BUSINESS PROCESS AND PRACTICES

A. Overview

Where Internet EDM Fits in Gas Industry Commerce

The scope of Internet EDM is to address electronic commerce over the Internet using Customer Activities Web site presentations (EBB/EDM), flat files (FF/EDM), and ANSI ASC X12 (EDI/EDM) between trading partners.

EDI/EDM has been a part of the GISB standards since their inception. GISB has set standards for transmitting ANSI ASC X12 transactions over the Internet and they have been in place since GISB Version 1.0. In Version 1.4 of the GISB Standards, two new methods of data communication have been added. The first, EBB/EDM is to be used to replace proprietary electronic bulletin boards (EBBs) as described below. The second, FF/EDM is the communication of comma separated flat files. In Version 1.5 of the GISB Standards, the technical specifications of the EDI/EDM method of communication have been modified to comply with the broader "HTTP Transport for Secure EDI" standard being developed by the Internet Engineering Task force (IETF). These technical changes do not impact the underlying required business practices established by GISB. In addition, the security features of the EDI/EDM and batch FF/EDM communication method now includes mutually agreeable business practices to protect the sender of a document from non-repudiation and to digitally sign Error Notifications.

In Order No. 587-G, the Federal Energy Regulatory Commission (the Commission) required pipelines to conduct all business transactions using Internet communications to solve the difficulties created by the proprietary EBBs and to provide shippers with a standardized method for doing business. In Order No. 587-I, the Commission recognized that "While shippers and pipelines did not object to the requirement that pipelines support the use of EDI, they contend that EDI should not be the exclusive means of communication and that some form of interactive approach is also necessary." The EBB/EDM approach was developed to satisfy two main concerns: (1) EDI/EDM may only be cost-effective for those doing high volume transactions and (2) shippers did not want to lose the interactive functionality provided by EBBs. Even shippers that are employing EDI may not do so for every transportation service provider with which they do business or for every type of transaction conducted because the level of business does not always justify the expenditure. Further, the Commission stated in Order No. 587-I, that “[it] continues to favor an approach to communication in which shippers can either transact business using computer-to-computer file transfers or conduct business online in an interactive fashion, whichever approach best fits their needs.”

Business Reasons for Using EDI/EDM

The question may be asked, what are the advantages of using Internet EDM to communicate our business transactions in GISB EDI standard data formats as opposed to using Value-added Networks (VANs). As an even broader question, why use EDI standard data formats for transactions at all? With EDI, data already existing in your own computer applications can be used to build nominations and other gas industry transactions. Information from a service provider, such as scheduling, allocation, invoicing, can be mapped to a common format. This common format eliminates the need for the following as these additional steps leave room for errors, unnecessary intervention and complications in processing:

transfer data from a paper document to an application format input file at each trading partner site

if electronic files are used, mapping between various application data formats for each and every trading partner

A company that relies on computerized systems to conduct business and exchanges transactions with several trading partners can communicate those transactions more efficiently with EDI standard data formats and with Internet EDM as the communications mechanism. EDI employs standard data formats for all trading partners. By using the public Internet for transmission, a single connection is required, eliminating the complexity of different connection methods for different trading partners. EDI using a VAN (Value-added Network) can rapidly become expensive if a significant volume of data is exchanged. VANs may impose charges based on number of transactions or number of characters sent, whereas, the public Internet does not impose transactions charges. In a VAN environment, transmission of transactions sent to trading partners who use a different VAN may be considerably delayed because of data transfer schedules between the VANs. The Internet EDM solution eliminates this delay because the transaction is sent directly to the trading partner's designated receipt site.

Roles in Electronic Commerce

In all electronic commerce, one party initiates, or sends, a transaction and the other party receives the transfer. In the Internet environment, the sender is referred to as the client and the receiver is referred to as the server. You should expect to act in both the client role and the server role during the electronic commerce process. Once a transaction set is successfully received for processing, the original receiving party switches to the client role to send a confirmation transaction back to the original sender's server. Therefore, it is essential that both the sending and receiving aspects of electronic commerce are addressed in your implementation.

The standards adopted for Internet EDM, as with all GISB standards, should be adhered to by the trading parties as minimum standards. A trading party may offer additional functions or features as options but should not require their use. Such additional features or functions are termed "mutually agreed to" in that if both trading partners agree on the inclusion, the additional feature requirements will be met. However, if either trading party does not agree to the inclusion of additional features, then the partners must allow for transmission and receipt of data using the minimum standards.

The Trading Partner Agreement is a key reference in electronic commerce. It will define the "designated site" for each partner (see the Business Practices Subcommittee documentation), values used for variable parameters, and optional features that will be used by the partners.

Assess Your Capabilities

There are many questions that readers of this narrative may want answered to clarify the standards or at least provide options for their organization's implementation of GISB Internet EDM standards. However, the best solution for a particular organization must be determined based on the assessment of specific needs and the resources available to that organization.

Depending on your situation, you may implement the complete solution with internal resources. Given the existence of in-house systems expertise, it should be possible to implement the technologies in this guide with little, if any, assistance. On the other hand, smaller organizations may want to use this guide to identify services that they will obtain from a third party.

As much as possible, the technologies chosen for most of the programs needed to implement Internet EDM could be acquired as "shrink-wrapped" software at low cost. Where commercial quality products that can just be "plugged in" do not exist, sample code has been identified. This sample code has the drawback of being unsupported. It is intended for companies that have technical expertise but need just some starter code from which to build their own versions.

A mixture of internal expertise and third-party services will be the likely approach of several organizations. To determine where you may require the services of a third party, you should assess your present capabilities. For example, a company may have experience with X12 translators, but little experience with Internet technology at this time.

In-house Implementation

If you are choosing to implement most or all of the required functionality internally, this document is particularly pertinent. The pilot test report, posted on GISB's home page, captures "lessons learned" from those companies that participated in the pilot project.

It was demonstrated throughout the pilot test that electronic commerce using the Internet can work. However, it is strongly encouraged that all parties fully investigate the ramifications of introducing electronic commerce using the Internet. This includes ensuring that all customer data, internal data, and applications are secure from intruders or other parties not authorized for access.

Participation in electronic commerce over the Internet will involve hardware, software, and technical expertise. Hardware requirements may include a server to receive incoming EDI files, a firewall processor to block intruder access. Software will include operating software for the servers, including the firewall, programming languages which support Internet technologies, and encryption/decryption software to provide security during the transfer. Technical expertise may be involved in the development and maintenance of server applications to process incoming files as well as applications to initiate communication with the server of your trading partner.

The GISB home page contains the text of the pilot test report and reference material that parties may utilize in evaluating and choosing hardware and software.

Using a Third Party

There are many questions that readers of this narrative may want answered to clarify the standards or at least provide options for their organization's implementation of GISB Internet EDM standards. However, the best solution for a particular organization must be determined based on the assessment of specific needs and the resources available to that organization.

It is expected that third-party providers will offer a variety of services from a full "turn key" solution to assistance only where you require it. Such assistance might include programming, system configuration and system administration as well as private communication links.

EDM Network Connections

Trading partners should maintain redundant connections to the public Internet for EDM sites. These redundant connections should be topographically diverse paths to minimize the probability of a single point of failure. Three possible approaches to redundant connections are:

1). Maintain multiple ISPs and multiple points of connectivity, each of which was identified by the same URL making the process of redundancy transparent to the sender.

2). Maintain different Internet connectivity URLs (presumably on topographically different ISPs). For this to result in communication redundancy, the sender should know of the existence of the secondary URL and have programming in place that will automatically switch batch-browser transmissions to the secondary URL when the primary URL is unavailable.

3). Maintain multiple connections to the same ISP. This involves only one URL but the presumption would be that the ISP would provide alternate diverse paths for the URL.

Receivers may maintain multiple URLs and, if such have been disclosed, the sender should attempt to use these during primary URL outages. The redundant public Internet connections can be through a single ISP or multiple ISPs. If multiple URLs are provided for EDM access, the following conditions should be met:

- The information provided by each URL should be exactly the same, although trans-ids can be different.
- The trading partners should be informed of both URLs and their availability by system wide notice or by Trading Partner Agreement.
- The URLs should be identified as primary and secondary if either:
- There is a TSP connection speed difference between the URLs (The faster connection listed as primary)

or

- One URL is only available when the other is down (primary URL being the most available)
- The URLs should be listed as primary and alternate if:
- The URLs have the same TSP connection speed

and

- The URLs are customarily available simultaneously

Note: A URL is considered available (in the context of communication redundancy) if all the IP facilities are properly functioning up to and including the HTTP service. This would include any TSP provided facilities including firewalls, DNS servers, routers, hubs, LANs, etc. that are between the TSP's HTTP server and the ISP's point of presence.

Note: In this context redundancy refers to normal operations redundancy (as opposed to disaster recovery contingencies).

Private network connections to access GISB EDM sites may be at any point on the TSP's firewall boundary at the TSP's discretion on a nondiscriminatory basis. The specific type and speed of their connection should be mutually agreed. It is at the discretion of the TSP on how multiple private network connections should be managed. TSPs are not responsible for any additional security exposures when using private network connections.

TCP Communications

GISB Principle 4.1.37 and GISB Standard 4.3.70 restrict the TCP ports used as a standard for EDM communications. The usage of GISB standard ports may require modifications in the client-side firewall to allow for communications with the various service providers' EDM* implementations. Upon request, the TSP should indicate to their trading partners which specific TCP ports they will require to be opened to conduct electronic communication.

~~Allowable TCP Ports (not UDP ports)~~
~~HTTP 80, 5713, 6112, 6304, 6874, 7403~~
~~SSL 443~~
~~ICA® 1494~~
~~RMI(Java®) 1099-1100~~
~~Java® Telnet 31415~~
~~TCP Optional 8001-8020**~~
~~Allowable UDP Ports (not TCP ports)~~
~~Secure ICA 1604~~

ICA® is a registered trademark of Citrix Systems Inc.

JAVA® is a registered trademark of Sun Microsystems, Inc.

~~There are other technologies available that would require additional ports to be opened, such as FTP, Telnet, and SMTP. If and when GISB approves such technologies, FTTF will modify this list of allowable ports accordingly. The client-side firewall implementation and client browser settings should permit the downloading and installation of GISB approved plug-ins and modules. Please refer to the GISB defined Minimum Technical Characteristics for Accessing Customer Activities Web Sites for the listing of GISB approved plug-ins and modules.~~

These guidelines will be reviewed and updated by the Future Technology Task Force, at a minimum, by the spring of each year and presented to the GISB Executive Committee for adoption by the June meeting of that group.

*All GISB standard Internet communications
~~**The reservation of 20 optional ports was to provide room for implementations such as DCE, IIOP, and load balancing implementations. TSPs should endeavour to minimize the usage of these ports.~~

Major functions of Internet EDM covered by the Standards~~Major functions of the Internet EDM Model covered by the Standards~~

Communication Protocols

HTTP is the standard protocol and Post is the standard method by which transactions will be transmitted over the public Internet. The content type used to package the X12 or GISB standard format file and its related parameters for the HTTP request is multi part. This provides more flexibility in the coding of the messaging components in the application because of the way it handles the delimiting of data parts passed in the body of the form as the “package” is typically called in technology circles.

Sending Transactions (Client)

It is possible to send transactions using widely available interactive web browsers. This may be appropriate for shippers who do not have a significant number of transactions to send each day.

It was determined that in order to provide the level of automation required by some organizations such as a large pipeline company to handle the volume of transactions and the level of interface needed for possibly many back-end process applications, a fully automated batch browser is a required component of the application. In this form, the batch browser can be an event-driven mechanism used to push the transaction from the sender’s previous processes (the back-end application, the translation, and the security process) across the Internet to the trading partner’s server site where receipt of the transaction is acknowledged. The automated batch browser would also better serve the logging function of transactions being sent.

Receipt of Transactions (Server)

The receipt of transactions in the multi part HTTP Post request would require some form of Common Gateway Interface (CGI) program in order to send back a response that would notify the batch browser that it has received the transaction and whether the file in its unprocessed form and its parameters were accepted as sent or rejected. This component of the application would be able to parse out the parameters and related file and determine if the appropriate parameters had been transmitted with the file, log the appropriate statistics including a time stamp about the file and parameters, store the file and send the response back to the batch browser with the time stamp and other required response elements. If the transacting parties mutually agree to use signed receipts, then the application would additionally attach a digital signature to the response. After the appropriate processes have taken place in the CGI, the file would then be forwarded to the security process, any translation necessary, and finally the back-end processor.

Security

Though many decisions as to overall security measures are left to each trading partner and their environment, several security measures were established as standards to ensure a minimum level of confidence in conducting business over the Internet and to provide some uniformity in the implementation of security. Four primary security aspects were considered as vital in providing the level of protection of transactions needed for gas industry commerce: data privacy, data integrity, authentication, and non-repudiation. The FTTF found that these concerns are addressed by the use of encryption and digital signature capability of the Pretty Good Privacy (PGP) security application. Any process used for encryption and decryption compatible with PGP 2.6 (using keys generated with the RSA algorithm) meets the minimum standard to be applied to files transmitted over the Internet. Additionally, the OpenPGP standard, defined by IETF RFC 2440, is a supported alternative to PGP 2.6. Implementers of the PGP product should consider upgrading to PGP version 6.5 for compatibility with the OpenPGP standard and all previous versions of PGP. To prevent unwanted intruders from connecting to the Web sites, basic authentication is the required standard. Additional issues such as firewall security are discussed in the standards, but are considered implementation issues to be addressed by each organization.

B. General Standards

Principles:

0.1.1 An entity is a person or organization with sufficient legal standing to enter into a contract or arrangement with another such person or organization (as such legal standing may be determined by those parties) for the purpose of conducting and/or coordinating natural gas transactions.

0.1.2 For GISB purposes, there should be a unique entity common code for each entity name and there should be a unique entity name for each entity common code.

Standard:

0.3.1 Entity common codes should be “legal entities”, that is, Ultimate Location, Headquarters Location, and/or Single Location (in Dun & Bradstreet Corporation (“D&B”) terms). However, in the following situations, a Branch Location (in D&B terms) can also be an entity common code.

1. when contracting party provides a D-U-N-S® Number at the Branch Location level; or
2. to accommodate accounting for an entity that is identified at the Branch Location level.

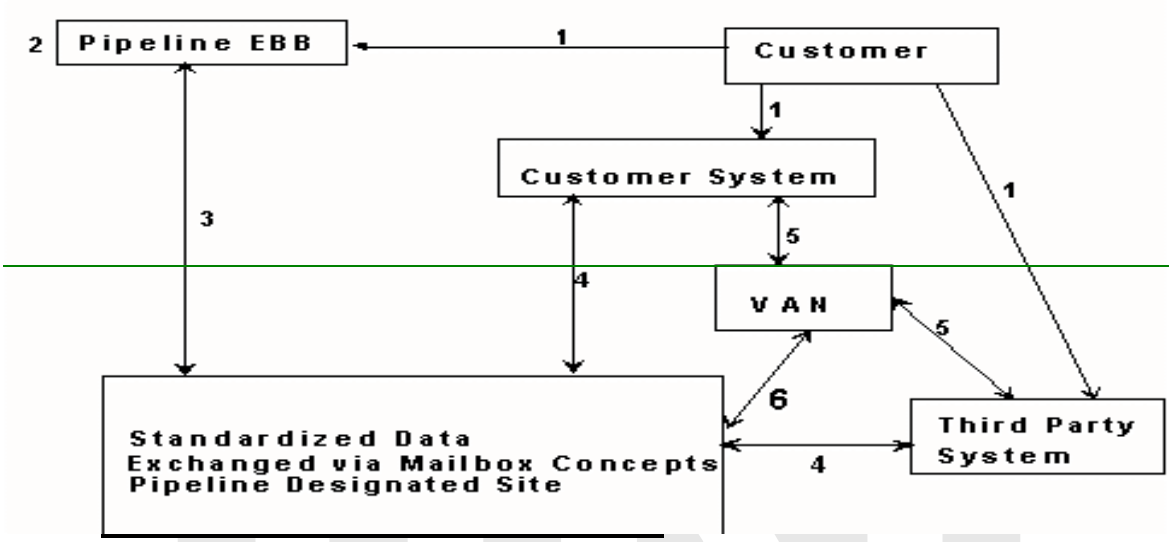
C. Electronic Delivery Mechanism Related Standards

Principles:

4.1.1 [Deleted] ~~The technology model and principles should be followed in implementing GISB's business standards electronically. The following schematic describes the EDM technology model that should exist post 4/1/97, that as agreed upon in the following standard is subject to validation:~~

~~FUTURE TECHNOLOGY MODEL~~

~~1. Technology and mechanisms that are at the sole discretion of the customer.~~
~~2. Technology and mechanisms that are at the sole discretion of the provider.~~



4.1.2 The Electronic Delivery Mechanism does not pick winners, rather it should create an environment where the marketplace can dictate a winner or winners.

4.1.3 The solutions should be cost effective, simple and economical.

4.1.4 The solutions should provide for a seamless marketplace for natural gas.

4.1.5 [Deleted]

4.1.6 Data providers (transportation service providers) should interface with third party vendors according to GISB standards.

4.1.7 Electronic communications between parties to the transaction should be done on a nondiscriminatory basis, whether through an agent or directly with any party to the transaction.

4.1.8 [Deleted]

4.1.9 Service providers should post clear and precise business processing rules at the designated site, or in writing, upon request.

4.1.10 There should be at least one standard (computer-to-computer exchange of transactional data) for data exchange format.

4.1.11 ~~The proposed future technology model reflects a minimum standard capability for 4/1/97. This model represents an ongoing process and is subject to later revisions depending on the findings of the Future Technology Task Force.~~[Deleted]

4.1.12 Protocols and tools that parties elect to support should be "Internet-compatible".

4.1.13 Regarding the request that EBBs need to provide the ability to create and print specialized reports, the data should be made available so as to permit the users of the information to download the data to be used in their applications.

4.1.14 The industry should use standard policies and guidelines for testing new data sets. These guidelines are currently being developed using the GISB guideline adoption procedures (GAP).

4.1.15 The Gas Industry Standards Board should not set standards for site-level security. Individual organization security standards should be relied upon.

4.1.16 Informational Postings Web Sites should be easy to locate.

4.1.17 Information within an Informational Postings Web Site should be easy to locate.

4.1.18 Information across Informational Postings Web Sites should be consistently displayed.

4.1.19 Information across Informational Postings Web Sites should be easy to download.

4.1.20 Display space for content on Web sites should be maximized.

4.1.21 On the Web sites, the use of scrolling, especially left to right, should be minimized.

4.1.22 Web site standards should not preclude various levels of user response and inter-activity. Minimum levels of user response or inter-activity should be developed.

4.1.23 Web site standards should not dictate or limit back-end development technology or systems. Industry Web sites should be accessible by a Standard Client Configuration.

4.1.24 A standardized Web site navigational structure should be developed to provide access to business functions. The hierarchical relationship, structure and order for navigation on the Web site should be established in a standardized manner.

4.1.25 Additional Informational Postings under Standard No. 4.3.6 which are not yet standardized for Web sites should be communicated over the Internet via a "common look and feel" standardized Web page.

4.1.26 Customer Activities Web sites should be designed for ease of user interaction.

4.1.27 There should generally be a one-to-one relationship between data elements used for EDI and/or flat files and the data displayed on Customer Activities Web pages.

4.1.28 Standard field name descriptors or abbreviations, and navigation and functional screen layouts should be used on all Customer Activities Web pages. There should be no standards for font size, colors, etc. Functional screen layouts should be developed as standards which would divide each transactional screen into separate areas and define which data elements belong in each specific area.

4.1.29 Information that is constant for the displayed Content Area may be placed in the page Header.

4.1.30 Data elements that have default values may be placed last to minimize scrolling.

4.1.31 As a general guideline, the initial phase of each business function category (of a multiple phase implementation) of common look and feel for Internet transactions that are not currently standardized should begin subsequent to the implementation of the currently standardized data sets to the Web. This does not preclude the implementation of new standardized data sets as they become available.

4.1.32 There is displayed information on Customer Activities Web sites which does not have a comparable data element in EDI; however, the data (e.g. totals, reports, calculations) is derived from other EDI data elements. Provision of such information does not require the development of an EDI data set to accomplish a one-to-one match. However, any Customer Activities Web function should be derivable from information available in EDI data sets.

4.1.33 When standardized, all elements used in standard EBB/EDM, EDI/EDM and FF/EDM should be defined in the related GISB x.4.z standard.

4.1.34 For GISB FF/EDM, the content and usage of flat files should reasonably correspond to the GISB data sets used for GISB EDI/EDM.

4.1.35 If GISB FF/EDM is implemented, flat files should be exchanged via the GISB EDI/EDM site or the Customer Activities Web site.

4.1.36 Trading partners should maintain redundant connections to the public Internet for GISB EDM Web sites, which include all GISB standardized Internet communication. These redundant connections should be topographically diverse (duality of) paths to minimize the probability of a single port of failure.

4.1.37 Transportation Service Provider EDM implementations should minimize the number of outbound ports required to be opened on the client-side firewall.

4.1.38 ~~4.1.38~~ Until such time as GISB standardizes field lengths for data elements, data element field lengths for FF/EDM should not exceed the corresponding field lengths defined for EDI/EDM as defined in the ANSI ASC X12 version in the GISB implementation guide in which the GISB data element was adopted.

4.1.39 Trading Partners should mutually select and utilize a version of the GISB EDM standards under which to operate, unless specified otherwise by government agencies. Trading Partners should also mutually agree to adopt later versions of the GISB EDM standards, as needed, again unless specified otherwise by government agencies.

Definitions

4.2.1 "Informational Postings" is the term that identifies common information, which would include the five required postings under Standard 4.3.6.

4.2.2 "Download" is the term used to describe the retrieval of information from a Web site in a format suitable for storage.

4.2.3 "Display" is the term used to describe the typical visual presentation derived by a browser as a result of retrieval of information from a given URL.

4.2.4 "Printing" is the term used to describe the typical printed layout derived when a document is printed from a display tool (browser, word processor, etc.).

4.2.5 "Site Map" is the term used to describe a Web page of URL links, which resembles a table of contents or directory tree structure, of categories and subcategories of information.

4.2.6 "Central Address Repository" (CAR) is the term used to describe: 1) the Web site providing links to all Transportation Service Providers' Informational Postings, and 2) the entity administering and maintaining the above Web site and repository.

4.2.7 "Navigational Area" is the term used to describe the area on the left side of the browser display providing links to the Content Area and other navigational links. Navigational Area is not required to be displayed on Customer Activities Web pages where data entry, reporting or inquiry are displayed.

4.2.8 "Content Area" is the term used to describe the area directly to the right of the Navigational Area of the browser display. When the Navigational Area is not displayed the entire browser display is content area.

4.2.9 “Standard Client Configuration” is the term used to describe the configuration that allows simultaneous access to multiple industry Web sites.

4.2.10 “Customer Activities” is the term used to refer to the business function categories relating to Nominations, Flowing Gas, Invoicing, Capacity Release, Contracts and other business functions on industry Web sites.

4.2.11 “GISB EDI/EDM” is the term used to describe ANSI ASC X12 computer-to-computer electronic data interchange of information in files as mapped from the x.4.z GISB standards in the GISB Implementation Guides and communicated between trading partners over the Internet using the GISB Electronic Delivery Mechanism.

4.2.12 “GISB FF/EDM” is the term used to describe a standardized flat file electronic data interchange of information in files as mapped from the x.4.z GISB standards. GISB FF/EDM is communicated between trading partners over the Internet using the GISB Electronic Delivery Mechanism.

4.2.13 “GISB EBB/EDM” is the term used to describe the GISB standardized electronic interchange of information for Customer Activities Web site presentations. GISB EBB/EDM is communicated between trading partners over the Internet using the GISB Electronic Delivery Mechanism for GISB EBB/EDM.

4.2.14 "Header" is the term used to describe the area at the top of the Content Area of the browser display.

4.2.15 "Detail" is the term used to describe the area directly below the Header in the Content Area of the browser display.

4.2.16 "Form" is the term used to describe the portion of the Content Area of the browser display on Customer Activities Web sites used for single transaction entry or display as well as, optionally, data selection. The Form should be either in the upper portion of the Content Area or, alternatively, a single page linked to the Matrix.

4.2.17 "Matrix" is the term used to describe the portion of the Content Area of the browser display on the Customer Activities Web sites used to display selected data entered on the Form and, when appropriate, for data entry. The Matrix should be either the lower portion of the Content Area (that area below the Form) or, alternatively, a single page linked to the Form.

4.2.18 "Batch Flat File" is the term used within GISB FF/EDM to describe the automated computer-to-computer transfer of flat files.

4.2.19 "Interactive Flat File" is the term used within GISB FF/EDM to describe the transfer of flat files using an interactive browser.

4.2.20 Testing data sets between trading partners includes testing of:

1. intended business results,
2. proposed electronic delivery mechanisms, and
3. related EDI/EDM and, where supported, FF/EDM implementation issues.

Testing should include enveloping, security, data validity, and standards compliance (e.g. ANSI X12 and GISB EDM Related Standards).

Standards

4.3.1 By 4/1/97, all parties sending and receiving data should accept a TCP/IP connection. At a minimum, sending and receiving parties should designate an Internet address as a designated site for the receipt and delivery of GISB standardized data sets subject to the successful completion of pilot testing by 1/1/97 to ensure that security, performance (within GISB standard data transmission time), and reliability are acceptable. The GISB data file format should be utilized. The Future Technology Task Force should determine the direction of outstanding issues such as security, archiving, receipt notification, etc., by 7/1/96.

4.3.2 On time stamping, data leaves control of the originator by the same time (deadline), regardless of mechanism (3rd party service provider time stamp is acceptable) and 15 minutes of communication time should be available to allow accumulation of all transactions to the pipeline. A standard network protocol (TCP/IP) should be in service for direct connect to the pipeline designated site by 4/1/97.

4.3.3 Originating party is any system originating/creating the document reflecting the transaction to be submitted (this could also include a third-party service provider or a transportation service provider's EBB). Within the 15-minute window the transaction should be received by the receiving party. Errors in transmission shall be governed by the terms and conditions of the trading partner agreement between the parties. The receiving party may also waive the 15-minute window requirement at its own discretion.

4.3.4 Trading partners should retain transactional data for at least 24 months for audit purposes.

This data retention requirement only applies to the ability to recover or regenerate electronic records for a period of two years and does not otherwise modify statutory, regulatory, or contractual record retention requirements.

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4.3.5 ~~4.3.5~~ Documents that are made available on the Transportation Service Provider's designated site should be downloadable on demand in a GISB specified electronic structure.

4.3.6 Transportation Service Providers should establish a HTML page(s) accessible via the Internet. The following information should be posted:

1) Notices (critical notices, operation notices, system wide notices, etc.)

2) FERC Order No. 566 affiliated marketer information. (affiliate allocation log, 24 hr. discount posting, etc.)

3) Operationally available and unsubscribed capacity

4) Index of customers

5) Transportation Service Provider's tariff (Terms, conditions and rates), or general terms and conditions.~~By August 1, 1997 Transportation Service Providers should establish a HTML page(s) accessible via the Internet's World Wide Web. The information that is currently provided should be posted as follows:~~

~~1)Notices (critical notices, operation notices, system wide notices, etc.)~~
~~2)FERC Order No 566 affiliated marketer information. (affiliate allocation log, 24 hr. discount postings, etc.)~~
~~3)Operationally available and unsubscribed capacity~~
~~4)Index of customers~~
~~5)Transportation Service Provider's tariff (Terms, conditions and rates), or general terms and conditions.~~
~~and~~

~~Transportation Service Providers should make all pertinent EBB functions and information available via the Internet or via the technology recommended by GISB within a reasonable amount of time after each such function or information has become standardized as appropriate by GISB.~~

~~and~~

~~Within a reasonable amount of time, all EBB information, functions and transactions should be achieved via one mode of communications. Information and functions should remain available through existing systems until one mode of communication is available. Implementation time lines for this activity would be determined during the 1997 annual planning activities held in 1996.~~

4.3.7 At a minimum, the designated site should be accessible via the public Internet. This specifically does not preclude location of the designated site on a private intranet as long as the designated site is accessible via the public Internet.

4.3.8 The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving the HTTP versions supported by GISB.~~The minimum acceptable protocol should be HTTP. All sending and receiving parties should be capable of sending and receiving using HTTP.~~

4.3.9 For GISB EDI/EDM and FF/EDM, there is a time stamp (HTTP Timestamp) that designates the time that a file is received at the designated site. The receiving party should generate a timestamp upon successful receipt of the complete file and send as an immediate response to the sending party. The timestamp should be generated by Common Gateway Interface (CGI) of the receiving party, prior to further processing by the CGI.

4.3.10 The time-stamp should be included in the HTTP response back to the sender of the original HTTP transaction. The server clock generating the time-stamp should be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate the discrepancies between the clocks of the sender and receiver.~~The time-stamp should be included in the HTTP response back to the sender of the original HTTP transaction. It is recommended that the server clock generating the time-stamp be synchronized with the National Institute of Standards and Technology (NIST) time in order to mitigate discrepancies between the clocks of the sender and receiver.~~

4.3.11 The HTTP response should be sent to the sending Internet Protocol (IP) address. Other response documents should be returned to the official designated site defined in the Trading Partner Agreement.

4.3.12 As a minimum, within a trading partner agreement, one designated site for receipt should be identified for each trading partner. That site should be identified by a specific Uniform Resource Locator, (URL). This does not preclude multiple designated sites being mutually agreed to between trading partners.

4.3.13 The sender should make three attempts to complete a unit of work. After three failed attempts, it should be considered a failure.

4.3.14 The roles of sender and receiver are defined in following table. The entire table defines a unit of work:

A unit of work consists of one complete HTTP transaction as defined in the technical specification of the HTTP protocol (Internet Engineering Task Force RFC 1945). The roles of sender and receiver are also defined

Client (Sender)	Server (Receiver)	CGI (Receiver)
	Listen for Connect	
Connect	Accept Connection	
Write	Read	Start of Receipt
Write	Read	
EOF (send)	Read	End of Receipt
Read (HTTP response)	Write (HTTP response)	
Received		
EOF (HTTP response)		

4.3.15 Trading partners should implement all security features (secure authentication, integrity, privacy, and non-repudiation) using a file-based approach via a commercially available implementation of PGP 2.6 or greater (or compatible with PGP 2.6) or an OpenPGP compatible product, such as GNU Privacy Guard. Trading partners should also implement basic authentication. This should be regarded as an interim solution since this technology is not an open standard. This technology supports all of the above security features while providing independence of choice of Web servers and browsers. Encryption keys should be self-certified and the means of exchange should be specified in the trading partner agreement. Encryption keys should have a limited lifetime whose duration is determined by the key's owner. A key's end of life is expressed in the expiration date field contained in each PGP public key. A lifetime of one year or less is recommended.~~Trading partners should implement all security features (secure authentication, integrity, privacy, and non-repudiation) using a file-based approach via a commercially available implementation of PGP 2.6 or greater (or compatible with PGP 2.6). Trading partners should also implement basic authentication. This should be regarded as an interim solution since this technology is not an open standard. This technology supports all of the above security features while providing independence of choice of Web servers and browsers. Encryption keys should be self-certified and the means of exchange should be specified in the trading partner agreement.~~

4.3.16 The documents identified in GISB Standard 4.3.6 should be made available in HTML or RTF format, except with respect to the Index of Customers document which may be displayed in HTML or RTF and which should be downloadable in a defined, tab-delimited ASCII text file, with provisions for title information and footnote capability, as set forth in Code of Federal Regulations Part 284, Section 223. (Reference Order Number 637, Docket No.RM98-10-000, issued February 9, 2000, "Appendix A, Instruction Manual for Electronic Filing of the Index of Customers" issued pursuant to the above referenced order.'~~The documents identified in GISB Standard 4.3.6 should be made available in HTML or RTF format, except with respect to the Index of Customers document which may be displayed in HTML or RTF and which should be downloadable in a defined, tab-delimited ASCII text file, with provisions for title information and footnote capability, as set forth in Code of Federal Regulations Part 284, Section 223. (Reference Order Number 637, Docket No. RM 98-10-000, issued February 9, 2000, "Appendix A, Instruction Manual for Electronic Filing of the Index of Customers" issued with the above referenced order.)~~

4.3.17 "Informational Postings" should be the label used for navigation to or within the Web site.

in that document.

4.3.18 Transportation Service Providers should provide and keep current to the Central Address Repository the addresses (URLs) for the following in a specified format and communication method(s):

Informational Postings
Affiliated Marketer Info.
Capacity
Index of Customers
Notices
Tariff
Downloads
Site Map

This specification and any changes to it should be subject to GISB approval.

4.3.19 The Central Address Repository should make available a consolidated repository of the Transportation Service Providers' current URLs listed in Standard 4.3.18 in two ways: 1) a vehicle to link to sites and categories, and 2) a downloadable list.

4.3.20 A user ID or password should not be required to access the Central Address Repository or the Transportation Service Provider's Informational Postings Web Site.

4.3.21 The categories and the labels for Informational Postings required under Standard 4.3.6 should be as follows:

Affiliated Marketer Info.
Capacity
Index of Customers
Notices
Tariff

These categories and labels should appear in the order specified above and before any others.

4.3.22 The following navigational links should appear last in the Navigational Area and be labeled as follows:

Downloads
Search
Site Map

4.3.23 The subcategories and labels for the categories of Informational Postings should be as follows:

CATEGORIES	SUBCATEGORIES
Affiliated Marketer Info.	Capacity Allocation Log (when applicable) Discount Offers
Capacity	Operationally Available Unsubscribed

Index of Customers	
Notices	Critical
	Non-Critical
Tariff	Title Page
	Table of Contents
	Preliminary Statement
	Map
	Currently Effective Rates
	Rate Schedules
	General Terms and Conditions
	Form of Service Agreement
	Entire Tariff
	Sheet Index
Posted Imbalances	

4.3.24 The Transportation Service Provider's Informational Postings Web Site should include the name, nickname, or name abbreviation of the Transportation Service Provider so that it will appear first in the browser title bar. Content Area documents should have a similar name when printed.

4.3.25 The Site Map should be provided in the Content Area and should include links to all levels of categories described in Standard 4.3.21 and Standard 4.3.23. Each level of category and subcategory should be indented to show its relationship and should be presented in text form to best utilize space.

4.3.26 Transportation Service Providers should provide search capability for a word or phrase within the text, headers, and footers of the entire tariff and within any of the following tariff subcategories: 1) Rate Schedules, 2) General Terms and Conditions, and 3) Form of Service Agreement. The results of the search should provide a list of links to the pages containing the word or phrase. "Search" should appear as a link and be labeled as such, appearing immediately above the Site Map link.

4.3.27 The "Notices" category (as shown in the Navigational Area) should expand to a list of subcategories (in the Navigational Area) when clicked; there are no display requirements for the Content Area. Each of these subcategories, when clicked, should display a list of notices for that subcategory in the Content Area.

4.3.28 For the subcategories of Notices, the first column headings in the Content Area should be Notice Type, Posted Date/Time, Notice Effective Date/Time (and Notice End Date/Time, when applicable), Notice Identifier (optional*), Subject and Response Date/Time, when applicable, with the list sorted in reverse chronological order by Posted Date/Time.

* When used as a reference, the Notice Identifier should be displayed.

4.3.29 The words or labels that should appear in the "Notice Type" column in Standard 4.3.28 should be:

Words	Labels

Capacity Constraint	Cap. Constraint
Capacity Discount	Cap. Discount
Curtailment	Curtailment
Force Majeure	Force Majeure
Intraday Bump	Bump
Maintenance	Maintenance
Operational Flow Order	OFO
Phone List	Phone List
Press Release, Company News	News
Other	Other

4.3.30 The links to categories of Informational Postings should be displayed vertically on the left (Navigational Area) of the screen at all times.

4.3.31 With regard to Informational Postings, when using abbreviations to display column and field names, the following abbreviations should be used:

Available	Avail
Capacity	Cap
Date/Time	D/T
Description	Desc
Effective	Eff
Location	Loc
Quantity	Qty
Maximum Daily Quantity	MDQ
Maximum Storage Quantity	MSQ

4.3.32 Each line of the Table of Contents of the Tariff should provide a link to a corresponding sheet by clicking on the sheet number shown. The subcategories Currently Effective Rates, Rate Schedules, General Terms and Conditions, and Form of Service Agreement should provide either a table of contents or a similar breakdown, when applicable, and a link function to a corresponding sheet. For example, if General Terms and Conditions has a separate table of contents, it should provide corresponding links.

4.3.33 For Tariff documents, "previous" and "next" links should be displayed at the top of each HTML document. If the "previous" and "next" links may scroll off the display, they should also be provided at the bottom of the HTML document.

4.3.34 Columns and data fields that would contain data not supported by the Transportation Service Provider should be eliminated on display and/or entry, and left empty on download.

4.3.35 For the “Index of Customers”, the column headings for the web site display for the “Index of Customers” should be displayed in the order provided for in reference Order No.637, Docket No. RM98-10-000, issued February 9, 2000, “Appendix A, Instruction Manual for Electronic Filing of the Index of Customers” issued June 29, 2000, pursuant to the above referenced order, for those fields identified as “detail fields”. In addition, the other “Index of Customers” information not included in the columnar display should be accessible from the columnar display.

~~For the “Index of Customers”, the column headings for the web site display for the “Index of~~

~~Customers" should be displayed in the order provided for in reference Order No. 637, Docket No. RM98-10-000, issued February 9, 2000, "Appendix A, Instruction Manual for Electronic Filing of the Index of Customers" issued June 29, 2000, pursuant to the above referenced order, for those fields identified as "detail fields". In addition, the other "Index of Customers" information not included in the columnar display should be accessible from the columnar display.~~

4.3.36 Internet protocols should be used for accessing all industry business functions.

4.3.37 Web browser interface should use Internet compatible common browser software.

4.3.38 Industry Web sites should be accessible via the public Internet using common browser software.

4.3.39 Each implementation of a current proprietary business function category on EBBs should remain available until such time as that business function category is tested and implemented via a Customer Activities Web site.

4.3.40 Standard navigation should be used to access all business functions on industry Web sites.

4.3.41 Navigation through the industry Web site menus should be consistent for location and technique.

4.3.42 The categories and the labels for Customer Activities Web sites should appear, if applicable, in the Navigational Area as follows:

Nominations
Flowing Gas
Invoicing
Capacity Release
Contracts
Informational Postings
Site Map

Links supporting Mutually Agreeable categories should precede Informational Postings

4.3.43 The sub-categories and the labels for the category of Nominations should appear, if applicable, in the Navigational Area as follows:

Nomination
Confirmation
Scheduled Quantity

Links supporting additional sub-categories will follow these links. This does not preclude a further breakdown within each sub-category from being listed in the Navigational Area.

4.3.44 A Customer Activities Web page may display information (data elements and code values) from multiple functionally related EDI data sets (i.e. nominated quantities and scheduled quantities may appear on the same Web screen).

4.3.45 GISB standard code value descriptions should be displayed for code values where appropriate.

4.3.46 The Customer Activities Web Site should include the name, nickname, or name abbreviation of the Transportation Service Provider in the browser title bar. The name of the business function should be displayed in the Header.

4.3.47 Where they exist for the same business function, flat files and EDI should use the same nomenclature for data set names, data element names, code values and/or code value descriptions, abbreviations and message text. Corresponding Web pages should use data set names, data element names, code value descriptions, abbreviations and message text that correspond to those used in flat files and EDI, where they exist.

4.3.48 Totals, when appropriate, should be displayed within the Content Area of the Web page in a manner which distinguishes them from the data.

4.3.49 Where navigation and/or processing functions exist for a Customer Activity, the Content Area should contain navigation in the Header on the left and processing functions in the Header on the right.

4.3.50 Navigation for input data lookups, if provided, should be placed near the field being looked up. Navigation for informational lookups, if provided, should be included in the Header.

4.3.51 GISB Common Codes for entity and location should be available for data validation or selection (viewing) on a Customer Activities Web site and in a standardized downloadable format for use by customers and third party service providers. Cross-references to proprietary codes may be provided on a mutually agreeable basis.

4.3.52 A Transportation Service Provider (TSP) which determines to provide new features utilizing existing transaction sets via GISB EBB/EDM, for each transaction upon inception of support for such service, should:

- If GISB EDI/EDM or FF/EDM standards exist for the transaction set, provide the service via EDI/EDM, or FF/EDM or both, utilizing modifications defined by the TSP to the existing file structures;

and,

- Submit a request for modification or enhancement of the transaction set to GISB including details of the interim EBB/EDM, EDI/EDM and/or FF/EDM implementation.

4.3.53 Where a Transportation Service Provider (TSP) utilizes a subset of available GISB code values for specific data elements for inbound documents to the TSP, the TSP should make available a list of the supported code values in a download utilizing a GISB electronic format.

4.3.54 With regard to the navigational links on Customer Activities Web sites, when using abbreviations, the following should be used:

Full Name	Abbreviation
Customer Activities	**Customer Activities**
Nominations	Nominations
Flowing Gas	Flowing Gas
Invoicing	Invoicing
Capacity Release	Capacity Release
Contracts	Contracts
Informational Postings	Info Postings
Site Maps	Site Maps

Nomination Area	**Nominations**
Nomination	Nom
Nomination Quick Response	Nom QR
Request for Confirmation	Req for Conf
Confirmation Response	Conf Resp
Confirmation Response Quick Response	Conf Resp QR
Scheduled Quantity	Sched Qty
Scheduled Quantity for Operator	Sched Qty Oper
Flowing Gas Area	**Flowing Gas**
Pre-determined Allocation	PDA
Pre-determined Allocation Quick Response	PDA QR
Allocation	Allocation
Shipper Imbalance	Shipper Imbal
Measurement Information	Meas Info
Measured Volume Audit Statement	Meas Vol Audit
Authorization to Post Imbalances	Auth to Post Imbal
Posted Imbalances Download Post	Imbal Dwnld
Request for Imbalance Trade	Req for Imbal Trd
Request for Imbalance Trade Quick Response	Req for Imbal Trd QR
Withdrawal of Request for Imbalance Trade	W/D of Req for Imbal Trd
Request for Confirmation of Imbalance Trade	Req for Conf of Imbal Trd
Imbalance Trade Confirmation	Imbal Trd Conf
Imbalance Trade Notification	Imbal Trd Notify
Invoicing Area	**Invoicing**
Invoice	Invoice
Service Requester Level Charge/Allowance Invoice	Svc Req Invc
Payment Remittance	Pmt Remit
Statement of Account	Stmt of Acct
Capacity Release Area	**Capacity Release**
Offers	Offers
Bids	Bids
Awards	Awards
Contracts Area	**Contracts**

4.3.55 Where display information on a Customer Activities Web site is derivable from data provided in a previous upload or download, the information should not be included in the EDI/EDM standards [or FF/EDM standard, for later consideration] that directly correspond to the EBB/EDM Web page being displayed.

4.3.56 The industry should use common codes for location points and legal entities when communicating via EDI/EDM, EBB/EDM and/or FF/EDM. The corresponding common code name should also be used in EBB/EDM.

4.3.57 Customer Activities Web pages should support entry of the maximum length for valid data, however, display can be done in a manner to minimize left to right scrolling.

4.3.58 On Customer Activities Web pages, informational display fields can be displayed with related data.

4.3.59 Providers of Customer Activities Web sites should ensure that the site operates within the guidelines of the "Technical Characteristics of the Client Workstation" described in the Appendix of the Electronic Delivery Mechanism Related Standards Manual. This appendix, listing examples of hardware and software configurations that providers should meet, should be reviewed and updated by the Future Technology Task Force, at a minimum, by the spring of each year and presented to the GISB Executive Committee for adoption by the June meeting of that committee.

4.3.60 Access to the Customer Activities Web Site should be protected by HTTP Basic Authentication or similar logon/password mechanism(s). A Customer Activities Web site should typically require a single logon/password pair for each user session.

4.3.61 Data communications for Customer Activities Web sites should utilize 128-bit Secure Sockets Layer (SSL) encryption.~~At a minimum, data communications for Customer Activities Web sites should utilize 40-bit encryption. Where possible, 128-bit encryption is strongly recommended.~~

4.3.62 Custom downloadable modules presented by a Customer Activities Web site should be signed by the author. The signatures on these modules should be communicated in advance to Web site users.

4.3.63 In the Navigational Area of the Informational Postings Web Site, the navigational link for "Customer Activities" should appear directly above the navigational link for "Site Map".

4.3.64 Private network connections to GISB EDM Web sites which include all GISB standardized Internet communication may be at any point on the Transportation Service Provider's (TSP's) firewall boundary at the TSP's discretion on a non-discriminatory access basis. The specific type and speed of these connections should be mutually agreed. It is at the discretion of the TSP on how multiple private network connections should be managed, so long as such management is done on a non-discriminatory access basis. TSPs are not responsible for any additional security exposures when using these private network connections.

4.3.65 The Transportation Service Provider's Customer Activities Web Site should include the name, nickname, or name abbreviation of the parent company and/or Transportation Service Provider so that it will appear first in the browser title bar.

4.3.66 When the Form and the Matrix for Customer Activities Web sites are separate Web pages, a subset of the Form may be included by the Transportation Service Provider in the upper Content Area of the Matrix page.

4.3.67 A Transportation Service Provider which determines to provide new services which do not utilize existing transaction sets via GISB EBB/EDM, should, prior to implementation, submit a request for standardization to GISB including descriptions of the EBB/EDM, EDI/EDM and, as applicable, FF/EDM implementation.

4.3.68 On Customer Activities Web sites, information which is not part of the data dictionary may be displayed.

4.3.69 On Customer Activities Web sites, the following standard nomenclature should be used for processing functions, when the associated function is supported by the Transportation Service Provider (TSP). TSPs may also support additional processing functions.

Processing Function	Nomenclature
Create a new line item for data entry in the Matrix.	New
Copy existing data on a screen or window.	Copy
Delete the current line item from the Matrix, the screen or the window prior to Submit.	Delete
Back out of a screen or window without executing the process, which will cause the loss of all updates since the last Submit.	Cancel
Print application data.	Print
Send record/records from the Matrix to the TSP for processing.	Submit
Sort displayed records based on specified criteria.	Sort
Retrieve information from the TSP based on specified criteria.	Retrieve
Post a line item from the Form to the Matrix as a change to the current line item in the Matrix prior to Submit.	Change
Clear fields on the Form.	Clear
Post a line item from the Form to the Matrix as a new record.	Add
Provide information regarding the current page or function.	Help
Filter displayed records based on specified criteria.	Filter

4.3.70 Transportation Service Providers should be limited to the GISB approved list of available TCP ports and UDP ports for EDM implementations included in the Appendix of the Electronic Delivery Mechanism Related Standards Manual under Client Firewall Requirements for Service Provider EDM Implementations.

4.3.71 Transportation Service Provider EDM implementations should not require any inbound ports to be opened on the client-side firewall.

4.3.72 Providers of Customer Activities Web sites, at their discretion, may provide alternate views to data and transactions in addition to the GISB basic views (industry common views). The alternate views should not replace GISB basic views and should be offered as separate views, if available. If an alternate view is offered, the GISB basic view should be the default view and clearly labeled as the GISB basic view. Any alternate views must offer the same business result as the basic view and be accessible to all applicable users. The basic views must offer the same business result as the alternate views and be accessible to all applicable users.

4.3.73 Data fields used to populate or control population of other fields can be placed before the fields to be populated. If these data elements apply to the entire Content Area they can appear in the Header. If the Transportation Service Provider elects to place such data fields in an order outside of the standardized order, the labels for these data fields should be distinguishable through visual cues from the labels of data elements in the standardized order.

4.3.74 Each data element which has been submitted for standardization in the GISB process should follow the GISB ordered data elements on the Form within a data group selected by the Transportation Service Provider.

4.3.75 The sub-categories and the labels for the category of Flowing Gas should appear, if applicable, in the Navigational Area as follows:

Pre-determined Allocation
Allocation
Imbalance
Measurement

Links supporting additional sub-categories will follow these links. This does not preclude a further breakdown within each sub-category from being listed in the Navigational Area.

4.3.76 On a Customer Activities Web page, where the Form and the Matrix are combined, any data groupings and ordering for the corresponding Form should apply.

4.3.77 [Deleted]

4.3.78 When a Form and a Matrix exist for a Customer Activities Web page, a mechanism should exist to populate the Form with data from a selected item in the Matrix.

4.3.79 The sub-categories and the labels for the category of Invoicing should appear, if applicable, in the Navigational Area as follows:

Invoice
Payment Remittance
Statement of Account

Links supporting additional sub-categories will follow these links. This does not preclude a further breakdown within each sub-category from being listed in the Navigational Area.

4.3.80 GISB FF/EDM flat files should be formatted as ASCII comma separated value (CSV) files. This means:

Rows are separated by a carriage return/line feed (CRLF).

Fields are separated by commas.

When a field contains a comma, the field should be enclosed by double-quotes.

Double-quotes should not be used within any data field.

When numeric data is negative, the minus sign should precede the number.

When numeric data contains decimal precision, the decimal point should be included within the field.

When numeric data contains one or more significant leading zeros, these zeros should be preserved in the flat file.

Date fields should be formatted as YYYYMMDD.

Time fields should be specified in a 24 hour format, formatted as HH:MM or HH:MM:SS, as applicable.

Date/Time fields should be formatted as YYYYMMDD HH:MM or YYYYMMDD HH:MM:SS when date and time are expressed in one GISB data element. Note that there should be exactly one space between the day (DD) and the hour (HH).

The maximum amount of data to be placed in a field should be limited to 256 characters.

When a field contains no data, the empty field should result in two delimiters next to each other. Note that there should be no blank spaces between the delimiters.

4.3.81 For a GISB FF/EDM flat file, the first row of the file should be comprised of the standard abbreviations for GISB data elements, including any additional data elements added per GISB Standard No. 4.3.52, in the order in which the corresponding data is to appear in all subsequent rows. The data element order is at the option of the sender. If a data element abbreviation is not recognized, the entire flat file should be rejected.

4.3.82 For GISB FF/EDM flat files, each transaction (e.g. nomination) should be contained in a single row.

4.3.83 For Interactive Flat File EDM, 128-bit Secure Sockets Layer (SSL) encryption should be used.~~For Interactive Flat File EDM, 40-bit Secure Sockets Layer (SSL) encryption should be used. Where possible, 128-bit SSL encryption is strongly recommended.~~

4.3.84 Access to Interactive Flat File EDM should be protected by HTTP Basic Authentication.

4.3.85 The sub-categories and the labels for the category of Capacity Release should appear, if applicable, in the Navigational Area as follows:

Offers
Bids
Awards

Links supporting Mutually Agreeable sub-categories will follow these links. This does not preclude a further breakdown of sub-sub-categories within each sub-category from being listed in the Navigational Area.

4.3.86 To the extent that multiple electronic delivery mechanisms are used, the same business result should occur.

4.3.87 When the receiver of:

1) a Nomination,
2) a Pre-determined Allocation, or,
3) a Request for Confirmation,

has determined to change the business rule(s) it will apply to the processing of (and/or response to) one or more of these documents; or, when the sender of:

1) a Confirmation Response (solicited and unsolicited),
2) a Scheduled Quantity,
3) a Scheduled Quantity for Operator,
4) an Allocation,
5) a Shipper Imbalance, or,
6) an Invoice

has determined to change the business rule(s) it will apply to the generating of (and/or content within) one or more of these documents, then it should notify its trading partners of same at least two weeks in advance of the change(s). The notification should include identification of the data element(s) that are changing (or whose content is changing), the intended business result of such change(s) in the business rule(s), and the effective date of such change(s).

For the purposes of this standard, a business rule change is any change in:

a) the presence and/or the acceptable content of a data element which is received by the trading partner sending notice;
b) a new business response to an accepted data element which is received by the trading partner sending notice;
c) a new business response to the acceptable content of a data element which is received by the trading partner sending notice; or,
d) a new intended business result to be communicated to a receiver by the trading partner sending notice;

Absent mutual agreement between the affected trading partners to the contrary, trading partners notifying their sending or receiving trading partners of a change(s) under this standard should provide the means to test such change(s) during at least a two week time period prior to the effective date of the change(s).

Trading partners receiving notice of such change(s) from their trading partner should be prepared not to implement such change(s) even after testing has been completed, as the notifying trading partner is permitted to cancel or postpone such change(s). Notifying trading partners canceling or postponing the effective date of change(s) should provide affected trading partners with notice of cancellation or postponement at least one business day prior to the applicable effective date.

4.3.88 For EDI/EDM, 128-bit Secure Socket Layer (SSL) encryption should be used.

D. Interpretations

GISB has adopted the following interpretations of standards that relate to Electronic Delivery Mechanism Related Standards implementation:

7.3.24 Does the language of Standard 2.3.14, 2.3.26, 3.3.15 and 4.3.4 mean that contractual audit rights are excluded from the six-month time limitation and that no statement adjustments can be made after the six-month period? In addition, is GISB recommending that audit rights be excluded from contracts or otherwise limited in contracts to a six-month period?

Interpretation:
Audit rights, to the extent they exist in a contract are contractual rights within the meaning of Standards 2.3.14, 2.3.26, 3.3.15, and 4.3.4. Further, the GISB standards make no finding or recommendation with respect to the advisability of including or excluding audit rights, specifying audit timing or specifying the timing of subsequent audit corrections in a contract.

7.3.35 According to Standard 4.3.6, notices are now supposed to be posted on the Transportation Service Providers' (TSP) Web pages. Does this mean that a TSP is not required to provide any alternative form of communication for notices such as telephone or fax, particularly for those notices issued outside of business hours and on weekends?

According to GISB Standard 4.3.6, notices (critical notices, operation notices, system wide notices, etc.) are supposed to be posted on the Transportation Service Providers' (TSP) Web pages. Does this mean that a TSP is not required to provide any alternative form of communication for these specified notices?

Interpretation:
GISB Standard 4.3.6 does not specify any alternative means of notification aside from the Web page nor does it specify that the only means of notification is by means of the Web page. Alternative means of notification for particular information may be required by regulation, tariff or other GISB standards. For example notices pertaining to system wide events of both a critical and non-critical nature (GISB Standard 5.3.18) are implemented via both downloads (GISB Standard 5.4.16) and the Web pages (GISB Standard 4.3.6).