



Electronic Medical Device Reporting (eMDR)



Marc Wilson
Public Health Analyst
marc.wilson@fda.hhs.gov



Existing Regulation

- **§ 803.12 Where and how do I submit reports and additional information?**
- (a) You must submit any written report or additional information required under this part to FDA, CDRH, Medical Device Reporting, P.O. Box 3002, Rockville, MD 20847–3002.



Proposed Regulation

- **§ 803.12 How do I submit reports and supplements?**
- (a) Manufacturers, user facilities, and importers must submit initial and supplemental reports to FDA in an *electronic format that FDA can process, review, and archive*. FDA will provide and update information on how to provide the electronic submission (e.g., preparation and organization of files, file formats, media and method of transmission).



MDR, ASR, PSR, RAE, etc

- The electronic submission process starting at the ESG and ending in MAUDE is currently only for 3500A MDRs.
- Not currently submitted via the ESG:
 - Alternative Summary Reporting
 - Postmarket Spreadsheet Reports
 - Remedial Action Exemptions
 - Other Exemptions



**High Volume Reporting
(AUTOMATED)**
Single Or Batch Reporting



**Electronic Submissions
Gateway (ESG)**



**Low Volume Reporting
(MANUAL)**
Single Report



eMDR System



MDRs



MAUDE

Attachments



IMAGE 2000

Getting Onboard

1. Get a test account with the ESG.
2. Get a digital certificate.
3. Send a letter on non-repudiation
(authenticating your digital identity).
4. Contact CDRH (eMDR@fda.hhs.gov)
5. Test sending MDRs with CDRH.
6. CDRH approves production account with the ESG.

Electronic Submissions Gateway (ESG)

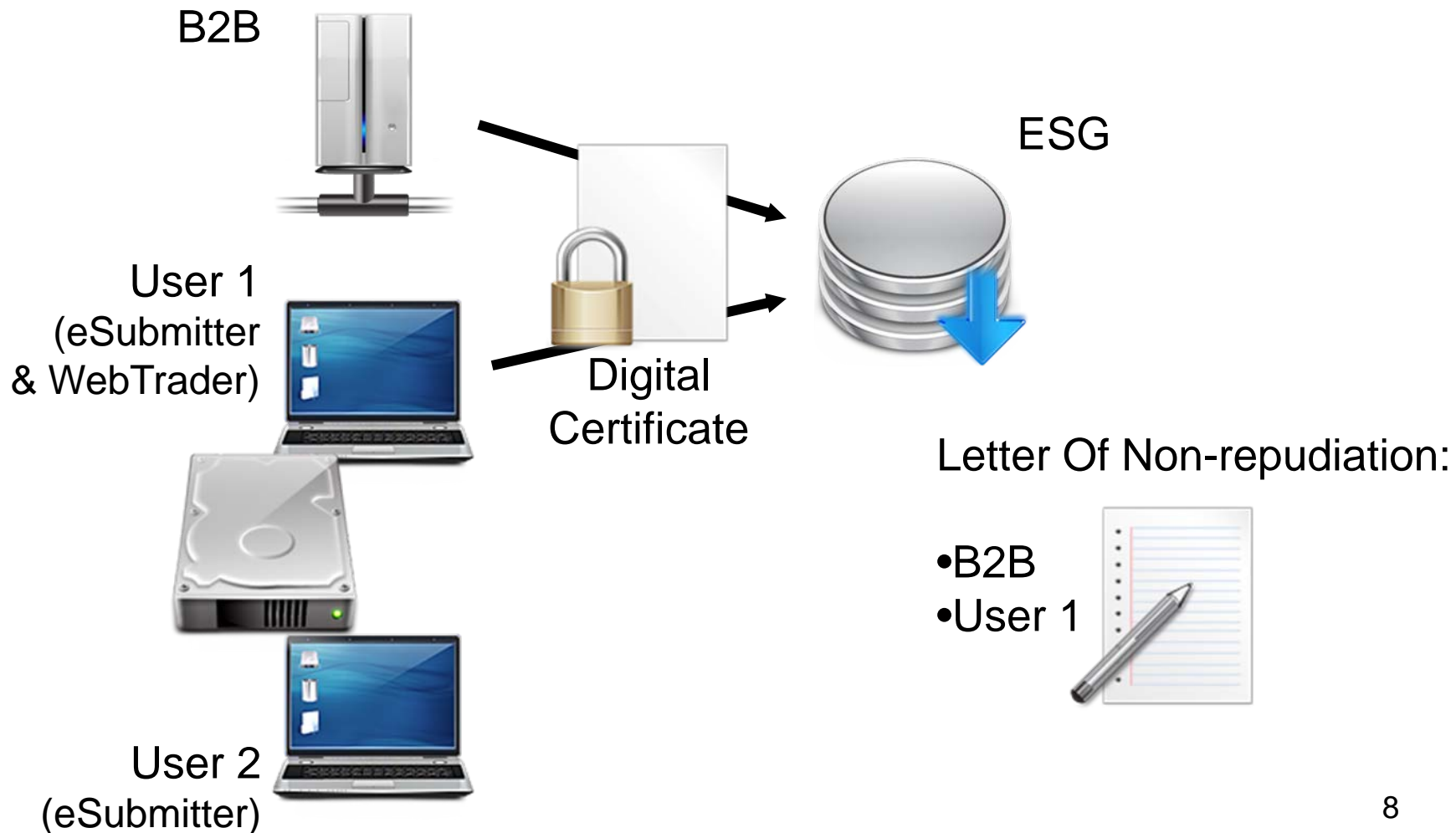
- The ESG is at the Agency level and not under CDRH control.
- Single point of entry for all electronic submissions into FDA.
- Two options for submission
 - B2B (Automated/High Volume/Batch Reporting)
 - WebTrader (Manual/Low Volume/Single Reports)
- Acknowledgments for each stage of report transmission.

ESG website:

- – <http://www.fda.gov/ForIndustry/ElectronicSubmissionsGateway/default.htm>
- – « FDA ESG » in Google or Bing



Digital Certificates And the ESG





Acknowledgements

Acknowledgment 1

This MDN (Message Disposition Notification) was automatically built on Tue, 31 Jul 2007 22:15:56 GMT in response to a message with id <8180602.1185920139411.JavaMail.qdn@DR2MM5102150> received from ZZFDATST on Tue, 31 Jul 2007 22:15:51 GMT. Unless stated otherwise, the message to which this MDN applies was successfully processed.

Ack1: Regulatory Date Using Reporter Time Zone *IF* Ack3 Passes.

Acknowledgment 2

MessageId: <8180602.1185920139411.JavaMail.qdn@DR2MM5102150>
CoreId: 1185920151277.11322@11Intap02
DateTime Receipt Generated: 07-31-2007, 18:17:27
CDRH has received your submission

Acknowledgment 3

| Submission Summary | |
|--------------------|-------------------------------|
| Core ID: | 1185920151277.11322@11Intap02 |
| Batch ID: | ████████-20070731181208 |
| Date Entered: | Tue Jul 31 18:18:17 EDT 2007 |
| Summary: | passed: 1, Failed: 0 |

| | |
|----------------|------------------------------|
| Report List: | |
| Report Number: | ████████-2007-06009, passed. |

Gateway Acknowledgements



Reporters



ESG



CDRH



eMDR/MAUDE



Failed Ack Scenarios

- No Ack1/Ack2/Ack3
 - Customer or FDA ESG server down.
 - *Contact ESG (esgreg@gnsi.com)*
- No Ack2/Ack3
 - FDA ESG down or unable to send to CDRH
 - *Contact ESG (esgreg@gnsi.com)*
- No Ack3
 - MDR processing failed due to CDRH server being down, or the MDR HL7 message has wrong format.
 - *Contact CDRH (emdr@fda.hhs.gov)*
 - Wait 24 hours from sending to ESG before contacting CDRH.



Automated Submitting

- Utilizes Health Level 7 (HL7) version 3 Individual Case Safety Report (ICSR) release 1
- Submit MDRs as xml files (attachments encoded in Base64)
- Submit via FDA Gateway (B2B)
- Submit one report or a batch of reports
- Technical files and schemas on website
<http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/PostmarketRequirements/ReportingAdverseEvents/ucm127951.htm>
 - « FDA eMDR Technical Information » in Google or Bing



Implementation of Automated Solution

- Health Level Seven (HL7) Individual Case Safety Reporting (ICSR) Files
- Null Flavors vs. Blank Data
 - ASKU – asked but unknown
 - NI – no information; answer could be available, but no information was provided
 - NA – not applicable; this question does not apply to the situation
 - **As a “nullFlavor” attribute and NOT as a value.**
- Use Webtrader (low volume submitting) as a back-up.
- Testing the high volume solution works better when both business and IT groups are involved in the company



nullFlavor

- Data Quality Issues

```
<detectedIssueEvent>
  <code code="C53571"
        codeSystem="2.16.840.1.113883.3.26.1.1"
        codeSystemName="Type_of_Report" />
  <value xsi:type="CE" nullFlavor="ASKU"
        codeSystem="2.16.840.1.113883.3.26.1.1">
</detectedIssueEvent>
```

← GOOD CODE

VS.

```
<detectedIssueEvent>
  <code code="C53571"
        codeSystem="2.16.840.1.113883.3.26.1.1"
        codeSystemName="Type_of_Report" />
  <value xsi:type="CE" code="ASKU"
        codeSystem="2.16.840.1.113883.3.26.1.1">
</detectedIssueEvent>
```

← BAD CODE



nullFlavor

- Schema Validation Issues

```
<detectedIssueEvent>
  <code code="C53571"
        codeSystem="2.16.840.1.113883.3.26.1.1"
        codeSystemName="Type_of_Report" />
  <value xsi:type="CE" nullFlavor="NA"
        codeSystem="2.16.840.1.113883.3.26.1.1">
</detectedIssueEvent>
```

← GOOD CODE

VS.

```
<detectedIssueEvent>
  <code code="C53571"
        codeSystem="2.16.840.1.113883.3.26.1.1"
        codeSystemName="Type_of_Report" />
  <value xsi:type="CE" code="Na"
        codeSystem="2.16.840.1.113883.3.26.1.1">
</detectedIssueEvent>
```

← BAD CODE



nullFlavor

- Resolution
 - Documentation
 - Extensive testing with industry partners
generating their own files to send to CDRH
 - Example files made available to industry
partners



Submitting Manually

- Utilizes free FDA eSubmitter Application
- Fill out a 3500A form for one report (following 3500A instructions)
- ***Submit the eSubmitter-packaged file (.zip) to submit via the ESG using WebTrader***
- Zip file will include an HL7 xml and any attachments
- pdf/zip are the preferred file types accepted for attachments
- <http://www.fda.gov/ForIndustry/FDAeSubmitter/default.htm>
- « FDA eSubmitter » in Google or Bing



Submitting In General

- Once you begin electronic reporting, submit all documents electronically
 - Initial reports
 - Supplemental/follow-up reports
 - Attachments (must be either .pdf or .zip)
 - Responses to Additional Information letters
 - Source reports (e.g. user facility reports)
- Sign up to receive updates by e-mail at
http://service.govdelivery.com/service/subscribe.html?code=USFDA_60



Contact

- e-mail
 - eMDR@fda.hhs.gov
- Website
 - <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/PostmarketRequirements/ReportingAdverseEvents/eMDR—ElectronicMedicalDeviceReporting/default.htm>
 - « FDA eMDR » in Google or Bing