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Specifications for MSRB Continuing Disclosure Subscription Service (EMMA Continuing Disclosure Subscriber Manual)

Version 2.7, May 2024

Revision History

Version	Date	Revision History
1.0	June 2009	Initial version.
1.1	April 2010	<ul style="list-style-type: none"> Consolidated into a single document; Added Figure: EMMA Continuing Disclosure Subscription Extended Services – Overview Message & Type Definition Schemas
1.2	June 2010	Figure 3 updated to view entire table
1.3	August 2010	Updated data message, disclosure indexing data, and event disclosure category listing for 15c2-12 changes including: <ol style="list-style-type: none"> Figure 2 – Event Disclosure Category Type enumerated set for 15c2-12 Figure 3 - 15c2-12 Event Disclosure Categories Figure 5 – reference data type definition schema in Figure 2
1.4	May 2011	Added Specifications for Financial Accounting Web Service Interface
1.5	June 2012	Note added to Continuing Disclosure Message flow diagram: GetSubscriptionReplayData Method has been deprecated and will not be functional after June 2012. If the GetSubscriptionReplayData Method is called after it is no longer functional, an exception message will be returned.
2.0	April 2014	Summary of Changes: <ol style="list-style-type: none"> EMMA Subscription Web Service Interface – Common Data and Document Retrieval Service Interface Figure 1: Message Processing Overview - retrieval methods: get transactions for day, get transaction; get document file XML Message Schema removed Sample SOAP Messages Table 2: EMMA Subscription response messages
2.1	January 2015	Summary of Changes: Asset-Backed Security Disclosure Filings (Various): <ol style="list-style-type: none"> Data Message – Disclosure Indexing Data Figure 1 – Message Processing Overview Figure 3 – XML Data Message Category Type Overview Table 1 – Data Tag Glossary Table 2 (new) specVersion comparison Sample SOAP Messages – Get Transactions Sample SOAP Messages – Get Transaction
2.2	August 2015	Updated the Resources and Support section to reflect the change in hours of operation for Email Support.
2.3	October 2018	Add new required event notices related to financial obligations under amended SEC Rule 15c2-12 effective February 27, 2019

2.4	October 2018	Updated Data Tag Glossary and Sample XML Disclosure Messages related to financial obligations under amended SEC Rule 15c-2-12 effective February 27, 2019
2.5	November 2018	Updated submission sub-category related to derivative instruments by removing required fields, and renamed data labels "Financial Obligation – Incurrence" to "Financial Obligation – Incurrence or Agreement", as well as "Occurrence of Default" to "Default"
2.6	April 2022	Updated the description from AuditedFinancialStatementsOrCAFR15c212 to AuditedFinancialStatementsOrACFR15c212 for the Data Tag Financial Operating Disclosure Category
2.6	December 2022	Updated specVersion and minor url updates
2.7	May 2024	Readded Figure 2: XML Data Tag Structure and Figure 3: XML Data Message Category Type Overview

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Resources and Support

MSRB Website: <https://www.msrb.org/>

EMMA Website: <emma.msrb.org>

For assistance, contact MSRB Support at 202-838-1330 or MSRBsupport@msrb.org.

Live Support: 7:30 a.m. - 6:30 p.m. ET

Email Support: 7:00 a.m. – 7:00 p.m. ET

Municipal Securities Rulemaking Board

1300 I Street NW, Suite 1000

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Introduction

The Municipal Securities Rulemaking Board (MSRB) protects investors, issuers of municipal securities, entities whose credit stands behind municipal securities and public pension plans by promoting a fair and efficient municipal market. The MSRB fulfills this mission by regulating securities firms, banks and municipal advisors that engage in municipal securities and advisory activities. To further protect market participants, the MSRB promotes disclosure and market transparency through its Electronic Municipal Market Access (EMMA®) website, provides education and conducts extensive outreach. The MSRB has operated under Congressional mandate with oversight by the Securities and Exchange Commission since 1975.

The EMMA website is a centralized online database operated by the MSRB that provides free public access to official disclosure documents and trade data associated with municipal bonds issued in the United States. In addition to current credit rating information, the EMMA website also makes available real-time trade prices and primary market and continuing disclosure documents for over one million outstanding municipal bonds, as well as current interest rate information, liquidity documents and other information for most variable rate municipal securities.

This manual contains specifications for the real time, computer-to-computer dissemination of documents, including financial-based disclosures such as audited financial statements, as well as event-based disclosures such as ratings changes or bond calls.

Background

The EMMA continuing disclosure service, established as a service of EMMA, receives submissions for financial-based, event-based disclosures and , and any amendments thereto (collectively, “continuing disclosure documents”), together with related indexing information to allow the public and persons engaged in regulating the municipal securities market to readily identify and access such documents, from issuers, obligors and/or their agents.

Submissions made through the EMMA continuing disclosure service accepted during the hours of 8:30 a.m. to 6:00 p.m. Eastern Time on an MSRB business day are, in general, posted on the EMMA website within 15 minutes of acceptance, although during peak traffic periods posting may occur within one hour of acceptance. Submissions outside of such hours often are posted within 15 minutes although some submissions

outside of the MSRB's normal business hours may not be processed until the next business day.

The EMMA subscription service makes available all disclosure documents and related indexing information simultaneously with the posting thereof on the EMMA portal. The EMMA subscription service is provided through a web service accessible by using various commercially available products. Data is streamed, depending on the subscriber's own software settings, using XML files with embedded or accompanying transmissions of, PDF files of continuing disclosure documents.

The MSRB subscription service is available to paying subscribers subject to a subscription agreement entered into with the MSRB. Subscribers must conform to the terms and conditions of that agreement. In addition, to purchase a subscription it is necessary to provide the MSRB with verification of the appropriate license from CUSIP Global Services. More information about the subscription agreement and license verification is available on the MSRB's website at msrb.org.

The MSRB reserves the right to restrict or remove the access of users when their use of the Subscription Service Interface is endangering the integrity of EMMA and its systems.

EMMA Subscription Service Interface

EMMA Subscription Service Interface

The MSRB will expose a web service interface to allow subscribers to receive Simple Object Access Protocol (SOAP) standard extensible markup language (XML) messages and portable document format (PDF) documents using secure, computer-to-computer communications. These interfaces will be remotely consumed by applications written by or for subscribers in a wide variety of programming languages and running on a wide variety of platforms. The EMMA Subscription Service Interface exposes the web-based Data and Document Retrieval service for retrieval of submission data and related files:

<https://services.emma.msrb.org/SubscriberServices/EmmaSubscriptionService.svc>

Beta Platform for EMMA Subscription Service Interface

Beta access to the subscription web service interface is made available by the MSRB. This serves as a platform for potential and existing subscribers to conduct tests to

ensure proper programming and configuration of their applications for accessing the EMMA Subscription Web Service Interface.



Note that data and documents available through the beta platform are for test purposes only and are not to be re-disseminated or otherwise used by subscribers, other than for purposes of testing programming and configuration of subscription applications.

Access to the beta platform site may require a separate set-up. To inquire about the procedures for accessing the beta platform site, contact MSRB Support at 202-838-1330. The web service interface for the beta platform for data and document is:

<https://servicesbeta.emma.msrb.org/SubscriberServices/EmmaSubscriptionService.svc>

Data and Document Feed Process

The EMMA Subscription Web Service Interface will provide XML files of data and PDF files of continuing disclosure documents submitted to the EMMA Submission Service through both the EMMA data submission portal and the automated submission interface.

Data File Dissemination

Each day EMMA receives and publishes data and document submissions from issuers and their agents. Individual publishing events (“transactions”) will normally be available for subscriber access simultaneously with the posting of publicly disseminated information to the EMMA web portal. Subscribers will first determine which transactions to retrieve by polling the data file subscription web service, at a frequency to be determined by each subscriber, by issuing a data request to receive the current day’s transaction list, based on subscriber-determined parameters¹. Due to the anticipated volume and frequency of submissions, the MSRB recommends polling the subscription service not less frequently than once every 10 minutes and not more frequently than once per minute. To this end, the MSRB reserves the right to establish a maximum polling frequency as it deems appropriate. Subscribers must use the list provided to retrieve the corresponding XML data files by issuing an individual data request for each transaction. Throughout the day subscribers will repeatedly request that day’s list of transactions because additional transactions will be added to the day’s list of published transactions as more submission events are processed by EMMA. Subscribers can compare the most recent transaction list against the data previously received to determine which additional transactions have not yet been requested.

Document Dissemination

Documents submitted to EMMA typically will be available for subscriber access simultaneously with the posting of such documents to the EMMA web portal. Subscribers will issue document requests, at a frequency to be determined by each subscriber, to receive any available documents based on the file reference identifiers provided in the XML files disseminated to subscribers. Each document will be transmitted to subscribers as individual PDF files. Depending on the subscriber’s parameters for issuing document requests, subscribers will be able to access documents through the continuing disclosure subscription service on an effectively real-time basis, subject to transmission limitations resulting from the potentially large size of some document files and the speed of the subscriber’s connection.

¹ Alternatively subscribers may choose to request transaction lists for prior days subject to a look-back window/period maintained by the MSRB consistent with the subscription service agreement. Because transaction dates are determined by the processing date, transaction lists from prior dates will not change. However, the data published may be updated by transactions published on subsequent dates.

Message Processing, Schemas and Data Tags

This document refers to a series of figures and tables providing more detailed information about the continuing disclosure subscription service. A message processing overview is included in Figure 1. An XML data schema and a type definition schema are included in Figure 2. A data tag glossary is provided in Figure 3.²

Data Message

Data elements to be disseminated through the continuing disclosure subscription service will be organized in a hierarchical relationship into the following categories: (i) submission data; (ii) disclosure indexing data; (iii) contact information data; and (iv) document data. These categories, and the available data tags applicable to each category, are included in Figure 3 and are also summarized below:

- **Submission Data**
 - (i) Submission identifier (uniquely identifies submission being disseminated)
 - (ii) Submission status (always defined as publish)
 - (ii) Submission transaction date and time (indicates EMMA posting date and time)
- **Disclosure Indexing Data**
 - (i) Disclosure type (financial/operating filing, event filing, asset-backed securities filing, disclosure without indexing information for pre-July 1, 2009 undertaking)
 - (ii) Financial/operating disclosure category (multiple categories may be selected from: 'annual financial information/operating data under Rule 15c2-12', 'audited financial statements or ACFR under Rule 15c2-12', 'failure to provide annual financial information as required under Rule 15c2-12', 'quarterly/monthly financial information', 'change in fiscal year/timing of annual disclosure', 'change in accounting standard', 'interim/additional financial information/operating data', 'budget', 'investment/debt/financial policy', 'information provided to rating agency, credit/liquidity provider or other third-party', 'consultant reports', 'other financial/operating data')
 - (iii) Event disclosure category (multiple may be selected from: 'principal /interest payment delinquencies', 'non-payment related defaults', 'unscheduled draws on debt service reserves reflecting financial difficulties', 'unscheduled draws on credit enhancements reflecting financial difficulties', 'substitution of credit or liquidity providers, or their failure to perform', 'adverse tax opinion or event affecting the tax-exempt status of the security', 'modification to the rights of security holders', 'bond call', 'defeasance', 'release, substitution or sale of property securing repayment of the security', 'rating change', 'failure to provide event filing information as required', 'tender offer / secondary market

² The descriptions of the submission data elements to be provided by submitters to EMMA as described in the Submission Specifications published simultaneously herewith provide more detailed information about the data elements to be disseminated to subscribers through the continuing disclosure subscription service. See note 1 *supra*.

purchases', 'merger / consolidation / acquisition and sale of all or substantially all assets', 'bankruptcy, insolvency, receivership or similar event', 'successor, additional or change in trustee', 'financial obligation – incurrence or agreement', 'financial obligation – event reflecting financial difficulties', 'amendment to continuing disclosure undertaking', 'change in obligated person', 'notice to investor pursuant to bond documents', 'communication from the Internal Revenue Service', 'bid for auction rate or other securities', 'capital or other financing plan', 'litigation or enforcement action', 'change of tender agent, remarketing agent or other on-going party', 'derivative or other similar transaction', 'other event-based disclosures', 'merger consolidation reorganization insolvency bankruptcy', 'change of trustee tender agent remarketing agent or other ongoing party', 'financial obligation – incurrence or agreement', 'financial obligation - event reflecting financial difficulties')

- (iv) Asset-backed securities disclosure category (only one will be selected from: 'initial asset backed securities disclosure SEC Rule 15Ga1c1', 'quarterly asset backed securities disclosure SEC Rule 15Ga1c2i', 'annual asset backed securities disclosure SEC Rule15Ga1c2ii', 'other asset backed securities disclosure')
- (v) Disclosure sub-category types for filings including event disclosure categories 'financial obligation – incurrence or agreement' (only one will be selected from 'type of obligation:' debt obligation, guarantee, derivative instrument)
- (vi) Debt obligation disclosure subcategory for filings including 'guarantee' (only one will be selected from: 'debt obligation', 'derivative instrument')
- (vii) Disclosure sub-category for filings including event disclosure category 'Financial obligation - event reflecting financial difficulties' (Select one or more of following: 'default', 'event of acceleration', 'termination event', 'modification of terms', 'other').
- (viii) Other voluntary disclosure description (for financial/operating data disclosures, event-based disclosures and asset-backed securities disclosures).
- (ix) Financial/operating disclosure date (for financial/operating disclosure, date of financial/operating period type)
- (x) Financial/operating disclosure second date (for financial/operating disclosure, end date of financial/operating period type if 'other period beginning' selected)
- (xi) Event disclosure date (for event disclosure – date of document if different from date document submitted to EMMA)
- (xii) Period type (for all asset-backed securities disclosure categories, only 'other period beginning').
- (vi) Disclosure period (for all asset-backed securities disclosure categories, period dates with 'beginning date' and 'ending date' for 'other period beginning')(xiii) CUSIP-6 securities pointer (six-digit CUSIP number(s) – disclosure applicable to all nine-digit CUSIP numbers beginning with this six digits).
- (vii) Securities (nine-digit CUSIP number(s) to which disclosure is applicable)

- **Contact Information Data**

- (i) Contact organization type (issuer, obligated person, submitter)
- (ii) Contact organization name
- (iii) Contact first name
- (iv) Contact last name
- (v) Contact title
- (vi) Contact phone number
- (vii) Contact phone number extension
- (viii) Contact address
- (ix) Contact city

- (x) Contact state
- (xi) Contact zip code
- (xii) Contact email address
- **Document Data**
 - (i) Document identifier (uniquely identifies submission being disseminated)
 - (ii) Document posting date (date first file of document posted to public on EMMA)
 - (iii) Document posting operation indicator (if document modifies a previously submitted document – append to posted document, replace posted document)

Examples of XML files disseminating data submissions for various types of continuing disclosures are included herein.

Figure 1: Message Processing Overview for the EMMA Subscription Web Service Interface

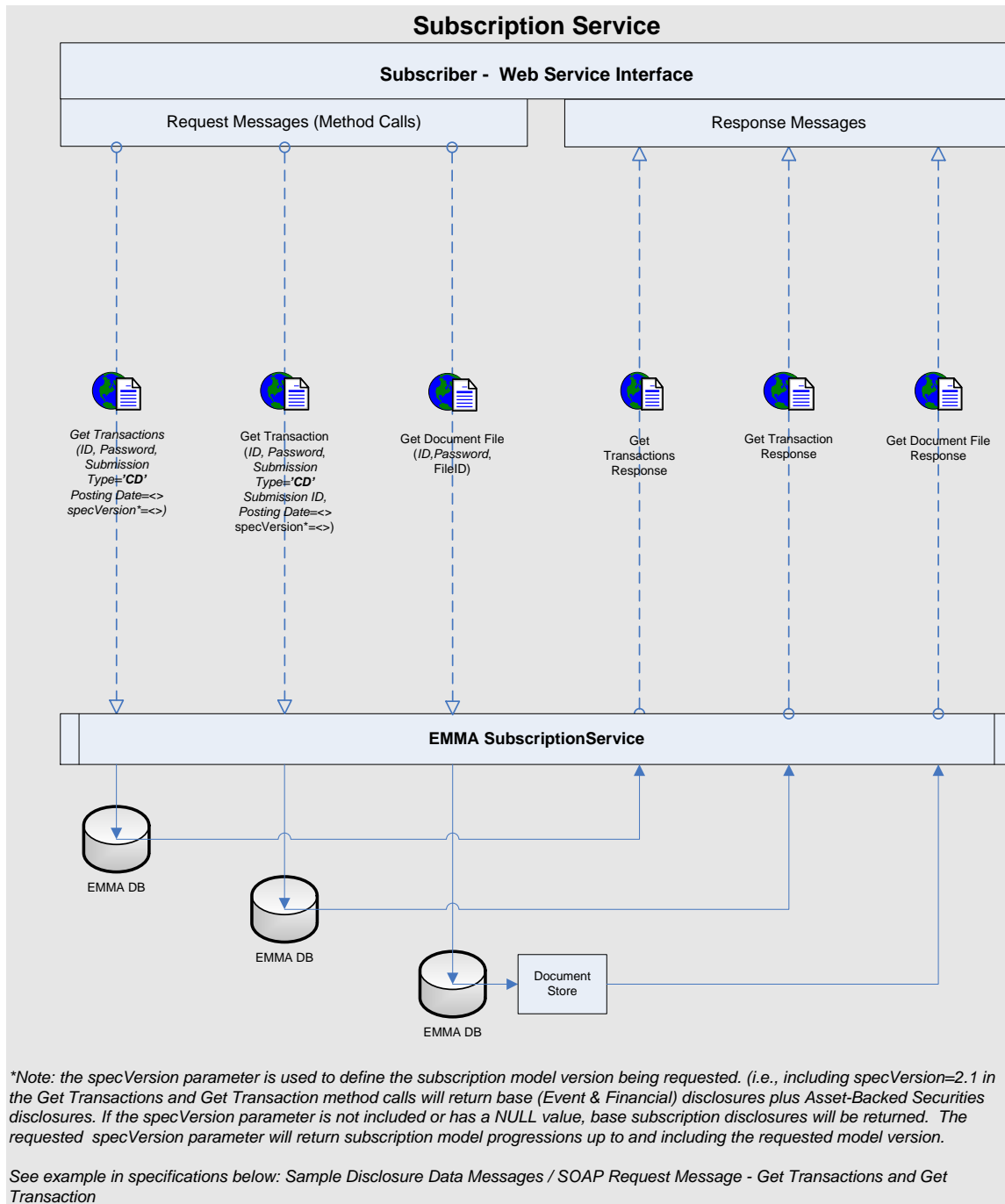
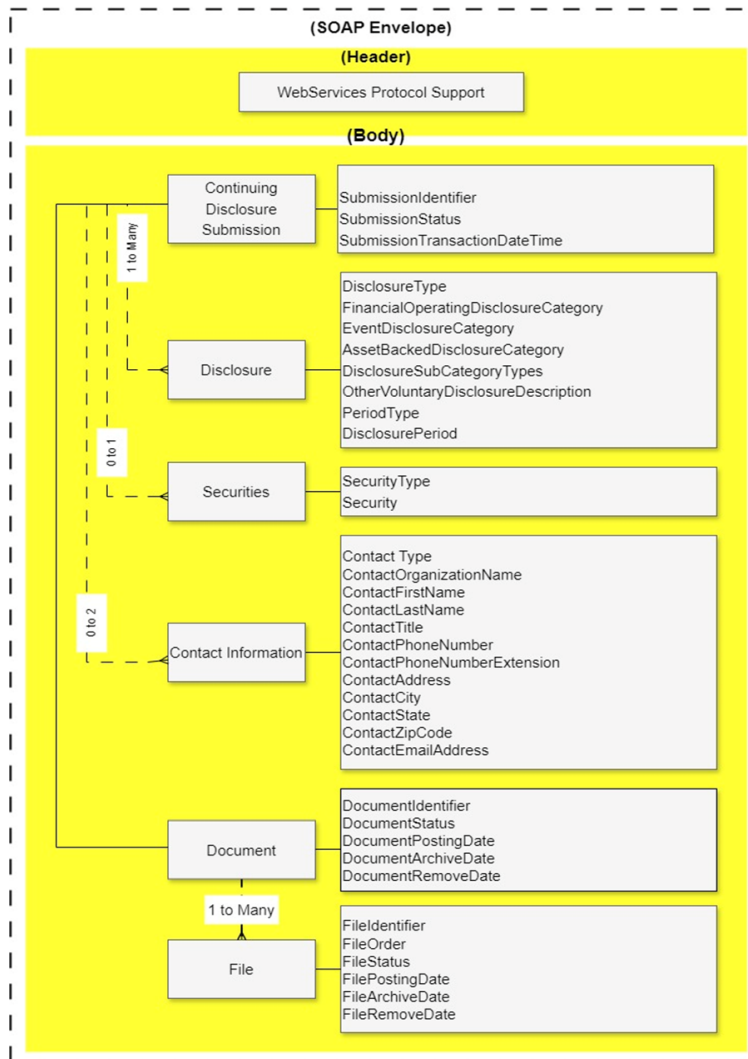


Figure 2: XML Data Tag Structure

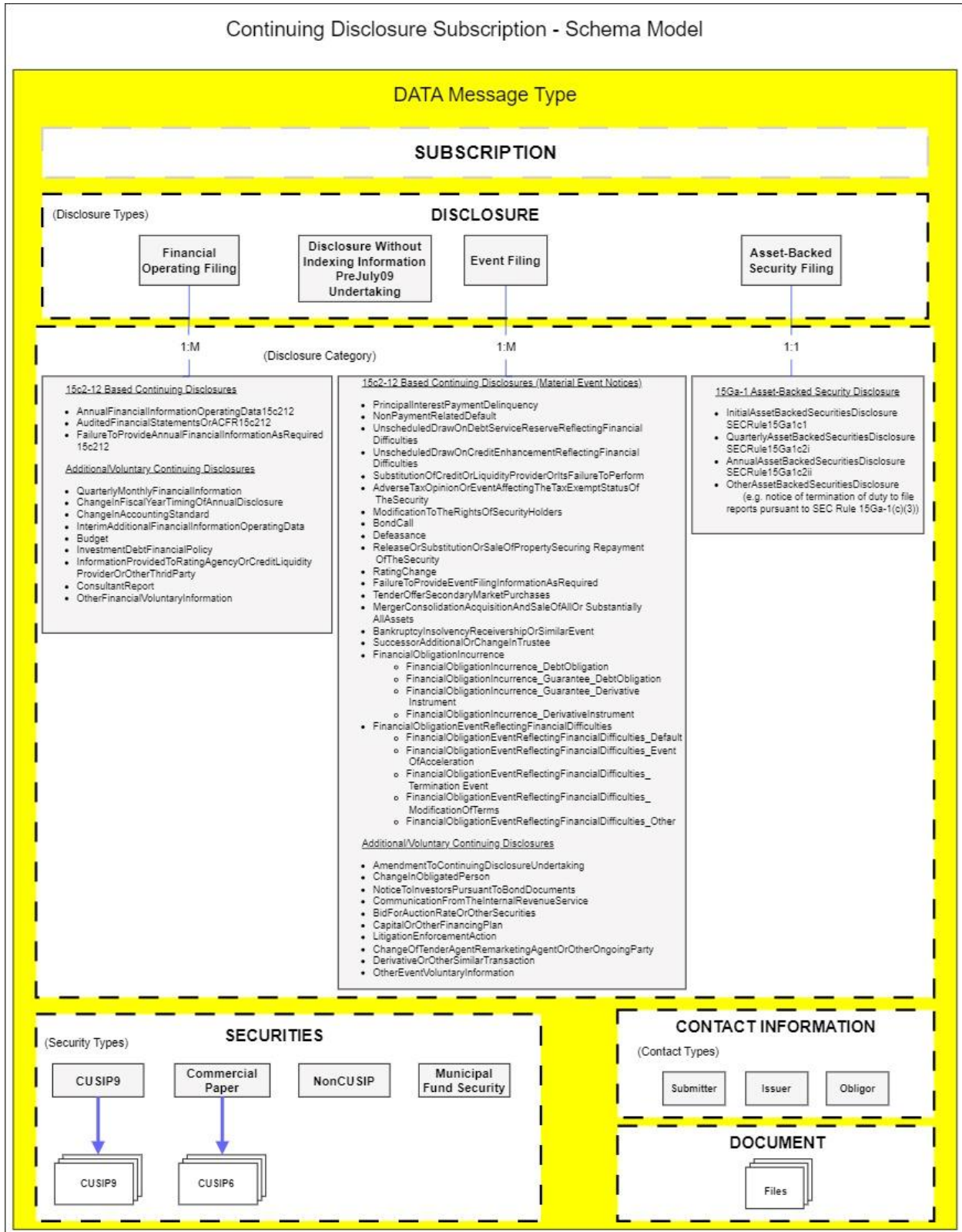
The following is a listing of possible data tags that may be included in XML data files depending on the specifics of the disclosure being reported.



SOAP (Simple Object Access Protocol) – foundation layer of the web service protocol stack

Figure 3: XML Data Message Category Type Overview

Below are the information categories and allowed values associated with subscription messages with specific emphasis on the details of the Disclosure Categories.



Data Tag Glossary

Table 1: Data Tag Glossary

Below is a glossary of all data tags to be used in EMMA’s automated subscription interface for data and document messages. These data elements are organized in a hierarchical data relationship. This glossary sets out each data element’s XML container, data tag, definition and data specifications, including a listing of enumerated values for those data elements where the submitter is to choose a value and an example of the data format where the submitter is to enter a value.

Subscription Data Tags Description and Specification EMMA Subscription Service			
XML Container	Data Tag	Definition	Data Specification
Submission	Submission Identifier	Unique identifier assigned by EMMA at time of initiation of data submission (the initial submission event) and used by the submitter in connection with subsequent submission events, including document submission	Type= String{Min1,Max25} ex: S212345678910
	Submission Status	Indicates the intention to publish the information in the EMMA public portal or to submit as test submission – test submissions are not disseminated	Enumerated Value: • Publish
	Submission Transaction Date Time	EMMA-assigned date and time the submission was registered in EMMA	Type=ISODateTime (CCYY-MM-DDT00:00:00) ex: 2008-12-01T13:30:00

XML Container	Data Tag	Definition	Data Specification
Disclosure	Disclosure Type	<p>Indicates the type of continuing disclosure filing as follows:</p> <ul style="list-style-type: none"> • Financial Operating Filing - Submit annual financial information under SEC Rule 15c2-12(b)(5)(i)(A) and (d)(2)(ii)(A), audited financial statements under Rule 15c2-12(b)(5)(i)(B), notice of failure to provide annual financial information under Rule 15c2-12(b)(5)(i)(D), and other voluntary financial or operating information. • Event Filing - Submit notice of a material event specified under SEC Rule 15c2-12(b)(5)(C) and (d)(2)(ii)(B), and any other event-based voluntary notice or disclosure with respect to municipal securities. • Asset-Backed Securities Filing – Submit disclosure filings specified under SEC Rule 15Ga-1. • DisclosureWithoutIndexingInformationPreJuly09 Undertaking - This continuing disclosure document is being submitted without indexing information in connection with securities subject to a continuing disclosure undertaking entered into prior to July 1, 2009. <ul style="list-style-type: none"> ○ Unindexed continuing disclosure documents will be posted on the EMMA Portal without indexing information, but accompanied by the submitter's contact information, and also will be disseminated to EMMA's continuing disclosure subscribers together with the submitter's contact information. ○ <u>Filing without indexing information is strongly discouraged</u> - Failure to provide indexing information will dramatically impact the effectiveness of your disclosure to the detriment of investors in your securities. 	<p>Enumerated Value:</p> <ul style="list-style-type: none"> • FinancialOperatingDataDisclosure • EventBasedDisclosure • AssetBackedSecuritiesDisclosure • DisclosureWithoutIndexingInformationPreJuly09Undertaking

XML Container	Data Tag	Definition	Data Specification
Disclosure	Financial Operating Disclosure Category	Indicates the financial operating disclosure category to which the filing applies. One or more categories may apply to a single filing	Enumerated Value: <ul style="list-style-type: none"> • AnnualFinancialInformationOperatingData15c212 • AuditedFinancialStatementsOrACFR15c212 • FailureToProvideAnnualFinancialInformationAsRequired15c212 • QuarterlyMonthlyFinancialInformation • ChangeInFiscalYearTimingOfAnnualDisclosure • ChangeInAccountingStandard • InterimAdditionalFinancialInformationOperatingData • Budget • InvestmentDebtFinancialPolicy • InformationToBeProvidedToRatingAgencyOrCreditLiquidityProviderOrOtherThirdParty • ConsultantReport • OtherFinancialVoluntaryInformation

<p>Disclosure</p>	<p>Event Disclosure Category</p>	<p>Indicates the event-based disclosure categories to which the filing applies. One or more categories may apply to a single filing ex: a filing may include a notice of Bond Call and Defeasance</p>	<p>Enumerated Value:</p> <ul style="list-style-type: none"> • PrincipalInterestPaymentDelinquency • NonPaymentRelatedDefault • UnscheduledDrawOnDebtServiceReserveReflectingFinancialDifficulties • UnscheduledDrawOnCreditEnhancementReflectingFinancialDifficulties • SubstitutionOfCreditOrLiquidityProviderOrItsFailureToPerform • AdverseTaxOpinionOrEventAffectingTheTaxExemptStatusOfTheSecurity • ModificationToTheRightsOfSecurityHolders • BondCall • Defeasance • ReleaseOrSubstitutionOrSaleOfPropertySecuringRepaymentOfTheSecurity • RatingChange • FailureToProvideEventFilingInformation • TenderOfferSecondaryMarketPurchases • MergerConsolidationAcquisitionAndSaleOfAllOrSubstantiallyAllAssets • BankruptcyInsolvencyReceivershipOrSimilarEvent • SuccessorAdditionalOrChangeInTrustee • AmendmentToContinuingDisclosureUndertaking • ChangeInObligatedPerson • NoticeToInvestorsPursuantToBondDocuments • CommunicationFromTheInternalRevenueService • BidForAuctionRateOrOtherSecurities • CapitalOrOtherFinancingPlan • LitigationEnforcementAction • ChangeOfTenderAgentRemarketingAgentOrOtherOnGoingParty • DerivativeOrOtherSimilarTransaction • OtherEventVoluntaryInformation • MergerConsolidationReorganizationInsolvencyBankruptcy • ChangeOfTrusteeTenderAgentRemarketingAgentOrOtherOnGoingParty
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XML Container	Data Tag	Definition	Data Specification
			<ul style="list-style-type: none"> • FinancialObligationIncurrence • FinancialObligationEventReflectingFinancialDifficulties
	Asset Backed Disclosure Category	<p>Indicates the asset-based securities disclosure categories to which the filing applies. Only one category may apply to a single filing</p> <p>ex: If the filing is a notice of Other Asset-Backed Securities Disclosure, it cannot apply to initial, quarterly or annual disclosures</p>	<ul style="list-style-type: none"> • InitialAssetBackedSecuritiesDisclosureSECRule15Ga1c1 • QuarterlyAssetBackedSecuritiesDisclosureSECRule15Ga1c2i • AnnualAssetBackedSecuritiesDisclosureSECRule15Ga1c2ii • OtherAssetBackedSecuritiesDisclosure
	Disclosure Sub Category Types	<p>Indicates the disclosure sub category types that apply to the filing. Only applicable for Event Disclosure Categories FinancialObligationIncurrence and FinancialObligationEventReflectingFinancialDifficulties</p>	<p>One or more DisclosureSubCategory can be present with following Name attribute:</p> <ul style="list-style-type: none"> • FinancialObligationIncurrence_DebtObligation • FinancialObligationIncurrence_Guarantee_DebtObligation • FinancialObligationIncurrence_Guarantee_DerivativeInstrument • FinancialObligationIncurrence_DerivativeInstrument • FinancialObligationEventReflectingFinancialDifficulties_Default • FinancialObligationEventReflectingFinancialDifficulties_EventOfAcceleration • FinancialObligationEventReflectingFinancialDifficulties_TerminationEvent • FinancialObligationEventReflectingFinancialDifficulties_ModificationOfTerms • FinancialObligationEventReflectingFinancialDifficulties_Other <p>Ex: see sample xml data messages for New Financial Obligation event/Incurrence</p>
	Other Voluntary Disclosure Description	<p>Indicates the description of a disclosure filing for Financial Operating Disclosure, Event Disclosure or Asset-Backed Securities Disclosure</p>	<p>Type= String{Min1,Max140}</p> <p>ex: Description of a disclosure filing</p>

XML Container	Data Tag	Definition	Data Specification
	Period Type	<p>For Financial Operating Filings and Asset-Backed Securities Filings, is used to indicate the type of period covered by the filing. The period type is used in combination with Disclosure Period</p> <p>ex. PeriodType <YearEnded> <EndingDate, 2008-12-31></p>	<p>Enumerated Value:</p> <ul style="list-style-type: none"> • YearEnded • QuarterEnded • MonthBeginning • OtherPeriodBeginning
	Disclosure Period	<p>For Financial Operating Filings, used in conjunction with Period Type to indicate the applicable beginning and/or end date(s)</p> <p>For Event Filings, used without Period Type to indicate as of date of submitted document if other than the actual date of submission</p> <p>ex: Financial Operating Filing – Audited Financial Statements or ACFR (Rule 15c2-12) – PeriodType <OtherPeriodBeginning> <Beginning Date, 2009-06-31> <Ending Date, 2009-12-31></p> <p>ex: Event Filing – Bond Call -- <DisclosurePeriod AsOfDate="2009-12-31" /></p> <p>ex: Asset-Backed Securities Filing – <DisclosurePeriod PeriodType="OtherPeriodBeginning" BeginningDate="2013/12/31" EndingDate="2014-12-31" /></p>	<p>Attributes:</p> <ul style="list-style-type: none"> • Period Type (see enumerated values above) • AsOfDate (ISODate) ex: 2009-06-31 • BeginningDate (ISODate) ex: 2009-09-30 • EndingDate (ISODate) ex: 2009-12-31
Securities	Security Type	<p>Indicates the disclosure as being CUSIP9 based, Commercial Paper, nonCUSIP (Ineligible for CUSIP Number Assignment) or Municipal Fund Security (529 Plan or Other Municipal Fund Security)</p>	<p>Enumerated Value:</p> <ul style="list-style-type: none"> • CUSIP9 • CommercialPaper • nonCUSIP • MunicipalFundSecurity

XML Container	Data Tag	Definition	Data Specification
	Security	Indicates the nine-digit CUSIP number(s) to which the disclosure applies if the Security Type is CUSIP9, or the six-digit CUSIP6 number(s) if the Security Type is CommercialPaper. If the Security Type is nonCUSIP or Municipal Fund Security, the security descriptors of Issuer Name, Issue Description, Issuer State and Issue Dated Date will be included as appropriate	CUSIP9 String{Min9,Max9} ex: 123456AB7 IF :Security Type is CUSIP9, or CUSIP6 String{Min6,Max6} ex: 123456 IF : Security Type is CommercialPaper
Document	Document Identifier	EMMA-assigned unique identifier for a document of specific document type	Type= String{Min1,Max25} ex: 2535
	Document Status	Indication of the active state of a document consisting of current and archived	Enumerated Value: • Current • Archived • Removed
	Document Posting Date	The date the document was posted to the public on EMMA	Type= ISODate (CCYY-MM-DD) ex: 2008-12-08
	Document Archive Date	The date the document was moved to the EMMA archive	Type= ISODate (CCYY-MM-DD) ex: 2008-12-08
	Document Remove Date	The date the document was removed from a submission on the EMMA continuing disclosure service	Type= ISODate (CCYY-MM-DD) ex: 2008-12-08
File	File Identifier	EMMA-assigned unique identifier for electronic file(s) constituting the submitted document	Type= String{Min1,Max25} ex: MS223986-1
	File Order	If a document consists of more than one electronic file, provides file sequence information	Integer ex: 24
	File Status	Indication of the active state of a file consisting of current and archived	Enumerated Value: • Current • Archived • Removed
	File Posting Date	The date the file was posted to the public on EMMA	Type= ISODate (CCYY-MM-DD) ex: 2008-12-08

XML Container	Data Tag	Definition	Data Specification
	File Archive Date	The date the file was moved to the EMMA archive	Type= ISODate (CCYY-MM-DD) ex: 2008-12-08
	File Remove Date	The date the file was removed from a submission on the EMMA continuing disclosure service	Type= ISODate (CCYY-MM-DD) ex: 2008-12-08
Contact Information	Contact Type	Indicates organization type of contact that the public should contact with questions about the submitted disclosure	Enumerated Value: • Issuer • Obligor
	Contact Organization Name	Full name of the contact organization that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max140} ex: MuniBond Dealer
	Contact First Name	The first name of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max25} ex: Emma
	Contact Last Name	The last name of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max25} ex: Jones
	Contact Title	The title of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max15} ex: 703-555-2222
	Contact Phone Number	The phone number of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max6} ex: 1235
Contact Information	Contact Phone Number Extension	The extension of the phone number (if any) of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max140} ex: 123 Security Road
	Contact Address	The street address or post office box of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max25} ex: Alexandria
	Contact City	The address city of the contact person that the public should contact with questions about the submitted disclosure	Type= String;StateCode;2 (pattern value="[A-Z]{2,2}") ex: VA

XML Container	Data Tag	Definition	Data Specification
	Contact State	The address state of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max15} ex: 22301-5555
	Contact Zip Code	The address zip code of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max50} ex: issuer@issuer.com
	Contact Email Address	The email address of the contact person that the public should contact with questions about the submitted disclosure	Type= String{Min1,Max140} ex: MuniBond Dealer

specVersion

Table 2: CD specVersion Model Comparison

The specVersion parameter is used to specify the subscription model version being requested. The following discussion only applies to specVersion as applied to CD subscription.

specVersion 2.3 will be replacing the Financial Operating Disclosure Category from AuditedFinancialStatementsOrCAFR15c212 to AuditedFinancialStatementsOrACFR15c212. These results can be obtained by specifying 2.3 in the specVersion request parameter.

Below is a summary of the specVersions available via the EMMA CD subscription service.

specVersion (Model Comparisons)		
specVersion	XML Descriptor	Difference
Null or 2.0 (Retired)	Disclosure Types	Does not include enumerated value AssetBackedSecuritiesDisclosure
	Asset-Backed Disclosure Category	N/A
	Event Disclosure Category Types	Does not include enumerated values BankLoanAlternativeFinancingFormerlyVoluntary, FinancialObligationIncurrence and FinancialObligationEventReflectingFinancialDifficulties
2.1 (Retired)	Disclosure Types	Add enumerated value AssetBackedSecuritiesDisclosure
	Asset-Backed Disclosure Category	New enumeration: <ul style="list-style-type: none"> • InitialAssetBackedSecuritiesDisclosureSECRule15Ga1c1 • QuarterlyAssetBackedSecuritiesDisclosureSECRule15Ga1c2i • AnnualAssetBackedSecuritiesDisclosureSECRule15Ga1c2ii • OtherAssetBackedSecuritiesDisclosure
	Event Disclosure Category Types	Does not include enumerated values BankLoanAlternativeFinancingFormerlyVoluntary, FinancialObligationIncurrence and FinancialObligationEventReflectingFinancialDifficulties
2.2	Event Disclosure Category Types	Add new enumeration values: <ul style="list-style-type: none"> • BankLoanAlternativeFinancingFormerlyVoluntary • FinancialObligationIncurrence • FinancialObligationEventReflectingFinancialDifficulties

	Disclosure Sub Category Types	<p>New enumeration:</p> <ul style="list-style-type: none"> • FinancialObligationIncurrence_DebtObligation • FinancialObligationIncurrence_Guarantee_DebtObligation • FinancialObligationIncurrence_Guarantee_DerivativeInstrument • FinancialObligationIncurrence_DerivativeInstrument • FinancialObligationEventReflectingFinancialDifficulties_Default • FinancialObligationEventReflectingFinancialDifficulties_EventOfAcceleration • FinancialObligationEventReflectingFinancialDifficulties_TerminationEvent • FinancialObligationEventReflectingFinancialDifficulties_ModificationOfTerms • FinancialObligationEventReflectingFinancialDifficulties_Other
2.3	Financial Operating Disclosure Category	<p>New enumeration:</p> <ul style="list-style-type: none"> • AuditedFinancialStatementsOrACFR15c212 <p>Removed enumeration</p> <ul style="list-style-type: none"> • AuditedFinancialStatementsOrCAFR15c212

Sample Disclosure Data Messages

Sample XML Data Message – Transaction List

```
"<? xml version="1.0" encoding="utf-16"?>
<ArrayOfEmmaTransaction xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <EmmaTransaction>
    <SubmissionId>X2456945</SubmissionId>
    <PostingDateTime>2014-01-10T14:14:42.640552</PostingDateTime>
  </EmmaTransaction>
  <EmmaTransaction>
    <SubmissionId>X2456946</SubmissionId>
    <PostingDateTime>2014-01-10T14:15:41.109378</PostingDateTime>
  </EmmaTransaction>
  <EmmaTransaction>
    <SubmissionId>X2456947</SubmissionId>
    <PostingDateTime>2014-01-10T14:16:32.953128</PostingDateTime>
  </EmmaTransaction>
  <EmmaTransaction>
    <SubmissionId>X2456948</SubmissionId>
    <PostingDateTime>2014-01-10T14:17:26.906253</PostingDateTime>
  </EmmaTransaction>
  <EmmaTransaction>
    <SubmissionId>X2456949</SubmissionId>
    <PostingDateTime>2014-01-10T14:18:20.203128</PostingDateTime>
  </EmmaTransaction>
  <EmmaTransaction>
    <SubmissionId>X2456950</SubmissionId>
    <PostingDateTime>2014-01-10T14:20:03.156692</PostingDateTime>
  </EmmaTransaction>
</ArrayOfEmmaTransaction>"
```

Sample XML Data Messages – CUSIP9

```
<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-
  instance" SubmissionIdentifier="Q2456919"
  SubmissionStatus="Publish"
  SubmissionTransactionDateTime="2013-10-
  14T12:30:31.871984-04:00"
  xmlns="http://emma.msrb.org/schemas/subscriptionm
  essages/types">

  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure"
      EventDisclosureCategory="AmendmentToContinuing
      DisclosureUndertaking">

      <DisclosurePeriod />
    </Disclosure>
    <Securities SecurityType="CUSIP9">
      <Security CUSIP9="453799AC9" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="MSRB"
    ContactFirstName="TIM" ContactLastName="SMITH"
    ContactPhoneNumber="703-797-6699"
    ContactPhoneNumberExtension="8888"
    ContactAddress="1900 DUCK STREET SUITE 999"
    ContactCity="ALEXANDRIA" ContactState="VA"
    ContactZipCode="20187"
    ContactEMailAddress="emma@msrb.org" />
  <Document DocumentIdentifier="Q2414399" DocumentStatus="Current"
    DocumentPostingDate="2013-10-14">
    <UnderlyingFiles>
      <File FileIdentifier="Q2811179" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
      10-14" />
    </UnderlyingFiles>
  </Document>
</ContinuingDisclosureSubmission>
```

Sample XML Data Messages – CUSIP9 with New Financial Obligation Event Reflecting Financial Difficulties

```

<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" SubmissionIdentifier="EA494401"
SubmissionStatus="Publish" SubmissionTransactionDateTime="2018-10-03T12:02:22.408377-
04:00">
  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure"
EventDisclosureCategory="FinancialObligationEventReflectingFinancialDifficulties"
OtherVoluntaryDisclosureDescription="some desc">
      <DisclosurePeriod AsOfDate="2013-05-07" />
      <DisclosureSubCategory
Name="FinancialObligationEventReflectingFinancialDifficulties_Default" />
      <DisclosureSubCategory
Name="FinancialObligationEventReflectingFinancialDifficulties_EventOfAcceleration" />
    </Disclosure>
    <Securities SecurityType="CUSIP9">
      <Security CUSIP9="010410PK8" />
      <Security CUSIP9="010410PM4" />
      <Security CUSIP9="010410PP7" />
      <Security CUSIP9="010410PR3" />
      <Security CUSIP9="010410PT9" />
      <Security CUSIP9="010410PV4" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="DEALER-ORG-01"
ContactFirstName="DEALER1" ContactLastName="TESTER" ContactPhoneNumber="703-797-
6600" ContactPhoneNumberExtension="1234" ContactAddress="1900 Duke Street"
ContactCity="Alexandria" ContactState="VA" ContactZipCode="22314"
ContactEMailAddress="dealer1@msrb.org" />
  <Document DocumentIdentifier="EA456689" DocumentStatus="Current"
DocumentPostingDate="2018-10-03">
    <UnderlyingFiles>
      <File FileIdentifier="EA852591" FileOrder="1" FileStatus="Current" FilePostingDate="2018-
10-03" />
    </UnderlyingFiles>
  </Document>
</ContinuingDisclosureSubmission>

```

Sample XML Data Messages – CUSIP9 with New Financial Obligation Event

```

<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" SubmissionIdentifier="EA494401"
SubmissionStatus="Publish" SubmissionTransactionDateTime="2018-10-03T12:02:22.408377-
04:00">
  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure"
EventDisclosureCategory="FinancialObligationEventReflectingFinancialDifficulties"
OtherVoluntaryDisclosureDescription="some desc">
      <DisclosurePeriod AsOfDate="2013-05-07" />
      <DisclosureSubCategory
Name="FinancialObligationEventReflectingFinancialDifficulties_Default" />
      <DisclosureSubCategory
Name="FinancialObligationEventReflectingFinancialDifficulties_EventOfAcceleration" />
    </Disclosure>
    <Securities SecurityType="CUSIP9">
      <Security CUSIP9="010410PK8" />
      <Security CUSIP9="010410PM4" />
      <Security CUSIP9="010410PP7" />
      <Security CUSIP9="010410PR3" />
      <Security CUSIP9="010410PT9" />
      <Security CUSIP9="010410PV4" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="DEALER-ORG-01"
ContactFirstName="DEALER1" ContactLastName="TESTER" ContactPhoneNumber="703-797-
6600" ContactPhoneNumberExtension="1234" ContactAddress="1900 Duke Street"
ContactCity="Alexandria" ContactState="VA" ContactZipCode="22314"
ContactEMailAddress="dealer1@msrb.org" />
  <Document DocumentIdentifier="EA456689" DocumentStatus="Current"
DocumentPostingDate="2018-10-03">
    <UnderlyingFiles>
      <File FileIdentifier="EA852591" FileOrder="1" FileStatus="Current" FilePostingDate="2018-
10-03" />
    </UnderlyingFiles>
  </Document>
</ContinuingDisclosureSubmission>

```

Sample XML Data Message – Commercial Paper

```
<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-
    instance" SubmissionIdentifier="EA456993"
    SubmissionStatus="Publish"
    SubmissionTransactionDateTime="2013-08-
    29T10:15:51.7975-04:00"
    xmlns="http://emma.msrb.org/schemas/subscriptionm
    essages/types">

    <DisclosureIndexingData>
        <Disclosure DisclosureType="EventBasedDisclosure"
            EventDisclosureCategory="BidForAuctionRateOrOth
            erSecurities">

            <DisclosurePeriod />
        </Disclosure>
        <Securities SecurityType="CommercialPaper">
            <Security CUSIP6="99999A" IssueDatedDate="2012-12-12" />
        </Securities>
    </DisclosureIndexingData>
    <ContactInformation ContactType="Submitter" ContactOrganizationName="Municipal Securities
        Rulemaking Board" ContactFirstName="MARKET"
        ContactLastName="INFORMATION"
        ContactPhoneNumber="202-838-1500"
        ContactAddress="1900 DUKE STREET"
        ContactCity="ALEXANDRIA" ContactState="VA"
        ContactZipCode="22314"
        ContactEMailAddress="emma@msrb.org" />
    <Document DocumentIdentifier="EA419984" DocumentStatus="Current"
        DocumentPostingDate="2013-08-27">
        <UnderlyingFiles>
            <File FileIdentifier="EA899952" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
            08-27" />
        </UnderlyingFiles>
    </Document>
</ContinuingDisclosureSubmission>
```


Sample XML Data Message – Ineligible for CUSIP Number Assignment (non-CUSIP)

```

<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" SubmissionIdentifier="EA453556"
    SubmissionStatus="Publish"
    SubmissionTransactionDateTime="2013-05-14T10:11:18.080295-04:00"
    xmlns="http://emma.msrb.org/schemas/subscriptionmessages/types">
  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure" EventDisclosureCategory="BondCall">
      <DisclosurePeriod />
    </Disclosure>
    <Securities SecurityType="nonCUSIP">
      <Security IssuerName="NORTH CENTRAL EMMA HOUSING FINANCE CORPORATION"
        IssueDescription="MULTIFAMILY HOUSING REVENUE BONDS&#xA;(EMMA SENIORS
        COMMUNITY PROJECT) SERIES 2001A"
        IssuerState="VA" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="Fiduciary
    Communications Company" ContactFirstName="EZ"
    ContactLastName="DISCLOSE"
    ContactPhoneNumber="703-803-9999"
    ContactAddress="ONE STATE STREET PLAZA
    25TH FLR" ContactCity="RICHMOND"
    ContactState="VA" ContactZipCode="99999"
    ContactEmailAddress="ezdisclose@sourcemia.comz" />
  <Document DocumentIdentifier="EA410209" DocumentStatus="Current"
    DocumentPostingDate="2013-05-14">
    <UnderlyingFiles>
      <File FileIdentifier="EA807557" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
        05-14" />
    </UnderlyingFiles>
  </Document>
</ContinuingDisclosureSubmission>

```

Sample XML Data Message – 529 College Savings Plan

```
<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-
  instance" SubmissionIdentifier="EA456917"
  SubmissionStatus="Publish"
  SubmissionTransactionDateTime="2013-09-
  06T15:31:32.97925-04:00"
  xmlns="http://emma.msrb.org/schemas/subscriptionm
  essages/types">

  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure"
      EventDisclosureCategory="AmendmentToContinuing
      DisclosureUndertaking">

      <DisclosurePeriod />
    </Disclosure>
    <Securities SecurityType="MunicipalFundSecurity">
      <Security IssuerName="STATE OF MINNESOTA" IssueDescription="MINNESOTA
      COLLEGE SAVINGS PLAN" IssuerState="MN" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="ISSUER-CDONLY-
  01" ContactFirstName="PMO"
  ContactLastName="TESTER"
  ContactPhoneNumber="202-838-1500"
  ContactPhoneNumberExtension="1234"
  ContactAddress="1900 DUKE STREET"
  ContactCity="ALEXANDRIA" ContactState="VA"
  ContactZipCode="22314"
  ContactEmailAddress="scook@msrb.org" />
  <Document DocumentIdentifier="EA414318" DocumentStatus="Current"
  DocumentPostingDate="2013-09-06">
    <UnderlyingFiles>
      <File FileIdentifier="EA811199" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
      09-06" />
    </UnderlyingFiles>
  </Document>
</ContinuingDisclosureSubmission>
```

Sample XML Data Message – Other Municipal Fund Security

```

<?xml version="1.0" encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
                               xmlns:xsi="http://www.w3.org/2001/XMLSchema-
                               instance" SubmissionIdentifier="EP602295"
                               SubmissionStatus="Publish"
                               SubmissionTransactionDateTime="2013-03-
                               22T19:21:35.418248-04:00"
                               xmlns="http://emma.msrb.org/schemas/subscriptionm
                               essages/types">
  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure"
                EventDisclosureCategory="RatingChange"
                OtherVoluntaryDisclosureDescription="DOWN
                GRADE">
      <DisclosurePeriod />
    </Disclosure>
    <Securities SecurityType="MunicipalFundSecurity">
      <Security IssuerName="CALIFORNIA ST ASSET MANAGEMENT PROG"
                IssueDescription="CAMP POOL" IssuerState="CA" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="BNY Mellon"
                    ContactFirstName="SHEILA"
                    ContactLastName="SNOWDEN"
                    ContactPhoneNumber="213-630-6236"
                    ContactAddress="BANK OF MELLON NY TRUST
                    CO., N.A. 400 SOUTH HOPE ST." ContactCity="LOS
                    ANGELES" ContactState="CA"
                    ContactZipCode="90071"
                    ContactEmailAddress="sheila.snowden@bnymellon.c
                    omz" />
  <Document DocumentIdentifier="EP575818" DocumentStatus="Current"
            DocumentPostingDate="2013-03-22">
    <UnderlyingFiles>
      <File FileIdentifier="EP977299" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
            03-22" />
    </UnderlyingFiles>
  </Document>
  <Document DocumentIdentifier="EP575899" DocumentStatus="Current"
            DocumentPostingDate="2013-03-22">
    <UnderlyingFiles>
      <File FileIdentifier="EP977299" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
            03-22" />
    </UnderlyingFiles>
  </Document>
</ContinuingDisclosureSubmission>

```

Sample SOAP Messages

SOAP Request Message – Get Transactions

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetTransactions</a:Action>
    <a:MessageID>urn:uuid:10e93c71-fa08-4729-a81d-
5a6ce56cd71b</a:MessageID>
    <a:ReplyTo>

      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
      </a:ReplyTo>
      <a:To s:mustUnderstand="1">https:// emmaservices
/SubscriberServices/EmmaSubscriptionService.svc/regulator</a:To>
      <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
        <u:Timestamp u:Id="#_0">
          <u:Created>2014-02-14T15:19:36.055Z</u:Created>
          <u:Expires>2014-02-14T15:24:36.055Z</u:Expires>
        </u:Timestamp>
        <c:SecurityContextToken u:Id="uuid-8a119f90-be65-4406-a6d2-
6131f8e9a308-1" xmlns:c="http://schemas.xmlsoap.org/ws/2005/02/sc">
          <c:Identifier>urn:uuid:32bcf390-4019-4b03-b483-
de99bfd2434f</c:Identifier>
          </c:SecurityContextToken>
          <Signature xmlns="http://www.w3.org/2000/09/xmldsig#">
            <SignedInfo>
              <CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"></CanonicalizationMethod>
              <SignatureMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#hmac-sha1"></SignatureMethod>
              <Reference URI="#_0">
                <Transforms>
                  <Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"></Transform>
                </Transforms>
                <DigestMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#sha1"></DigestMethod>
                <DigestValue>j2n1HKcb1N0J2XdBHh4h8PyHEK0=</DigestValue>
                </Reference>
              </SignedInfo>

              <SignatureValue>9wZqUdQaKFqTO3AebPt8mOpfq1w=</SignatureValue>
              <KeyInfo>
                <o:SecurityTokenReference>
                  <o:Reference
ValueType="http://schemas.xmlsoap.org/ws/2005/02/sc/sct" URI="#uuid-8a119f90-be65-4406-
a6d2-6131f8e9a308-1"></o:Reference>
                </o:SecurityTokenReference>
              </KeyInfo>
            </Signature>
          </o:Security>
        </s:Header>
        <s:Body>

```

```
<GetTransactions xmlns="http://tempuri.org/">
  <submissionType>CD</submissionType>
  <postingDate>2014-02-13T00:00:00</postingDate>
  <specVersion>2.1</specVersion>
</GetTransactions>
</s:Body>
</s:Envelope>
```

(NOTE: specVersion 2.1 indicates the subscriber is requesting base (Event & Financial Operating) disclosure filings as well as Asset-Backed Securities disclosure filings. If the specVersion parameter is 2.0 or is NULL, base disclosure filings will be returned excluding Asset_Backed Securities disclosure filings.

SOAP Response Message – Return Transaction List

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetTransactionsResponse<
/a:Action>
      <ActivityId CorrelationId="86956f83-8153-47ef-9fcc-45c61d92d517"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">400048ec-5995-44ed-
8e2c-3c0654744ecc</ActivityId>
      <a:RelatesTo>urn:uuid:10e93c71-fa08-4729-a81d-5a6ce56cd71b</a:RelatesTo>
      <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
        <u:Timestamp u:Id="_0">
          <u:Created>2014-02-14T15:19:37.361Z</u:Created>
          <u:Expires>2014-02-14T15:24:37.361Z</u:Expires>
        </u:Timestamp>
      </o:Security>
    </s:Header>
    <s:Body>
      <GetTransactionsResponse xmlns="http://tempuri.org/">
        <GetTransactionsResult
xmlns:b="http://schemas.datacontract.org/2004/07/SubscriberServices.ViewModels"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
          <b:RequestId>bd49cbc6-19fa-42d5-8c9e-
1d42874bbfb5</b:RequestId>
          <b:RequestedPostingDate>2014-02-
13T00:00:00</b:RequestedPostingDate>
          <b:RequestedSubmissionType>PM</b:RequestedSubmissionType>
          <b:StatusCode>200</b:StatusCode>
          <b:Transactions>
            <b:EmmaTransaction>
              <b:PostingDateTime>2014-02-
13T15:06:11.765471</b:PostingDateTime>
              <b:SubmissionId>X2457377</b:SubmissionId>
            </b:EmmaTransaction>
          </b:Transactions>
        </GetTransactionsResult>
      </GetTransactionsResponse>
    </s:Body>
  </s:Envelope>

```

SOAP Request Message – Get Transaction

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetTransaction</a:Action>
    <a:MessageID>urn:uuid:28c673c5-bc51-4328-8164-
5f1facac0c55</a:MessageID>
    <a:ReplyTo>

    <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
    <a:To s:mustUnderstand="1">https:// SubscriberServices
/SubscriberServices/EmmaSubscriptionService.svc/regulator</a:To>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <u:Timestamp u:Id="_0">
        <u:Created>2014-02-14T16:00:26.675Z</u:Created>
        <u:Expires>2014-02-14T16:05:26.675Z</u:Expires>
      </u:Timestamp>
      <c:SecurityContextToken u:Id="uuid-a3382ec4-feac-4655-801c-
05e31799db60-3" xmlns:c="http://schemas.xmlsoap.org/ws/2005/02/sc">
        <c:Identifier>urn:uuid:9ee66f39-1c88-4b9e-b6e7-
91df2192f8e8</c:Identifier>
        </c:SecurityContextToken>
        <Signature xmlns="http://www.w3.org/2000/09/xmldsig#">
          <SignedInfo>
            <CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"></CanonicalizationMethod>
            <SignatureMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#hmac-sha1"></SignatureMethod>
            <Reference URI="#_0">
              <Transforms>
                <Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"></Transform>
              </Transforms>
            </Reference>
            <DigestMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#sha1"></DigestMethod>
          </SignedInfo>
          <DigestValue>8hnNnopqij5cT6MbQnGe1AR4eU4=</DigestValue>
        </Signature>
        <SignatureValue>dxB5un/Q1/iMI0UcLwt7mxNnRPQ=</SignatureValue>
        <KeyInfo>
          <o:SecurityTokenReference>
            <o:Reference
ValueType="http://schemas.xmlsoap.org/ws/2005/02/sc/sct" URI="#uuid-a3382ec4-feac-4655-
801c-05e31799db60-3"></o:Reference>
          </o:SecurityTokenReference>
        </KeyInfo>
      </Signature>
    </o:Security>
  </s:Header>
  <s:Body>
    <GetTransaction xmlns="http://tempuri.org/">

```

```
</s:Body>
</s:Envelope>
<submissionType>CD</submissionType>
<postingDateTime>2014-02-13T15:06:11</postingDateTime>
<submissionId>X2457377</submissionId>
<specVersion>2.1</specVersion> </GetTransaction>
```


SOAP Response Message – Return Transaction Data

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetTransactionResponse</
a:Action>
    <ActivityId CorrelationId="918e8838-d4ea-40b3-afd8-bd8834f63c79"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">63d52b7d-6b6f-46aa-
b2e0-f9cbbd0a9949</ActivityId>
    <a:RelatesTo>urn:uuid:28c673c5-bc51-4328-8164-5f1facac0c55</a:RelatesTo>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <u:Timestamp u:Id="_0">
        <u:Created>2014-02-14T16:00:27.065Z</u:Created>
        <u:Expires>2014-02-14T16:05:27.065Z</u:Expires>
      </u:Timestamp>
    </o:Security>
  </s:Header>
  <s:Body>
    <GetTransactionResponse xmlns="http://tempuri.org/">
      <b:RequestId>508381b9-2f99-41bf-937e-
3a477f36b164</b:RequestId>
      <b:RequestedPostingDateTime>2014-02-
13T15:06:11</b:RequestedPostingDateTime>
      <b:RequestedSubmissionId>Q2457317</b:RequestedSubmissionId>
      <b:RequestedSubmissionType>CD</b:RequestedSubmissionType>
      <b:ReturnData><?xml version="1.0"
encoding="utf-16"?>
<ContinuingDisclosureSubmission xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" SubmissionIdentifier="Q2456919"
SubmissionStatus="Publish"
SubmissionTransactionDateTime="2013-10-
14T12:30:31.871984-04:00"
xmlns="http://emma.msrb.org/schemas/subscriptionm
essages/types">
  <DisclosureIndexingData>
    <Disclosure DisclosureType="EventBasedDisclosure"
EventDisclosureCategory="AmendmentToContinuing
DisclosureUndertaking">
      <DisclosurePeriod />
    </Disclosure>
    <Securities SecurityType="CUSIP9">
      <Security CUSIP9="453799AC9" />
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Submitter" ContactOrganizationName="MSRB"
ContactFirstName="TIM" ContactLastName="SMITH"
ContactPhoneNumber="703-797-6699"
ContactPhoneNumberExtension="8888"
ContactAddress="1900 DUCK STREET SUITE 999"
ContactCity="ALEXANDRIA" ContactState="VA"
ContactZipCode="20187"
ContactEMailAddress="emma@msrb.org" />
  <Document DocumentIdentifier="Q2414399" DocumentStatus="Current"

```

```
DocumentPostingDate="2013-10-14">
  <UnderlyingFiles>
    <File FileIdentifier="Q2811179" FileOrder="1" FileStatus="Current" FilePostingDate="2013-
      10-14" />
  </UnderlyingFiles>
</Document>
</ContinuingDisclosureSubmission></b:ReturnData>
  <b:StatusCode>200</b:StatusCode>
  <GetTransactionResult
xmlns:b="http://schemas.datacontract.org/2004/07/SubscriberServices.ViewModels"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
    </GetTransactionResult>
  </GetTransactionResponse>
</s:Body>
</s:Envelope>
```

SOAP Request Message – Get Document File

```

xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetFile</a:Action>
    <a:MessageID>urn:uuid:ac83a5e7-2b04-40d9-b057-
35088f10cfa6</a:MessageID>
    <a:ReplyTo>
      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
    <a:To
s:mustUnderstand="1">https://localhost/SubscriberServices/EmmaSubscriptionService.svc/regul
ator</a:To>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <u:Timestamp u:Id="_0">
        <u:Created>2014-02-18T12:39:08.844Z</u:Created>
        <u:Expires>2014-02-18T12:44:08.844Z</u:Expires>
      </u:Timestamp>
      <c:SecurityContextToken u:Id="uuid-85419c92-6d0c-4c44-b3f9-
7ec29e332d60-1" xmlns:c="http://schemas.xmlsoap.org/ws/2005/02/sc">
        <c:Identifier>urn:uuid:634f54cd-2dfe-4cd3-9b90-
02bd2206a135</c:Identifier>
        <c:SecurityContextToken>
          <Signature xmlns="http://www.w3.org/2000/09/xmldsig#">
            <SignedInfo>
              <CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"></CanonicalizationMethod>
              <SignatureMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#hmac-sha1"></SignatureMethod>
              <Reference URI="#_0">
                <Transforms>
                  <Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"></Transform>
                </Transforms>
              <DigestMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#sha1"></DigestMethod>
                <DigestValue>3Lu4aDUYzAv3PDw/S5PWW1HuOfM=</DigestValue>
              </Reference>
            </SignedInfo>
            <SignatureValue>PbKzew2ZS/n3JbMEr0IkMjB690Y=</SignatureValue>
            <KeyInfo>
              <o:SecurityTokenReference>
                <o:Reference
ValueType="http://schemas.xmlsoap.org/ws/2005/02/sc/sct" URI="#uuid-85419c92-6d0c-4c44-
b3f9-7ec29e332d60-1"></o:Reference>
              </o:SecurityTokenReference>
            </KeyInfo>
          </Signature>
        </c:SecurityContextToken>
      </o:Security>
    </s:Header>
    <s:Body>
      <GetFile xmlns="http://tempuri.org/">
        <fileId>EA617326</fileId>
      </GetFile>

```

</s:Body>
</s:Envelope>

SOAP Response Message – Return Document File

<!-- Response to a file request is the file itself. -->

SOAP Response Message – Error Return - Transaction

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetTransactionsResponse<
/a:Action>
      <ActivityId CorrelationId="8b551dc0-3e11-4001-87c2-6d8cedbda658"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">923b5357-8e00-45a1-
8c05-6bd7e8b33af4</ActivityId>
      <a:RelatesTo>urn:uuid:d1ebc3e1-5627-4eaf-893f-1a6500029f7b</a:RelatesTo>
      <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
        <u:Timestamp u:Id="_0">
          <u:Created>2014-02-14T17:59:17.608Z</u:Created>
          <u:Expires>2014-02-14T18:04:17.608Z</u:Expires>
        </u:Timestamp>
      </o:Security>
    </s:Header>
    <s:Body>
      <GetTransactionsResponse xmlns="http://tempuri.org/">
        <GetTransactionsResult
xmlns:b="http://schemas.datacontract.org/2004/07/SubscriberServices.ViewModels"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
          <b:RequestId>46ac4110-ce41-4165-99ce-
b13830318051</b:RequestId>
          <b:RequestedPostingDate>2013-05-
28T00:00:00</b:RequestedPostingDate>
          <b:RequestedSubmissionType>C4</b:RequestedSubmissionType>
          <b:StatusCode>400</b:StatusCode>
          <b:Transactions i:nil="true"></b:Transactions>
        </GetTransactionsResult>
      </GetTransactionsResponse>
    </s:Body>
  </s:Envelope>
```

SOAP Response Message – Error Return - File

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetFileFileRetrievalFaultFa
ult</a:Action>
    <a:RelatesTo>urn:uuid:69604772-b4cd-48f2-9dff-083aaa381ae0</a:RelatesTo>
    <ActivityId CorrelationId="ced1dba1-8213-4f90-b12c-885766dc1a29"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">7fd160ea-a5ad-4058-
ae4f-6859dca6715b</ActivityId>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <u:Timestamp u:Id="_0">
        <u:Created>2014-02-14T18:02:02.443Z</u:Created>
        <u:Expires>2014-02-14T18:07:02.443Z</u:Expires>
      </u:Timestamp>
    </o:Security>
  </s:Header>
  <s:Body>
    <s:Fault>
      <s:Code>
        <s:Value>s:Sender</s:Value>
      </s:Code>
      <s:Reason>
        <s:Text xml:lang="en-US">The creator of this fault did not
specify a Reason.</s:Text>
      </s:Reason>
      <s:Detail>
        <FileRetrievalFault
xmlns="http://schemas.datacontract.org/2004/07/SubscriberServices"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
          <RequestedFileId>EA617356</RequestedFileId>
          <StatusCode>404</StatusCode>
        </FileRetrievalFault>
      </s:Detail>
    </s:Fault>
  </s:Body>
</s:Envelope>

```

SOAP Response Message – Error Return – Authentication Failed

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IEmmaSubscriptionService/GetTransactionsResponse<
/a:Action>
    <ActivityId CorrelationId="8b551dc0-3e11-4001-87c2-6d8cedbda658"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">923b5357-8e00-45a1-
8c05-6bd7e8b33af4</ActivityId>
    <a:RelatesTo>urn:uuid:d1ebc3e1-5627-4eaf-893f-1a6500029f7b</a:RelatesTo>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <u:Timestamp u:Id="_0">
        <u:Created>2014-02-14T17:59:17.608Z</u:Created>
        <u:Expires>2014-02-14T18:04:17.608Z</u:Expires>
      </u:Timestamp>
    </o:Security>
  </s:Header>
  <s:Body>
    <GetTransactionsResponse xmlns="http://tempuri.org/">
      <GetTransactionsResult
xmlns:b="http://schemas.datacontract.org/2004/07/SubscriberServices.ViewModels"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <b:RequestId>46ac4110-ce41-4165-99ce-
b13830318051</b:RequestId>
        <b:RequestedPostingDate>2013-05-
28T00:00:00</b:RequestedPostingDate>
        <b:RequestedSubmissionType>CD</b:RequestedSubmissionType>
        <b:StatusCode>401</b:StatusCode>
        <b:Transactions i:nil="true"></b:Transactions>
      </GetTransactionsResult>
    </GetTransactionsResponse>
  </s:Body>
</s:Envelope>

```

Response Messages

Table 3: EMMA Subscription Response Codes

EMMA will generally follow the standard published Hypertext Transfer Protocol (HTTP) response status codes when reporting the status of subscription requests. Listed below are typical EMMA response codes, with descriptions based on specific situations, however, other application specific codes may be returned from time to time without prior notice.

Subscription Response Codes EMMA Subscription Web Service Interface	
Response Code	Description
200	OK
400	Request is not parse-able or bad request
401	Authentication Failed
402	The request is outside the look-back window
403	You are not authorized to subscribe to the submission type requested.
404	Not Found - the reference provided is valid
429	Request frequency violation – as applicable
500	System Error
550	Not Found - the file requested is not found