



The Official Source for Municipal Disclosures and Market Data

Specifications for the EMMA Continuing Disclosure Submission Services

Version 1.5, August 2015

Revision History

Version	Date	Description of Changes
1.0	June 2009	Initial version.
1.1	May 2010	Compiled into single document.
1.2	June 2010	<ul style="list-style-type: none"> • General corrections. • Figure 3 corrected to full table view.
1.3	August 2010	<p>Document Types, Event-Based Disclosures, 15c2-12 Based Continuing Disclosures (Material Event Notices) & Additional/Voluntary Continuing Disclosures updated for 15c2-12 changes, including</p> <ul style="list-style-type: none"> • Data Message, disclosure indexing data, event • disclosure category listing for 15c212 changes • Figure 1 – processing overview • Figure 2 – Event Disclosure Category Type enumerated set for 15c212 • Figure 3 – 15c212 Event Disclosure • Categories
1.4	January 2015	<p>Asset-Backed Securities Disclosure Filings:</p> <ul style="list-style-type: none"> • Document Types • Submission Process and Disclosure Types • Data Message – Disclosure Indexing Data • Figure 2 – Data Message, Document Message & Type Definition Schemas • ContinuingDisclosureService_2.xsd • Subscription Data Tags: Disclosure Type, Disclosure Category, Period Type • Figure 3: Data Tab Glossary • Figure 4: Disclosure Document Period Specifications • Figure 5: Validation Response Messages • Figure 7: Sample Data & Document XML Messages
1.5	August 2015	Updated the Resources and Support section to reflect the change in hours of operation for Email Support.

Resources and Support

MSRB Website: 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

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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.

The EMMA Continuing Disclosure Service receives submissions of continuing disclosure documents, together with related indexing information, to allow the public to readily identify and access such documents from issuers, obligated persons and their agents pursuant to continuing disclosure undertakings with the Securities and Exchange Commission Rule 15c2-12. The MSRB also accepts and makes publicly available voluntary electronic submissions of continuing disclosure documents not set forth in Rule 15c2-12. This document contains the specifications for automated submission interface of the continuing disclosure service on EMMA.

Specifications for the Continuing Disclosure Submission Service

Web Service Interface

The MSRB has an exposed web service interface allowing for the submission of SOAP (Simple Object Access Protocol) standard XML (extensible markup language) messages and PDF (portable document format) documents using secure, computer-to-computer communications. This interface is remotely consumed by applications written by or for submitters in a wide variety of programming languages and running on a wide variety of platforms. Submitters using the automated submission interface will connect to the web service interface as follows:


The URL for continuing disclosure submissions (production interface) is:

<https://services.emma.msrb.org/DisclosureServices/ContinuingDisclosureService.svc>

Test Web Service Interface

The beta version of the automated submission interface serves as a platform for potential submitters to conduct tests and ensure proper programming and configuration of their applications for making submissions to the EMMA continuing disclosure service.

Test submissions made through the beta platform are not published on the EMMA web portal and will not be disseminated through the continuing disclosure subscription service. Documents submitted to the beta site will be available for other test submitters to view and will be made available to test subscribers.

 Submitters using the beta site for testing should use actual disclosure documents when possible in order to better replicate the actual submission process. The same document may be uploaded multiple times for testing purposes.

The URL for the beta automated platform of the continuing disclosure submission interface is:

<https://servicesbeta.emma.msrb.org/DisclosureServices/ContinuingDisclosureService.svc>

Submitting Continuing Disclosures

All submissions are made through password protected accounts established through the MSRB's Gateway. MSRB Gateway is accessible via the MSRB's website at <http://www.msrb.org> or on the EMMA website at emma.msrb.org.

Information about continuing disclosure submissions to the EMMA continuing disclosure service is available in [the MSRB Gateway Continuing Disclosure Submission Manual](#):

Document Types

The automated submission interface allows submitters to select from a number of categories of continuing disclosure documents for purposes of indexing submissions. These categories are divided into three types: Financial/Operating Data Disclosures, Event-Based Disclosures and Asset-Backed Security Disclosures.

Financial/Operating Data Disclosures

The following are categorized as Financial/Operating Data Disclosures:

15c2-12 Based Continuing Disclosures

- Annual financial information & operating data (Rule 15c2-12)
- Audited financial statements or CAFR (Rule 15c2-12)
- Failure to provide annual financial information as required

Additional/Voluntary Continuing Disclosures

- 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

Event-Based Disclosures

The following are categorized as Event-Based Disclosures:

15c2-12 Based Continuing Disclosures (Material Event Notices)

- 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

Additional/Voluntary Continuing Disclosures

- 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

Asset-Backed Securities Disclosure

The following category will be available under this type of submission:

15Ga-1 Based Continuing Disclosures

- Initial Asset-Backed Securities Disclosure (SEC Rule 15Ga-1(c)(1))
- Quarterly Asset-Backed Securities Disclosure (SEC Rule 15Ga-1(c)(2)(i))
- Annual Asset-Backed Securities Disclosure (SEC Rule 15Ga-1(c)(2)(ii))
- Other Asset-Backed Securities Disclosure (e.g., notice of termination of duty to file reports pursuant to SEC Rule 15Ga-1(c)(3))

Document Format

All continuing disclosure documents are accepted solely as PDF files configured to permit documents to be saved, viewed, printed and retransmitted by electronic means. If the submitted file is a reproduction of the original document, the submitted file must maintain the graphical and textual integrity of the original document. The MSRB also requires that such PDF files be word-searchable (that is, allowing the user to search for specific terms used within the document through a search or find function available in most standard software packages). Diagrams, images and other non-textual elements are not required to be word-searchable.

Submission Process and Disclosure Types

Each submission through the automated submission interface will consist of two messages – a data message and a document message, as described below. The automated submission interface accepts four disclosure types:

Financial/operating data disclosure

This disclosure type is used to submit financial/operating data disclosure documents and related indexing data.

Event-based disclosure

This disclosure type is used to submit event-based disclosure documents and related indexing data.

Asset-Backed Securities disclosure

This disclosure type is used to submit asset-backed securities disclosure documents identified in SEC Rule 15Ga-1 and related indexing data.

Un-indexed disclosure under pre-July 1, 2009 continuing disclosure undertaking

This disclosure type is available solely for a Rule 15c2-12-based continuing disclosure submissions made pursuant to a continuing disclosure undertaking entered into prior to July 1, 2009 in which the issuer, obligated person or its agent elects to withhold indexing information, to the extent permitted under the Rule 15c2-12 Amendment Approval.¹ This disclosure type is not available for additional/voluntary continuing disclosures.



To ensure that submitted documents can be located by interested users, submitters are strongly encouraged to make all submissions with full indexing information as financial/operating data or event-based disclosures regardless of when the continuing disclosure undertaking was entered into.

Overview of Message Processing, Schemas and Data Tags

This document contains a series of figures and tables providing more detailed information about the automated submission interface process.

- A message processing overview is included in Figure 1.
- XML schemas for data messages and document messages, together with a type definition schema, are included in Figure 2.
- A data tag glossary is provided in Figure 3.

¹ See footnote 145 of the Rule 15c2-12 Amendment Approval, *supra* note 2.

- Period type and date specifications for each category of continuing disclosure is provided in Figure 4.
- A table of validation response messages is included in Figure 5.

In connection with each submission of a continuing disclosure document, the submitter would sequence its submission of messages such that the data message would be submitted prior to the related document message. Upon successful submission of the document message through the automated submission interface, EMMA provides a response message that includes, among other things, a submission identifier that the submitter would include in the related document message. The document message would then be submitted through the automated submission interface. A submitter making bulk submissions may alternate submissions between data messages and document messages to maintain the appropriate sequencing, or may stream multiple data messages and subsequently stream multiple document messages, or may choose such other submission protocol as it may determine, depending on the submitter's preferences, so long as such protocol ensures the proper matching of submission identifiers generated from data submissions with the related document submissions.

Data Message

Data is submitted through the automated submission interface as SOAP messages. Data elements submitted in a data message are organized in a hierarchical relationship into the following categories: (i) submission data; (ii) disclosure indexing data; and (iii) contact information data. These categories, and the available data tags applicable to each category, are included in Figure 3. Each message also must include a header containing an authentication token and web services protocol support, as illustrated in Figure 6. Sample XML data messages are included in Figure 7.

The data elements available for a data message, together with the value to be selected or entered, would be as follows:²

Submission data

- (i) Submission status (select 'publish')
- (ii) Submission identifier (if modifying a prior submission, enter ID of prior submission)

Disclosure indexing data

- (i) Disclosure type (select 'financial/operating data disclosure', 'event-based disclosure', 'asset-backed security disclosure', 'disclosure without indexing information for pre-July 1, 2009 undertaking')

² Data elements and enumerated values from which specific selections are to be made are more fully described in the data tag glossary in Figure 3.

- (ii) Financial/operating disclosure category (select all that apply from: 'annual financial information/operating data under Rule 15c2-12', 'audited financial statements or CAFR 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 (select all that apply 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' 'amendment to continuing disclosure undertaking', 'change in obligated person', 'notice to investor pursuant to bond documents', 'communication from the Internal Revenue Service', 'tender offer/secondary market purchases', 'bid for auction rate or other securities', 'capital or other financing plan', 'litigation or enforcement action', 'merger/ consolidation/ reorganization/ insolvency/bankruptcy', 'change of trustee, tender agent, remarketing agent, or other on-going party', 'derivative or other similar transaction', 'other event-based disclosures')
- (iv) Asset-backed securities disclosure category (select only one that apply 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) Other voluntary disclosure description (for financial/operating data disclosures , event-based disclosures, or asset-backed securities disclosures, enter description)
- (vi) Period type (for financial/operating disclosure with dates expressed as a range, select 'year ended', 'quarter ended', 'month beginning', 'other period beginning')
- (vii) Period type (for all asset-backed securities disclosure categories, only select 'other period beginning')
- (viii) Disclosure period (for financial/operating disclosure, enter date(s) on an 'as of date', 'beginning date' or 'ending date' basis; period type 'other period beginning' includes both 'beginning date' and 'ending date' – optional for event disclosure, with 'as of date' entered if document date is different from date submitted to EMMA)
- (ix) Disclosure period (for all asset-backed securities disclosure categories, enter period dates with 'beginning date' and 'ending date' for 'other period beginning')

Securities indexing data

- (i) Security type (select 'CUSIP-9', 'commercial paper')
- (ii) CUSIP-6 securities pointer (number(s) – disclosure applicable to all nine-digit CUSIP numbers beginning with this six digits)
- (iii) Security (for security type 'CUSIP-9,' enter nine-digit CUSIP number(s) to which disclosure is applicable)
- (iv) Security (for security type 'commercial paper,' enter six-digit CUSIP number to which commercial paper disclosure is applicable)

Contact information data

- (i) Contact type (select 'issuer', 'obligated person')
- (ii) Contact organization name (enter full name of organization to contact regarding submitted disclosure)
- (iii) Contact first name (enter first name of contact person)
- (iv) Contact last name (enter last name of contact person)
- (v) Contact phone number (enter phone number of contact person)
- (vi) Contact phone number extension (enter extension, if any, of contact person)
- (vii) Contact address (enter street/post office address of contact person)
- (viii) Contact city (enter city of contact person)
- (ix) Contact state (enter state of contact person)
- (x) Contact zip code (enter zip code of contact person)
- (xi) Contact e-mail address (enter e-mail address of contact person)

Document Message

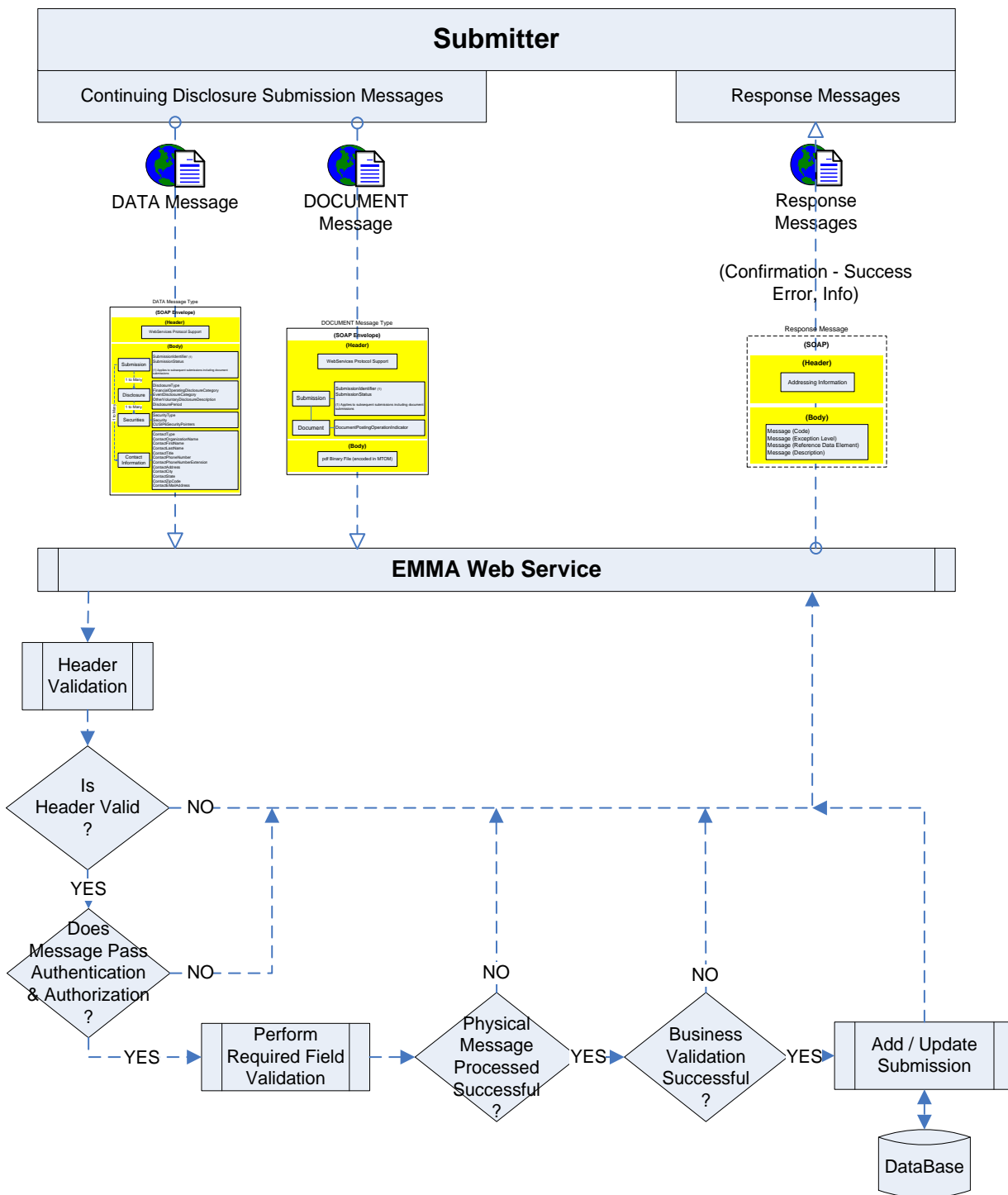
Documents are submitted through the automated submission interface as SOAP messages. Data elements submitted in a document message are organized in a hierarchical relationship into the following categories: (i) submission data; and (ii) document data. The document message is organized so that these data elements are included in the message header, along with an authentication token and web services protocol support. The authentication token and web services protocol support to be included in the header are illustrated in Figure 6. The PDF file of the document, as a binary files encoded in MTOM (SOAP Message Transmission Optimization Mechanism), will constitute the body of the document message. Sample XML document messages are included in Figure 7.

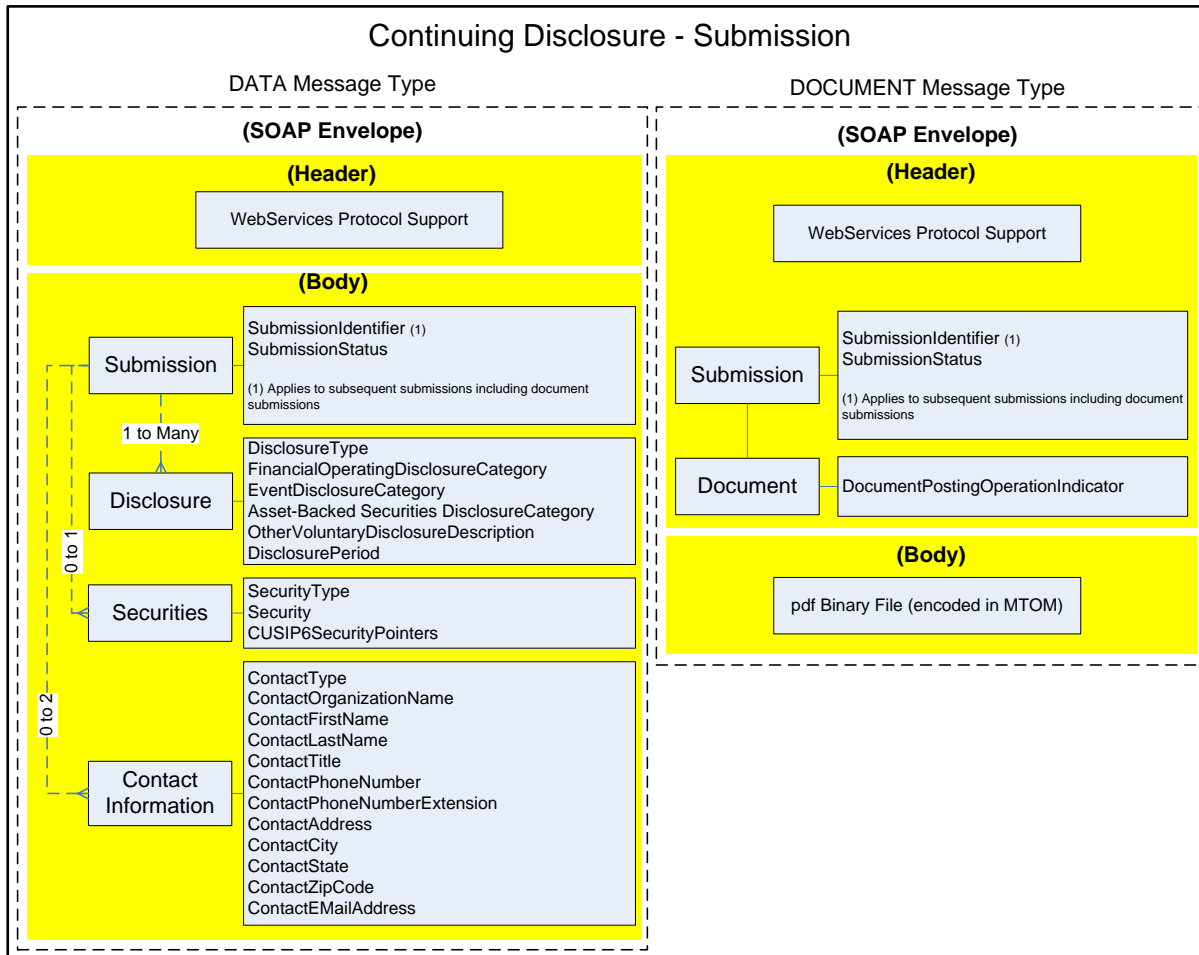
The element available for a document message, together with the value to be selected, would be as follows:³

- **Submission data**
 - (i) Submission status (select 'publish')
 - (ii) Submission identifier (enter identification number assigned by EMMA to related data message)
- **Document data**
 - (i) Document posting operation indicator (if modifying a previously submitted document, select 'append to posted document', 'replace posted document')

³ Element and enumerated values from which specific selections are to be made are more fully described in the data tag glossary in Figure 3.

Figure 1: Message Processing Overview





SOAP (Simple Object Access Protocol) - foundation layer of the web services protocol stack
 MTOM (SOAP Message Transmission Optimization Mechanism) - a method of efficiently sending binary data to and from web services

XML Message Schemas

Detailed below are the relevant schemas for data, document and file content. The schemas describe the base structural containers which in turn reference child-level containers and specifications. The schemas are universally applicable to Data and Document Messages for Continuing Disclosure submissions.

ContinuingDisclosureService_0.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema elementFormDefault="qualified"
targetNamespace="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:tns="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure">
  <xs:import schemaLocation="ContinuingDisclosureService_1.xsd"
namespace="http://emma.msrb.org/schemas/continuingdisclosureservice"/>
  <xs:import schemaLocation="ContinuingDisclosureService_2.xsd"
namespace="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types"/>
  <xs:element name="ContinuingDisclosureServiceMessage">
    <xs:complexType>
      <xs:sequence>
        <xs:element maxOccurs="1" ref="q1:ContinuingDisclosureMessage"
xmlns:q1="http://emma.msrb.org/schemas/continuingdisclosureservice"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="ContinuingDisclosureDocumentServiceMessage">
    <xs:complexType>
      <xs:sequence>
        <xs:element ref="q2:FileContents" xmlns:q2="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

ContinuingDisclosureService_1.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema elementFormDefault="qualified" targetNamespace="http://emma.msrb.org/schemas/continuingdisclosureservice"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:tns="http://emma.msrb.org/schemas/continuingdisclosureservice">
```

```

<xs:import schemaLocation="ContinuingDisclosureService_2.xsd"
namespace="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types"/>
<xs:element name="ContinuingDisclosureMessage" type="q1:DataMessageType"
xmlns:q1="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types"/>
<xs:element name="ContinuingDisclosureDocumentMessage" type="q2:DocumentMessageType"
xmlns:q2="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types"/>
</xs:schema>

```

ContinuingDisclosureService_2.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema elementFormDefault="qualified"
targetNamespace="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:tns="http://emma.msrb.org/schemas/disclosuremessages/continuingdisclosure/types">
<xs:import schemaLocation="ContinuingDisclosureService_5.xsd" namespace="http://schemas.microsoft.com/Message"/>
<xs:complexType name="DataMessageType">
<xs:sequence>
<xs:element maxOccurs="1" name="Submission" type="tns:SubmissionDetailsType"/>
<xs:element maxOccurs="1" name="DisclosureIndexingData" type="tns:DisclosureIndexingDataDetailsType"/>
<xs:element minOccurs="0" maxOccurs="2" name="ContactInformation" type="tns:ContactInformationType"/>
</xs:sequence>
</xs:complexType>
<xs:complexType name="SubmissionDetailsType">
<xs:attribute name="SubmissionIdentifier" type="tns:Max25Text"/>
<xs:attribute name="SubmissionStatus" type="tns:SubmissionStatusType"/>
</xs:complexType>
<xs:simpleType name="SubmissionStatusType">
<xs:restriction base="xs:string">
<xs:enumeration value="Publish"/>
<xs:enumeration value="Test"/>
</xs:restriction>
</xs:simpleType>
<xs:complexType name="DisclosureIndexingDataDetailsType">
<xs:sequence>
<xs:element minOccurs="0" maxOccurs="unbounded" name="Disclosure" type="tns:DisclosureDetailsType"/>
<xs:element minOccurs="0" maxOccurs="1" name="Securities" type="tns:SecuritiesDetailsType"/>
</xs:sequence>

```

```

</xs:complexType>
<xs:complexType name="DisclosureDetailsType">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="DisclosurePeriod" type="tns:DisclosurePeriodType"/>
  </xs:sequence>
  <xs:attribute name="DisclosureType" type="tns:DisclosureTypes"/>
  <xs:attribute name="FinancialOperatingDisclosureCategory" type="tns:FinancialOperatingDisclosureCategoryType"/>
  <xs:attribute name="EventDisclosureCategory" type="tns:EventDisclosureCategoryType"/>
  <xs:attribute name="AssetBackedSecuritiesDisclosureCategory" type="tns:AssetBackedSecuritiesDisclosureCategoryType"/>
  <xs:attribute name="OtherVoluntaryDisclosureDescription" type="tns:Max140Text"/> </xs:complexType>
<xs:complexType name="DisclosurePeriodType">
  <xs:attribute name="PeriodType" type="tns:PeriodDetailsType"/>
  <xs:attribute name="BeginningDate" type="tns:ISODate"/>
  <xs:attribute name="EndingDate" type="tns:ISODate"/>
  <xs:attribute name="AsOfDate" type="tns:ISODate"/>
</xs:complexType>
<xs:simpleType name="PeriodDetailsType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="YearEnded"/>
    <xs:enumeration value="QuarterEnded"/>
    <xs:enumeration value="MonthBeginning"/>
    <xs:enumeration value="OtherPeriodBeginning"/> </xs:restriction>
</xs:simpleType>
<xs:simpleType name="DisclosureTypes">
  <xs:restriction base="xs:string">
    <xs:enumeration value="FinancialOperatingDataDisclosure"/>
    <xs:enumeration value="EventBasedDisclosure"/>
    <xs:enumeration value="AssetBackedSecuritiesDisclosure"/>
    <xs:enumeration value="DisclosureWithoutIndexingInformationPreJuly2009Undertaking"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="FinancialOperatingDisclosureCategoryType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="AnnualFinancialInformationOperatingData15c212"/>
    <xs:enumeration value="AuditedFinancialStatementsOrCAFR15c212"/>
    <xs:enumeration value="FailureToProvideAnnualFinancialInformationAsRequired15c212"/>
    <xs:enumeration value="QuarterlyMonthlyFinancialInformation"/>
    <xs:enumeration value="OtherFinancialVoluntaryInformation"/>
    <xs:enumeration value="ChangeInFiscalYearTimingOfAnnualDisclosure"/>
  </xs:restriction>
</xs:simpleType>

```

```
<xs:enumeration value="ChangeInAccountingStandard"/>
<xs:enumeration value="InterimAdditionalFinancialInformationOperatingData"/>
<xs:enumeration value="Budget"/>
<xs:enumeration value="InformationProvidedToRatingAgencyOrCreditLiquidityProviderOrOtherThirdParty"/>
<xs:enumeration value="InvestmentDebtFinancialPolicy"/>
<xs:enumeration value="ConsultantReport"/>
</xs:restriction>
</xs:simpleType>
<xs:simpleType name="EventDisclosureCategoryType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="PrincipalInterestPaymentDelinquency"/>
    <xs:enumeration value="NonPaymentRelatedDefault"/>
    <xs:enumeration value="UnscheduledDrawOnDebtServiceReserveReflectingFinancialDifficulties"/>
    <xs:enumeration value="UnscheduledDrawOnCreditEnhancementReflectingFinancialDifficulties"/>
    <xs:enumeration value="SubstitutionOfCreditOrLiquidityProviderOrItsFailureToPerform"/>
    <xs:enumeration value="AdverseTaxOpinionOrEventAffectingTheTaxExemptStatusOfTheSecurity"/>
    <xs:enumeration value="ModificationToTheRightsOfSecurityHolders"/>
    <xs:enumeration value="BondCall"/>
    <xs:enumeration value="Defeasance"/>
    <xs:enumeration value="ReleaseOrSubstitutionOrSaleOfPropertySecuringRepaymentOfTheSecurity"/>
    <xs:enumeration value="RatingChange"/>
    <xs:enumeration value="FailureToProvideEventFilingInformation"/>
    <xs:enumeration value="AmendmentToContinuingDisclosureUndertaking"/>
    <xs:enumeration value="ChangeInObligatedPerson"/>
    <xs:enumeration value="NoticeToInvestorsPursuantToBondDocuments"/>
    <xs:enumeration value="CommunicationFromTheInternalRevenueService"/>
    <xs:enumeration value="TenderOfferSecondaryMarketPurchases"/>
    <xs:enumeration value="BidForAuctionRateOrOtherSecurities"/>
    <xs:enumeration value="CapitalOrOtherFinancingPlan"/>
    <xs:enumeration value="LitigationEnforcementAction"/>
    <xs:enumeration value="MergerConsolidationAcquisitionAndSaleOfAllOrSubstantiallyAllAssets"/>
    <xs:enumeration value="BankruptcyInsolvencyReceivershipOrSimilarEvent"/>
    <xs:enumeration value="ChangeOfTenderAgentRemarketingAgentOrOtherOnGoingParty"/>
    <xs:enumeration value="SuccessorAdditionalOrChangeInTrustee"/>
    <xs:enumeration value="DerivativeOrOtherSimilarTransaction"/>
    <xs:enumeration value="OtherEventVoluntaryInformation"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="AssetBackedSecuritiesDisclosureCategoryType">
```

```

<xs:restriction base="xs:string">
  <xs:enumeration value="InitialAssetBackedSecuritiesDisclosureSECRule15Ga1c1"/>
  <xs:enumeration value="QuarterlyAssetBackedSecuritiesDisclosureSECRule15Ga1c2i"/>
  <xs:enumeration value="AnnualAssetBackedSecuritiesDisclosureSECRule15Ga1c2ii"/>
  <xs:enumeration value="OtherAssetBackedSecuritiesDisclosure"/>
</xs:restriction>
</xs:simpleType>
<xs:complexType name="SecuritiesDetailsType">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Security" type="tns:SecurityDetailsType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CUSIP6SecurityPointers" type="tns:CUSIP6SecurityPointerDetailsType"/>
  </xs:sequence>
  <xs:attribute name="SecurityType" type="tns:SecurityTypes" />
</xs:complexType>
<xs:complexType name="SecurityDetailsType">
  <xs:attribute name="CUSIP9" type="tns:Cusip9Type"/>
  <xs:attribute name="CUSIP6" type="tns:Cusip6Type"/>
</xs:complexType>
<xs:complexType name="CUSIP6SecurityPointerDetailsType">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="CUSIP6SecurityPointer" type="tns:CUSIP6SecurityPointerType"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="CUSIP6SecurityPointerType">
  <xs:attribute name="CUSIP6" type="tns:Cusip6Type"/>
</xs:complexType>
<xs:simpleType name="SecurityTypes">
  <xs:restriction base="xs:string">
    <xs:enumeration value="CUSIP9"/>
    <xs:enumeration value="CommercialPaper"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="ContactInformationType">
  <xs:attribute name="ContactType" type="tns:ContactTypeDetails"/>
  <xs:attribute name="ContactOrganizationName" type="tns:Max140Text"/>
  <xs:attribute name="ContactFirstName" type="tns:Max25Text"/>
  <xs:attribute name="ContactLastName" type="tns:Max25Text"/>
  <xs:attribute name="ContactPhoneNumber" type="tns:Max15Text"/>
  <xs:attribute name="ContactPhoneNumberExtension" type="tns:Max6Text"/>

```

```
<xs:attribute name="ContactAddress" type="tns:Max140Text"/>
<xs:attribute name="ContactCity" type="tns:Max25Text"/>
<xs:attribute name="ContactState" type="tns:StateCode"/>
<xs:attribute name="ContactZipCode" type="tns:Max15Text"/>
<xs:attribute name="ContactEMailAddress" type="tns:Max50Text"/>
</xs:complexType>
<xs:simpleType name="ContactTypeDetails">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Issuer"/>
    <xs:enumeration value="Obligor"/>
  </xs:restriction>
</xs:simpleType>
<xs:element name="FileContents" type="q1:StreamBody" xmlns:q1="http://schemas.microsoft.com/Message"/>
<xs:complexType name="DocumentMessageType">
  <xs:sequence>
    <xs:element maxOccurs="1" name="Submission" type="tns:SubmissionDetailsType"/>
    <xs:element maxOccurs="1" name="Document" type="tns:DocumentDetailsType"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="DocumentDetailsType">
  <xs:attribute name="DocumentPostingOperationIndicator" type="tns:DocumentPostingOperationIndicatorType"/>
</xs:complexType>
<xs:simpleType name="DocumentPostingOperationIndicatorType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="AppendToPostedDocument"/>
    <xs:enumeration value="ReplacePostedDocument"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Cusip6Type">
  <xs:restriction base="xs:string">
    <xs:minLength value="6"/>
    <xs:maxLength value="6"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Cusip9Type">
  <xs:restriction base="xs:string">
    <xs:minLength value="9"/>
    <xs:maxLength value="9"/>
  </xs:restriction>
</xs:simpleType>
```

```
</xs:simpleType>
<xs:simpleType name="StateCode">
  <xs:restriction base="xs:string">
    <xs:pattern value="[A-Z]{2,2}"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max140Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="140"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max75Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="75"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max50Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="50"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max25Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="25"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max15Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="15"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max6Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
```

```

    <xs:maxLength value="6"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ISODate">
  <xs:restriction base="xs:date"/>
</xs:simpleType>
</xs:schema>

```

ContinuingDisclosureService 3.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema elementFormDefault="qualified" targetNamespace="http://emma.msrb.org/schemas/disclosuremessages"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:tns="http://emma.msrb.org/schemas/disclosuremessages">
  <xs:import schemaLocation="ContinuingDisclosureService_4.xsd"
namespace="http://emma.msrb.org/schemas/disclosuremessages/types"/>
  <xs:element name="DisclosureMessageResponse">
    <xs:complexType>
      <xs:sequence>
        <xs:element maxOccurs="1" ref="q1:DisclosureResponseDetails"
xmlns:q1="http://emma.msrb.org/schemas/disclosuremessages/types"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>

```

ContinuingDisclosureService 4.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema elementFormDefault="qualified" targetNamespace="http://emma.msrb.org/schemas/disclosuremessages/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:tns="http://emma.msrb.org/schemas/disclosuremessages/types">
  <xs:element name="DisclosureResponseDetails" type="tns:DisclosureMessageResponseType"/>
  <xs:complexType name="DisclosureMessageResponseType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="Submission" type="tns:SubmissionStructureType"/>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="Message" type="tns:MessageStructureType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="SubmissionStructureType">

```



```

<xs:attribute name="SubmissionID" type="xs:string"/>
<xs:attribute name="SubmissionState" type="tns:SubmissionProcessingStateType"/>
<xs:attribute name="SubmissionStatus" type="tns:SubmissionProcessingStatusType" use="required"/>
</xs:complexType>
<xs:simpleType name="SubmissionProcessingStateType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Published"/>
    <xs:enumeration value="InWorkspace"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="SubmissionProcessingStatusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Added"/>
    <xs:enumeration value="Updated"/>
    <xs:enumeration value="Rejected"/>
    <xs:enumeration value="Deleted"/>
    <xs:enumeration value="Failure"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="MessageStructureType">
  <xs:attribute name="MessageReturnCode" type="tns:MessageReturnCodeType"/>
  <xs:attribute name="MessageContent" type="xs:string"/>
</xs:complexType>
<xs:simpleType name="MessageReturnCodeType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Error"/>
    <xs:enumeration value="Warning"/>
    <xs:enumeration value="Information"/>
  </xs:restriction>
</xs:simpleType></xs:schema>

```

ContinuingDisclosureService 5.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/Message"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:tns="http://schemas.microsoft.com/Message">
  <xs:simpleType name="StreamBody">
    <xs:restriction base="xs:base64Binary"/>

```

```
</xs:simpleType>  
</xs:schema>
```

Figure 3: Submission – Data Tag Glossary

Below is a glossary of all data tags to be used in EMMA’s automated submission interface for submissions of data messages and document messages. These data elements are organized in a hierarchical data relationship. This glossary lists 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.

Submission Data Tags Description and Specification EMMA Continuing Disclosure Service				
XML Container	Data Tag	Definition	Data Specification	Required / Optional
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	Max25Text ex: S212345678910	As Applicable
	Submission Status	Indicates the intention to publish the information in the EMMA public portal	Enumerated Value: • Publish	Required

XML Container	Data Tag	Definition	Data Specification	Required / Optional
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 • WithoutIndexingInformationPreJuly09Undertaking • AssetBackedSecuritiesDisclosureDisclosure 	Required

XML Container	Data Tag	Definition	Data Specification	Required / Optional
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 • AuditedFinancialStatementsOrCAFR15c212 • FailureToProvideAnnualFinancialInformationAsRequired15c212 • QuarterlyMonthlyFinancialInformation • ChangeInFiscalYearTimingOfAnnualDisclosure • ChangeInAccountingStandard • InterimAdditionalFinancialInformationOperatingData • Budget • InvestmentDebtFinancialPolicy • InformationProvidedToRatingAgencyOrCreditLiquidityProviderOrOtherThirdParty • ConsultantReport • OtherFinancialVoluntaryInformation 	Required for Disclosure Type = Financial Operating Filing

XML Container	Data Tag	Definition	Data Specification	Required / Optional
Disclosure	Event Disclosure Category	<p>Indicates the event-based disclosure categories to which the filing applies. One or more categories may apply to a single filing</p> <p>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 	<p>Required for Disclosure Type = Event Filing</p>

XML Container	Data Tag	Definition	Data Specification	Required / Optional
	Asset Backed Disclosure Category	Indicates the asset-based securities disclosure categories to which the filing applies. Only one category may apply to a single filing ex: if the filing is a notice of Other Asset-Backed Securities Disclosure, it can not apply to initial, quarterly or annual disclosures	<ul style="list-style-type: none"> • InitialAssetBackedSecuritiesDisclosureSECRule15Ga1c1 • QuarterlyAssetBackedSecuritiesDisclosureSECRule15Ga1c2i • AnnualAssetBackedSecuritiesDisclosureSECRule15Ga1c2ii • OtherAssetBackedSecuritiesDisclosure 	Required for Disclosure Type = Asset-Backed Filing
	Other Voluntary Disclosure Description	Indicates the description of a disclosure filing for Financial Operating Disclosure, Event Disclosure or Asset-Backed Securities Disclosure	Max140Text ex: Description of a disclosure filing	Required for Other Event-based disclosures, Other Financial / Operating Data disclosures and Other Asset-Backed Securities Disclosure
	Period Type	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 ex. <i>PeriodType <YearEnded> <EndingDate, 2008-12-31></i>	Enumerated Value: <ul style="list-style-type: none"> • YearEnded • QuarterEnded • MonthBeginning • OtherPeriodBeginning 	Required for Disclosure Type = Financial Operating Filing and Asset-Backed Securities Filings NOTE: only OtherPeriodBeginning is allowed for Asset-Backed Securities Filings

XML Container	Data Tag	Definition	Data Specification	Required / Optional
	Disclosure Period	<p>For Financial Operating Filings and Asset-Backed Securities 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: Financial Operating Filing – Audited Financial Statements or CAFR (Rule 15c2-12) – <i>PeriodType</i> <OtherPeriodBeginning> <BeginningDate, 2009-06-31> <EndingDate, 2009-12-31>ex: Event Filing – Bond Call --</p> <p><DisclosurePeriod AsOfDate="2009-12-31" /></p> <p>ex: Asset-Backed Securities Filing –</p> <p><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 	<p>Required for Disclosure Type = Financial Operating Filing and Asset-Backed Securities Filing</p> <p>Optional for Disclosure Type = Event Filing</p>
Securities	Security Type	Indicates the disclosure as being CUSIP9 based or Commercial Paper	<p>Enumerated Value:</p> <ul style="list-style-type: none"> • CUSIP9 • CommercialPaper 	Required for each submission
	Security	<p>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</p> <p>NOTE: B2B submissions are not available for ineligible for CUSIP number assignment filings</p>	<p>CUSIP9 String{Min9,Max9}</p> <p>ex: 123456AB7</p> <p>IF :Security Type is CUSIP9, or</p> <p>CUSIP6 String{Min6,Max6}</p> <p>ex: 123456</p> <p>IF : Security Type is CommercialPaper</p>	As Applicable (Security and/or CUSIP6 Security Pointers Required for Disclosure Type = Financial Operating Filing or Event Filing)
	CUSIP6 Security Pointers	Indicates the six-digit CUSIP6 number(s) (for Security Type is CUSIP9) to which the disclosure applies if a disclosure applies to ALL securities under that CUSIP6.	<p>String{Min6,Max6}</p> <p>ex: 123456</p>	As Applicable (CUSIP6 Security Pointers and/or Security Required for Disclosure Type = Financial Operating Filing or Event Filing)
Document	Document Posting Operation Indicator	Only for modifications of original document submissions – Indicates whether file will be appended to any existing files posted for such document or if file will replace all existing files posted for such document	<p>Enumerated Value:</p> <ul style="list-style-type: none"> • AppendToPostedDocument • ReplacePostedDocument 	As Applicable

XML Container	Data Tag	Definition	Data Specification	Required / Optional
Contact Information	Contact Type	Indicates organization type of contact that the public should contact with questions about the submitted disclosure	Enumerated Value: <ul style="list-style-type: none"> • Issuer • Obligor 	Optional
	Contact Organization Name	Full name of the contact organization that the public should contact with questions about the submitted disclosure	Max140Text ex: MuniBond Dealer	Required if contact provided
	Contact First Name	The first name of the contact person that the public should contact with questions about the submitted disclosure	Max25Text ex: Emma	Required if contact provided
	Contact Last Name	The last name of the contact person that the public should contact with questions about the submitted disclosure	Max25Text ex: Jones	Required if contact provided
	Contact Title	The title of the contact person that the public should contact with questions about the submitted disclosure	Max140Text ex: Senior Vice President	Required if contact provided
	Contact Phone Number	The phone number of the contact person that the public should contact with questions about the submitted disclosure	Max15Text ex: 703-555-2222	Required if contact provided
	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	Max6Text ex: 1235	As Applicable
	Contact Address	The street address or post office box of the contact person that the public should contact with questions about the submitted disclosure	Max140Text ex: 123 Security Road	Required if contact provided
	Contact City	The address city of the contact person that the public should contact with questions about the submitted disclosure	Max25Text ex: Alexandria	Required if contact provided
	Contact State	The address state of the contact person that the public should contact with questions about the submitted disclosure	String;StateCode;2 ex: VA	Required if contact provided
	Contact Zip Code	The address zip code of the contact person that the public should contact with questions about the submitted disclosure	Max15Text ex: 22301-5555	Required if contact provided
	Contact Email Address	The email address of the contact person that the public should contact with questions about the submitted disclosure	Max50Text ex: issuer@issuer.com	Required if contact provided

Figure 4: Submission – Disclosure Document Period Specifications

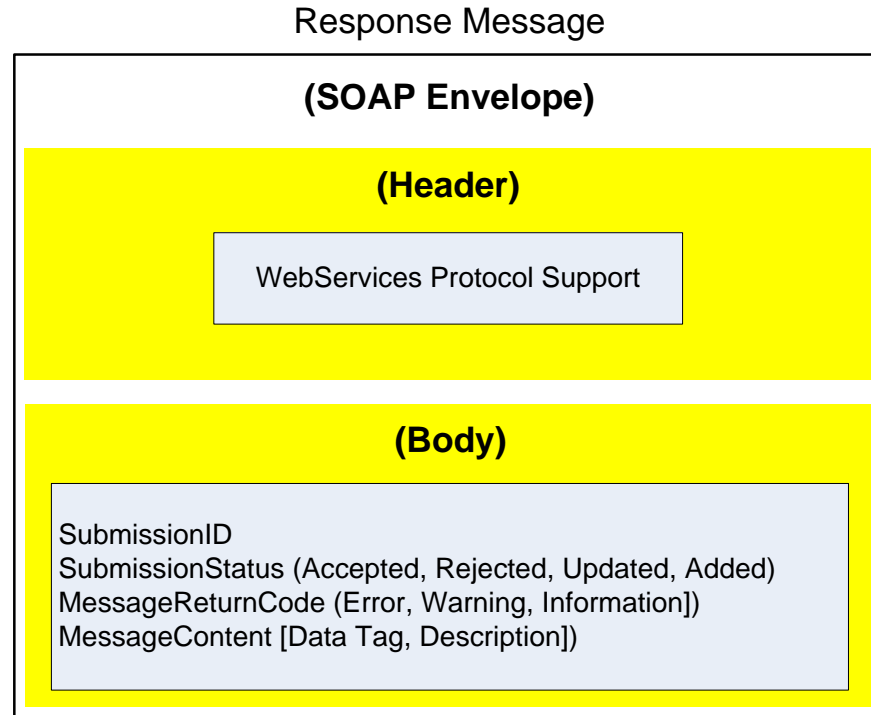
Document Disclosure (Period Type & Date Specification)				
EMMA Continuing Disclosure Service				
Disclosure Category	Disclosure Category	Applicable Period Type(s)	Corresponding Date Specification	Required / Optional
Financial / Operational Notices	AnnualFinancialInformationOperatingData15c212	Year Ended	EndingDate {DATE}	Required
		Other Period Beginning	BeginningDate {DATE} & EndingDate {DATE}	Required
	AuditedFinancialStatementsOrCAFR15c212	Year Ended	EndingDate {DATE}	Required
		Quarter Ended	EndingDate {DATE}	Required
		Other Period Beginning	BeginningDate {DATE} & EndingDate {DATE}	Required
	FailureToProvideAnnualFinancialInformationAsRequired15c212	Year Ended	EndingDate {DATE}	Required
		Other Period Beginning	BeginningDate {DATE} & EndingDate {DATE}	Required
	Quarterly/monthly financial information	Quarter Ended	EndingDate {DATE}	Required
		Month Beginning	BeginningDate {DATE}	Required
	Change in fiscal year/timing of annual disclosure	A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required
	Change in accounting standard	A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required
	Interim/additional financial information/operating data	Year Ended	EndingDate {DATE}	Required
		Other Period Beginning	BeginningDate {DATE} & EndingDate {DATE}	Required
	Budget	Year Ended	EndingDate {DATE}	Required
		Quarter Ended	EndingDate {DATE}	Required
		Other Period Beginning	BeginningDate {DATE} & EndingDate {DATE}	Required
	Investment/debt/financial policy	A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required
	Information provided to rating agency, credit/liquidity provider or other third party	A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required
Consultant reports	A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required	

	Other financial/operating data	Year Ended	EndingDate {DATE}	Required
		Quarter Ended	EndingDate {DATE}	Required
		Month Beginning	BeginningDate {DATE}	Required
		Other Period Beginning	BeginningDate {DATE} & EndingDate {DATE}	Required
		A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required
Event Notices	"All Categories"	A defined Period Type is not applicable. Specify an as-of-date.	AsOfDate {DATE}	Required
Asset-Backed Securities Disclosures	"All Categories"	Other Period Beginning	BeginningDate {DATE} EndingDate {DATE}	Required

Figure 5: Validation Response Messages

As submission messages are processed by EMMA, the message content will be verified relative to business rules of expected data relationships. Exception response messages will be returned to the submitter system when certain types of conditions exist with respect to the data submitted. Currently, all response messages are classified as Error, which indicates termination of message processing with failure of the intended action. The submitter should take appropriate corrective action and re-submit as appropriate.

An abstract representation of a Response Message, shown below, will be returned to the Submitter System with the Response Message Content, defined in the table below, contained in the body of the message.



Below is a sample Response Message trace where a submission event has been confirmed as added successfully. This sample is intended to show the general structure of response messages.

Response Message – Sample Trace File

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <Action s:mustUnderstand="1"
xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">http://emma.msrb.org/schemas/disclosureservice/IDisclosureService/
OpenSubmissionResponse
    </Action>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <DisclosureMessageResponse xmlns="http://emma.msrb.org/schemas/disclosuremessages">
      <DisclosureResponseDetails xmlns="http://emma.msrb.org/schemas/disclosureservice">
        <Submission SubmissionID="EA1734" SubmissionStatus="Added"
xmlns="http://emma.msrb.org/schemas/disclosuremessages/types">
        </Submission>
        <Message MessageReturnCode="Information" MessageContent="Continuing disclosure submission added."
xmlns="http://emma.msrb.org/schemas/disclosuremessages/types">
        </Message>
      </DisclosureResponseDetails>
    </DisclosureMessageResponse>
  </s:Body>
</s:Envelope>
```

XML Submission Validation - Response Messages			
Continuing Disclosure			
XML Block	Data Tag	Message Return Code	Response Message Content
Submission	Submission Identifier	Error	Failure to Identify Submission - failed to identify a Submission with the given Submission Identifier (EA1001).
	Submission Status	-	-
Disclosure	Disclosure Type	Error	Required Field - Disclosure Type is a required field.
		Error	Invalid Disclosure Type: AssetBackedSecuritiesDisclosure. (NOTE: happens when users submit before the effective date)
	Annual Periodic Disclosure Category	Error	Category mismatch - Disclosure without indexing information for a pre-July 2009 undertaking was asserted, but indexing information was provided without declaration of the information type.
		Error	Required Field – Financial Operating Disclosure Category is a required field when the disclosure type is Financial Operating Data Disclosure.
	Event Disclosure Category	Error	Category mismatch - Disclosure without indexing information for a pre-July 2009 undertaking was asserted, but indexing information was provided without declaration of the information type.
		Error	Required Field - Event Disclosure Category is a required field with the disclosure types is Event Based Disclosure.
	Asset-Backed Securities Disclosure Category	Error	Required Field – Asset Backed Securities Disclosure Category is a required field with a disclosure type of Asset Backed Securities Disclosure
		Error	Only one disclosure is allowed in Asset-Backed Securities Disclosure submission. (NOTE: happens when users submit more than one disclosure in the same submission.
	Other Voluntary Disclosure Description	Error	Required Field – Other Voluntary Disclosure Description is a required field if the disclosure category is Other Financial Voluntary Information or Other Event Voluntary Information
		Error	Required Field - Other Voluntary Disclosure Description is a required field if the disclosure category is Other Asset-Backed Securities Disclosure.
	Period Type / Date Specification	Error	Required Field – Period Type is a required field for the Disclosure Category indicated.
		Error	Required Field – A Beginning Date and Ending Date is required if the period type is Other Period Beginning.
		Error	Required Field – Period Type (Year Ended) requires an Ended Date
		Error	Required Field – Period Type (Quarter Ended) requires an Ended Date
		Error	Required Field – Period Type (Month Beginning) requires a Beginning Date
	Error	Required Field - AsOfDate field to be supplied if the DisclosureType is Event Based Disclosure.	

XML Block	Data Tag	Message Return Code	Response Message Content
		Error	Required Field - Period Type must be provided when disclosure category is <category type>.
		Error	Period Type cannot be <period type> when disclosure category is <category type>.
		Error	Required Field - Ending Date must be provided when period type is <period type>.
		Error	Required Field - Beginning Date must be provided when period type is Other Period Beginning.
		Error	Ending Date must be later than Beginning Date.
	Disclosure Period	Error	Required Element - Disclosure Period is a required element when the disclosure type is Asset-Backed Securities Disclosure.
Securities	Security Type	Error	Required Field – Security Type is a required field.
	Security	Error	Data Validation – Security CUSIP9:123456AB7 is not recognized as a well-formed CUSIP9.
		Error	Data Validation – Security CUSIP6: 123456 is not recognized as a commercial paper security.
CUSIP6 Security Pointers	Error	Required Element - At least one security or CUSIP-6 must be provided when indexing information is provided.	
Document	Document Posting Operation Indicator	-	-
Contact Information	Contact Organization Name	-	-
	Contact First Name	-	-
	Contact Last Name	-	-
	Contact Title	-	-
	Contact Phone Number	-	-
	Contact Phone Number Extension	-	-
	Contact Address	-	-
	Contact City	-	-
	Contact State	-	-
	Contact Zip Code	-	-
	Contact Email Address	-	-

Figure 6: Continuing Disclosure Submission – Sample XML Headers

Data Message – Sample Header + Message Trace File

```

<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/" xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-utility-1.0.xsd">
  <s:Header>
    <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>2008-08-21T19:58:44.296Z</u:Created><u:Expires>2008-08-
21T20:03:44.296Z</u:Expires></u:Timestamp><o:UsernameToken u:Id="uuid-99a8d3c0-8044-4572-a189-2af1f3a246e8-
1"><o:Username><!--Removed--></o:Username><o:Password><!--Removed--
></o:Password></o:UsernameToken></o:Security>
    <To s:mustUnderstand="1" xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">https://temp-
wrk/EmmaDisclosureService/DisclosureService.svc</To>
    <Action s:mustUnderstand="1"
xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">http://emma.msrb.org/schemas/disclosureservice/IDisclosure
Service/OpenSubmission</Action>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <ContinuingDisclosureMessage xmlns="http://emma.msrb.org/schemas/disclosuremessages">
      <Submission SubmissionStatus="Publish" />
      <DisclosureIndexingData>
        <Disclosure DisclosureType="FinancialOperatingDataDisclosure"
          FinancialOperatingDisclosureCategory="OtherFinancialVoluntaryInformation"
          OtherVoluntaryDisclosureDescription="Description of the nature of Other Financial Voluntary
Information">
          <DisclosurePeriod AsOfDate="2008-07-01"/>
        </Disclosure>
        <Securities SecurityType="CUSIP9">
          <Security CUSIP9="699438AJ7"/>
          <Security CUSIP9="699438AK4"/>
          <Security CUSIP9="699438AL2"/>
          <Security CUSIP9="699438AM0"/>
          <Security CUSIP9="699438AN8"/>
          <Security CUSIP9="699438AP3"/>
          <Security CUSIP9="699438BD9"/>
          <CUSIP6SecurityPointers>
            <CUSIP6SecurityPointer CUSIP6="617481"/>
          </CUSIP6SecurityPointers>
        </Securities>
      </DisclosureIndexingData>
    </ContinuingDisclosureMessage>
  </s:Body>
</Envelope>

```



```

        <CUSIP6SecurityPointer CUSIP6="61748P"/>
        <CUSIP6SecurityPointer CUSIP6="61748T"/>
        <CUSIP6SecurityPointer CUSIP6="617487"/>
        <CUSIP6SecurityPointer CUSIP6="617493"/>
        <CUSIP6SecurityPointer CUSIP6="617496"/>
        <CUSIP6SecurityPointer CUSIP6="617508"/>
        <CUSIP6SecurityPointer CUSIP6="617524"/>
    </CUSIP6SecurityPointers>
</Securities>
</DisclosureIndexingData>
<ContactInformation ContactType="Issuer" ContactOrganizationName="Organization"
ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL"
    ContactZipCode="55555" ContactPhoneNumber="555-55-5555" ContactEMailAddress="Issuer@mail.com"/>
<ContactInformation ContactType="Obligor" ContactOrganizationName="Organization"
ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL"
    ContactZipCode="55555" ContactPhoneNumber="555-55-5555"
    ContactEMailAddress="Obligor@mail.com"/>
</ContinuingDisclosureMessage>
</s:Body>
</s:Envelope>

```

Document Message – Sample Header File

```

<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/" xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-utility-1.0.xsd">
  <s:Header>
    <ContinuingDisclosureMessage xmlns:h="http://emma.msrb.org/schemas/disclosureservice"
      xmlns="http://emma.msrb.org/schemas/disclosureservice" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema">
      <Submission SubmissionIdentifier="12345678" SubmissionStatus="Publish"/>
      <Document DocumentPostingOperationIndicator="AppendToPostedDocment"/>
    </ContinuingDisclosureMessage>
    <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>2008-08-21T19:26:53.468Z</u:Created><u:Expires>2008-08-
21T19:31:53.468Z</u:Expires></u:Timestamp>

```

```
<o:UsernameToken u:Id="uuid-c3e563e4-bd51-40f7-8c02-3ed0b5a4a1bb-35"><o:Username><!--Removed--></o:Username><o:Password><!--Removed--></o:Password></o:UsernameToken></o:Security>
<To s:mustUnderstand="1" xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">https://temp-
wrk/EmmaDisclosureService/DisclosureService.svc</To>
<Action s:mustUnderstand="1"
xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">http://emma.msrb.org/schemas/disclosureservice/IDisclosure
Service/PostDocumentFile</Action>
```

```
</s:Header>
```

```
<s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
```

```
[BINARY STREAM OF PDF FILE]
```

```
</s:Body>
```

```
</s:Envelope>
```

Figure 7: Continuing Disclosure Submissions – Sample Data & Document XML Messages

FINANCIAL OPERATING FILING (CUSIP9)

Data Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ContinuingDisclosureMessage xmlns="EMMA-SUBMISSION-XML" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="EMMA-SUBMISSION-XML ... ">
  <Submission SubmissionStatus="Publish" />
  <DisclosureIndexingData>
    <Disclosure DisclosureType="FinancialOperatingDataDisclosure"
      FinancialOperatingDisclosureCategory="OtherFinancialVoluntaryInformation"
      OtherVoluntaryDisclosureDescription="Description of the nature of Other Financial Voluntary Information">
      <DisclosurePeriod AsOfDate="2008-07-01"/>
    </Disclosure>
    <Securities SecurityType="CUSIP9">
      <Security CUSIP9="699438AJ7"/>
      <Security CUSIP9="699438AK4"/>
      <Security CUSIP9="699438AL2"/>
      <Security CUSIP9="699438AM0"/>
      <Security CUSIP9="699438AN8"/>
      <Security CUSIP9="699438AP3"/>
      <Security CUSIP9="699438BD9"/>
      <CUSIP6SecurityPointers>
        <CUSIP6SecurityPointer CUSIP6="617481"/>
        <CUSIP6SecurityPointer CUSIP6="61748P"/>
        <CUSIP6SecurityPointer CUSIP6="61748T"/>
        <CUSIP6SecurityPointer CUSIP6="617487"/>
        <CUSIP6SecurityPointer CUSIP6="617493"/>
        <CUSIP6SecurityPointer CUSIP6="617496"/>
        <CUSIP6SecurityPointer CUSIP6="617508"/>
        <CUSIP6SecurityPointer CUSIP6="617524"/>
      </CUSIP6SecurityPointers>
    </Securities>
  </DisclosureIndexingData>
  <ContactInformation ContactType="Issuer" ContactOrganizationName="Organization" ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL"
    ContactZipCode="55555">

```

```

    ContactPhoneNumber="555-555-5555" ContactEmailAddress="Issuer@mail.com"/>
    <ContactInformation ContactType="Obligor" ContactOrganizationName="Organization" ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL"
    ContactZipCode="55555"
    ContactPhoneNumber="555-555-5555" ContactEmailAddress="Obligor@mail.com"/>
</ContinuingDisclosureMessage>

```

Document Message

```

<?xml version="1.0" encoding="UTF-8"?>
<ContinuingDisclosureMessage xmlns="EMMA-SUBMISSION-XML" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="...">
    <Submission SubmissionIdentifier="12345678" SubmissionStatus="Publish"/>
    <Document DocumentPostingOperationIndicator="AppendToPostedDocument"/>
</ContinuingDisclosureMessage>

```

EVENT FILING (Commercial Paper)

Data Message

```

<?xml version="1.0" encoding="UTF-8"?>
<ContinuingDisclosureMessage xmlns="EMMA-SUBMISSION-XML" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="EMMA-SUBMISSION-XML ...">
    <Submission SubmissionStatus="Publish" />
    <DisclosureIndexingData>
        <Disclosure DisclosureType="EventBasedDisclosure" EventDisclosureCategory="RatingChange">
            <DisclosurePeriod AsOfDate="2008-06-30"/>
        </Disclosure>
        <Securities SecurityType="CommercialPaper">
            <Security CUSIP6="694004"/>
        </Securities>
    </DisclosureIndexingData>
    <ContactInformation ContactType="Issuer" ContactOrganizationName="Organization" ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL" ContactZipCode="55555"
    ContactPhoneNumber="555-555-5555" ContactEmailAddress="Issuer@mail.com"/>
    <ContactInformation ContactType="Obligor" ContactOrganizationName="Organization" ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL" ContactZipCode="55555"
    ContactPhoneNumber="555-555-5555" ContactEmailAddress="Obligor@mail.com"/>
</ContinuingDisclosureMessage>

```

Document Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ContinuingDisclosureMessage xmlns="EMMA-SUBMISSION-XML" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="...">
  <Submission SubmissionIdentifier="12345678" SubmissionStatus="Publish"/>
  <Document DocumentPostingOperationIndicator="AppendToPostedDocment"/>
</ContinuingDisclosureMessage>
```

Asset-Backed Securities Filing (CUSIP9)

Data Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ContinuingDisclosureMessage xmlns="EMMA-SUBMISSION-XML" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="EMMA-SUBMISSION-XML ..." >
  <Submission SubmissionStatus="Publish" />
  <DisclosureIndexingData>
    <Disclosure DisclosureType="AssetBackedSecuritiesDisclosure"
      AssetBackedSecuritiesDisclosureCategory="InitialAssetBackedSecuritiesDisclosureSECRule15Ga1c1"
      OtherVoluntaryDisclosureDescription="Detailed description of Asset-Backed securities filing">
      <DisclosurePeriod PeriodType="OtherPeriodBeginning" BeginningDate="2014-01-01" EndingDate="2014-02-01"/>
    </Disclosure>
    <Securities SecurityType="CUSIP9">
      <Security CUSIP9="699438AJ7"/>
      <Security CUSIP9="699438AK4"/>
      <Security CUSIP9="699438AL2"/>
      <Security CUSIP9="699438AM0"/>
      <Security CUSIP9="699438AN8"/>
      <Security CUSIP9="699438AP3"/>
      <Security CUSIP9="699438BD9"/>
      <CUSIP6SecurityPointers>
        <CUSIP6SecurityPointer CUSIP6="617481"/>
        <CUSIP6SecurityPointer CUSIP6="61748P"/>
        <CUSIP6SecurityPointer CUSIP6="61748T"/>
        <CUSIP6SecurityPointer CUSIP6="617487"/>
        <CUSIP6SecurityPointer CUSIP6="617493"/>
        <CUSIP6SecurityPointer CUSIP6="617496"/>
        <CUSIP6SecurityPointer CUSIP6="617508"/>
        <CUSIP6SecurityPointer CUSIP6="617524"/>
      </CUSIP6SecurityPointers>
    </Securities>
  </DisclosureIndexingData>
</ContinuingDisclosureMessage>
```

```
        </CUSIP6SecurityPointers>
    </Securities>
</DisclosureIndexingData>
  <ContactInformation ContactType="Issuer" ContactOrganizationName="Organization" ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL"
ContactZipCode="55555"
    ContactPhoneNumber="555-555-5555" ContactEMailAddress="Issuer@mail.com"/>
  <ContactInformation ContactType="Obligor" ContactOrganizationName="Organization" ContactFirstName="ContactFirstName"
    ContactLastName="ContactLastname" ContactAddress="Address" ContactCity="City" ContactState="AL"
ContactZipCode="55555"
    ContactPhoneNumber="555-555-5555" ContactEMailAddress="Obligor@mail.com"/>
</ContinuingDisclosureMessage>
```

Document Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ContinuingDisclosureDocumentMessage xmlns="EMMA-SUBMISSION-XML" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="...">
  <Submission SubmissionIdentifier="12345678" SubmissionStatus="Publish"/>
  <Document DocumentPostingOperationIndicator="AppendToPostedDocment"/>
</ContinuingDisclosureDocumentMessage>
```

- End -