RECOMMENDATION TO NAESB WGQ EXECUTIVE COMMITTEE

Requester: WGQ EDM Subcommittee  Request No.: WGQ AP5

1. RECOMMENDED ACTION:

   X Accept as requested
   ___ Accept as modified below
   ___ Decline

   EFFECT OF EC VOTE TO ACCEPT RECOMMENDED ACTION:

   X Change to Existing Practice
   ___ Status Quo

2. TYPE OF MAINTENANCE

   Per Request: Per Recommendation:

   ___ Initiation
   ___ Modification
   ___ Interpretation
   ___ Withdrawal

   ___ Principle (x.1.z)
   ___ Definition (x.2.z)
   ___ Business Practice Standard (x.3.z)
   ___ Document (x.4.z)
   ___ Data Element (x.4.z)
   ___ Code Value (x.4.z)
   ___ X12 Implementation Guide
   ___ Business Process Documentation

3. RECOMMENDATION

SUMMARY:

Make changes to the NAESB WGQ EDM version 1.6 manual to update the “Minimum Technical Characteristics” for NAESB Web Sites, and miscellaneous typographical errors.

STANDARDS LANGUAGE:

Please see attached document for redline changes to the NAESB WGQ EDM version 1.6 manual. (note the original date in the footer is in error for the original NAESB WGQ 1.6 EDM manual as it reads June 30, 2001 and should read July 31, 2002)

4. SUPPORTING DOCUMENTATION

a. Description of Request:

   WGQ 2003 Annual Plan Item 5:
   Review of minimum technical characteristics in Appendices C, D, and E of the EDM Manual.
b. Description of Recommendation:

**Electronic Delivery Mechanism Subcommittee**

The NAESB WGQ Electronic Delivery Mechanism (EDM) Subcommittee is charged in WGQ Annual Plan Item 5 and Std 4.3.59 with an annual review of the specifications contained in the Appendices of the NAESB EDM Manual pertaining NAESB Informational Postings and Customer Activities Web Sites. The specifications cover various aspects of the configuration of both "user" systems and web site servers. This recommendation is the result of a review done by the EDM Subcommittee in January 2003 and a subsequent review by the EDM Subcommittee in March 2003.

c. Business Purpose:

Update the NAESB WGQ EDM manual to provide approximate parity between NAESB's technical standards and industry developments in web site technology that otherwise left unchanged would render the NAESB WGQ EDM manual technically outdated.

d. Commentary/Rationale of Subcommittee(s)/Task Force(s):

After completing a review of changes to the redlined WGQ EDM workpaper from both the 01/29/2003 and 03/05/2003 meetings, a motion was made and seconded to accepted the redlined workpaper as the approved changes to the WGQ EDM version 1.6 for publication in WGQ EDM version 1.7. The vote was unanomous to approve the changes.
**TAB 6 Technical Implementation - Internet EDI/EDM and BATCH FF/EDM**

Provides an overview of the business process for Internet EDI/EDM and Batch FF/EDM.

**Data Dictionary**

Provides definition of the standard data elements and the usage requirements for each element.

**Batch Flow Diagram**

**Sending Transactions**

Provides instructions to develop mechanisms for sending of GISB standard format data files.

**Receiving Transactions**

Provides instructions to develop mechanisms for receiving of GISB standard format data files.

**Security**

Provides guidelines for data privacy, data integrity, authentication and non-repudiation of inbound and outbound transactions.

**Other Considerations**

Provides information regarding error notification and testing. Includes a reference guide and examples for repudiation and validation.

**TAB 7 Technical Implementation - Informational Postings Web Site**

Provides an overview of the business process for IP/EDM.

**TAB 8 TECHNICAL IMPLEMENTATION - EBB/EDM**

Provides an overview of the business process for EBB/EDM.

**TAB 9 TECHNICAL IMPLEMENTATION - INTERACTIVE FF/EDM**

Provides an overview of the business process for Interactive FF/EDM.

**TAB 10 Appendix**

- **Appendix A** - Reference Guide
- **Appendix B** - Repudiation and Validation Examples
- **Appendix C** - Minimum Technical Characteristics and Guidelines for the Developer and User of the Customer Activities Web Site
- **Appendix D** - Minimum and Suggested Technical Characteristics and Guidelines for the Developer and User of the Informational Postings Web Site
- **Appendix E** - Minimum Technical Characteristics for an EDM Communications Server+
APPENDIX C - Minimum Technical Characteristics and Guidelines for the Developer and User of the Customer Activities Web Site

Browser Characteristics (includes defined NAESB WGQ current versions):
Features as supported by the latest Generally Available (GA) versions of both Netscape® and Internet Explorer® within 9 months of such GA version becoming available, including:
- Frames & Nested Frames
- Tables & Nested Tables
- HTML
- Cookies
- JavaScript
- SSL 128-bit RSA Encryption
- Style Sheets

Plug-ins (Generally Available (GA) versions within 9 months of such GA versions becoming available)
- JAVA®
- ActiveX® (Plug-in for Netscape®)
- Adobe Acrobat PDF Reader®

Systems Incorporated
- Independent Computer Architecture (ICA®) - Protocol used for remote control access to an application

Operating Systems:
- Operating systems on a client workstation should be multithreaded and pre-emptive.

Hardware:
- CPU >=500 MHz
- Memory >=256 MB Physical
- Display Resolution >=1024 x 768, 16K colors
- Connection >=56 KB (v.90)

1 Configuration shown indicates a minimum except where a specific level is established. 'Minimum' implies a level where a reasonable experience for the user may be achieved. These levels also indicate the level that a user may expect that a client has been tested. Results may be less than satisfactory, or may preclude use of a site, if the user chooses to use anything less than those levels shown.

2 Netscape® is a registered trademark of Netscape Communications Corp.

3 Internet® Explorer is a registered trademark of Microsoft Corporation.

4 ActiveX® is a registered trademark of Microsoft Corporation.

5 Adobe®, Acrobat®, and Reader® are registered trademarks of Adobe.

6 ICA® is a registered trademark of Citrix Systems Inc.
Example Configuration

<table>
<thead>
<tr>
<th>Hardware:</th>
<th>CPU: P500 MHz or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Memory: 256MB Physical</td>
</tr>
<tr>
<td></td>
<td>Display Resolution: 1024 x 768, 16K colors</td>
</tr>
<tr>
<td></td>
<td>Pointing Device with left and right click capability</td>
</tr>
<tr>
<td>Operating Systems:</td>
<td>Windows® 98</td>
</tr>
<tr>
<td></td>
<td>Windows® NT 4.0</td>
</tr>
<tr>
<td></td>
<td>Windows® 2000</td>
</tr>
<tr>
<td>Connection:</td>
<td>56KB (v.90) modem</td>
</tr>
<tr>
<td></td>
<td>ISDN</td>
</tr>
<tr>
<td></td>
<td>Direct Connect (T1, Fractional T1, etc.)</td>
</tr>
<tr>
<td></td>
<td>DSL</td>
</tr>
<tr>
<td></td>
<td>Cable-Modem</td>
</tr>
<tr>
<td>Browser:</td>
<td>Netscape® Communicator/Navigator</td>
</tr>
<tr>
<td></td>
<td>Microsoft® Internet Explorer</td>
</tr>
<tr>
<td>Plug-ins:</td>
<td>JAVA®</td>
</tr>
<tr>
<td></td>
<td>ActiveX® (Plug-in for Netscape®)</td>
</tr>
<tr>
<td></td>
<td>Adobe Acrobat Reader®</td>
</tr>
<tr>
<td></td>
<td>ICA®</td>
</tr>
</tbody>
</table>

Memory - Users who want to have multiple applications or EBBs open simultaneously should consider more memory.

CPU Speed - Users should be aware that higher CPU speeds may result in better performance.

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1 Specific products should be reviewed prior to implementation for Year 2000 compliance. Examples provided represent a non-comprehensive set of configurations that a client may use. This example list in no way should be construed as an endorsement by NAESB WGQ of any specific products. Other products meeting the minimum technical characteristics of the client workstation may be used.

2 Windows® is a registered trademark of Microsoft Corporation.
APPENDIX D - Minimum and Suggested Technical Characteristics and Guidelines for the Developer and User of the Informational Postings Web Site

User technical characteristics provide specifications to the developer on the user environment for which the application will be designed and tested. Likewise, they will serve as guidelines to the user when purchasing the appropriate hardware and software to enable him/her to use the application.

### Informational Postings Web Site User Technical Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connection Device</strong></td>
<td>28.8 Kbps</td>
<td>33.3 Kbps</td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
<td>Multi-threaded &amp; Preemptive</td>
<td>Direct Connect</td>
</tr>
<tr>
<td><strong>RAM</strong></td>
<td>128 MB</td>
<td>&gt;128 MB</td>
</tr>
<tr>
<td><strong>Browser Capabilities</strong></td>
<td>Cookies &amp; JavaScript, Frames &amp; Nested Frames, Tables &amp; Nested Tables, HTML 3.2, Adobe Acrobat Reader®</td>
<td></td>
</tr>
<tr>
<td><strong>Display Resolution</strong></td>
<td>1024x768, 16k colors</td>
<td>&gt;1024x768, 16k colors</td>
</tr>
</tbody>
</table>

**Definitions:**

**Minimum user technical characteristics** -
The environment and components for which the Web site application is designed and tested. This should include:
- a client environment comprised only of characteristics listed above, and,
- support for all mandated functions in accessing Informational Postings.

**Suggested user technical characteristics** -
Environment or components not required to perform all mandated functions in accessing Informational Postings, but could provide an enhanced user experience.
Examples of User Workstations Meeting Criteria of Informational Postings Web Site User Characteristics

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardware:</strong></td>
<td>Pentium® 200MHz or equivalent Pentium® 500MHz or greater</td>
</tr>
<tr>
<td><strong>RAM:</strong></td>
<td>128 MB</td>
</tr>
<tr>
<td><strong>Communication Device:</strong></td>
<td>28.833.3 Kbps</td>
</tr>
<tr>
<td><strong>Monitor:</strong></td>
<td>12&quot; Laptop 15&quot; Desktop</td>
</tr>
<tr>
<td><strong>Display Capabilities:</strong></td>
<td>1024x768 16k colors</td>
</tr>
<tr>
<td><strong>Operating System:</strong></td>
<td>Windows® 95 System 7 Solaris® 2.65</td>
</tr>
<tr>
<td><strong>Browser:</strong></td>
<td>Microsoft Internet Explorer® Netscape® Communicator</td>
</tr>
</tbody>
</table>

1. Technical implementations above represent a non-comprehensive set of choices which an implementer may use. This list in no way should be construed as an endorsement by NAESB WGQ of any specific products. Other products supporting technical implementation may be used.

2. Pentium® is a registered trademark of Intel Corporation.

3. System 7® and System 89® are registered trademarks of Apple Computers, Inc.

4. Solaris® is a registered trademark of Sun Microsystems, Inc.
Informational Postings Web Site Developer Technical Characteristics

User’s environment supporting the above minimum characteristics should be able to access all NAESB WGQ standardized features of Informational Postings Web Sites.

Any other Web technologies may be considered for use by the developer as long as they can be used by the client without requiring special actions including firewall rule changes, use of a specific browser, logons and downloads of special helper applications such as plug-ins, viewers or readers, except as specifically identified in this Appendix.
APPENDIX E - MINIMUM TECHNICAL CHARACTERISTICS FOR AN EDM COMMUNICATIONS SERVER

The following ports may be used by EDM developers and should be made available in user environments.

<table>
<thead>
<tr>
<th>Allowable TCP Ports (not UDP ports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP HTTPS 80, 443, 5713, 6112, 6304, 6874, 7403</td>
</tr>
<tr>
<td>ICA® 1494</td>
</tr>
<tr>
<td>RMI(Java®) 1099-1100</td>
</tr>
<tr>
<td>Java® Telnet 31415</td>
</tr>
<tr>
<td>TCP Optional 8001-8020**</td>
</tr>
<tr>
<td>SMTP 25</td>
</tr>
<tr>
<td>Allowable UDP Ports (not TCP ports)</td>
</tr>
<tr>
<td>Secure ICA® 1604</td>
</tr>
</tbody>
</table>

There are other technologies available that would require additional ports to be opened, such as FTP and Telnet. If and when NAESB WGQ 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 NAESB WGQ approved plug-ins and modules. Please refer to the NAESB WGQ defined Minimum Technical Characteristics for Accessing Customer Activities Web Sites for the listing of NAESB WGQ approved plug-ins and modules.

**The reservation of 20 optional ports was to provide room for implementations such as DCE, IIOP, and load balancing implementations. TSPs should endeavor to minimize the usage of these ports.

ICA® is a registered trademark of Citrix Systems Inc.

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