

CR Number: 2412
External Reference: Tania Rossouw, Wisconsin; SAFER CR 10
Category: SAFER XML in, SAFER XML out service, ICD
Component: CVISN Architecture and Standards
Synopsis: Implement SAFER XML subscription capability.
Status: Recommended
Disposition: [2006-03-29] Recommended for inclusion in SAFER Release 5.1
Description: SAFER 4.2 XML support does not include an XML subscription capability, as was implemented for EDI transactions. Submitted by WI on 10/16/2003.

States cannot request XML snapshots for data from specific states or other criteria, as is available for EDI transactions. There is a concern that this may become a problem, due to the volume of data that is being transmitted and that needs to be processed.

[2003-10-17 ncm] Discussed at ACCB meeting 2003-10-16. Volpe has started to look into this problem.

During a TELECON on 12/17/03, WI indicated this to be their third highest priority for WI-submitted SAFER CR's 9, 10, 21. They also indicated they are doing some filtering on downloaded transactions but have concerns with the size of the transaction files and their associated transmissions costs (WI CVIEW is billed back at a per transaction rate).

[20040120] Volpe Analysis and proposed solutions:
While performing technical analysis on options to implement XML subscription capability, Volpe received a proposal from MMA, which is similar to one of the approaches being considered but which is more convenient for the state users. Further discussion of the approach in particular between the Volpe Center and MMA suggests it is a valid and feasible option. The major benefit of it would be less data volume for states to download from SAFER and thus would help to eliminate the XML overhead and processing problem states might have.

To implement this approach, SAFER would divide each output transaction file into files specific for each state and rename the files accordingly. In the T0025 output directory one might see the following files:

T0025_ID_20040102..._ud.zip
T0025_MT_20040102..._ud.zip
T0025_UT_20040102..._ud.zip
T0025_NE_20040102..._ud.zip
T0025_MD_20040102..._ud.zip

In the T0025_ID_20040102..._ud.zip file one would find IFTA information about carriers based only in Idaho. In the T0025_UT_20040102..._ud.zip file one would find IFTA information about carriers based only in Utah. File T0025_20040102..._ud.zip containing IFTA information about all carriers will be generated as usual.

The same methodology could be applied to all transaction sets except the T0031 transaction set and possibly the T0032 transaction set, which Volpe does not envision changing.

Whether the subscription capability should be available for baseline file generation is pending for discussion.

During the interim, a new FTP directory could be created for each transaction, such as T0025sub for transaction T0025. The new directory T0025sub would be used to store the output subscription files for T0025; example file names:

T0025_WI_2004010101_ud.zip

T0025_NE_2004020202_ud.zip

T0025_NE_2004030303_ud.zip

Two options could be supported by SAFER to the CVISN states to either download all the files for the specific transaction, or download subscription outputs from the subscription directory. States desiring to receive subscriptions would need to make source code changes in the CVIEW application to identify the state-specific files in the subscription directories. No change is required for the states not using subscriptions.

Please note this particular suggestion only provides the "Regional" function of the subscription. Other subscription capabilities will be implemented at later time.

[2004-03-11] Presented at the 2/26/04 ACCB meeting.

The suggested approach is essentially a self-subscribing process. States clarified their requirement for XML subscriptions: the output transaction file for State X should contain the data for vehicles/carriers authorized to operate in State X. Also, the issue of handling the data from PRISM states (targeted vehicles) was addressed. The file sent from PRISM states to SAFER does not contain the jurisdiction/weights data. It was suggested that all of the PRISM targeted vehicle information be written to one separate transaction file. Volpe took an action item to further analyze the proposed solution for the XML subscription capability.

[2004-06-16] See attached overview.

Proposed Requirements

- The subscription function shall support both baseline and update files. The time interval of the subscription output depends on the time interval that is configured for SAFER system and the availability of the update data.
- States shall define or modify their subscriptions using a web interface through SAFER web site.
- Access to the subscription link shall be limited to the privileged state users.
- After completion of the subscription request, an email shall be sent to the subscriber confirming the requested data sets or notifying of any subscription failure.
- The SAFER Subscription Service shall fulfill states' subscriptions based on the requests pre-defined by the states in the previous step. For each output transaction, SAFER shall generate the subscription data list by states, as well as a full set of snapshots as it currently does.
- Each subscribed state shall have a subscription folder created under each output transaction directory where the subscription output shall be stored. For example, for transaction T0025, the subscription folder for Wisconsin will be "SUBU_WI", where U stands for update. Other values for the 4th character in the folder name include: B for baseline, P for PRISM subscription.

Notes:

- The XML subscription function will be first available through the FTP interface, and will be extended to use the SAFER web service in the future.

[2004-06-21] Presented and discussed at the 6/17/04 ACCB meeting. Since this CR was discussed in April, Volpe has provided analysis and requirements. Volpe will provide an estimate of cost and schedule to Janet Curtis. The states indicated that this CR is only of value if there is the capability of selecting the vehicles that operate in the state (versus only vehicles with base registration for the state). Volpe will add this as a requirement (output for vehicles that operate in state "x"). With this addition, Nebraska, Idaho, and Wisconsin agree that this CR should be implemented. The CR will be posted on the CVISN Systems Architects list serv for review.

[2004-07-19]
One state responded to the list serv posting and agreed with the request for an XML subscription capability.

Presented at the 7/15/04 ACCB meeting. This CR was recommended for FMCSA approval.

[2004-07-26] Clarification from Andrew Wilson 7/23/04
I would like to submit for discussion a clarification of the Requirement concerning filtering for the proposed XML subscription capability:

For the SAFER XML subscription service, the "Primary Filtering" shall filter records pertaining to vehicles or carriers and only include those records that are authorized to operate in the subscribing state.

Proposed algorithm for Primary Filtering for SAFER XML subscriptions. For vehicle records, the filtering will be based on whether there exists an IRP jurisdiction record for the vehicle and the state subscriber.

Based on the set of vehicles authorized to operate in the subscribing state, the XML subscription service shall compute a list of carriers that operate in the subscribing state.

For records that are indexed by DOT number, the filtering will be based on the computed list of carriers that operate in the subscribing state.

[2005-10-05] Implemented in SAFER v4.8 - closed.

[2006-03-29] Presented at the 2006-03-23 ACCB meeting. This was partially implemented (T0028 only) in October, 2005. It will be extended to T0031 and possibly other transactions. States should let Volpe know which other transactions are of interest. Both the architecture and SAFER versions will be reopened to include additional transactions. This is a candidate for SAFER Release 5.1 in August.

Impact on architecture:
Change to CVIEW - SAFER XML interface at detailed level

Impact on documentation:
SAFER ICD

Fix:

Comment:

Attachment names: CR2412 (SAFER CR 10) summary.doc

Responsibility: Magnusson Nancy C.

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Modified By: Magnusson Nancy C.

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Entered By: Salazar Sandra B.

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Type: Defect

Closed On: