

Errata Notice on Schema Locations

March 17, 2022

This standard makes use of namespace locations with a form of <http://www.scte.org/schemas/xyz/>*, where “xyz” is the location of the specific schema being referenced. Due to limitations on the current SCTE website, those specific locations are not available.

To find such schemas:

1. Go to the standards download page at <https://www.scte.org/standards/library/catalog/>
2. Search for the standard number (xyz in the above example)
3. Select the document from the table
4. Scroll to the “Supporting Documentation” section of the document webpage.

The schema will be listed within the Supporting Documentation section.

This notice will be removed once the exact namespace values are functional.

SCTE • ISBE[®]

S T A N D A R D S

Digital Video Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 130-6 2020

**Digital Program Insertion–Advertising Systems Interfaces
Part 6–Subscriber Information Service (SIS)**

NOTICE

The Society of Cable Telecommunications Engineers (SCTE) / International Society of Broadband Experts (ISBE) Standards and Operational Practices (hereafter called “documents”) are intended to serve the public interest by providing specifications, test methods and procedures that promote uniformity of product, interchangeability, best practices and ultimately the long-term reliability of broadband communications facilities. These documents shall not in any way preclude any member or non-member of SCTE•ISBE from manufacturing or selling products not conforming to such documents, nor shall the existence of such standards preclude their voluntary use by those other than SCTE•ISBE members.

SCTE•ISBE assumes no obligations or liability whatsoever to any party who may adopt the documents. Such adopting party assumes all risks associated with adoption of these documents, and accepts full responsibility for any damage and/or claims arising from the adoption of such documents.

Attention is called to the possibility that implementation of this document may require the use of subject matter covered by patent rights. By publication of this document, no position is taken with respect to the existence or validity of any patent rights in connection therewith. SCTE•ISBE shall not be responsible for identifying patents for which a license may be required or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

Patent holders who believe that they hold patents which are essential to the implementation of this document have been requested to provide information about those patents and any related licensing terms and conditions. Any such declarations made before or after publication of this document are available on the SCTE•ISBE web site at <http://www.scte.org>.

All Rights Reserved

© Society of Cable Telecommunications Engineers, Inc. 2020
140 Philips Road
Exton, PA 19341

TABLE OF CONTENTS

1.0	SCOPE.....	9
2.0	REFERENCES	9
2.1	Normative References.....	9
2.2	Informative References.....	10
3.0	COMPLIANCE NOTATION.....	10
4.0	DEFINITIONS AND ACRONYMS	11
5.0	ABBREVIATIONS.....	11
6.0	SUBSCRIBER INFORMATION SERVICE OVERVIEW (INFORMATIVE).....	11
7.0	NOTATIONAL CONVENTIONS.....	16
7.1	Normative XML Schema.....	16
7.2	Document Conventions.....	16
8.0	PROCESSING CONVENTIONS.....	16
8.1	Unknown/Unrecognized/Unsupported XML Elements and Attributes.....	16
9.0	XML NAMESPACES.....	17
10.0	SUBSCRIBER INFORMATION SERVICE MESSAGES.....	18
10.1	@version Attribute	19
10.2	Request Base Message	19
10.2.1	Request Base Message Attributes (INFORMATIVE).....	19
10.2.2	Request Base Message Elements (INFORMATIVE).....	19
10.3	Response Base Message	20
10.3.1	Base Response Message Attributes (INFORMATIVE).....	20
10.3.2	Base Response Message Elements (INFORMATIVE).....	20
10.4	Notification Base Message	20
10.4.1	Notification Base Message Attributes (INFORMATIVE).....	20
10.4.2	Notification Base Message Elements (INFORMATIVE).....	21
10.5	Acknowledgement Base Message.....	21
10.5.1	Acknowledgement Base Message Attributes (INFORMATIVE).....	21
10.5.2	Acknowledgement Base Message Elements (INFORMATIVE).....	22
10.6	SIS Message Exchange.....	22
10.7	SISListSupportedFeaturesRequest and SISListSupportedFeaturesResponse	24
10.7.1	SISListSupportedFeaturesRequest Message.....	24
10.7.2	SISListSupportedFeaturesResponse Message.....	25
10.8	SISListQualifiersRequest and SISListQualifiersResponse	28
10.8.1	SISListQualifiersRequest Message.....	28
10.8.2	SISListQualifiersResponse Message.....	29
10.9	SISListNotificationRegistrationRequest and SISListNotificationRegistrationResponse	31
10.9.1	SISListNotificationRegistrationRequest Message.....	31
10.9.2	SISListNotificationRegistrationResponse Message.....	32
10.10	SISNotificationRegistrationRequest and SISNotificationRegistrationResponse.....	34
10.10.1	SISNotificationRegistrationRequest Message.....	34
10.10.2	SISNotificationRegistrationResponse Message.....	36
10.11	SISNotification and SISNotificationAcknowledgement.....	37
10.11.1	SISNotification Message.....	38
10.11.2	SISNotificationAcknowledgement Message.....	39
10.12	SISCreateCursorRequest and SISCreateCursorResponse	40
10.12.1	SISCreateCursorRequest Message.....	41
10.12.2	SISCreateCursorResponse Message.....	42
10.13	SISCancelCursorRequest and SISCancelCursorResponse.....	44

10.13.1	<i>SISCancelCursorRequest Message</i>	44
10.13.2	<i>SISCancelCursorResponse Message</i>	45
10.14	SISQueryRequest and SISQueryResponse	46
10.14.1	<i>SISQueryRequest Message</i>	47
10.14.2	<i>SISQueryResponse Message</i>	48
10.15	SISNotificationDeregisterRequest and SISNotificationDeregisterResponse	50
10.15.1	<i>SISNotificationDeregisterRequest Message</i>	50
10.15.2	<i>SISNotificationDeregisterResponse Message</i>	51
10.16	SISDeregistrationNotification and SISDeregistrationAcknowledgement	53
10.16.1	<i>SISDeregistrationNotification Message</i>	53
10.16.2	<i>SISDeregistrationAcknowledgement Message</i>	55
10.17	Service Check Support	56
10.18	Service Status Support.....	56
11.0	SIS ELEMENT DETAILS	56
12.0	SIS ATTRIBUTE TYPES.....	56
APPENDIX A: MESSAGE EXAMPLES (INFORMATIVE)		57
A.1	SIS List Supported Features Request and Response	57
A.2	SIS List Qualifiers Request and Response.....	59
A.3	SIS Query Request and Response	63
A.4	SIS Notification Registration Request and Notification	67
APPENDIX B: WSDL (NORMATIVE)		70
APPENDIX C. MUTABLE SIS INTERFACE (NORMATIVE).....		71
C.1	SCOPE.....	71
C.2	INTRODUCTION	71
C.3	XML NAMESPACES.....	71
C.3.1	MESSAGE VERSION ATTRIBUTE.....	72
C.4	ENHANCED SIS MESSAGES.....	72
C.4.1	SISLISTSUPPORTEDFEATURES MESSAGES.....	72
C.4.2	SISLISTQUALIFIERS MESSAGES	72
C.5	SIS MUTABLE MESSAGES	73
C.5.1	SIS MUTABLE OPERATION MESSAGES.....	73
C.5.1.1	SISMUTABLEOPERATIONREQUEST MESSAGE.....	73
C.5.1.2	SISMUTABLEOPERATIONRESPONSE MESSAGE.....	75
C.5.2	SIS BATCH CREATE MESSAGES.....	76
C.5.2.1	SISBATCHCREATEREQUEST MESSAGE.....	76
C.5.2.2	SISBATCHCREATERESPONSEMESSAGE.....	78
C.5.3	SIS BATCH ITEM MESSAGES	79
C.5.3.1	SISBATCHITEMREQUEST MESSAGE	79
C.5.3.2	SISBATCHITEMRESPONSE MESSAGE	81
C.5.4	SIS BATCH OPERATION MESSAGES	82
C.5.4.1	SISBATCHOPERATIONREQUEST MESSAGE	82
C.5.4.2	SISBATCHOPERATIONRESPONSE MESSAGE.....	83

C.5.5 SIS BATCH NOTIFICATION MESSAGES.....	85
C.5.5.1 SISBATCHNOTIFICATION MESSAGE.....	85
C.5.5.2 SISBATCHNOTIFICATIONACKNOWLEDGEMENT MESSAGE	87
C.5.6 SIS MUTABLE OPERATION NOTIFICATION MESSAGES.....	88
C.5.6.1 SISMUTABLEOPERATIONNOTIFICATION MESSAGE	88
C.5.6.2 SISMUTABLEOPERATIONACKNOWLEDGEMENT MESSAGE	89
C.5.7 SIS LIST BATCH MESSAGES.....	90
C.5.7.1 SISLISTBATCHREQUEST MESSAGE.....	90
C.5.7.2 SISLISTBATCHRESPONSE MESSAGE.....	91
APPENDIX D. MUTABLE SIS EXAMPLES (INFORMATIVE)	93
D.1 LISTING SUPPORTED FEATURES.....	93
D.2 LISTING QUALIFIERS	94
D.3 MUTABLE OPERATION.....	95
D.4 BATCH MUTABLE OPERATION	98
D.5 DATA MODEL DESCRIPTION NOTIFICATION	101
13.0 SCHEMA CHANGES	102

List of Figures

Title	Page Number
Figure 1. Potential SIS Data Sources	12
Figure 2. Traditional (Non-Automated) Ad Sales	14
Figure 3. Automated Ad Sales	15
Figure 4. Automated and Targeted Ad Sales	16
Figure 5. SCTE 130 Part 6 Top Level Messages	23
Figure 6. SISListSupportedFeaturesRequest Message XML Schema	25
Figure 7. SISListSupportedFeaturesResponse Message XML Schema	26
Figure 8. SISListQualifiersRequest Message XML Schema	29
Figure 9. SISListQualifiersResponse Message XML Schema	30
Figure 10. SISListNotificationRegistrationRequest Message XML Schema	32
Figure 11. SISListNotificationRegistrationResponse Message XML Schema	33
Figure 12. SISNotificationRegistrationRequest Message XML Schema	35
Figure 13. SISNotificationRegistrationResponse Message XML Schema	37
Figure 14. SISNotification Message XML Schema	38
Figure 15. SISNotificationAcknowledgement Message XML Schema	40
Figure 16. SISCreateCursorRequest Message XML Schema	41
Figure 17. SISCreateCursorResponse Message XML Schema	43
Figure 18. SISCancelCursorRequest Message XML Schema	45
Figure 19. SISCancelCursorResponse Message XML Schema	46
Figure 20. SISQueryRequest Message XML Schema	47
Figure 21. SISQueryResponse Message XML Schema	49
Figure 22. SISNotificationDeregisterRequest Message XML Schema	51
Figure 23. SISNotificationDeregisterResponse Message XML Schema	52
Figure 24. SISDeregistrationNotification Message XML Schema	54
Figure 25. SISDeregistrationAcknowledgement Message XML Schema	55
Figure 26. SISMutableOperationRequest Message XML Schema	74
Figure 27. SISMutableOperationResponse Message XML Schema	75
Figure 28. SISBatchCreateRequest Message XML Schema	77
Figure 29. SISBatchCreateResponse Message XML Schema	78
Figure 30. SISBatchItemRequest Message XML Schema	80
Figure 31. SISBatchItemResponse Message XML Schema	81
Figure 32. SISBatchOperationRequest Message XML Schema	83
Figure 33. SISBatchOperationResponse Message XML Schema	84
Figure 34. SISBatchNotification Message XML Schema	86
Figure 35. SISBatchNotificationAcknowledgement Message XML Schema	87
Figure 36. SISMutableOperationNotification Message XML Schema	88
Figure 37. SISMutableOperationAcknowledgement Message XML Schema	89
Figure 38. SISListBatchRequest Message XML Schema	90
Figure 39. SISListBatchResponse Message XML Schema	92

List of Tables

Title	Page Number
Table 1. XML Namespace Declarations	18
Table 2. SCTE 130 Part 6 Top Level Messages	24
Table 3. core:Callout @message Values	27
Table 4. NotificationRegistrationRequest core:Callout @message Values	36
Table 5. SIS Messages Altered by the Mutable SIS	72
Table 6. Mutable SIS Messages	73

List of Examples

Title	Page Number
Example 1. SISListSupportedFeaturesRequest Message	57
Example 2. SISListSupportedFeaturesResponse Message	58
Example 3. ListSupportedFeaturesResponse Message (multiple endpoints)	59
Example 4. SISListQualifiersRequest Message	60
Example 5. SISListQualifiersResponse Message	61
Example 6. SISListQualifiersRequest Message	62
Example 7. SISListQualifiersResponse Message	63
Example 8. SISQueryRequest Message	64
Example 9. SISQueryResponse Message	64
Example 10. SISQueryRequest Message	65
Example 11. SISQueryResponse Message	65
Example 12. SISQueryRequest Message	66
Example 13. SISQueryResponse Message	67
Example 14. SISNotificationRequest Message	68
Example 15. SISNotification Message	69
Example 16. SISNotification Message	69
Example 17. SISListSupportedFeaturesRequest Message	93
Example 18. SISListSupportedFeaturesResponse Message	93
Example 19. SISListQualifiersRequest Message	94
Example 20. SISListQualifiersRequest Message	95
Example 21. SISMutableOperationRequest Message (synchronous)	96
Example 22. SISMutableOperationResponse Message	97
Example 23. SISMutableOperationRequest Message (asynchronous)	97
Example 24. SISMutableOperationNotification Message	98
Example 25. SISMutableOperationAcknowledgement Message	98
Example 26. SISBatchCreateRequest Message	98
Example 27. SISBatchCreateResponse Message	99
Example 28. SISBatchItemRequest Message	99
Example 29. SISBatchItemResponse Message	99
Example 30. SISBatchOperationRequest Message	100
Example 31. SISBatchOperationResponse Message	100
Example 32. SISBatchNotification Message	100
Example 33. SISBatchNotificationAcknowledgement Message	101

Example 34. SISNotificationRegistrationRequest Message	101
Example 35. SISNotification Message	101

Digital Program Insertion

Advertising Systems Interfaces - Part 6

Subscriber Information Service (SIS)

1.0 SCOPE

This document, SCTE 130 Part 6, describes the Digital Program Insertion Advertising Systems Interfaces' SIS (Subscriber Information Service) messaging and data type specification using XML, XML Namespaces, and XML Schema.

2.0 REFERENCES

2.1 Normative References

The following standards contain provisions that, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

[SCTE130-2]	SCTE 130-2 2020 Digital Program Insertion — Advertising Systems Interfaces Part 2 — Core Data Elements
[SCTE130-7]	SCTE 130-7 2015 Digital Program Insertion — Advertising Systems Interfaces Part 7 — Message Transport
[SCTE 130-8]	SCTE 130-8 2020 Digital Program Insertion — Advertising Systems Interfaces Part 8 — General Information Service
[W3C-XSD]	XML Schema Part 1: Structures Second Edition

All normative references found in [SCTE130-2] are included and apply to this document. See [SCTE130-2] for additional information.

All normative references found in [SCTE130-7] are included and apply to this document. See [SCTE130-7] for additional information.

All normative references found in [SCTE 130-8] are included and apply to this document. See [SCTE 130-8] for additional information.

2.2 Informative References

The following documents *may* provide valuable information to the reader but are not required when complying with this standard.

[SCTE130-1]	SCTE 130-1: Digital Program Insertion—Advertising Systems Interfaces Part 1—Overview
[SCTE 130-5]	SCTE 130-5: Placement Opportunity Information Service (POIS)
[W3C-XPath]	XPath—W3C REC: XML Path Language (XPath) Version 1.0. November 16, 1999
[W3C-XQuery]	XQuery—W3C REF: An XML Query Language (XQuery) Version 1.0. January 23, 2007

3.0 COMPLIANCE NOTATION

<i>shall</i>	This word or the adjective “ <i>required</i> ” means that the item is an absolute requirement of this document.
<i>shall not</i>	This phrase means that the item is an absolute prohibition of this document.
<i>forbidden</i>	This word means the value specified <i>shall</i> never be used.
<i>should</i>	This word or the adjective “ <i>recommended</i> ” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighted before choosing a different course.
<i>should not</i>	This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
<i>may</i>	This word or the adjective “ <i>optional</i> ” means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item.
<i>deprecated</i>	Use is permissible for legacy purposes only. Deprecated features may be removed from future versions of this document. Implementations should avoid use of deprecated features.

4.0 DEFINITIONS AND ACRONYMS

Throughout this standard the terms below have specific meanings. Because some of the terms are defined by other SCTE documents having very specific technical meanings, the reader is referred to the original source for their definition. For terms defined by this standard, brief definitions are given below.

All [SCTE130-2] definitions are included herein. See [SCTE130-2] for additional information.

All [SCTE130-7] definitions are included herein. See [SCTE130-7] for additional information.

All [SCTE 130-8] definitions are included herein. See [SCTE 130-8] for additional information.

Audience: The term “audience” is used to refer to a collection of one or more subscribers. A logical service that implements the SIS interface described in this document *may* often provide profile information about an audience. For example, a logical service *may* provide information about one or more audiences within a linear advertising zone rather than information about individual subscribers.

Subscriber: This document uses the term subscriber to refer to one or more members of a viewing audience to whom advertising messages *may* be addressed. Depending on the transmission method and receiver technology employed, it *may* be possible to address an individual viewer, an entire household, or all households in a broadcast area such as a cable head-end, metropolitan market or some other aggregation.

5.0 ABBREVIATIONS

All [SCTE130-2] abbreviations are included herein. See [SCTE130-2] for additional information.

All [SCTE130-7] abbreviations are included herein. See [SCTE130-7] for additional information.

All [SCTE 130-8] abbreviations are included herein. See [SCTE 130-8] for additional information.

6.0 SUBSCRIBER INFORMATION SERVICE OVERVIEW (INFORMATIVE)

A Subscriber Information Service (SIS) provides subscriber metadata query and notification services to its consumers. Using the interfaces defined by this specification, logical service consumers *may* retrieve detailed information about subscribers known to an SIS implementation.

A Subscriber Information Service *may* provide information about subscribers distilled from a variety of data sources — including, but not limited to

1. An MSO Subscriber Management System (SMS) — that might contain information about geographical location and service tiers.
2. A Third Party supplied demographic database — that might contain information about subscriber interests, age group, income levels and family size.
3. A “Viewing History Database” — that might contain historical information about subscriber activity in viewing both Program content and Advertising content.

These potential data sources are illustrated in Figure 1.

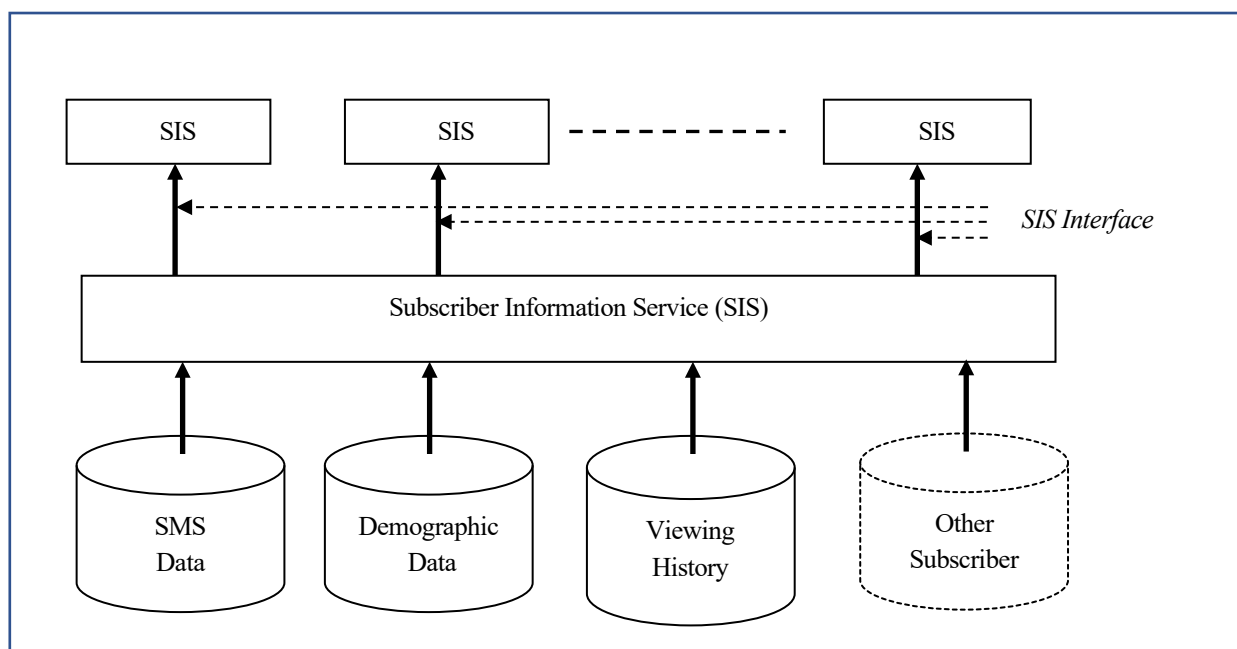


Figure 1. Potential SIS Data Sources

The interface between an SIS implementation and its subscriber information data source(s) is outside the scope of this specification.

A Subscriber Information Service responds to queries run against the data gathered from its associated subscriber information data source(s), and can issue notification messages when any changes occur that would affect the results of queries previously registered by consumers.

An SIS query can answer three kinds of questions.

1. It can retrieve a list of qualifiers supported by the SIS implementation. Each qualifier in the list has an associated characterization of its value

type, and the value's upper bound and lower bound where applicable. This kind of query *may* be used by any consumer of an SIS implementation.

2. Using the basic query mechanism, it can return a list of unique qualifiers that identify subscribers whose characteristics conform to the basic query selection criteria. This kind of query might be used by a campaign management system when determining population counts to meet campaign requirements, though its use is not restricted to that purpose.
3. Given a unique qualifier, return a qualifier set for that subscriber. This kind of query *may* be used by an Ad Management System (ADM) or an Ad Decision System (ADS) when delivering targeted advertising, though its use is not restricted to that purpose.

Figure 2 provides one example of several possible subscriber information service implementations with respect to the SCTE 130 logical services.

The SIS in this example is used to automate the publication of audience profile information to advertisers and to expedite rate card calculations. This is illustrated in Figure 2 below.

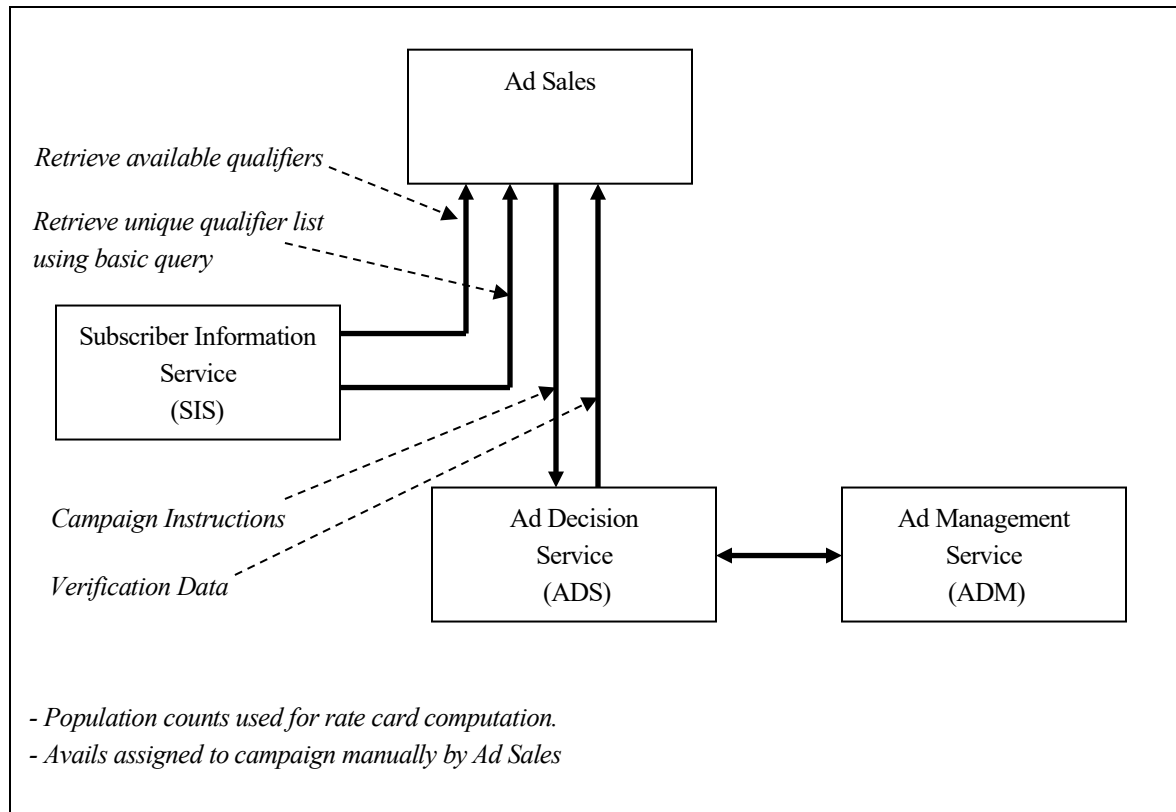


Figure 2. Traditional (Non-Automated) Ad Sales

Figure 3 provides one example of several possible subscriber information service implementations with respect to the SCTE 130 logical services. In this example the SCTE 130 Part 5 “Placement Opportunity Information Service (POIS)” [SCTE 130-5] is included in the implementation.

The subscriber information service is employed to automate the publishing of audience profile information to the campaign management system and for rate card calculations. The campaign management system integrates SIS information to attach qualifier lists to placement opportunities and automatically assign placement opportunities to a campaign as needed to satisfy the campaign requirements. This is illustrated in Figure 3 below.

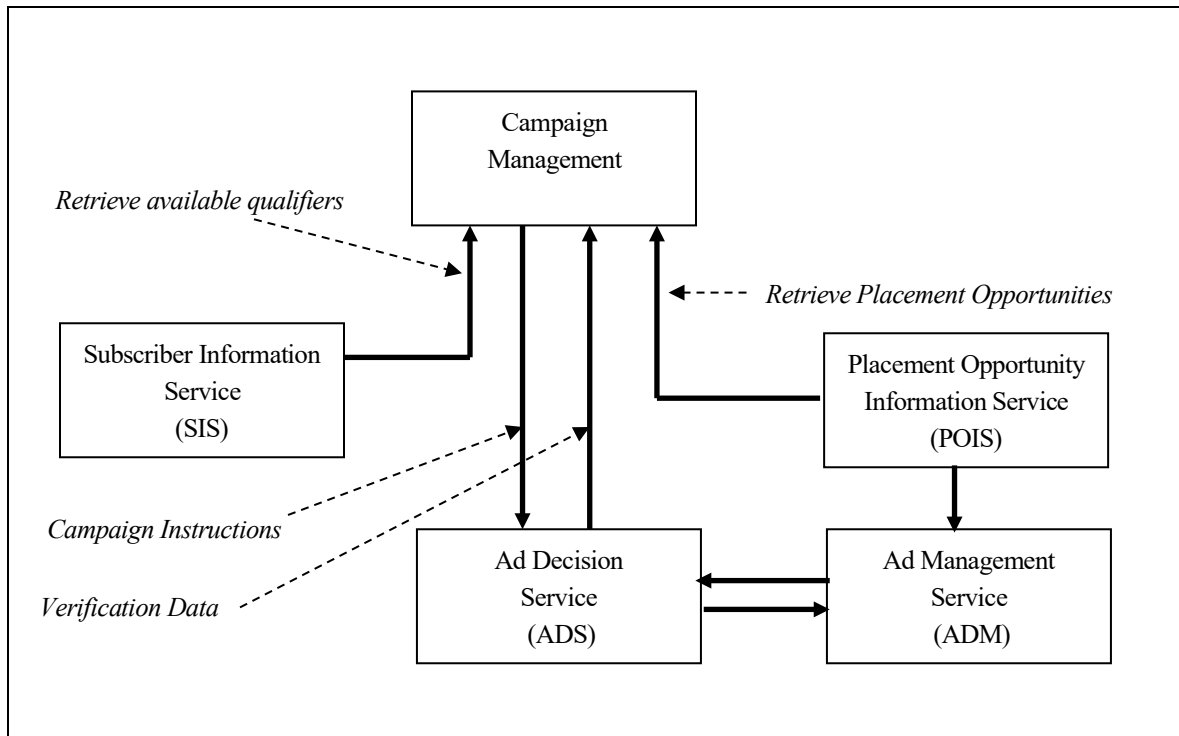


Figure 3. Automated Ad Sales

In general, there *may* be many SIS services accessed by multiple elements in an overall architecture. In the example shown in Figure 4, the campaign managers and corresponding ADS services access the SIS services to retrieve subscriber information for use in targeted ad placements. In addition, the Placement Opportunity Information System accesses SIS services to qualify and allocate placement opportunities to specific campaign managers and the ADM accesses these SIS services when sessions are created to include target code information in placement requests.

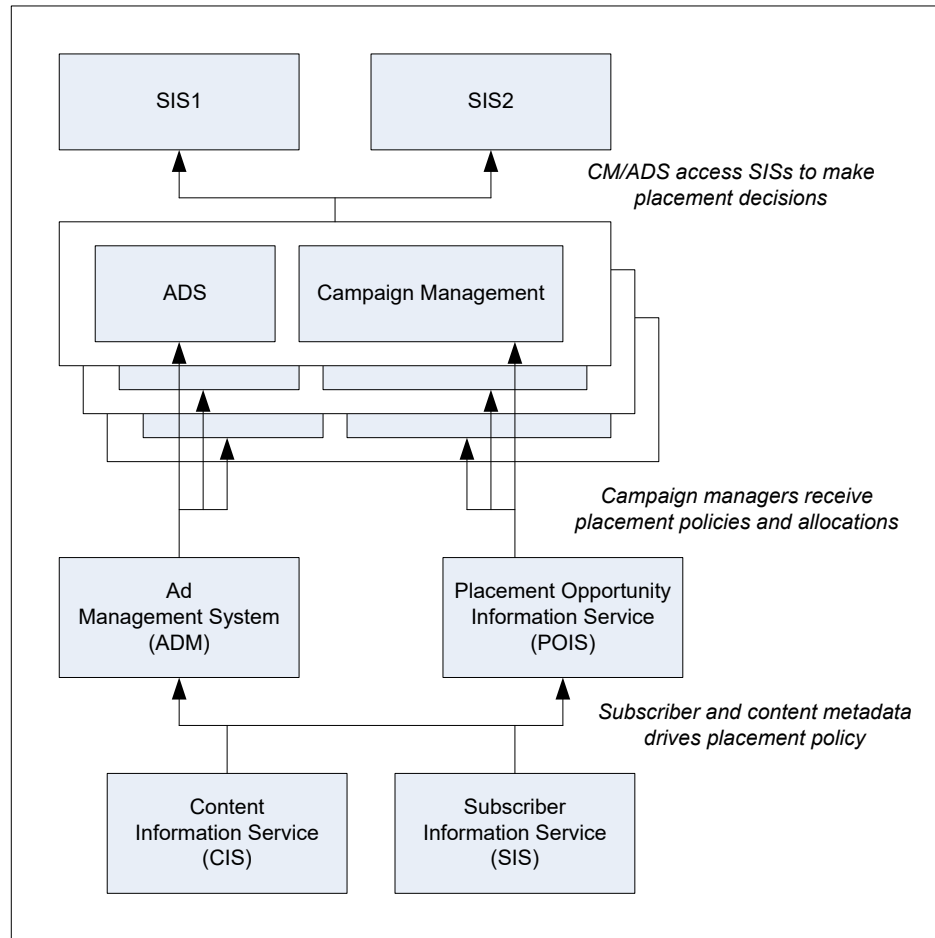


Figure 4. Automated and Targeted Ad Sales

7.0 NOTATIONAL CONVENTIONS

7.1 Normative XML Schema

SCTE 130 Part 6 employs the same notational conventions as [SCTE130-2]. Refer to [SCTE130-2] for an explanation of notational conventions.

7.2 Document Conventions

SCTE 130 Part 6 employs the same document conventions as [SCTE130-2]. Refer to [SCTE130-2] for an explanation of document conventions. For example, the XML schema illustration is explained there.

8.0 PROCESSING CONVENTIONS

8.1 Unknown/Unrecognized/Unsupported XML Elements and Attributes

See [SCTE130-2] for information.

9.0 XML NAMESPACES

This specification uses the ‘sis’ prefix, as described in Table 1, for the interface associated with the specific XML namespace URI that *shall* be used by all implementations. Table 1 lists the prefix, the corresponding namespace, and a description of the defining specification used herein.

Standard	XML Schema Prefix	XML Schema Elements	Value
2020 (latest)	core (SCTE 130-2)	Schema namespace	http://www.scte.org/schemas/130-2/2008a/core ¹
		Schema version attribute	20200321
		Schema filename	SCTE_130-2_core_20200321.xsd
	gis (SCTE 130-8)	Schema namespace	http://www.scte.org/schemas/130-8/2011/gis ²
		Schema version attribute	20200325
		Schema filename	SCTE_130-8_gis_20200325.xsd
		Schema namespace	http://www.scte.org/schemas/130-8/2011/gis/mutable ³

¹ While this specification has a ratified year of 2020, the XML schema/XSD namespace has a year of 2008a, which is the year the XSD and this specification’s syntax was initially ratified. All subsequent changes have been backwards compatible and thus, the namespace has not changed.

² While this specification has a ratified year of 2020, the XML schema/XSD namespace has a year of 2011, which is the year the XSD and this specification’s syntax was initially ratified. All subsequent changes have been backwards compatible and thus, the namespace has not changed.

³ Same as footnote 2.

	mut (SCTE 130-8 Appendix F)	Schema version attribute	20200325
		Schema filename	SCTE_130-8_mutable_20200325.xsd
	sis (This doc.)	Schema namespace	http://www.scte.org/schemas/130-6/2011/sis ⁴
		Schema version attribute	20200326
		Schema filename	SCTE_130-6_sis_20200326.xsd
	sismut (This doc. Appendix C)	Schema namespace	http://www.scte.org/schemas/130-6/2011/sis/mutable ⁵
		Schema version attribute	20200326
		Schema filename	SCTE_130-6_mutable_20200326.xsd
	xsd	Schema namespace	http://www.w3.org/2001/XMLSchema

Table 1. XML Namespace Declarations**10.0 SUBSCRIBER INFORMATION SERVICE MESSAGES**

The following topics are covered by [SCTE130-2] and by [SCTE 130-8]. This specification considers all aspects defined therein to be normative and applicable herein. See [SCTE130-2] and [SCTE 130-8] for additional information.

- Message format

⁴ While this specification has a ratified year of 2020, the XML schema/XSD namespace has a year of 2011, which is the year the XSD and this specification's syntax was initially ratified. All subsequent changes have been backwards compatible and thus, the namespace has not changed.

⁵ Same as footnote 4.

- XML message carriage
- Transport mechanisms
- Message error handling

The SCTE 130 Part 6 message interface *shall* include the messages defined by [SCTE130-2] and messages derived from the message types defined in [SCTE 130-8].

10.1 @version Attribute

For all SCTE 130 Part 6 messages, the @version attribute *shall* be set to the value “1.0” for this document’s revision.

10.2 Request Base Message

All SCTE 130 Part 6 top level *request* messages are derived from the request message types defined in [SCTE 130-8] that are derived from the core:Msg_RequestBaseType abstract base message type. See [SCTE130-2] for details on the attributes and elements contained in this base message type.

10.2.1 Request Base Message Attributes (INFORMATIVE)

@messageId [Required, core:messageIdAttrType] — The message identifier. See [SCTE130-2] for additional information.

@version [Required, core:versionAttrType] — The message specification version. See [SCTE130-2] for additional information.

@identity [Required, core:identityAttrType] — The origin logical service identifier. See [SCTE130-2] for additional information.

@system [Optional, core:systemAttrType] — The message source identifier. See [SCTE130-2] for additional information.

@resend [Optional, core:resendAttrType] — Message retransmission identifier. See [SCTE130-2] for additional information.

@##any [Optional] — Any additional attributes from any namespace.

10.2.2 Request Base Message Elements (INFORMATIVE)

core:InitiatorData [Optional] — Private data that *shall* be in the response message. See [SCTE130-2] for additional details on the core:InitiatorData element.

10.3 Response Base Message

All SCTE 130 Part 6 top level **response** messages are derived from the response message types defined in [SCTE 130-8] that are derived from the core:Msg_ResponseBaseType abstract base message type. See [SCTE130-2] for details on the attributes and elements contained in this base message type.

10.3.1 Base Response Message Attributes (INFORMATIVE)

@messageId [Required, core:messageIdAttrType] — The message identifier. See [SCTE130-2] for additional information.

@version [Required, core:versionAttrType] — The message specification version. See [SCTE130-2] for additional information.

@identity [Required, core:identityAttrType] — The origin logical service identifier. See [SCTE130-2] for additional information.

@system [Optional, core:systemAttrType] — The message source identifier. See [SCTE130-2] for additional information.

@messageRef [Required, core:messageRefAttrType] — A reference to the Request message element that initiated the message exchange. The value **shall** be the Request message's @messageId attribute value. See [SCTE130-2] for additional information on the core:messageRefAttrType.

@##any [Optional] — Any additional attributes.

10.3.2 Base Response Message Elements (INFORMATIVE)

core:InitiatorData [Optional] — Private data from the Request message. See [SCTE130-2] for additional details on the core:InitiatorData element.

core:StatusCode [Required] — A core:StatusCode element for communicating status information to the consumer. See [SCTE130-2] for additional information.

10.4 Notification Base Message

All SCTE 130 Part 6 top level **notification** messages are derived from the notification message types defined in [SCTE 130-8] that are derived from the core:Msg_NotificationBaseType abstract base message type. See [SCTE130-2] for details on the attributes and elements contained in this base message type.

10.4.1 Notification Base Message Attributes (INFORMATIVE)

@messageId [Required, core:messageIdAttrType] — The message identifier. See [SCTE130-2] for additional information.

@version [Required, core:versionAttrType] — The message specification version. See [SCTE130-2] for additional information.

@identity [Required, core:identityAttrType] — The origin logical service identifier. See [SCTE130-2] for additional information.

@system [Optional, core:systemAttrType] — The message source identifier. See [SCTE130-2] for additional information.

@resend [Optional, core:resendAttrType] — Message retransmission identifier. See [SCTE130-2] for additional information.

@type [Required, gis:contentNotificationTypeEnumeration] — The @type attribute is an enumeration that indicates the kind of changes contained in the Notification message. For information on the values allowed for the @type attribute see [SCTE 130-8].

@##any [Optional] — Any additional attributes from any namespace.

10.4.2 Notification Base Message Elements (INFORMATIVE)

core:InitiatorData [Optional] — Private data that *shall* be returned in the Acknowledgement message. See [SCTE130-2] for additional details on the core:InitiatorData element.

10.5 Acknowledgement Base Message

All SCTE 130 Part 6 top level *acknowledgement* messages are derived from the acknowledgement message types defined in [SCTE 130-8] that are derived from the core:Msg_AcknowledgementBaseType abstract base message type. See [SCTE130-2] for details on the attributes and elements contained in this base message type.

10.5.1 Acknowledgement Base Message Attributes (INFORMATIVE)

@messageId [Required, core:messageIdAttrType] — The message identifier. See [SCTE130-2] for additional information.

@version [Required, core:versionAttrType] — The message specification version. See [SCTE130-2] for additional information.

@identity [Required, core:identityAttrType] — The origin logical service identifier. See [SCTE130-2] for additional information.

@system [Optional, core:systemAttrType] — The message source identifier. See [SCTE130-2] for additional information.

@messageRef [Required, core:messageRefAttrType] — A reference to the Notification message element that initiated the message exchange. The value

shall be the Notification message's @messageId attribute value. See [SCTE130-2] for additional information on the core:messageRefAttrType.

@##any [Optional] — Any additional attributes from any namespace.

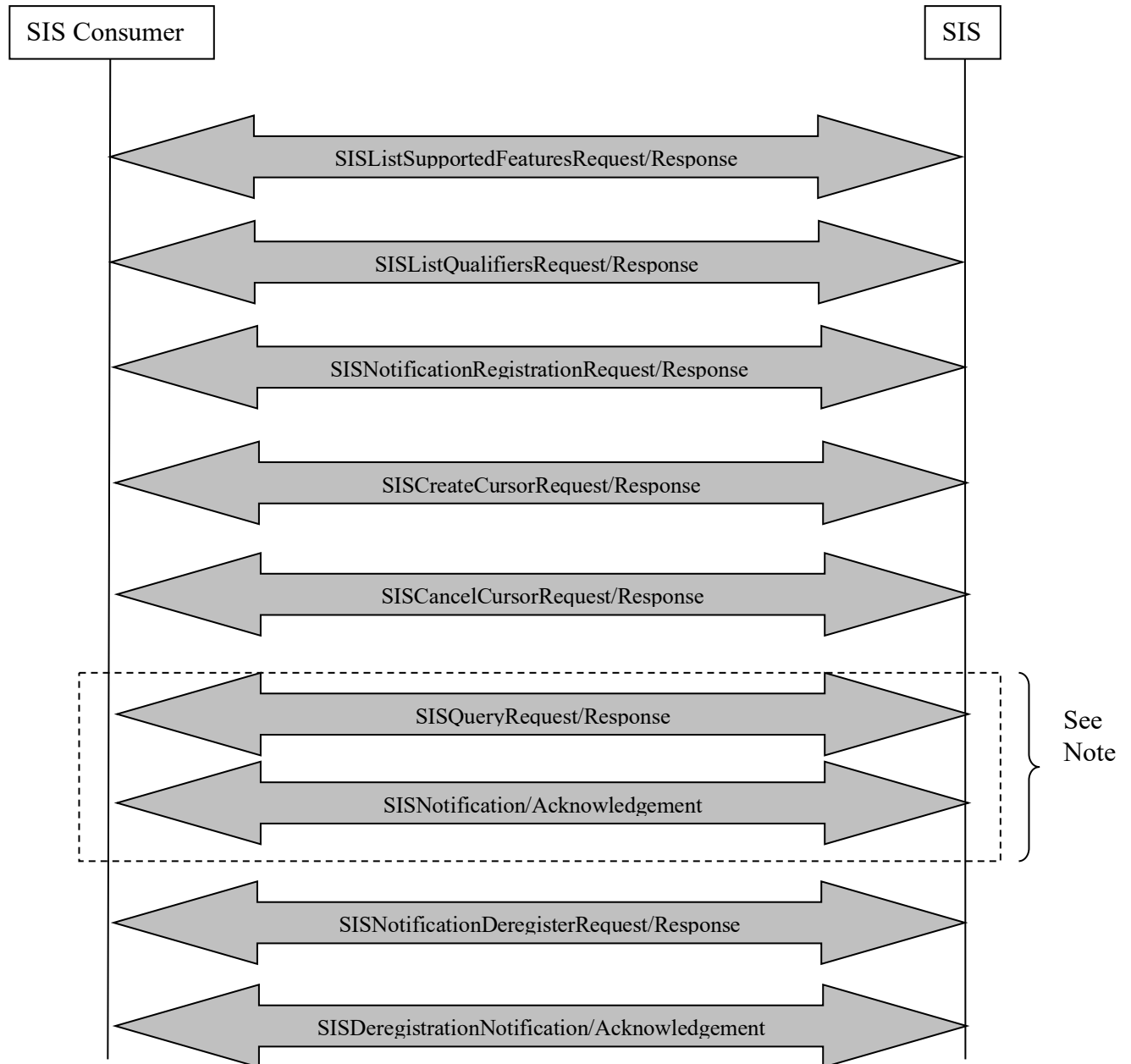
10.5.2 Acknowledgement Base Message Elements (INFORMATIVE)

core:InitiatorData [Optional] — Private data from the Notification message. See [SCTE130-2] for additional details on the core:InitiatorData element.

core:StatusCode [Required] — A core:StatusCode element for communicating status information to the consumer. See [SCTE130-2] for additional information.

10.6 SIS Message Exchange

Figure 5 **Error! Reference source not found.** illustrates a typical message exchange between an SIS consumer and an SIS implementation.



Note: The Query and Notification exchange may happen repeatedly between logical service channel setup and tear down.

Figure 5. SCTE 130 Part 6 Top Level Messages

Table 2 provides a brief description of each SIS message.

Message	Description
SISListSupportedFeaturesRequest	Request to retrieve a list of an advertising service's supported features
SISListSupportedFeaturesResponse	Response to ListSupportedFeaturesRequest
SISListQualifiersRequest	Request to retrieve detailed service data model information used in basic query construction and result interpretation
SISListQualifiersResponse	Response to ListQualifiersRequest
SISListNotificationRegistrationRequest	Request to list existing registrations
SISListNotificationRegistrationResponse	Response to ListNotificationRegistrationRequest
SISNotificationRegistrationRequest	Registration request for notification
SISNotificationRegistrationResponse	Response to NotificationRegistrationRequest
SISNotification	Notification message indicating a change to the result set of a registered query
SISNotificationAcknowledgement	Response to Notification
SISCreateCursorRequest	Request to create a cursor
SISCreateCursorResponse	Response to CreateCursorRequest
SISCancelCursorRequest	Request to cancel an existing cursor
SISCancelCursorResponse	Response to CancelCursorRequest
SISQueryRequest	Request to acquire records from the SIS
SISQueryResponse	Response to QueryRequest
SISNotificationDeregisterRequest	Request to de-register a previously accepted registration
SISNotificationDeregisterResponse	Response to NotificationDeregisterRequest
SISDeregistrationNotification	Deregistration notification
SISDeregistrationAcknowledgement	Deregistration notification acknowledgement

Table 2. SCTE 130 Part 6 Top Level Messages

10.7 SISListSupportedFeaturesRequest and SISListSupportedFeaturesResponse

The SISListSupportedFeaturesRequest and SISListSupportedFeaturesResponse messages allow consumers to inquire about the data models and advanced query languages supported by an SIS implementation.

10.7.1 SISListSupportedFeaturesRequest Message

The SISListSupportedFeaturesRequest message allows the consumer of a logical service to inquire about the data models and advanced query languages supported by an SIS implementation.

The XML schema definition for this message is illustrated in Figure 6.

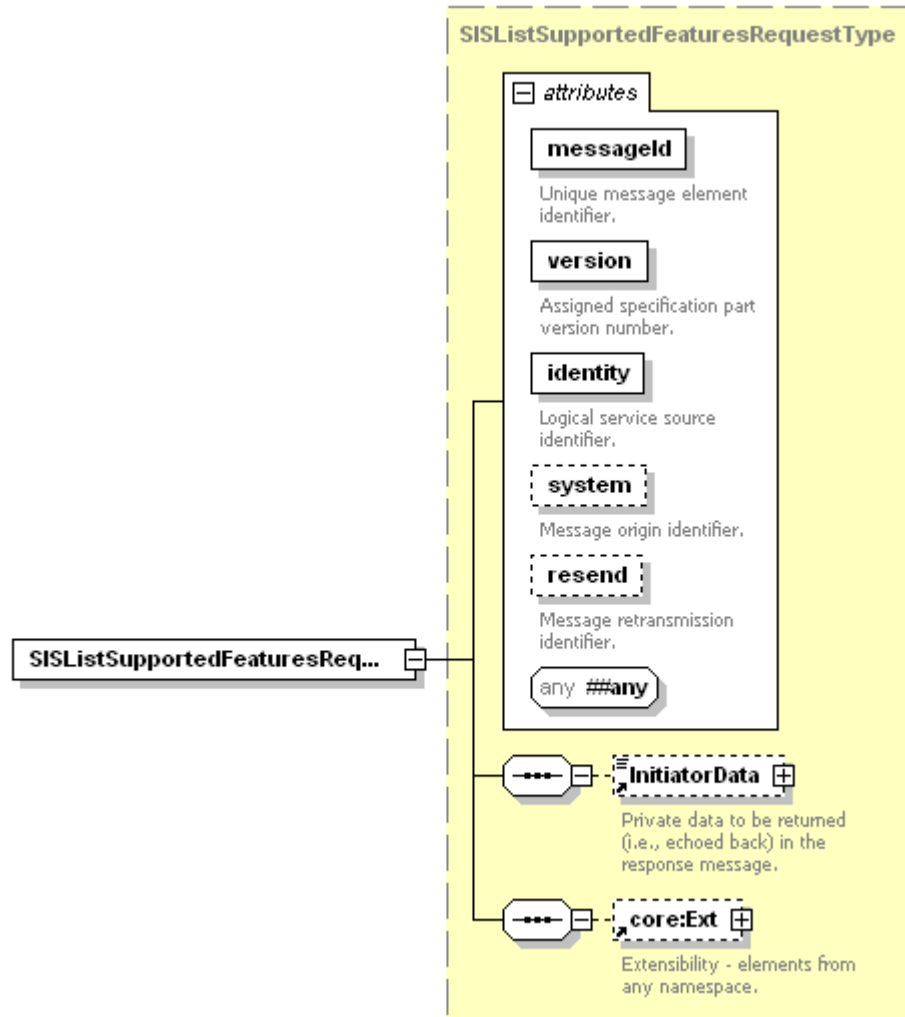


Figure 6. SISListSupportedFeaturesRequest Message XML Schema

The SIS interface defines no new message attributes for this message in addition to those already defined by [SCTE 130-8].

core:Ext [Optional] — Any additional elements from any namespace. For additional information on the core:Ext element see [SCTE130-2].

10.7.2 SISListSupportedFeaturesResponse Message

The XML schema definition for this message is illustrated in Figure 7.

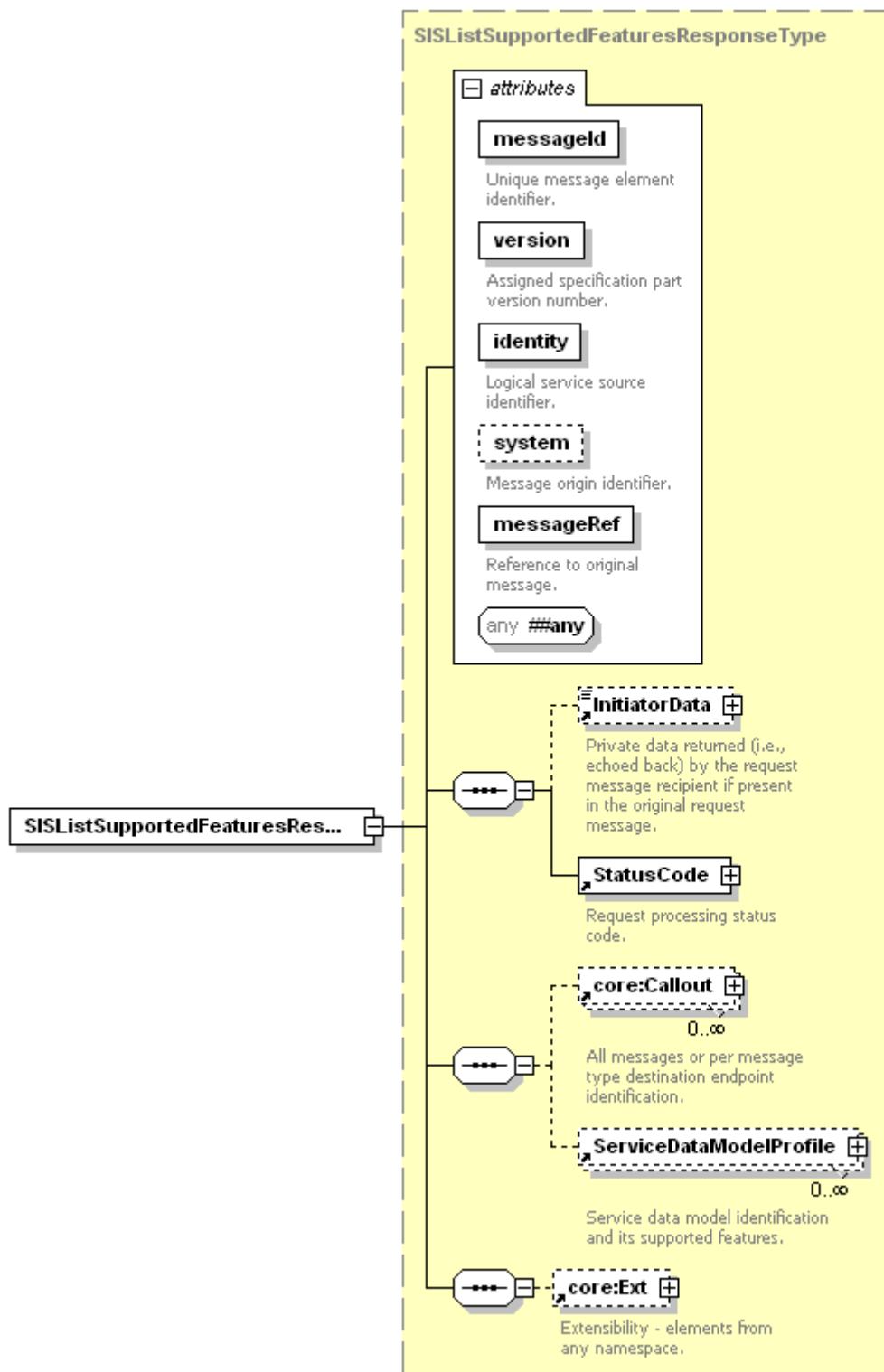


Figure 7. SISListSupportedFeaturesResponse Message XML Schema

The SIS interface defines no new message attributes for this message in addition to those already defined by [SCTE 130-8].

An SIS implementation *shall* implement basic query support and *may* implement advanced query language support as defined by [SCTE 130-8]. Thus, the SISListSupportedFeaturesResponse message *may* contain information regarding both basic query qualifiers and advanced query languages.

Table 3 contains the values for the @message attribute of the core:Callout element. Values for the @message attribute *should* be used exactly as defined by Table 3.

Value	Description
SISListQualifiersRequest	The address endpoint where SISListQualifiersRequest messages <i>shall</i> be sent.
SISNotificationRegistrationRequest	The address endpoint where SISNotificationRegistrationRequest messages <i>shall</i> be sent.
SISNotificationDeregisterRequest	The address endpoint where SISNotificationDeregisterRequest messages <i>shall</i> be sent.
SISListNotificationRegistrationRequest	The address endpoint where SISListNotificationRegistrationRequest messages <i>shall</i> be sent.
SISCreateCursorRequest	The address endpoint where SISCreateCursorRequest messages <i>shall</i> be sent.
SISCancelCursorRequest	The address endpoint where SISCancelCursorRequest messages <i>shall</i> be sent.
SISQueryRequest	The address endpoint where SISQueryRequest messages <i>shall</i> be sent.
ServiceStatusNotification	The address endpoint where core:ServiceStatusNotification messages <i>shall</i> be sent.
...	User defined address endpoint outside of the scope of this specification. The string <i>shall</i> be prefixed with the text “private:”.

Table 3. core:Callout @message Values

core:Ext [Optional] — Any additional elements from any namespace. For additional information on the core:Ext element see [SCTE130-2].

10.8 SISListQualifiersRequest and SISListQualifiersResponse

The SISListQualifiersRequest and SISListQualifiersResponse messages allow consumers to discover the subscriber information qualifiers associated with any SIS implementation's service data models that can be queried with the basic query interface.

10.8.1 SISListQualifiersRequest Message

The SISListQualifiersRequest message allows the consumer of an SIS implementation to inquire about the qualifier names used by any service data model that can be queried using the basic query interface.

The XML schema definition for this message is illustrated in Figure 8.

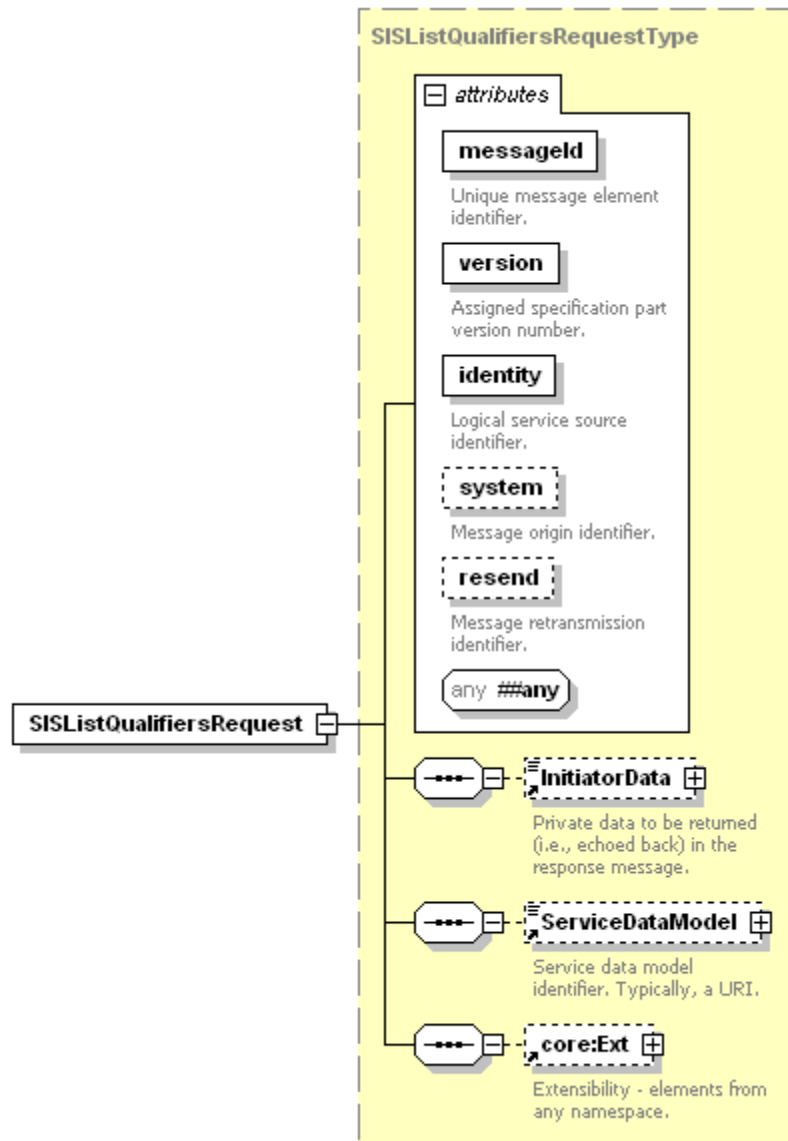


Figure 8. SISListQualifiersRequest Message XML Schema

The SIS interface defines no new message attributes for this message in addition to those already defined by [SCTE 130-8].

core:Ext [Optional] — Any additional elements from any namespace. For additional information on the core:Ext element see [SCTE130-2].

10.8.2 SISListQualifiersResponse Message

If the SIS implementation supports the service data model contained in the SISListQualifiersRequest message, the SISListQualifiersResponse message **shall** contain, at a minimum, a single BasicQueryDataModelDescription element. See [SCTE 130-8] for additional information on the BasicQueryDataModelDescription element. If the SIS implementation does not

support the service data model contained in the SISListQualifiersRequest message, no BasicQueryDataModelDescription element *shall* be returned and the StatusCode element's @detailCode *shall* be set to core:ResourceNotFound.

The XML schema definition for this message is illustrated in Figure 9.

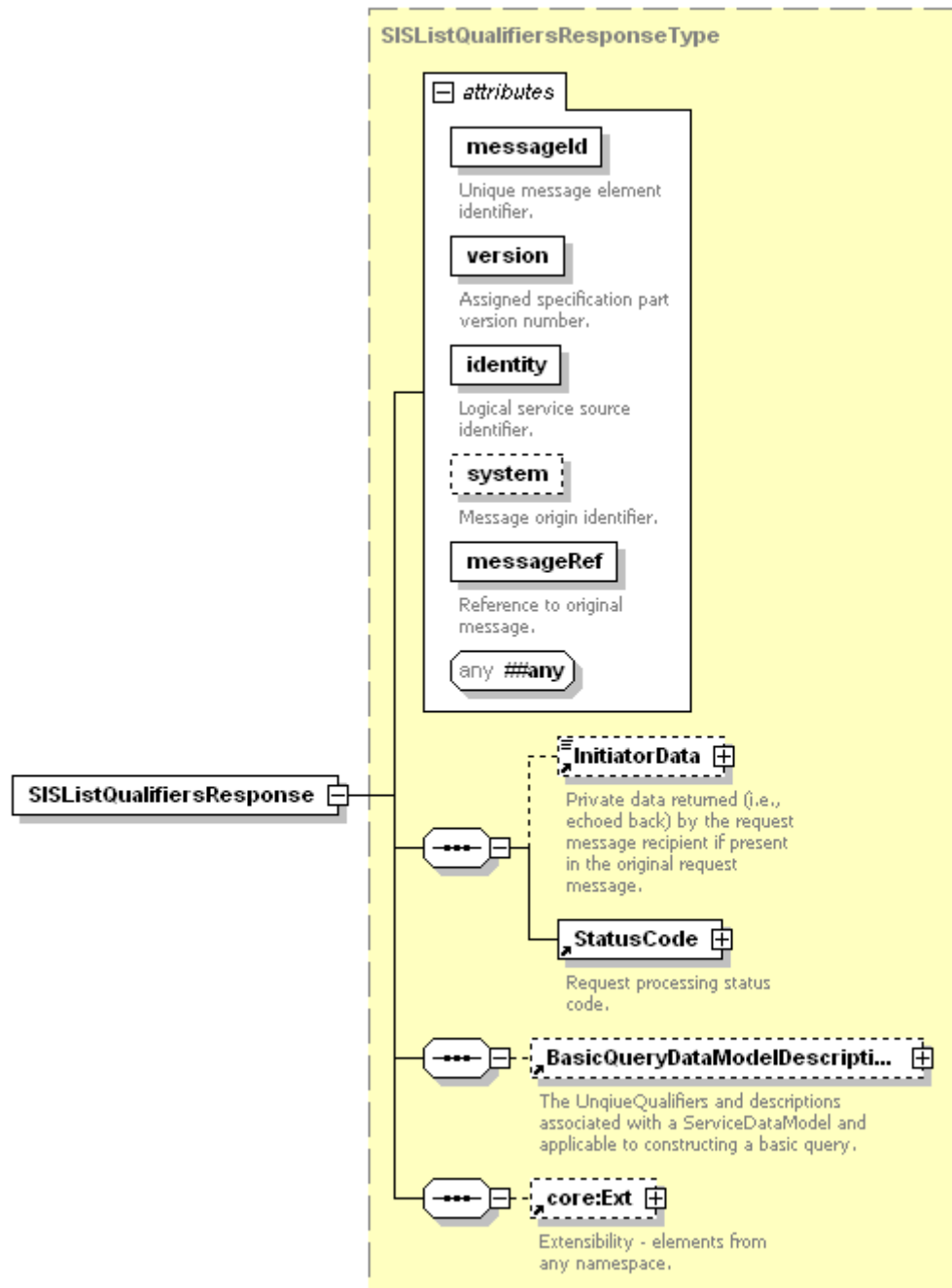


Figure 9. SISListQualifiersResponse Message XML Schema

The SIS interface defines no new message attributes for this message in addition to those already defined by [SCTE 130-8].