity to this TCP/IP data communication link.

##### 2.1.3. Automated Dial Backup (1FB Business Line)

A 1FB (or equivalent) telephone line will be provided and maintained by the DMC-Denver for both ends of the 56Kb circuits to the contractors. These lines will utilize V.34 modems provided by the TMA for dial backup/restoration of the primary 56 Kb circuit between the contractor and the government processing site. The government processing site will configure and install V.34 modems on the Denver end and the contractors will install the V.34 modems on the contractor end. The government processing site will coordinate and schedule downtime with each contractor for testing and validation and provide operational status to the TMA.

**2.1.4. Claims Processing Contracts Awarded After January 1, 1993**

Circuits shall be ordered and maintained by TMA. Any circuits required after January 1, 1993, shall be ordered and maintained by TMA.

**2.2. Communication Equipment Requirements**

The government shall provide a TDM/DSU with 2 ports. The 56 KBPS port is V.35. Configuration shall be coordinated with the Technical Support Branch (IST).

**2.3. Front End Processor (FEP) Requirements**

Depending on the services required by the contractor, the following ports must be provided by the contractor:

**2.3.1.** A 56 KBPS port to support both interactive and file transfer functions. Integrators shall ensure that interactive traffic has highest priority during normal work hours. (Lights out, automated file transfer technology shall be implemented wherever practical. Human intervention and initiation shall be eliminated to every extent possible. This approach is intended to increase reliability, reduce potential for human error, maximize line utilization, minimize impacts on interactive sessions, and enhance operational efficiency.)

**2.4. Communication Protocol Requirements**

**2.4.1.** File transfer and distributed systems applications support software shall be provided by the government. This software is to support communications with the TMA data processing center. CONNECT:Direct (formerly Network Data Mover and hereafter referred to as NDM) is the communications software in use. The contractor must provide a platform capable of supporting this product. Details on this product can be obtained from:

Sterling Software  
Communications Software Division  
2477 Gateway Drive  
Irving, TX 75063-2728  
Phone: 703-264-8404

**2.4.2.** For interactive session support IBM's Synchronous Data Link Control (SDLC) communication software shall be provided by the contractor. The contractor must also provide a platform capable of supporting this product.

**2.4.3.** As an alternative for interactive session support, TCP/IP communications software incorporating the application TN3270 shall be provided by the contractor.

**2.5. Maintenance and Troubleshooting**

**2.5.1.** Troubleshooting shall be initiated, either by the government or contractor, between government provided communications equipment depending upon who discovers the presence of a problem. The contractor must provide a POC for this function to TMA.

**2.5.2.** The contractor shall be responsible for troubleshooting and maintenance from the government provided communications equipment, at the contractor site, to the contractor's equipment.

**2.5.3.** Maintenance for the circuit and government provided communications equipment shall be the responsibility of the government. The government shall provide a POC for local repairs.

**2.5.4.** Backup communications equipment will be provided by the government to only support contractual claim cycle requirements. Interactive support will not be supported with the backup equipment. Backup equipment shall be located at the contractor site.

### **3.0. DATA TRANSMISSION FORMAT REQUIREMENTS**

#### **3.1. NDM**

**3.1.1.** A variety of TMA applications shall utilize the NDM communications software.

**3.1.2.** NDM does not restrict record lengths or record formats, destination media between host processors, etc. Data conversions occur automatically between platforms founded in ASCII or EBCDIC.

**3.1.3.** File organization, record formats, edit specifications, and report formats related to a particular application are identified under appropriate portions of this manual. Reference [Chapter 2](#) for record formats, and appropriate, corresponding chapters for edit requirements associated to specific elements within the record formats submitted to TMA.

**3.1.4.** Transmission size is limited to **any combination of 250,000 records at one time.**

#### **3.2. Security**

The goal of TMA security administration is to minimize maintenance of user ids and passwords across the network and to accommodate future security strategies through current procedures.

##### **3.2.1. Remote User Access to TMA**

TMA shall implement Point Of Entry security in its communications with all remote sites. (Reference the NDM Installation Manual for additional information.) The network administrator at each remote installation shall contact the TMA network administrator to provide the local user id(s), name(s), and telephone number(s) of each individual requiring access to the Denver node(s). The TMA network administrator shall use the NDM authorization facility to relate the user id provided by the remote site to an internal user id and password at the TMA data processing installation. SNODEID overrides shall not be permitted. Three advantages are derived through Point Of Entry implementation:

**3.2.1.1.** The remote user need not be concerned with changing passwords at frequent intervals,

**3.2.1.2.** Potential security breaches through hardcoded passwords is eliminated, and

**3.2.1.3.** Remote user access to NDM can be granted/retracted simply and quickly. The internal user id at TMA shall be highly restricted to standardized high level qualifiers, and shall not have TMA or batch access.

### **3.2.2.** TMA Access to Remote Installations

Remote installations shall not require secondary node userid/password from TMA NDM users for the same reasons mentioned above. In those instances where userid/password is in use or planned, a similar security strategy is recommended.

### **3.3. As Required Transfers**

Ad hoc movement of data files shall be coordinated through and executed by the network administrator or designated representative at the source file site. Generally speaking, the requestor needs only to provide the point of contact at the remote site, and the source file name. Destination file names shall be obtained from the network administrator at the site receiving the data. Compliance with naming conventions used for recurring automated transfers is not required. Other site specific requirements, such as security constraints and pool names are generally known to the network administrators.

## **4.0. TRANSMISSION DEVELOPMENT**

Lights out implementation is the ultimate goal of all automation efforts pertaining to the communications software by eliminating human intervention, and providing reliable and smooth automated interfaces to applications at each site involved. Ideally, the generation, movement, utilization, processing, and reporting of data between remote systems is intended to become virtually transparent. Functional specifications requiring manual input are highly discouraged. In order to facilitate this concept, the contractor shall implement, wherever possible, the TMA file naming convention for data files distributed over the TMA network. To have successful automated processes all the following must be addressed:

### **4.1. File Naming Convention**

**4.1.1.** All files received at and sent from the TMA data processing site in Denver (IBM/MVS) shall comply with the following standard when using NDM:

**4.1.1.1.** First high level qualifier: OCH.

**4.1.1.2.** Second high level qualifier: NW (production only), NWT (systems integration test).

**4.1.1.3.** Third high level qualifier: variable application name assigned by TMA network administration (not to exceed four characters).

**4.1.1.4.** Remaining qualifiers: variable per application needs.

**4.1.2.** The preceding naming convention provides for:

**4.1.2.1.** The isolation and monitoring of all datasets interfacing with the long-haul, communications network, regardless of application.

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NOTE: Non-IBM/MVS platforms shall reflect the intent of the standard, with minimal modifications in syntax to define special system requirements, such as pathnames.

**4.1.2.2.** Non-IBM/MVS platforms shall reflect the intent of the standard, with minimal modifications in syntax to define special system requirements, such as pathnames.

**4.1.2.3.** Simplification of security administration involving all sites defined to the communications software.

**4.1.2.4.** Association of the software's automated processes to target data and other automated processes pertaining to the same application as appropriate.

**4.1.2.5.** A strategy to ensure that communications functions are very loosely coupled to applications processing at each site involved. Independent continuation or recovery of communications functions unaffected by applications' generation/use of data is critical to successful implementation.

**4.1.2.6.** Compliance with existing, mainframe, standard naming conventions in effect at TMA.

**4.1.2.7.** Centralization and standardization of automated communications process development and maintenance.

**4.1.3.** The contractor:

**4.1.3.1.** Shall retain source files transmitted over the communications network, to enable immediate isolation and identification for retransmission of the same dataset, for at least seven days. This does not alleviate other data retention requirements imposed by TMA.

**4.1.3.2.** Is highly encouraged to provide for utilization of the above naming convention standard on their own system, for any data files involved in communications with TMA, but is not required to do so when the file being submitted to or retrieved from TMA is input by the contractor to the communication software's automated and standardized processes by variable parameter.

## **4.2. Centralization**

TMA shall provide the automated process(s) required for implementation of a communications application, with the exception of site specific functions that vary from one site to another due to implementation of the software's capabilities. An example would be signon/signoff statements for DMBATCH methodologies implemented at that site.

## **4.3. Standardization**

The contractor shall be afforded the opportunity to provide design and concept input prior to development and implementation of standardized communications processes for each application. Additional instructions pertaining to communications development may be found in the TMA standards.

#### **4.4. Process Language**

Since the effect of communications impacts multiple systems at the contractors and at TMA, all automated processes shall be developed by network administration personnel. Individuals assigned to this function shall be knowledgeable of the capabilities of the software. A network primary and secondary point of contact must be designated at each site (contractors/TMA) to coordinate development, integration, and modification. These individuals shall also be responsible for testing, implementing, monitoring, analyzing error situations, and resolving problems pertaining to communications functions.

#### **4.5. Timing**

An overall impact to the communication software's performance and efficiency is evident during normal work hours. Therefore, every attempt shall be made to maximize utilization of telecommunications lines by deferring transfers to nighttime operation. We recognize that some time zones may severely restrict windows of opportunity.

#### **4.6. Frequency**

Ideally, data would be accumulated at the source site throughout the workday, with a single file being transmitted at night. However, there are no restrictions on the number of files that may be transmitted in a single day.

#### **4.7. Initiation**

Under most circumstances, the source file site shall initiate automated processes to cause transmission to occur. With considerations for timing and frequency, activation of transfers for each application shall be addressed on a case by case basis.

#### **4.8. Remote Systems Integration Testing Requirements**

In addition to the actual movement of data between two sites, the application interface at each site is a critical piece of automation that severely impacts the success and/or failure of data communications. Interface to distributed applications may be automated, and is highly encouraged wherever practical.

**4.8.1.** Integration testing of the applications generating the source file(s) and utilizing the file(s) after transmission is required. These tests shall address at a minimum:

**4.8.1.1.** CPU and communications systems non-availability in excess of 24 hours,

**4.8.1.2.** Scheduled systems maintenance and IPL at each site,

**4.8.1.3.** Isolation of communications functions versus applications processing of data files, especially in respect to delays involving communications,

**4.8.1.4.** Monitoring of active lines/definitions,

**4.8.1.5.** Reasonable lead times for source file preparation,

**4.8.1.6.** Automatic initiation of source and destination file processing, and,

**4.8.1.7.** Adequacy of restart/recovery settings.

## **5.0. TRANSMISSION ENVIRONMENT**

### **5.1. Telecommunications Queue (TCQ)**

Management of communications functions shall be accommodated primarily through the software's TCQ. To avoid inadvertent loss of communications processes in progress, warm start is recommended for specification in the NDM initialization parameters.

### **5.2. Parallel Session Support**

A minimum of 2 (two) parallel sessions between a remote site and TMA is requested, but not required. It is assumed that network administration staffs at each site shall configure and tune the environment for maximum performance and balance between all nodes in their network.

## **6.0. CONTINGENCY ACTION PLAN**

If the contractor or TMA is unable to teleprocess data due to mechanical failure or natural disaster and repair time is expected to exceed 24 hours, the involved parties shall immediately transmit the data by shipping a magnetic tape. The contractor or TMA is responsible for immediately contacting the other in the event of any condition which would preclude teleprocessing data within the established schedule. The primary points of contact shall be the TMA computer operator and contractor computer operator. The secondary points of contact shall be the person designated by the contractor for teleprocessing matters and the TMA. The contractor and TMA are responsible for providing each other the appropriate phone numbers and names.

## **7.0. MAGNETIC TAPE PROCESSING**

Except in teleprocessing network failure (see above), only those contractors with permission from TMA will submit their data via magnetic tape. All contractors, however, must be able to send and receive data via mailed magnetic tape.

### **7.1. Tape Characteristics**

All mailed tapes **should** be standard label, nine track, 6250 BPI, and coded in EBCDIC. Mailed tapes **should** be in the same format as the files transmitted to TMA (80 character fixed length records will have a block size of 32,000). The final block may be padded with blanks (HEX 40s) or truncated.

### **7.2. External Label**

The contractor must list on the external label the name of the contractor, the dataset name, File Name (see above), block size, and record count.

### **7.3. Shipping Instructions**

All tapes shall be shipped to TMA, c/o Defense Mega Center, 5450 Carlisle Pike, P.O. Box 2045, Mechanicsburg, PA 17055-0975. Shipments will be made by means of transportation that assures secure and overnight delivery. Tapes must be packaged for shipment in cushioned envelopes or containers.