

Nuance Reporting API v3

User Manual

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Overview

The Nuance Reporting API allows customers to access real-time and historical data from the Nuance Digital Engagement Platform (NDEP) to create bespoke dashboards or custom reporting. It is also used to power the NDEP Supervisor Desktop.

The NDEP Data API service is a **Representational State Transfer** (RESTful) API designed to enable first and third party clients (UIs/Applications) to access NDEP transcript and real-time metric data. The API can be used to integrate NDEP data with a variety of applications. Examples include:

- Integrating real-time metrics into Work Force Management reporting or monitoring dashboards
- Pulling chat transcripts into a CRM system
- Extracting a transcript for "warm" transfer from chat to another medium (e.g. Call)

The NDEP Data API service is accessed via HTTPS. You can access the API from a standard web browser or directly from an application. API credentials allow you to obtain authorized access to the API. (You must obtain API credentials by creating a user account in Nuance Portal with the required API roles). Once access is achieved a session is maintained enabling the client to make data requests. The client can continue to make data requests for the duration of the session based on the initial authentication.

Authentication

Access to the API Service is session-based. Authentication is accomplished using HTTPS combined with secure cookies.

To authenticate and create a session:

1. Make a POST request to the following URL using the parameters in the table.

https://api.touchcommerce.com/j_spring_security_check

2. Capture the cookie that is returned when you successfully authenticate.
3. Use the cookie in subsequent requests to the API service.

To close a session, make a GET request, passing in the session cookie to the following URL:

<http://api.touchcommerce.com/logout>

Parameter Key	Value	Description
j_username	<username>	Specify the username of the API Service requester
j_password	<password>	Specify the password of the API Service requester
submit	Login	Specify the literal string "Login" to login

Example

Authentication

```
curl -c cookie.txt -d  
"j_username=foo%40inq.com&j_password=pass123&submit=Login" https://api.touchcommerce.com/j_spring_security_check
```

Make one or more queries. You must use the cookie from above.

Sample Request

```
curl -b cookie.txt https://api.touchcommerce.com/...
```

Logout

```
curl -b ./cookie.txt https://api.touchcommerce.com/logout
```

Note. The same session cookie can be used for multiple chat sessions.

API Requests Per Second (Throttling)

The number of requests per second that a user can make to the API is unlimited by default. You can "throttle" individual user accounts by placing a limit on the number of requests allowed per second. To do this, you must change the **Number of Request Allowed per Second** value for a user account in the Portal interface.

- Where Requests per Second is set to **Null**, the number of queries allowed per second is unlimited. (Default)
- Where Requests per Second is set to **Zero**, the user account cannot send queries to the API
- Where Requests per Second is set to **1**, the user account can send 1 query per second to the API
- Where Requests per Second is set to **2**, the user account can sent 2 queries per second to the API

To change this value per user, access the **Admin > User Management > Edit User** page in the Portal interface and select the API Settings tab. This action requires Administrative privileges.

Requests

Format

The general format of an API request is shown here. The version value displays the API version, currently version v3.

Note. These URLs can change depending on the client because different clients are in different data centers.

```
https://api.touchcommerce.com /{version}/{metric,transcript} /{historic,realtime}?{param_list}
```

Supported URL path combinations are shown here:

```
GET https://api.touchcommerce.com/{version}/transcript/historic?
```

```
GET https://api.touchcommerce.com/{version}/transcript /realtime?
```

```
GET https://api.touchcommerce.com/{version}/metric/realtime?
```

Note. The metric/historic combination is not supported.

The transcript/real-time value does not have unique parameters.

Query String Parameters

Common Parameters

Common parameters work for all URL path combinations.

Parameter	Description	Values	Required	Examples
ag	Allows filtering on one or more agent groups.	Any authorized agent group ID. Can be a single value or multiple, comma-separated values.	no	ag = 234,567
bu	Allows filtering on one or more business unit.	Any authorized business unit ID. Can be a single value or multiple, comma-separated values.	no	bu=234
filter	Define text-based filter. See the Filter Expression Format section later in this document.		Yes for transcripts; no for metrics	1) filter=totalConversions>1
output	The output format of the API.	JSON (default) or XML.	no	output=XML
returnFields	The fields to be returned in the response.	Use ALL to return all possible fields. Valid individual fields are listed in the Returnable As column in the Field Definitions Table .	no	returnFields=ALL OR returnFields=engagementID, totalConversions OR returnFields=engagementID, agents,finalOwningAgentID,agentAttribute.language
site	Defines site ID	Any authorized site ID - a single value.	yes	site=999

metric/real-time parameters

The metric/real-time parameters are specific to a unique path.

Parameter	Description	Values	Required
category	Requested metric category	queue, engagement, agent	yes
dimension	Represents the primary column in a cube. Possible values depend on the category. For a given category (data object), only certain fields can be dimensions. Dimension must be set to a single value. For instance engagement , agents is not allowed.		yes
startDate	The start of the date/time interval of interest. Note: only certain fields can be returned when using this parameter - see fields in the JSON schemas below marked with "Returned with startDate and endDate parameters". NOTE: The startDate and endDate parameters must be used together.	Any valid date as specified here: Date and Filter Expression Format	no

endDate	The end of the date/time interval of interest. Note: only certain fields can be returned when using this parameter - see fields in the JSON schemas below marked with "Returned with startDate and endDate parameters". NOTE: The startDate and endDate parameters must be used together.	Any valid date as specified here: Date and Filter Expression Format	no
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transcript/historic parameters

The metric/real-time parameters are specific to a unique path.

Parameter	Description	Default Value	Example	Notes
start	display page (starts at 0)	0	&start=0	
rows	number of rows to display on page	10	&rows=20	
sortField	field name to sort on	startDate	&sortField=engagementID	
sortOrder	order of sort	desc	&sortOrder=asc	Possible values: asc & desc

Field Definitions Table

Field names are used in the values of the following query string parameters:

- filter - see filter columns in the following table
- dimension - see the dimension column in the following table
- returnFields - Whether or not a field is requestable/returnable is specific to its dimension. Requestable fields are defined both in the "returnable as" column below and in the responses section later in the document. Note that some fields are only returnable as their parent object field. For example, agentID is only returnable as agents which is an array of all agents associated with the engagement.

Fields are also used in the JSON responses (meaning that fields share consistent names for both requests and responses).

The following table defines field names, types, whether or not fields are multi-valued (i.e. can be a list of values), which fields can be used for filtering, which fields are valid dimensions (for real-time metrics) and field definitions.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
abandoned	int	false						abandoned	Queue <ul style="list-style-type: none"> • Business Rules • Pages • Custom 	The number of abandoned engagements that occurred between the start date and end date. The result should always be 0 if the start and end dates are not provided in a query.
abandonedWithinSLA	int	false						abandonedWithinSLA	Queue <ul style="list-style-type: none"> • Business Rules • Pages • Custom 	The number of abandoned engagements between the start and end date that occur before the queue SLA time is exceeded. The result should always be 0 if the start and end dates are not provided in a query.
activeEngagements	int	false						activeEngagements	Queue <ul style="list-style-type: none"> • Agents Engagement <ul style="list-style-type: none"> • Agents • Business Rules • Custom • Pages • Summary Agent <ul style="list-style-type: none"> • Agents 	An engagement is active when the customer has not yet exited the chat and the agent does not yet see the disposition window. An engagement is inactive when the customer has exited a chat and the agent sees the disposition window. Two-way communication is no longer possible between the agent and the customer
agentAlias	string	true	Yes	Yes		Yes		agents		Alias of an agent. This is the name used for the agent in the chat transcript. Returned in the agents object.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
agentAnsweredEngagements	int	false						agentAnsweredEngagements	Engagement - • Agents • Business Rules • Pages • Custom	The number of engagements that have been assigned to an agent and the first agent response has been received. (Engagements must be either active or defined within an interval.) Messages sent by automatons (e.g. agent-message in native automatons) should be ignored for this metric. The metric should be incremented at the time of the first response. Messages sent by automatons (e.g. agent-message in native automatons) should be ignored for proposes of this metric.
agentAttribute.<name>	string/list	true	Yes	Yes		Yes	Yes	agentAttribute.<name>		A custom attribute to be associated with an agent. For example, agentAttribute.location which could be assigned values like US, India, etc indicating the location of an agent.
agentBusinessUnits	string	true	Yes	Yes	Yes	Yes		agentBusinessUnits		The name of the business unit. Assigned with initial agent and transfer events. Returned in the agent object.
agentEnterDate	string	true	Yes					agentEnterDate		List of all dates for agent entering the engagement. Returned in the agent object.
agentExitDate	string	true	Yes					agentExitDate		List of all dates for agent exiting the engagement. Returned in the agent object.
agentFreehandLines	string	false	Yes					transcript		The agent free typed lines (vs. pre-scripted) from the transcript/conversation. If the query does not specify language this field will be searched regardless of the language of the transcript. If the language parameter is specified only transcripts that match the specified language will be searched.
agentFullName	string	true	Yes	Yes		Yes	Yes	agents		An agent's full name. This is the agent's actual full name (e.g. Bob Smith). Returned in agents object.
agentGroupID	string	false	Yes	Yes	Yes	Yes		agentGroups		ID of an agent's agent group.
agentGroupName	string	true	Yes	Yes	Yes	Yes		agentGroups		Name of an agent's agent group.
agentGroups	object/array							agentGroups	Queue • Engagements Engagement • Engagements	Response object containing one or more agentGroupID and agentGroupName pairs. An agent group is a grouping of agents used for specifying assignment requirements (e.g. this request should be assigned to a trained life insurance sales agent). Also, many aspects of an engagement's configuration (e.g. the default script) are determined by attaching configurations to agent groups.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
agentID	string	true	Yes	Yes		Yes	Yes	agents	Queue • Agents Engagement • Agents Agent • Agents	ID of an agent (same as their login username). Returned in the agents object.
agents	object/array							agents	Queue • Engagements Engagement • Business Rules • Pages • Engagements • Custom	Response object containing agentID, agentFullname and (for engagements dimension only) agentAlias
agentScriptLines	string	false	Yes					transcript		The agent sent pre-scripted lines from the transcript/conversation. If the query does not specify language this field will be searched regardless of the language of the transcript. If the language parameter is specified only transcripts that match the specified language will be searched.
agentStatus	string	false					Yes	agentStatus	Queue • Agents Engagement • Agents Agent • Agents	An agent's current status. Valid status values are configurable by site: (For example "Available", "Busy", etc.)
agentTimeInStatus	long	false				Yes	Yes	agentTimeInStatus	Queue • Agents Engagement • Agents Agent • Agents	Time since agent's last status changed. (in ms)

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
agentType	string	yes	yes					agentType		Identifies the type of agent as live or virtual.
allAgentLines	string	false	Yes					transcript		The agent lines from the transcript/conversation. If the query does not specify language this field will be searched regardless of the language of the transcript. If the language parameter is specified only transcripts that match the specified language will be searched.
allDispositionCategoryReason	string	true	Yes					dispositions		The disposition category(s) and reason(s) entered by all agents that participate in an engagement. The category and reason are separated by the delimiter '##'. For example, to find category1 reason1, you search on category1##reason1
allDispositionNotes	string	true	Yes					dispositions		List of dispositions notes made by each agent. If the user does not specify the "language" field in the filter, then the language of the site ID will be used to search the correct data.
assignedCount	int	false						assignedCount	Agent • Agents	Counts the number of chats assigned to an agent.
assignedFromQueue	int	false						assignedFromQueue	Queue • Business Rules • Pages • Custom	The number of chats initially assigned after waiting in queue for greater than N seconds. (Likely N=1)
assignedWithinSLA	int	false						assignedWithinSLA	Queue • Business Rules • Pages • Custom	The number of engagements that were assigned before the SLA queue was exceeded.
automatonAttribute	string/list	true	Yes					automatonAttribute		Attributes for each automaton associated with this engagement.
automatonID	string	true	Yes					automatons		ID of a specific automated solution (guide, survey, etc.)
automatonName	string	true	Yes					automatons		Name of a specific automated solution (guide, survey, etc.)
automatonQuestionAnswer	string/list	true	Yes							A list of values each of which is a combined question and answer. Only for post-chat surveys.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
automatonQuestionFreeFormAnswer	string/list	true	Yes					automatonQuestionFreeFormAnswer		Searchable, free form text response by a customer to a survey question. The % operator is required to search on this field.
automatons	object/array							automatons		An array of automatons that participated in the engagement. See Transcript JSON Schema for a list of fields for each automaton.
automatonType	string	true	Yes					automatons		Type of a specific automated solution. Possible types are guide, survey, satisfactionSurvey, and targeted-content
avgAgentResponseTime	long	false						avgAgentResponseTime	Queue • Agents Engagement • Summary • Business Rules • Agents • Pages • Custom • Engagements	The average agent response time aggregated across multiple engagements. (ms)
avgConversionProductQuantity	int	false						avgConversionProductQuantity	Agent • Agents	The average number of product units sold per conversion.
avgMessageInterval	long	false				Yes		avgMessageInterval	Engagement • Custom	The average customer messages interval in milliseconds for any agent aggregated across engagements.
avgEngagementDuration	long	false						avgEngagementDuration	Queue • Agents Engagement • Summary • Business Rules • Agents • Pages • Custom • Engagements	The average duration aggregated across multiple engagements. (ms)

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
avgInitialAgentResponseTime	long	false						avgInitialAgentResponseTime	Queue • Agents Engagement • Summary • Business Rules • Agents • Pages • Custom Agent • Agents	The average initial agent response time aggregated across multiple engagements. (ms)
avgTimeInQueue	long	false			Yes			avgTimeInQueue	Queue • Summary • Business Rules • Pages • Custom	Average queue duration. (ms)
browserType	string	false	Yes					browserType		The visitor's browser type (for example, IE, FF, SAFARI, CHROME, OTHER, etc.)
browserVersion	string	false	Yes					browserVersion		The visitor's browser version (e.g. 8.0, 9.0, 6.1.2, 33.0.1750.154, etc.)
businessRuleAttribute.<name>	string/list	true	Yes	Yes	Yes	Yes		businessRuleAttribute.<name>	Queue • Engagements • Agents • Business Rules • Pages • Custom Engagement • Engagements • Agents • Business Rules • Pages • Custom	A custom attribute to be associated with a business rule. For example, businessRuleAttribute.topic which could be used to indicate that the business rule is targeting a specific topic.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
businessRuleID	string	false	Yes	Yes	Yes	Yes		businessRuleID, businessRules	Queue • Engagements • Business Rules Engagement • Engagements • Business Rules	ID of the business rule that launched this engagement's invitation. Note: Returnable as businessRules in Real-time metrics in the businessRules dimension.
businessRuleName	string	false	Yes	Yes	Yes	Yes		businessRuleName, businessRules	Queue • Engagements • Business Rules Engagement • Engagements • Business Rules	Name of the business rule that launched this engagement's invitation. Note: Returnable as businessRules in Real-time metrics in the businessRules dimension.
businessRules	object	true						businessRules		Response object containing businessRuleID and BusinessRuleName.
businessUnitID	string	true	Yes	Yes	Yes	Yes		businessUnits		The ID of the business unit. Assigned with initial launch and transfer events. Returned in businessUnits object.
businessUnitName	string	true	Yes	Yes	Yes	Yes		businessUnits		The name of the business unit. Assigned with initial launch and transfer events. Returned in the businessUnits object.
businessUnit	object/array							businessUnits	Queue • Business Rules • Agents • Engagements • Pages • Custom Engagement • Business Rules • Agents • Engagements • Pages • Custom Agent • Agents	Response object containing businessUnitID and businessUnitName.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
busyClickCount	int	false				Yes	Yes	busyClickCount	Agent • Agents	An agent's busy click count (the number of times the agent clicked to initiate a busy status) during the current login session.
callConnected	boolean	false	Yes					callConnected		Indicates that a call was successfully established.
callDuration	long	false	Yes					callDuration		The duration of a call. (ms)
canServiceCount	int	false			Yes			canServiceCount	Queue • Agents	The number of slots an agent has available for an engagement request of a specific type
channelType	string		Yes	Yes				channelType		The channel that the engagement is coming from. (For example: Facebook, Twitter, SMS chat, etc.)
closedEngagements	int	false						closedEngagements	Engagement • Business Rules • Agents • Pages • Custom Agent • Agents	A count of an agent's closed engagements filtered by currently assigned agentGroups and businessUnits.
coached	boolean	false	Yes					coached		Indicates whether or not the engagement was coached. (agent coach or Nina coach)
cobrowse	boolean	false	Yes					cobrowse		Identifies whether or not the engagement had a cobrowse session.
conferenceConnected	boolean	false	Yes					conferenceConnected		Indicates that a conference was successfully established.
conferenceTime	long	false	Yes	Yes		Yes		conferenceTime		The time during an engagement in which two or more agents are simultaneously participating. (ms)
conversationID	string	false	Yes	Yes				conversationID		ID of the conversation associated with this engagement.
conversionAgentAttribute	string/list	true	Yes					conversions		Agent attributes for each conversion associated with this engagement.
conversionAgentGroupID	string	true	Yes					conversions		Agent group IDs for each conversion associated with this engagement.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
conversionAgentID	string	true	Yes					conversions		Agent IDs for each conversion associated with this engagement.
conversionBusinessUnitID	string	true	Yes					conversions		Business unit IDs for each conversion associated with this engagement.
conversionDate	date	true	Yes					conversionDate		List of dates for all sale qualified conversions associated with this engagement
conversionDispositionCategoryReason	string	true	Yes					conversionDispositionCategoryReason		Disposition category reasons for each conversion associated with this engagement.
conversionDispositionNote	string	true	Yes					conversionDispositionNote		Disposition notes for each conversion associated with this engagement.
conversionOrderID	string	true	Yes					conversionOrderID		List of order IDs for each conversion associated with this engagement
conversionOrderType	string	true	Yes					conversionOrderType		List of order types for each conversion associated with this engagement
conversionProductID	string	true	Yes					conversionProductID		List of IDs for each product purchased in each conversion associated with this engagement
conversionProductQuantity	int	true	Yes					conversionProductQuantity		List of quantities for each product purchased in each conversion associated with this engagement.
conversionProductType	string	true	Yes					conversionProductType		List of product types for each product purchased in each conversion associated with this engagement
conversionProductValue	double	true	Yes					conversionProductValue		List of values for each product purchased in each conversion associated with this engagement
conversionRoutingAttribute	string	true	Yes					conversionRoutingAttribute		A routing attribute that is associated with this agent's conversion.
conversions	object	false	Yes					conversions		List of all saleQualified conversions associated with this engagement. See Conversions Details .
conversionUnit	int	true	Yes					conversionUnit		Sum of units for each product (conversionProductQuantity) in a conversion

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
conversionVal	double	true	Yes					conversionVal		List of total conversion values for each conversion associated with this engagement
converted	boolean	false	Yes					converted		Indicates that a sale qualified conversion is associated with this engagement.
cryptoMaskingKeyInfo	object/array	true						cryptoMaskingKeyInfo		An array of cipher key entries used during a chat session (engagement). Used with the Masked Data Encryption feature.
currentPageMarker	string	false		Yes		Yes				Marker of the visitor's current page.
currentChat	boolean	false		Yes				currentChat		If true, the chat is currently open between a customer and an agent and two-way communication is still possible
currentPages	object			Yes				currentPages	Queue • Engagements Engagement • Engagements	Response object containing currentPageMarker and currentPageURL. Despite the name, this is always a single page.
currentPageURL	string	false		Yes	No	Yes		currentPages	Queue • Engagements Engagement • Engagements	URL of the visitor's current page.
customerID	string	false	Yes	Yes	Yes	Yes		customerID		An anonymous ID that is automatically assigned to and uniquely identifies each visitor that comes in contact with an instance of the NDEP service. It uniquely identifies the combination of visitor and site. Site is equivalent to an implementation of NDEP (and is typically synonymous with client).
customerLines	string	false	Yes					transcript		The customer lines from the transcript/conversation. If the query does not specify language this field will be searched regardless of the language of the transcript. If the language parameter is specified only transcripts that match the specified language will be searched.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
deviceType	string	false	Yes	Yes	Yes	Yes		deviceType	Queue • Engagements Engagement • Engagements	The visitor's device type for a given engagement (e.g. Standard, Tablet, Phone, etc.). For HT-Transcript, this is a separate field, otherwise, the fields is located inside visitorAttribute.
dispositions	object	true						dispositions		List of dispositions associated with the engagement. Each disposition will contain fields like category and reason. Instead use the finalDisposition and allDisposition fields for filtering.
endDate	date	false	Yes	Yes		Yes		endDate	Engagement • Engagements	Engagement end time - date of last non-conversion event - e.g. customer exits chat, chat is disconnected, last agent exists chat, chat is abandoned, etc.
endType	string	false	Yes					endType		The way in which this engagement ended. See Values for the endType Field .
engagementActive	boolean	false		Yes		Yes		engagementActive	Engagement • Engagements	False indicates when a Real-time engagement is closed. True indicates when a Real-time engagement is active. This field can be true in cases where the customer closed the chat, but the agent still has it open in the Agent Desktop (AI).
engagementAttribute.<name>	string/list	true	Yes	Yes		Yes		engagementAttribute.<name>		The attribute associated with the engagement. Name is a dynamic field.
engagementAvgAgentResponseTime	long	false	Yes	Yes		Yes		engagementAvgAgentResponseTime	Engagement • Engagements	The average agent response time for a single engagement. (ms)
engagementDuration	long	false	Yes	Yes		Yes		engagementDuration	Engagement • Engagements	The duration of a single engagement. (ms)
engagementDurationInCompletedState	long	false		Yes				engagementDurationInCompletedState		The duration of a single completed engagement. Shows how long chat was closed. (ms)
engagementID	string	false	Yes	Yes	Yes	Yes		engagementID	Queue • Engagements Engagement • Engagements	The ID of an engagement.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
engagementInitialAgentResponseTime	long	false	Yes	Yes		Yes		engagementInitialAgentResponseTime	Engagement • Engagements	The initial agent response time for a single engagement. (ms)
engagementMaxAgentResponseTime	long	false	Yes	Yes		Yes		engagementMaxAgentResponseTime	Engagement • Engagements	The maximum agent response time in milliseconds for a single engagement.
engagementProductType	string	true	Yes	Yes	Yes	Yes		engagementProductType		All the product types associated with this engagement. Examples: "chat", "guide", "survey", "APIChat"
engagements	object / list	true						engagements		List of engagements. This field only shows in RT metric queries where the engagement "dimensions" is used.
engagementsInLastHour	int	false						engagementsInLastHour	Engagement • Summary	Number of engagements that occurred in the last hour.
engagementsInQueue	int	false			Yes			engagementsInQueue	Queue • Summary • Business Rules • Pages • Custom	Count of engagements in queue
engagementStatus	string	false		Yes		Yes		engagementStatus	Engagement • Engagements	The current status of an engagement. Possible values are "customerWait", "agentWait", "disposition".
engagementTimeInStatus	long	false		Yes		Yes		engagementTimeInStatus	Engagement • Engagements	The time an engagement has been in the current status. (ms)
engagementsWithinHandleTimeGoal	int	false						engagementsWithinHandleTimeGoal	Engagement • Summary	
escalated	boolean	false	Yes	Yes		Yes		escalated	Engagement • Engagements	Indicates whether an engagement is escalated. Escalated just means that it has been flagged by an agent indicating something unusual occurred during this engagement (Note: a text reason can be provided)

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
escalationNotes	string	false	Yes					escalationNotes		List escalation notes for each escalation. If the query does not specify language this field will be searched regardless of the language of the transcript. If the language parameter is specified only transcripts that match the specified language will be searched.
finalDispositionCategoryReason	string	true	Yes					dispositions		The disposition category(s) and reason(s) entered by the final owning agent. The category and reason are separated by the delimiter '##'. For example, to find category1 reason1, you search on category1##reason1
finalDispositionNotes	string	true	Yes					dispositions		Final owning agent's disposition note. If the query does not specify language this field will be searched regardless of the language of the transcript. If the language parameter is specified only transcripts that match the specified language will be searched.
finalOwningAgentAgentGroupName	string	false	Yes					finalOwningAgentAgentGroup Name		The name of the agent group the final owning agent is a member of.
finalOwningAgentAgentGroupID	string	false	Yes					finalOwningAgentAgentGroupI D		The group ID of the agent group that the final owning agent is a member of.
finalOwningAgentAttribute.<name>	string/list	true	Yes	Yes		Yes		finalOwningAgentAttribute.<na me>	Engagement • Engagements	The agent attributes associated with the final owning agent. Name is a dynamic field.
finalOwningAgentBusinessUnitName	string	false	Yes					finalOwningAgentBusinessUnit Name		The name of the business unit that the final owning agent is a member of.
finalOwningAgentBusinessUnitID	string	false	Yes					finalOwningAgentBusinessUnit ID		The business unit ID of the business unit that the final owning agent is a member of.
finalOwningAgentID	string	false	Yes	Yes		Yes		finalOwningAgentID	Engagement • Engagements	ID of the last agent to own an engagement.
freeFormSurveyAnswers	string	true	Yes					automatons		Searchable field for client transcripts. Shows all engagements with surveys that contain free-form answers with a given keyword.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
inConference	boolean	false		Yes	Yes	Yes		inConference	Queue • Engagements Engagement • Engagements	Indicates whether an engagement currently has more than one participating agent.
initialTimeInQueue	long	false	Yes					initialTimeInQueue		The initial time that a customer sits in queue while the system is attempting initial assignment. (ms)
initialTimeToAbandon	long	false						initialTimeToAbandon		The time a user spends in queue prior to abandonment. (ms)
inServiceLevelAgreement	boolean	false			Yes			inServiceLevelAgreement	Queue • Engagements	Indicates whether the agent's initial response time was with the client defined SLA (e.g. < 30sec)
language	string	false	Yes	Yes	Yes	Yes		language	Queue • Engagements Engagement • Engagements	The language associated with an engagement.
lastUpdateDate	object	false	Yes					lastUpdateDate		The date and time the transcript was updated by the NDEP system. Note. This field should not be used for searching sales or chat volumes because its value can change at any time, even after the chat is over.
launchPageID	string	false	Yes	Yes	Yes	Yes		pages (for transcripts) launchPageID (for RT Engagement Queue)	Queue • Pages Engagement • Pages	ID of the page on which an engagement's invitation is launched. Returned in launchPage object.
launchPageMarker	string	false	Yes	Yes	Yes	Yes		pages (for transcripts) launchPageMarker (for RT Engagement Queue)	Queue • Pages Engagement • Pages	Name of the page on which an engagement's invitation is launched. Returned in launchPage object.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
launchPageURL	string	false	Yes					pages		URL of the page on which an engagement's invitation is launched. Returned in launchPage object.
launchType	string	false	Yes	Yes	Yes	Yes		launchType	Queue • Engagements Engagement • Engagements	The launch type associated with an engagement (e.g. proactive chat). NEW to historic. Located inside visitorAttribute.
loginDuration	long	false					Yes	loginDuration	Engagement • Agents Agent • Agents	An agent's login duration during the current login session. (ms)
loginTime	long	false					Yes	loginTime	Agent • Agents	The start time of the agent's current login session. (ms)
maxAgentResponseTime	long							maxAgentResponseTime		The maximum agent response time aggregated across multiple engagements. (ms)
maxEngagements	int	false					Yes	maxEngagements	Queue • Agents Engagement • Agents Agent • Agents	An agent's max chats setting. The maximum number of chats an agent is allowed to receive, omitting overflow.
maxTimeInQueue	long	false			Yes			maxTimeInQueue	Queue - • Summary • Business Rules • Pages • Custom	Maximum queue duration. (ms)

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category- Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
nonDispositionEngagements	int	false						nonDispositionEngagements	Engagement - • Agents • Business Rules • Pages • Custom • Summary	A count of agent assigned engagements that have not transitioned to a disposition state. (The agent is currently chatting.) The engagement is included from agent assignment to customer exit.
operatingSystem	string	false	Yes					operatingSystem		The visitor's operating system (e.g. Windows, iOS, Mac OS, Android, Linux, etc.)
orderAttribute.<name>	string/list	true	Yes	Yes		Yes		orderAttribute.<name>		The attribute associated with the order. Name is a dynamic field.
outcome	string		Yes	Yes				outcome		Resolution outcome of the engagement. Value can be either resolved or unresolved .
owningAgent	string	false		Yes		Yes		owningAgent	Engagement - • Engagements	The agentID of an engagement's current owning agent.
pages	object	false						pages	Queue - • Engagements Engagement - • Engagements	Response object containing launchPageID, launchPageMarker. Despite the name, this is always a single page.
participantCount	int	false		Yes		Yes		participantCount	Engagement - • Engagements	The number of agents currently participating in an engagement
percentAssisted	int	false						percentAssisted	Agent- • Agents	Count of assisted by agent chats. A count of assigned requests.
percentEngagementsQueued	int	false			Yes			percentEngagementsQueued	Queue- • Business Rules • Pages • Custom	$totalInQueue / (activeEngagements + totalInQueue)$
percentSaleQualified	int	false						percentSaleQualified	Engagement - • Summary	The percentabe of all engagements that were sale qualified.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
percentWithinQueueSLA	int	false			Yes			percentWithinQueueSLA	Queue- • Business Rules • Summary • Pages • Custom	As a percent of all engagements
persistent	boolean	false		Yes		Yes		persistent	Engagement - • Engagements	Indicates whether the customer engagement experience (user interface) resides in a separate browser (persistent), rather than a div layer in the browser containing the website.
position	int	false			Yes			position	Queue - • Engagements	The position of an engagement in queue (awaiting agent assignment)
priority	int	false			Yes			priority	Queue - • Engagements	A positive integer. The priority of an engagement in queue (awaiting an agent assignment). Default is configured via portal admin. Can be overwritten in business rule. See score for how this parameter is used as part of algorithm for ordering engagements in queue.
productAttribute.<name>	string/list	true	Yes	Yes		Yes		productAttribute.<name>		The attribute associated with the product. Name is a dynamic field.
routingAttribute	string/list	true	Yes	Yes	Yes	Yes		routingAttribute	Queue – • Agents • Engagements • Business Rules • Pages • Custom Engagement - • Engagements • Business Rules • Pages • Custom • Agents	These attributes are used for routing a customer chat to an agent.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
saleQualified	boolean	false	Yes	Yes	Yes	Yes		saleQualified	Queue - • Engagements Engagement - • Engagements	Indicates whether an engagement achieved sale qualification. (This is the assisted event.) Sale qualification means that the engagement satisfied a minimum condition that indicates that the visitor was sufficiently aided by the engagement and thus TC will take credit for any future sales that occur within the sale qualification period.
saleQualifiedEngagements	int	false						saleQualifiedEngagements	Engagement - • Summary	The number of engagements that are sale qualified.
saleQualifiedDate	date	false	Yes					saleQualifiedDate		The date/timestamp of a sale qualified event.
satisfactionSurveySubmitDate	date	false	Yes					satisfactionSurveySubmitDate		The data/timestamp when a satisfaction survey was submitted or completed.
score	int	false			Yes			score	Queue - • Engagements	The score is an attribute of an engagement while in queue. Assuming all other conditions are satisfied (i.e. required skills/agentGroup) the engagement with the highest score will be assigned first. Score is a weighted combination of priority and timeInQueue (i.e. $W1 * priority + W2 * timeInQueue$ where $W1$ & $W2$ are client-defined weighting factors).
sessionAttribute	string/list	true	Yes	Yes		Yes		sessionAttribute.<name>		The attribute associated with the session. Name is a dynamic field.
sessionID	string	false	Yes					sessionID		Uniquely identifies a visitor session from first action (e.g. page viewed) to end of session (defined as 30 minutes of inactivity)
siteID	string	false	Yes	Yes		Yes		siteID		ID of the site associated with this engagement.
siteName	string	false	Yes					siteName		Name of the client site.
startDate	object	false	Yes	Yes		Yes		startDate	Engagement - • Engagements	Engagement start time. All date objects are comprised of iso (see iso data format in this document) and timestamp (epoch time). Use the Query String parameters instead.
siteID	int	false	Yes					siteID		ID number of the client site.
targetAgentAttribute.<name>	string/list	true	Yes	Yes		Yes		targetAgentAttribute.<name>		The attribute associated with the target agent. Name is a dynamic field.

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
timeFromCustomerToAgentExit	long	false	Yes	Yes		Yes		timeFromCustomerToAgentExit		Time between customer exit and agent exit. (ms)
timeInQueue	long	false			Yes			timeInQueue	Queue - • Engagements	The time an engagement has been in queue (awaiting an agent assignment). (ms)
timeToConversion	long	true	Yes					timeToConversion		List of times to conversion for each sale qualified conversion associated with this engagement. Time to conversion is conversion time - saleQualified time. (ms)
totalActiveAgentTime	long	false	Yes					totalActiveAgentTime		Total agent time summed for all agents participating in an engagement. Time between the 2 events: agent exited chat and agent entered chat. This time does not include queued time. (ms)
totalActiveCallTime	long	false	Yes					totalActiveCallTime		Sum of all calls made during an engagement
totalActiveCustomerTime	long	false	Yes					totalActiveCustomerTime		Total time the visitor/customer spends in an engagement. (ms)
totalAgentFreehandLines	int	false	Yes					totalAgentFreehandLines		Count of total agent freehand lines sent during an engagement. Freehand lines include both lines typed from scratch and modified script lines. This includes all agents.
totalAgentLines	int	false	Yes					totalAgentLines		Sum of agent freehand and scriptlines. This includes all agents.
totalAgentResponseCount	int	false						totalAgentResponseCount	Engagement - • Engagements • Agents • Business Rules • Pages • Custom	Count of agent messages that are preceded by a customer message. Agent messages that follow another message sent by the same agent are excluded. In a case where the customer response is via something like an automaton, then time is: assignment time to agent-response time.
totalAgentResponseTime	long	false						totalAgentResponseTime	Engagement - • Engagements • Agents • Business Rules • Pages • Custom	The total amount of time between all call customer messages and agent responses for an engagement. (ms)

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
totalAgentScriptLines	int	false	Yes					totalAgentScriptLines		Count of unmodified script lines sent during an engagement. This includes all agents.
totalAgentsInvolved	int	false						totalAgentsInvolved		Count of agents that participated in an engagement
totalAvailableTime	long	false					Yes	totalAvailableTime	Agent - • Agents	An agent's total time spent in available status during the current login session. (ms)
totalBusyTime	long	false					Yes	totalBusyTime	Agent - • Agents	An agent's total time spent in busy status during the current login session. (ms)
totalClosedEngagements	int	false					Yes			A count of an agent's all closed engagements (not filtered by agentGroups and businessUnits).
totalCallsConnected	int	false	Yes					totalCallsConnected		Count of calls connected during an engagement
totalConferenceChatCount	int	false						totalConferenceChatCount	Engagement - • Custom	Sum of number of conferences of each chat.
totalConversions	int	false	Yes					totalConversions		Count of all saleQualified conversions associated with this engagement
totalCustomerLines	int	false	Yes	Yes		Yes		totalCustomerLines		Count of customer lines sent during an engagement
totalEngagementDuration	long	false						totalEngagementDuration	Engagement - • Business Rules • Pages • Custom	The sum of engagement time for all engagements that satisfy the query criteria. Total engagement duration should include queue time. (ms)
totalEngagementLines	int	false	Yes					totalEngagementLines		Sum of all agent and customer lines
totalFailedCalls	int	false	Yes					totalFailedCalls		Count of failed call attempts
totalInitialTimeInQueue	long	false						totalInitialTimeInQueue	Queue - • Business Rules • Pages • Custom	Either the total initial queue time for active engagements in the queue (not assigned) OR total initial queue time within a specific interval (in cases where the interval is provided). (ms)
totalOrderValue	double	false	Yes					totalOrderValue		Sum of the value of all all saleQualified conversions associated with this engagement

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category- Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
totalTransferredChatCount	int	false						totalTransferredChatCount	Engagement - • Custom	Total number of transfers of each chat.
totalPersistentChatCount	int	false						totalPersistentChatCount	Engagement - • Custom	Total number of persistent chats.
totalRequiresAttentionChatCount	int	false						requiresAttentionCount	Engagement - • Custom	The number of chats with unanswered custom messages.
totalWrapupTime	long	false						totalWrapupTime	Engagement - • Business Rules • Pages • Custom	The sum of all wrap up time engagements that satisfy the query criteria. (ms)
transcript	object/array	false	Yes					transcript		The transcript/conversation from an engagement. If the query does not specify language, this field will be searched regardless of the language of the transcript. If the language parameter is specified, only transcripts that match the specified language will be searched.
transferAbandoned	boolean	false	Yes					transferAbandoned		Indicates that a transfer was abandoned by the visitor. Abandoned occurs when a transfer is queued and the visitor closes the engagement (abandons) before being assigned to another agent.
transferred	boolean	false	Yes	Yes	Yes	Yes		transferred	Queue - • Engagements Engagement • Engagements	Indicates that a transfer occurred during an engagement
transfersConnected	int	false	Yes					transfersConnected		Number of completed transfers for an engagement
truncatedDueToEventLimit										Probably a restriction for too many events. Maybe configured by implementation. If the limit is exceeded, the transcript search is truncated. This shows up under the <transcript-line>

Field Name	Type	Multi Valued	Historic TRX	R-T TRX	R-T Queue	R-T Engag	R-T Agent	Returnable As	RT Category-Dimensions that Return this Field	Definition
			Filtering Supported By Data Object?							
visitorAttribute.<name>	string/list	true	Yes	Yes	Yes	Yes		visitorAttribute.<name>	Queue - <ul style="list-style-type: none"> • Engagements • Agents • Business Rules • Pages • Custom Engagement – <ul style="list-style-type: none"> • Engagements • Agents • Business Rules • Pages • Custom 	A custom attribute to be associated with a visitor. For example, visitorAttribute.contractExpiration.
wrapUpTime	long	false	Yes	Yes		Yes		wrapUpTime		Time from the start of a disposition to the end of the disposition. (ms)

Filtering Format

Filter Operators

API	Description	Type
=	Equals	Number/String/Boolean
!=	Not equals	Number/String/Boolean
<	Less than	Number/Date
>	Greater than	Number/Date
<=	Less than or equals	Number/Date
>=	Greater than or equals	Number/Date
%	String wildcard (" * " represents zero or more characters; " ? " means match exactly one character)	String
AND	Logical/Boolean AND	Boolean
OR	Logical/Boolean OR	Boolean
IN	Includes	Set

Date and Filter Expression Format

A filter is comprised of one or more expressions. An expression consists of a valid filter field name (see section Field Definitions), an operator and a value.

Example

```
engagementID=97832133333333
```

```
startDate>"2013-01-01T00:00:00"
```

For 2 or more expressions, they will be optionally joined by either AND or OR.

Example

```
startDate>"2013-01-01T00:00:00" AND startDate<"2013-02-01T00:00:00"
```

```
transcript=product AND startDate>"2013-07-15T00:00:00"
```

Invalid Filter Example

`transcript=buy transcript=product AND startDate>"2013-07-15T00:00:00"` (In this case, there is no AND or OR between the 2 transcript expressions, so the system shows an error because you must explicitly define AND or OR in a multiple expression filter).

Special Character Escaping

Escaping special characters was required in v2 of the Reporting API. However, in v3, the API will escape any special characters for you. You must not do any escaping of special characters.

Values for the endType Field

An endType field query follows the form shown here:

```
filter=endType="Agent Closed Chat"
```

Here is a list of possible end type values:

- Agent Closed Chat
- Agent Connection Lost
- Agent Left Chat Room
- Browser Close
- Customer Abandoned Automaton
- Customer Abandoned Queue
- Customer Closed Chat
- Customer Completed Automaton
- Customer Not Completed Automaton
- Customer Exited Prior to Agent Enter Chat
- Customer Lost Connection
- Customer Lost Connection – Unknown
- Untagged Page
- VA Timeout

Example Queries Transcript Queries

User Query	Description
"english" IN routingAttribute.language	filter by language=english Routing Attribute
engagementDuration=10	
engagementDuration>10	
engagementDuration<10	
2<engagementDuration<10	
engagementDuration!=10	
transcript=purchase	exact match for string field and contains for text field; case sensitive for string, non-case-sensitive for text
finalOwningAgentID % "John*"	wildcard match: the asterisk represents zero or more characters, so this could match "John", "John Smith", "John Jones", etc.
transcript % "ca?"	wildcard match: ? means match exactly one character, so this could match "can", "cab", "cat", etc.
transcript="I like this"	exact match for string field and contains this phrase for a text field
startDate>"2012-10-26T08:20:36.000"	ISO DateTime Format yyyy-MM-dd'T'hh:mm:ss.SSSTZD
startDate<"2012-10-26T08:20:36.000"	
"2012-10-01T08:36:24.000"<=startDate<="2012-10-01T10:36:24.000"	
transferred=true	boolean type

Real-time Metric Queries

User Query	Description	Category
"english" IN agentAttribute.language	filter by language=english attribute for selected category	engagement, agent
maxEngagements=5	select all agents that have 5 max chats count	agent
activeEngagements >= 2	select all agents that have more than 1 active chats	agent
closedEngagements<=100+AND+loginTime<3600000	select agents that has less than 101 closed chats and were logged in more than 1 hour (3600000 milliseconds) ago	agent
agentID % "spr_*	select agents that have userID started with prefix 'spr_' (wildcard match)	engagement, agent
startDate < "2013-12-01T09:00:00"	selects engagements that were created more than 1 day ago (assuming today is Dec 1, 2013 and it is 9AM and TZ=GMT)	engagement
("northeast" IN agentAttribute.region) OR ("northwest" IN agentAttribute.region)	select all engagements which have an agent in either northeast or northwest region	engagement, agent

Date Details

The response date format is the most common ISO date format (ISO 8601):

YYYY-MM-DDThh:mm:ss.sTZD

where:

- YYYY = four-digit year
- MM = two-digit month (01=January, etc.)
- DD = two-digit day of month (01 through 31)
- hh = two digits of hour (00 through 23) (am/pm NOT allowed)
- mm = two digits of minute (00 through 59)
- ss = two digits of second (00 through 59)
- s = one or more digits representing a decimal fraction of a second
- TZD = time zone designator (Z or +hh:mm or -hh:mm), offset from GMT

Date fields are returned in two formats (string and long), example:

```
"startDate ": {  
  "iso ":" 2012-10-26T08:20:36.000+00:00 ", // in client's timezone  
  "timestamp ":1273676351723  
}
```

All dates defined in filter should be in site's TZ and be defined without TZ. The following format are supported as input:

```
YYYY (eg 1997)  
YYYY-MM (eg 1997-07)  
YYYY-MM-DD (eg 1997-07-16)  
YYYY-MM-DDThh:mm (eg 1997-07-16T19:20)  
YYYY-MM-DDThh:mm:ss (eg 1997-07-16T19:20:30)  
YYYY-MM-DDThh:mm:ss.sss (eg 1997-07-16T19:20:30.452)  
)
```

It's expected that all dates should be surrounded by " or '

Historic Transcript Free Text Field Search Behavior

Fields like the "transcript" field that can contain free text have extra fuzzy search logic that allows for more flexible searching. For example, if your search is `filter=escalationNotes=call` then in addition to the word "call", the results could match escalation notes that contain the words "calls" and "calling". So, you may get different search results than you expect when searching on free text fields as the search is not always exact match.

Responses

All responses are in JavaScript Object Notation (JSON) format. The format of all possible response types are defined here.

ReturnFields Rule

This section defines when a field is valid for use as a **returnFields**.

Any item that is within the primary object of a response can be listed as a **returnFields**. (For transcript this means the engagement object. For metric/real-time, this means the object with the same name as the dimension.) Fields that reside within secondary objects are not allowed as a return Fields.

As, an example, consider the object pages:

```
"pages": {  
  "launchPageID": string,  
  "launchPageMarker": string,  
  "launchPageURL": string  
}
```

Note. In this case, **pages** is a primary object and **launchPageID** is a secondary object (because it is a child of **pages**.) So, this is a valid request: **returnFields=pages**, but this is not a valid request: **returnFields=launchPageID**!

Transcript (Historic and Real-time)

Transcript JSON Schema

This schema applies to both historic and Real-time transcripts. All default fields are returned unless **returnFields** are specified.

Query: `https://api.touchcommerce.com/v3/transcript/historic?site=XXX&bu=YYY&filter=startDate%3E%222013-12-01T09%3A00%3A00%22`

Query:

```
{
  "numFound": number(int),           // Supported for transcript/historic only
  "start": number(int),             // Supported for transcript/historic only
  "engagements": [
    {
/*****
TRANSCRIPT/{REALTIME,HISTORIC} SECTION
THE FOLLOWING FIELDS ARE SUPPORTED FOR BOTH REAL-TIME AND HISTORIC TRANSCRIPTS. IF THE USER DOES NOT SPECIFY THE returnFields PARAMETER, ONLY THE FIELDS MARKED "//Default" ARE
RETURNED.
*****/
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements
      "agentGroups": [ // Default, return the agentGroup info of engagement owner (the owner enters the engagement)
        {
          "agentGroupID": string,
          "agentGroupName": string
        },
        ...
      ],
      "agents": [ // Default
        {
          "agentAlias": string,
          "agentAgentGroup": string,
          "agentBusinessUnit": string,
          "agentID": string,
          "agentEnterDate": {
            "iso": "string",
            "timestamp": number(long)
          },
          "agentExitDate": {
            "iso": "string",
            "timestamp": number(long)
          },
          "agentFullName": string
          "routingAttributes" : object/array
        },
        {
          "agentAgentGroup": string,
          "agentBusinessUnit:" string,
          "agentID": string,

```

```

        "agentFullName": string
    },
    ...
],
"automatons": [ // Default // surveys, guides, target-offers, etc.
    {
        "automatonID": string,
        "automatonName": string,
        "automatonType": string, // "survey", "satisfactionSurvey", "guide", "targeted-offer"
        "startedIn": string,
        "startedBy": string,
        "pageID": string,
        "businessUnit": string,
        "agentGroup": string,
        "outcomeType": string,
        "outcomeMessage": string,
        "automatonAttribute": object/array,
        "nodes": [
            {
                "nodeID": string,
                "nodeName": string,
                "nodeAttribute": object/array,
                "elementResponses": [
                    {
                        "elementID": string,
                        "elementValue": string, // if type is survey or satisfactionSurvey, this is the question
                        "responseID": string,
                        "responseNumericValue": number(int),
                        "responseStringValue": string // if type is survey or satisfactionSurvey, this is the answer
                    },
                    ... // more element responses, if they exist
                ],
                "nodeEnteredTime": {
                    "timestamp": number(long),
                    "timeInClientTimezone": string // ISO format string of date/time in client's timezone
                }
            },
            ... // more nodes, if they exist
        ]
    },
    ... // more automatons, if they exist
],
"businessRuleAttribute.<name>": string/list,
"businessRuleID": string, // Default
"businessRuleName": string, // Default
"businessUnits": [ // Default, return the BusinessUnit info of engagement owner (the owner enters the engagement)
    {
        "businessUnitID": string,
        "businessUnitName": string
    },
    ...
],
"cryptoMaskingKeyInfo": [
    "keyInfo": string
],
"customerID": string,

```

```

"deviceType": string, // Default
"dispositions": [
  {
    "agentId": string,
    "dispositions": [
      {
        "category": string,
        "reason": string
      },
      ...
    ],
    "final": boolean,
    "notes": string,
  },
  ...
],
"endDate": {
  "iso": string, // in client's timezone
  "timestamp": number(long)
},
"engagementAvgAgentResponseTime": number(long), // Default
"engagementDuration": number(long), // Default
"engagementID": string, // Default
"engagementInitialAgentResponseTime": number(long), // Default
"engagementMaxAgentResponseTime": number(long), // Default
"engagementProductType": string/list,
"escalated": boolean,
"finalOwningAgentAttribute.<name>": string/list,
"finalOwningAgentID": string,
"language": string,
"launchType": string,
"pages": // Default - Despite the name, this is always a single page.
  {
    "launchPageID": string,
    "launchPageMarker": string,
    "launchPageURL": string // Supported for transcript/historic only
  },
"routingAttribute.<name>": string/list,
"saleQualified": boolean, // Default
"startDate": {
  "iso": string, // in client's timezone - example is "2012-10-26T08:20:36.000+00:00"
  "timestamp": number(long) // example is 1273676351723
},
"transcript": [ // Default
  {
    "type": string, // Specific field for historic transcript. See "Transcript Line Event Fields Table" for details about types and optional fields
    "content": string,
    "encryptedContent": string, // When we use Masked Data Encryption feature, this field contains encrypted version of the "content" field
    // before masking sensitive information.
    "senderName": string,
    "senderType": string, // Specific field for realtime transcript. Possible values are in table.
    "iso": string, // in client's timezone
    "timestamp": number(long),
    "senderId": string // Appears to be overloaded with either agent's username or customerID depending on sender
    // (possibly other fields depending on "type" - see "Transcript Line Event Fields" table.

```

```

    },
    ...
  ],
  "transferred": boolean,           // Default
  "visitorAttribute.<name>": string/list,
  "wrapUpTime": number(long),
/*****
END TRANSCRIPT/{REALTIME,HISTORIC} SECTION

START TRANSCRIPT/REAL-TIME ONLY SECTION. IN THIS SECTION,
DEFAULT MEANS THAT THE FIELD IS RETURNED WHEN A TRANSCRIPT/REALTIME REQUEST IS MADE WITH NO RETURNFIELDS
SPECIFIED.
*****/
  "conferenceTime": number(long),    // Default
  "currentPages":                    // Default - This is always a single page.
  {
    "currentPageMarker": string,
    "currentPageURL": string
  },
  "inConference": boolean,           // Default
  "initialTimeInQueue": number(long), // Default
  "engagementActive": boolean,
  "engagementDurationInCompletedState": number(long),
  "engagementStatus": string,        // Default
  "engagementTimeInStatus", number(int), // Default
  "owningAgent": string,             // Default
  "participantCount": number(int),   // Default
  "persistent": boolean,             // Default
/*****
END TRANSCRIPT/REAL-TIME ONLY SECTION

START TRANSCRIPT/HISTORIC ONLY SECTION
*****/
  "browserVersion": string,          // Default
  "browserType": string,             // Default
  "callConnected": boolean,
  "callDuration": boolean,
  "coached": number(long),
  "cobrowse": boolean,
  "conferenceTime": number(long),
  "conferenceConnected": boolean,
  "conversionDate": [
    {
      "iso": string, // in client's timezone
      "timestamp": number(long)
    },
    ...
  ],
  "conversionOrderID": [
    string,
    ...
  ],
  "conversionOrderType": [
    string,
    ...

```



```

],
"conversionProductID": [
  string,
  ...
],
"conversionProductQuantity": [
  number(int),
  ...
],
"conversionProductType": [
  string,
  ...
],
"conversionProductValue": [
  number(double),
  ...
],
"conversionUnit": [
  number(int),
  ...
],
"conversionVal": [
  number(double),
  ...
],
"conversions": [ // See the "Conversions Details" section for more info
{
  "agentGroupID": string,
  "agentGroupName": string,
  "agentID": string,
  "businessUnit": string,
  "businessUnitID": string,
  "conversionUnit": number(double),
  "conversionVal": number(double),
  "iso": string,
  "timestamp": number(long),
  "orderID": string,
  "orderType": string,
  "otherInfo": string,
  "products": [
    {
      "id": string,
      "type": string,
      "unit": number(int),
      "val": number(double)
    },
    ...
  ]
  "timeToConv": number(double),
},
"converted": boolean,
"endType": string,
"escalationNotes": string,
"finalOwningAgentAgentGroupID": string,
"finalOwningAgentAgentGroupName": string,
"finalOwningAgentBusinessUnitID": string,

```

```

"finalOwningAgentBusinessUnitName": string,
"initialTimeInQueue": number(long),
"lastUpdateDate": {
  "iso": string,           // in client's timezone
  "timestamp": number(long)
},
"operatingSystem": string,           // Default
"saleQualifiedDate": {
  "iso": string,           // in client's timezone
  "timestamp": number(long)
},
"satisfactionSurveySubmitDate":
  {
    "iso": string,
    "timestamp": number(long)
  },
"sessionID": string,
"timeFromCustomerToAgentExit": number(long),
"timeToConversion": [
  number(long),
  ...
],
"totalActiveAgentTime": number(long),
"totalActiveCallTime": number(long),
"totalActiveCustomerTime": number(long),
"totalAgentFreehandLines": number(int),
"totalAgentLines": number(int),
"totalAgentScriptLines": number(int),
"totalAgentsInvolved": number(int),
"totalCallsConnected": number(int),
"totalConversions": number(int),
"totalCustomerLines": number(int),
"totalEngagementLines": number(int),
"totalFailedCalls": number(int),
"totalOrderValue": number(double),
"transferAbandoned": boolean,
"transfersConnected": number(int),
"truncatedDueToEventLimit": boolean,
}, // end of a single engagement
...
] // end of "engagements"
} // end of overall response

```

Example: Querying multiple customers

Query: <https://api.touchcommerce.com/v3/transcript/historic?filter=%28customerID%3D742622464301727909+OR+customerID%3D742340989103364985%29&site=XXX&rows=100>

Transcript XML Schema (XSD)

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns="http://www.touchcommerce.com/schema/apiservice/transcript-response-3.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.touchcommerce.com/schema/apiservice/transcript-response-3.0"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified"><!-- COMMON TYPES -->
  <xs:complexType name="dateType">
    <xs:sequence>
      <xs:element name="iso" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="timestamp" type="xs:long"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="dateArray">
    <xs:sequence>
      <xs:element name="date" type="dateType" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="attributeArray">
    <xs:sequence>
      <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="Any">
    <xs:sequence>
      <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <!-- COMMON TRANSCRIPT TYPES -->
  <xs:complexType name="stringArray">
    <xs:sequence>
      <xs:element name="item" type="xs:string" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="longArray">
    <xs:sequence>
      <xs:element name="item" type="xs:long" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="intArray">
    <xs:sequence>
      <xs:element name="item" type="xs:int" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="doubleArray">
    <xs:sequence>
      <xs:element name="item" type="xs:double" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <!-- SUB-FIELDS TYPES -->
  <xs:complexType name="escalationReasonArray">
    <xs:sequence>
```

```

        <xs:element name="escalationReason"
            type="escalationReasonType"
            minOccurs="0"
            maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="escalationReasonType">
    <xs:all>
        <xs:element name="agentId" type="xs:string" minOccurs="0"/>
        <xs:element name="reason" type="xs:string" minOccurs="0"/>
    </xs:all>
</xs:complexType>
<xs:complexType name="agentGroupArray">
    <xs:sequence>
        <xs:element name="agentGroup"
            type="agentGroupType"
            minOccurs="0"
            maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="agentGroupType">
    <xs:all>
        <xs:element name="agentGroupID" type="xs:string"/>
        <xs:element name="agentGroupName" type="xs:string"/>
    </xs:all>
</xs:complexType>
<xs:complexType name="pagesType">
    <xs:all>
        <xs:element name="launchPageID" type="xs:string" minOccurs="0"/>
        <xs:element name="launchPageMarker" type="xs:string" minOccurs="0"/>
        <xs:element name="launchPageURL" type="xs:string" minOccurs="0"/>
    </xs:all>
</xs:complexType>
<xs:complexType name="currentPageType">
    <xs:all>
        <xs:element name="currentPageMarker" type="xs:string" minOccurs="0"/>
        <xs:element name="currentPageURL" type="xs:string" minOccurs="0"/>
    </xs:all>
</xs:complexType>
<xs:complexType name="conversionArray">
    <xs:sequence>
        <xs:element name="conversion"
            type="conversionType"
            minOccurs="0"
            maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="conversionType">
    <xs:all>
        <xs:element name="timeToConv" type="xs:float" minOccurs="0"/>
        <xs:element name="iso" type="xs:string" minOccurs="0"/>
        <xs:element name="timestamp" type="xs:long" minOccurs="0"/>
        <xs:element name="otherInfo" type="xs:string" minOccurs="0"/>
        <xs:element name="orderType" type="xs:string" minOccurs="0"/>
        <xs:element name="orderId" type="xs:string" minOccurs="0"/>
        <xs:element name="agentID" type="xs:string" minOccurs="0"/>
    </xs:all>
</xs:complexType>

```

```

<xs:element name="businessUnitID" type="xs:string" minOccurs="0"/>
<xs:element name="businessUnit" type="xs:string" minOccurs="0"/>
<xs:element name="agentGroupID" type="xs:string" minOccurs="0"/>
<xs:element name="agentGroup" type="xs:string" minOccurs="0"/>
<xs:element name="conversionUnit" type="xs:float" minOccurs="0"/>
<xs:element name="conversionVal" type="xs:float" minOccurs="0"/>
<xs:element name="agentAttributes" type="Any" minOccurs="0"/>
<xs:element name="orderAttributes" type="Any" minOccurs="0"/>
<xs:element name="products" minOccurs="0">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="product" minOccurs="0" maxOccurs="unbounded">
        <xs:complexType mixed="true">
          <xs:sequence>
            <xs:element name="id" type="xs:string" minOccurs="0"/>
            <xs:element name="type" type="xs:string" minOccurs="0"/>
            <xs:element name="unit" type="xs:int" minOccurs="0"/>
            <xs:element name="val" type="xs:float" minOccurs="0"/>
            <xs:element name="productAttributes" minOccurs="0">
              <xs:complexType mixed="true">
                <xs:sequence>
                  <xs:element name="attribute" minOccurs="0" maxOccurs="unbounded">
                    <xs:complexType mixed="true">
                      <xs:sequence>
                        <xs:element name="value"
                          type="xs:string"
                          minOccurs="0"
                          maxOccurs="unbounded"/>
                      </xs:sequence>
                    <xs:attribute name="name" type="xs:string"/>
                  </xs:complexType>
                </xs:element>
              </xs:sequence>
            </xs:complexType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="businessUnitArray">
  <xs:sequence>
    <xs:element name="businessUnit"
      type="businessUnitType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="businessUnitType">
  <xs:all>
    <xs:element name="businessUnitID" type="xs:string"/>
    <xs:element name="businessUnitName" type="xs:string" minOccurs="0"/>
  </xs:all>

```

```

</xs:complexType>
<xs:complexType name="automatonArray">
  <xs:sequence>
    <xs:element name="automaton"
      type="automatonType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="automatonType">
  <xs:all>
    <xs:element name="automatonID" type="xs:string" minOccurs="0"/>
    <xs:element name="automatonName" type="xs:string" minOccurs="0"/>
    <xs:element name="automatonType" type="xs:string" minOccurs="0"/>
    <xs:element name="startedIn" type="xs:string" minOccurs="0"/>
    <xs:element name="startedBy" type="xs:string" minOccurs="0"/>
    <xs:element name="pageID" type="xs:string" minOccurs="0"/>
    <xs:element name="businessUnit" type="xs:string" minOccurs="0"/>
    <xs:element name="agentGroup" type="xs:string" minOccurs="0"/>
    <xs:element name="outcomeType" type="xs:string" minOccurs="0"/>
    <xs:element name="outcomeMessage" type="xs:string" minOccurs="0"/>
    <xs:element name="automatonAttribute" type="Any" minOccurs="0"/>
    <xs:element name="launchDate" type="xs:string" minOccurs="0"/>
    <xs:element name="launchDateMlSec" type="xs:long" minOccurs="0"/>
    <xs:element name="automatonTypes" minOccurs="0">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="automatonType"
            type="xs:string"
            minOccurs="0"
            maxOccurs="unbounded"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="nodes" minOccurs="0">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="node" minOccurs="0" maxOccurs="unbounded">
            <xs:complexType mixed="true">
              <xs:sequence>
                <xs:element name="nodeID" type="xs:string" minOccurs="0"/>
                <xs:element name="nodeName" type="xs:string" minOccurs="0"/>
                <xs:element name="automatonType" type="xs:string" minOccurs="0"/>
                <xs:element name="nodeEnteredTime" minOccurs="0">
                  <xs:complexType mixed="true">
                    <xs:sequence>
                      <xs:element name="timestamp" type="xs:long" minOccurs="0"/>
                      <xs:element name="timeInClientTimezone" type="xs:string" minOccurs="0"/>
                    </xs:sequence>
                  </xs:complexType>
                </xs:element>
                <xs:element name="nodeAttribute" minOccurs="0" type="Any"/>
                <xs:element name="elementResponses" minOccurs="0">
                  <xs:complexType mixed="true">
                    <xs:sequence>
                      <xs:element name="elementResponse" minOccurs="0" maxOccurs="unbounded">

```

```

    <xs:complexType mixed="true">
      <xs:sequence>
        <xs:element name="element" minOccurs="0">
          <xs:complexType mixed="true">
            <xs:sequence>
              <xs:element name="elementID" type="xs:string" minOccurs="0"/>
            </xs:sequence>
            <xs:attribute name="id" type="xs:string"/>
          </xs:complexType>
        </xs:element>
        <xs:element name="response" minOccurs="0">
          <xs:complexType mixed="true">
            <xs:sequence>
              <xs:element name="responseID" type="xs:string" minOccurs="0"/>
              <xs:element name="numeric" type="xs:string" minOccurs="0"/>
              <xs:element name="string" type="xs:string" minOccurs="0"/>
            </xs:sequence>
            <xs:attribute name="id" type="xs:string"/>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
<xs:attribute name="id" type="xs:string"/>
<xs:attribute name="name" type="xs:string"/>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:all>
<xs:attribute name="id" type="xs:string"/>
<xs:attribute name="name" type="xs:string"/>
</xs:complexType>
<xs:complexType name="agentArray">
  <xs:sequence>
    <xs:element name="agent"
      type="agentType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="agentType">
  <xs:all>
    <xs:element name="agentID" type="xs:string"/>
    <xs:element name="agentFullName" type="xs:string" minOccurs="0"/>
    <xs:element name="agentAlias" type="xs:string" minOccurs="0"/>
    <xs:element name="agentBusinessUnits" minOccurs="0">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="businessUnit"
            type="xs:string"
          >

```

```

        minOccurs="0"
        maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="agentAgentGroups" minOccurs="0">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="agentGroup"
                type="xs:string"
                minOccurs="0"
                maxOccurs="unbounded"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="agentEnterDate" minOccurs="0">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="iso" type="xs:string" minOccurs="0"/>
            <xs:element name="timestamp" type="xs:long" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="agentExitDate" minOccurs="0">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="iso" type="xs:string" minOccurs="0"/>
            <xs:element name="timestamp" type="xs:long" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="routingAttributes" type="Any" minOccurs="0"/>
<xs:element name="agentAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="agentType" type="xs:string" minOccurs="0"/>
</xs:all>
</xs:complexType>
<!-- CHATS -->
<xs:complexType name="engagementArray">
    <xs:sequence>
        <xs:element name="engagement"
            type="engagementType"
            minOccurs="0"
            maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="engagementType">
    <xs:all>
        <xs:element name="conversionDate" type="dateArray" minOccurs="0"/>
        <xs:element name="totalAgentsInvolved" type="xs:int" minOccurs="0"/>
        <xs:element name="endDate" type="dateType" minOccurs="0"/>
        <xs:element name="lastUpdateDate" type="dateType" minOccurs="0"/>
        <xs:element name="satisfactionSurveySubmitDate" type="dateType" minOccurs="0"/>
        <xs:element name="conversionUnit" type="conversionUnitArray" minOccurs="0"/>
        <xs:element name="saleQualifiedDate" type="dateType" minOccurs="0"/>
        <xs:element name="engagementTimeInStatus" type="xs:long" minOccurs="0"/>
        <xs:element name="engagementActive" type="xs:boolean" minOccurs="0"/>
    </xs:all>
</xs:complexType>

```



```

<xs:element name="currentChat" type="xs:boolean" minOccurs="0"/>
<xs:element name="escalated" type="xs:boolean" minOccurs="0"/>
<xs:element name="agentGroups" type="agentGroupArray" minOccurs="0"/>
<xs:element name="visitorAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="orderAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="productAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="sessionAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="endType" type="xs:string" minOccurs="0"/>
<xs:element name="conversionProductType"
  type="conversionProductTypeArray"
  minOccurs="0"/>
<xs:element name="totalAgentFreehandLines" type="xs:int" minOccurs="0"/>
<xs:element name="language" type="xs:string" minOccurs="0"/>
<xs:element name="conversionProductValue"
  type="conversionProductValueArray"
  minOccurs="0"/>
<xs:element name="startDate" type="dateType" minOccurs="0"/>
<xs:element name="conversationStartDate" type="dateType" minOccurs="0"/>
<xs:element name="wrapUpTime" type="xs:long" minOccurs="0"/>
<xs:element name="timeFromCustomerToAgentExit" type="xs:long" minOccurs="0"/>
<xs:element name="dispositions" type="Any" minOccurs="0"/>
<xs:element name="pages" type="pagesType" minOccurs="0"/>
<xs:element name="currentPages" type="currentPagesType" minOccurs="0"/>
<xs:element name="siteID" type="xs:int" minOccurs="0"/>
<xs:element name="siteName" type="xs:string" minOccurs="0"/>
<xs:element name="conversionProductQuantity"
  type="conversionProductQuantityArray"
  minOccurs="0"/>
<xs:element name="deviceType" type="xs:string" minOccurs="0"/>
<xs:element name="operatingSystem" type="xs:string" minOccurs="0"/>
<xs:element name="browserVersion" type="xs:string" minOccurs="0"/>
<xs:element name="browserType" type="xs:string" minOccurs="0"/>
<xs:element name="conferenceConnected" type="xs:boolean" minOccurs="0"/>
<xs:element name="conversions" type="conversionArray" minOccurs="0"/>
<xs:element name="finalOwningAgentID" type="xs:string" minOccurs="0"/>
<xs:element name="finalOwningAgentFullName" type="xs:string" minOccurs="0"/>
<xs:element name="businessUnits" type="businessUnitArray" minOccurs="0"/>
<xs:element name="totalCustomerLines" type="xs:int" minOccurs="0"/>
<xs:element name="engagementStatus" type="xs:string" minOccurs="0"/>
<xs:element name="automatonID" type="stringArray" minOccurs="0"/>
<xs:element name="automatonName" type="stringArray" minOccurs="0"/>
<xs:element name="automatonType" type="stringArray" minOccurs="0"/>
<xs:element name="automatons" type="automatonArray" minOccurs="0"/>
<xs:element name="converted" type="xs:boolean" minOccurs="0"/>
<xs:element name="conversionOrderID"
  type="conversionOrderIDArray"
  minOccurs="0"/>
<xs:element name="timeToConversion" type="timeToConversionArray" minOccurs="0"/>
<xs:element name="totalFailedCalls" type="xs:int" minOccurs="0"/>
<xs:element name="engagementInitialAgentResponseTime"
  type="xs:long"
  minOccurs="0"/>
<xs:element name="totalAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="totalAgentResponseCount" type="xs:int" minOccurs="0"/>
<xs:element name="totalActiveAgentTime" type="xs:long" minOccurs="0"/>
<xs:element name="conversionProductID"

```

```

        type="conversionProductIDArray"
        minOccurs="0"/>
<xs:element name="launchType" type="xs:string" minOccurs="0"/>
<xs:element name="persistent" type="xs:boolean" minOccurs="0"/>
<xs:element name="transferred" type="xs:boolean" minOccurs="0"/>
<xs:element name="engagementMaxAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="timeSinceCustomerMessage" type="xs:long" minOccurs="0"/>
<xs:element name="engagementDuration" type="xs:long" minOccurs="0"/>
<xs:element name="engagementDurationInCompletedState"
        type="xs:long"
        minOccurs="0"/>
<xs:element name="transcript" type="transcriptType" minOccurs="0"/>
<xs:element name="engagementAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="agentAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="routingAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="finalOwningAgentAttribute"
        type="attributeArray"
        minOccurs="0"/>
<xs:element name="finalOwningAgentBusinessUnitID"
        type="xs:string"
        minOccurs="0"/>
<xs:element name="finalOwningAgentBusinessUnitName"
        type="xs:string"
        minOccurs="0"/>
<xs:element name="finalOwningAgentAgentGroupID" type="xs:string" minOccurs="0"/>
<xs:element name="finalOwningAgentAgentGroupName"
        type="xs:string"
        minOccurs="0"/>
<xs:element name="inConference" type="xs:boolean" minOccurs="0"/>
<xs:element name="totalConversions" type="xs:int" minOccurs="0"/>
<xs:element name="conversionOrderType"
        type="conversionOrderTypeArray"
        minOccurs="0"/>
<xs:element name="totalOrderValue" type="xs:double" minOccurs="0"/>
<xs:element name="callConnected" type="xs:boolean" minOccurs="0"/>
<xs:element name="callDuration" type="xs:long" minOccurs="0"/>
<xs:element name="engagementID" type="xs:string" minOccurs="0"/>
<xs:element name="totalActiveCustomerTime" type="xs:long" minOccurs="0"/>
<xs:element name="transferAbandoned" type="xs:boolean" minOccurs="0"/>
<xs:element name="engagementAvgAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="totalCallsConnected" type="xs:int" minOccurs="0"/>
<xs:element name="businessRuleAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="totalAgentLines" type="xs:int" minOccurs="0"/>
<xs:element name="customerID" type="xs:string" minOccurs="0"/>
<xs:element name="conversationID" type="xs:string" minOccurs="0"/>
<xs:element name="surveyMessage" type="xs:string" minOccurs="0"/>
<xs:element name="channelType" type="xs:string" minOccurs="0"/>
<xs:element name="asyncEngagement" type="xs:string" minOccurs="0"/>
<xs:element name="outcome" type="xs:string" minOccurs="0"/>
<xs:element name="cobrowse" type="xs:boolean" minOccurs="0"/>
<xs:element name="businessRuleName" type="xs:string" minOccurs="0"/>
<xs:element name="saleQualified" type="xs:boolean" minOccurs="0"/>
<xs:element name="agents" type="agentArray" minOccurs="0"/>
<xs:element name="businessRuleID" type="xs:string" minOccurs="0"/>
<xs:element name="initialTimeToAbandon" type="xs:long" minOccurs="0"/>
<xs:element name="totalAgentScriptLines" type="xs:int" minOccurs="0"/>

```

```

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  minOccurs="0"/>
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</xs:complexType>
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    <xs:element name="iso" type="xs:dateTime" minOccurs="0"/>
    <xs:element name="timestamp" type="xs:long" minOccurs="0"/>
    <xs:element name="senderId" type="xs:string" minOccurs="0"/>
    <xs:element name="lineType" type="xs:string" minOccurs="0"/>
    <xs:element name="senderAlias" type="xs:string" minOccurs="0"/>
    <xs:element name="owner" type="xs:boolean" minOccurs="0"/>
    <xs:element name="disposition" type="xs:string" minOccurs="0"/>
    <xs:element name="escalated" type="xs:boolean" minOccurs="0"/>
    <xs:element name="escalatedText" type="xs:string" minOccurs="0"/>
    <xs:element name="result" type="xs:string" minOccurs="0"/>
    <xs:element name="agentGroup" type="xs:string" minOccurs="0"/>
    <xs:element name="businessUnit" type="xs:string" minOccurs="0"/>
    <xs:element name="outcomeType" type="xs:string" minOccurs="0"/>
    <xs:element name="outcome" type="xs:string" minOccurs="0"/>
    <xs:element name="custom.decisiontree.nodeID" type="xs:string" minOccurs="0"/>
    <xs:element name="custom.decisiontree.view" type="xs:string" minOccurs="0"/>
    <xs:element name="custom.decisiontree.questions"

```

```

        type="stringArray"
        minOccurs="0"/>
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<xs:element name="datapass" type="xs:string" minOccurs="0"/>
<xs:element name="showedToCustomer" type="xs:boolean" minOccurs="0"/>
<xs:element name="addedAgentID" type="xs:string" minOccurs="0"/>
<xs:element name="targetBusinessUnit" type="xs:string" minOccurs="0"/>
<xs:element name="targetAgentGroup" type="xs:string" minOccurs="0"/>
<xs:element name="resourceNeeded" type="xs:string" minOccurs="0"/>
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    <xs:enumeration value="CLIENT_MESSAGE_HIDDEN"/>
    <xs:enumeration value="AGENT_MESSAGE"/>
    <xs:enumeration value="AGENT_JOINS_CHAT"/>
    <xs:enumeration value="CLIENT_ENDS_CHAT"/>
    <xs:enumeration value="AGENT_ENDS_CHAT"/>
    <xs:enumeration value="CLIENT_RECONNECTS"/>
    <xs:enumeration value="CLIENT_INVOKE_PERSIST"/>
    <xs:enumeration value="CLIENT_IN_PERSIST"/>
    <xs:enumeration value="CLIENT_DISCONNECTS"/>
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    <xs:enumeration value="MARKER_URL"/>
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    <xs:enumeration value="UTILITY_LISTENIN_DISCONNECTS"/>
    <xs:enumeration value="UTILITY_MESSAGE"/>
    <xs:enumeration value="CLIENT_DATA_FORMAT"/>
    <xs:enumeration value="AGENT_INTERNAL_MESSAGE"/>
    <xs:enumeration value="UTILITY_SUPERVISOR_RECONNECTS"/>
    <xs:enumeration value="UTILITY_SUPERVISOR_DISCONNECTS"/>
    <xs:enumeration value="TRANSFER"/>
    <xs:enumeration value="NOTIFY_CLIENT"/>
    <xs:enumeration value="CONFERENCE"/>
    <xs:enumeration value="OWNER_TRANSFER"/>
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    <xs:enumeration value="FORM_NAME"/>
    <xs:enumeration value="FORM_DATA"/>
    <xs:enumeration value="AUTOMATON_MESSAGE"/>
    <xs:enumeration value="COBROWSE_EVENT"/>
    <xs:enumeration value="FILEUPLOAD_EVENT"/>
    <xs:enumeration value="VIDEOPLAYER_EVENT"/>
    <xs:enumeration value="CALL_EVENT"/>
    <xs:enumeration value="AUTOMATON_COMM_MESSAGE"/>
  </xs:restriction>
</xs:simpleType>

```

```

<xs:enumeration value="XFORMS_INTERNAL_TO_AGENT"/>
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<xs:enumeration value="CLIENT_OUTCOME"/>
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<xs:enumeration value="AUTOMATON_CUSTOMER_RESPONDED"/>
<xs:enumeration value="AUTOMATON_ENDED"/>
<xs:enumeration value="AGENT_ENTERS_CONFERENCE_FULL_MODE"/>
<xs:enumeration value="AGENT_ENTERS_CONFERENCE_SCREENING_MODE"/>
<xs:enumeration value="AGENT_ENTERS_CHAT_DUE_TRANSFER_IN_FULL_MODE"/>
<xs:enumeration value="AGENT_JOINS_CHAT_FROM_SCREENING_TO_FULL_MODE"/>
<xs:enumeration value="AGENT_RECONNECTS_SCREENING_MODE"/>
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<xs:enumeration value="chat.agentFollowUp"/>
<xs:enumeration value="automaton.data_pass"/>
<xs:enumeration value="chat.pushLinkSent"/>
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      maxOccurs="unbounded"/>
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      minOccurs="0"
      maxOccurs="unbounded"/>
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  <xs:sequence>
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  </xs:sequence>
</xs:complexType>

```

```

    </xs:sequence>
  </xs:complexType>
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        maxOccurs="unbounded"/>
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        maxOccurs="unbounded"/>
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  <xs:complexType name="automatonQuestionFreeFormAnswerArray">
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      <xs:element name="value"
        type="xs:string"
        minOccurs="0"
        maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <!-- Root XML element -->
  <xs:element name="response">
    <xs:complexType>
      <xs:all>
        <xs:element name="numFound" type="xs:integer" minOccurs="1"/>
        <xs:element name="start" type="xs:integer" minOccurs="1"/>
        <xs:element name="engagements" type="engagementArray" minOccurs="1"/>
      </xs:all>
    </xs:complexType>
  </xs:element>
</xs:schema>

```

Type Values (real-time only)

Type	Description
AGENT_DISCONNECTS	The agent lost a connection
AGENT_ENDS_CHAT	The notification that agent left the chat
AGENT_INTERNAL_MESSAGE	The agent sent internal message
AGENT_JOINS_CHAT	The notification that agent entered the chat
AGENT_MESSAGE	The content sent from agent
AUTOMATON_COMM_MESSAGE	The message was sent from automaton
AUTOMATON_MESSAGE	The automaton's message
CALL_EVENT	The call event occurred
CLICKSTREAM	The clickstream was sent
CLIENT_DATA_FORMAT	The datapass was sent
CLIENT_DISCONNECTS	The customer lost a connection
CLIENT_ENDS_CHAT	The notification that customer left the chat
CLIENT_IN_PERSIST	The customer moved to persistent
CLIENT_INVOKE_PERSIST	The customer invoked the persistent mode
CLIENT_MESSAGE	The content sent from customer
CLIENT_RECONNECTS	The customer reentered the chat
COBROWSE_EVENT	The cobrowse event occurred
CONFERENCE	The conference occurred
FORM_DATA	The form data was received
FORM_NAME	The form was requested
ILLEGAL_WORD	The illegal word was typed in agent application
MARKER_PAGE	The customer went to another page
MARKER_URL	The customer went to another page
NOTIFY_CLIENT	The system information that was shown to the customer
OWNER_TRANSFER	The ownership was transferred
PHONE_NUMBER	The customer sent phone number
SALE	The sale occurred
TRANSFER	The transfer occurred
UTILITY_LISTENIN_DISCONNECTS	The listenin lost a connection
UTILITY_LISTENIN_RECONNECTS	The listenin reconnected
UTILITY_MESSAGE	The listenin/supervisor sent internal message
UTILITY_SUPERVISOR_DISCONNECTS	The supervisor lost a connection
UTILITY_SUPERVISOR_RECONNECTS	The supervisor reconnected
XFORMS_INTERNAL_TO_AGENT	The internal message was sent from automaton

Transcript line event fields table (historic transcripts)

Certain transcript lines can have extra fields, depending on the line's "type" value (this type is also known as the event). The table below shows these types (events) and their associated fields. Some fields are required and must be included (they are marked with a "Y" in the Required column. For example, if a transcript line's type is "chat.agentExited", then the "owner" field will always be in that line, as it is required. In this same example, the "disposition" field may or may not be there as it is optional.

Type (Event)	Field	Required	Value Type	Description
agent.requested				
	senderName	Y		"system"
	result	Y	string	either "assigned" (has been already assigned to an agent) or "queued" (waiting to be assigned to an agent)
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
automaton.contentSentToAgent				
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	custom.decisiontree.nodeID	N	string	The node id of a node in the decision tree
automaton.contentSentToCustomer				
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	custom.decisiontree.nodeID	N	string	The node id of a node in the decision tree
	custom.decisiontree.view	N	string	The id of the view. viewID can be reused on multiple nodes
	custom.decisiontree.questions	N	array/string	survey questions
automaton.customerResponded				
	senderName	Y		"customer"
	iso	Y		time in ISO human-readable format

Type (Event)	Field	Required	Value Type	Description
	timestamp	Y		epoch time
	custom.decisiontree.nodeID	N	string	The node id of a node in the decision tree
	custom.decisiontree.questions	N	array/string	survey questions & answers
automaton.started				
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
automaton.ended				
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	outcomeType	Y	string	"Refused", "Abandoned", or "Completed"
	outcome	N	string	a note
	custom.decisiontree.nodeID	N	string	The node id of a node in the decision tree
chat.agentChatlineSent				
	content	Y		freehand line of text sent
	senderName	Y		"agent"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
chat.agentEnterChat				
	content	Y		enter chat message
	senderName	Y		"agent"

Type (Event)	Field	Required	Value Type	Description
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
	enterType	Y	string	"chat", "transfer", "conferenceScreening", "conferenceFull"
	owner	N	boolean	true = the senderId is the owning agent; false = the senderId is NOT the owning agent
chat.agentExited				
	senderName	Y		"agent"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
	owner	Y	boolean	true = existing agent was owner of engagement
	disposition	N	string	the disposition of the agent that exited. format: "category:reason". This can have multiple category and reasons, in which case they are comma-separated
	escalated	N	boolean	true = exiting agent escalated this engagement
	escalatedText	N	string	
chat.clickstream				
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	pageMarker	N	string	name of the referring page
	historicPageMarkers	N	string	all page markers involved in the engagement
	pageURL	N	string	pageURL

Type (Event)	Field	Required	Value Type	Description
	systemInfo	N	string	comma-separated list of "name: value" pairs representing info about customer's system
	datapass	N	string	session properties
chat.conferenceRequested				
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
	result	N	string	either "assigned" (has been already assigned to an agent), "queued" (waiting to be assigned to an agent), or "refused" (request was refused by agent)
	addedAgentID	N	string	id of agent added to conference
	businessUnit	Y	string	name of previous agent's business unit
	targetBusinessUnit	Y	string	name of new agent's business unit
	agentGroup	N	string	name of previous agent's agent group, if they are in one
	targetAgentGroup	N	string	name of new agent's agent group, if they are in one
chat.customerChatlineSent				
	content	Y		line of text sent
	senderName	Y		"customer"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderAlias	N		Indicates name of the sender underwhich the current message is displayed in chat session.
chat.customerExited				

Type (Event)	Field	Required	Value Type	Description
	senderName	Y		"customer"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
chat.customerLostConnection				
	content	Y		lost connection message
	senderName	Y		"customer"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
chat.dispositionStarted				
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
chat.openerDisplayed				
	content	Y		line of text sent
	senderName	Y		"opener"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderAlias	N		Indicates the name of the sender under which the current message is displayed in chat session.
chat.scriptlineSent				
	content	Y		line of text sent
	senderName	Y		"agent"

Type (Event)	Field	Required	Value Type	Description
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
chat.statusDisplayed				
	content	Y		line of text, for example, transfer notes
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	showedToCustomer	N	boolean	true=showed status to customer; false=did not show status to the customer
chat.transferRequested				
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	senderId	Y		id of sender; for example if sender is agent, then this is agent login id
	newAgentID	N	string	id of agent transferred to
	businessUnit	Y	string	name of previous agent's business unit
	targetBusinessUnit	Y	string	name of new agent's business unit
	agentGroup	N	string	name of previous agent's agent group, if they are in one
	targetAgentGroup	N	string	name of new agent's agent group, if they are in one
conversionFunnel.assisted				
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format

Type (Event)	Field	Required	Value Type	Description
	timestamp	Y		epoch time
conversionFunnel.interacted				
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
engagement.requested				
	senderName	Y		"system"
	iso	Y		time in ISO human-readable format
	timestamp	Y		epoch time
	resourceNeeded	Y	string	"agent", "automaton", "NA"
	automaton.automatonID	N	string	id of automaton
	targetAgentAttributes	N	array/string	array of "name"/"value" pairs

Conversions Details

The "conversions" return field is a string that contains a JSON array of conversions. Each conversion contains one or more products.

Note. The date fields now have two sub-fields: "iso" and "timestamp".

Conversion Example

```
[{"timeToConv":2000.187,"iso": "2016-05-23T19:28:49+09:00","timestamp":
1463999329271,"otherInfo":"someOtherInfo","orderType":"Mobile","orderID":"123","agentID":"agent1","businessUnitID":"111","businessUnit":"ACME
Supplies","agentGroupID":"123","agentGroupName":"agentGroup1","conversionUnit":2.0,"conversionVal":40.99,"products":[{"id":"product1","type":"(unspecified)","unit":1,"val":39.99},{
product2","type":"(unspecified)","unit":1,"val":1.0}]}]
```

Here is what to expect inside the JSON array:

Conversion Fields

Field Name	Required	Value Type	Description
agentGroupID	N	string	id of the credited agent's agent group
agentGroupName	N	string	name of the credited agent's agent group
agentID	Y	string	agent credited with the conversion
businessUnit	Y	string	name of the business unit credited with the conversion
businessUnitID	Y	string	id of the business unit credited with the conversion
conversionUnit	Y	number (double)	number of products
conversionVal	Y	number (double)	sum of all product values
date	Y	string	ISO-format date of conversion
orderID	Y	string	
orderType	Y	string	
otherInfo	Y	string	
products	Y	array	one or more products (see details below)
timeToConv	Y	number (double)	time to conversion in milliseconds

Product Fields

Field Name	Required	Type	Description
id	Y	string	
type	Y	string	
unit	Y	number (integer)	number of units
val	Y	number (double)	value of this product

Disposition Details

The "dispositions" return field is a string that contains a JSON array of dispositions. Each disposition contains one or more dispositions. Here is a sample:

```
[
  {
    "agentId": "agent1",
    "dispositions": [{"category": "c1", "reason": "r1"}, {"category": "c1", "reason": "r2"}, {"category": "c2", "reason": "r1"}],
    "notes": "null",
    "final": false
  },
  {
    "agentId": "agent2",
    "dispositions": [{"category": "c1", "reason": "r4"}],
    "notes": "null",
    "final": true
  }
]
```

Here is what to expect inside the JSON array:

Disposition Fields

Field Name	Required	Value Type	Description
agentId	Y	string	agent username
dispositions	Y	array of dispositions	JSON array of category and reason pairs (see details below)
final	Y	boolean	final disposition

Fields in the dispositions field

Field Name	Required	Value Type	Description
category	Y	string	the category of the disposition
reason	N	string	the category's reason

Extraction

Bulk Transcript Extraction

1. Get the starting point in time
 - To get the starting point, you need to filter on the startDate field and use a start date/time and an end date/time. The start date/time can be any point in the past. The end date/time should be the current date/time. If the current date/time is 08-04-2015, 12pm, then the query would be:

filter="2015-08-04T11:00:00" <= startDate <"2015-08-04T12:00:00"&returnFields= startDate &sortField= startDate &sortOrder=desc
 The response will contain just the startDate values, and the first result will contain the latest last update date. This is your starting point.

2. Extract transcripts from the starting point to current time (now)
 - To extract data in bulk, you will query again using startDate in the filter. This time, you will use the starting point obtained in the previous step as the start date/time. Next, you will use the current date/time as the end date/time. In this example, let's assume the following:
 - there are less than 1,000 results so we don't have to page
 - the latest startDate obtained from the first result in the previous query is "2015-08-04T11:58:36"
 - the current date/time is "2015-08-04T13:00:00"
 - So the query would be
 - filter="2015-08-04T11:58:36" <= startDate <"2015-08-04T13:00:00"&returnFields=ALL&sortField= startDate &sortOrder=desc

Here, the first result in the response will contain the latest startDate value. You will use that value as the starting point in future extract queries.

NOTE: For each query, if numFound in the response is > 1000, then you'll need to use paging as described in the section [Extract Large Batches of Historic Transcripts](#) to get all the results.

3. Repeat step 2 to continue extracting batches of engagements.

Here is an example extract with the first few queries you might run:

Current date/time: 08-04-2015, 12pm - get the first starting point:

```
filter="2015-08-04T11:00:00"<= startDate <"2015-08-04T12:00:00"&returnFields= startDate &sortField= startDate &sortOrder=desc
```

(the latest startDate in the response is, for example, 11:58:36 - remember, this value is in the first result due to the sorting parameters)

Current date/time: 08-04-2015, 1pm - get first full batch of transcripts

```
filter="2015-08-04T11:58:36"<= startDate <"2015-08-04T13:00:00"&returnFields=ALL&sortField= startDate &sortOrder=desc
```

(the latest startDate in the response is, for example, 12:57:14 - remember, this value is in the first result due to the sorting parameters)

Current date/time: 08-04-2015, 2pm - get next full batch of transcripts

```
filter="2015-08-04T12:57:14"<= startDate <"2015-08-04T14:00:00"&returnFields=ALL&sortField= startDate &sortOrder=desc
```

(the latest startDate in the response is, for example, 13:58:01 - remember, this value is in the first result due to the sorting parameters)

Current date/time: 08-04-2015, 3pm - get next full batch of transcripts

```
filter="2015-08-04T13:58:01"<= startDate <"2015-08-04T15:00:00"&returnFields=ALL&sortField= startDate &sortOrder=desc
```

(the latest startDate in the response is, for example, 14:59:03 - remember, this value is in the first result due to the sorting parameters)

Extract Large Batches of Historic Transcripts

The maximum value for the "rows" parameter is 1,000. If your query has more than 1,000 results and you want to retrieve all of the results, then just use the same "filter" parameter value and the same "rows" parameter value but increase the "start" parameter value. The engagements index is zero-based, so rows=1000&start=1000 will return rows 1000-1999. Here is an example:

If your historic transcript query results has 3,500 engagements ("numFound" : 3500), then you would need to run these 4 queries to get all the results:

```
filter=engagementDuration>1000&rows=1000 (no start parameter as it defaults to 0; returns rows 0-999)
```

```
filter=engagementDuration>1000&rows=1000&start=1000 (returns rows 1000-1999)
```

```
filter=engagementDuration>1000&rows=1000&start=2000 (returns rows 2000-2999)
```

```
filter=engagementDuration>1000&rows=1000&start=3000 (returns rows 3000-3500; it's only 3500 because that is the total number of results)
```

Note. To get the total number of results, inspect the value of the "numFound" key in the response of the first query.

Metric (Real-time)

The Real-time metric service also includes Summary Metrics. Summary metrics are unique in that they are only available by dimension summary. Summary metrics are aggregated across all instances of a primary object / category (queue, engagement or agent), meaning there is no key by which they are grouped. An example of a summary request is

Example

<https://api.touchcommerce.com/v3/metric/realtime?category=queue&dimension=summary&site=XXX>

This will return all queue summary metrics for site XXX.

Adding a filter to a dimension=summary request is supported. The filter can contain any of the filterable fields from the table above.

The requestFields parameter is also supported for summary queries.

The following table lists and defines the summary metrics for each category.

Summary Dimension Field Definitions

Fields with no values will not show in the response.

Category	Metric	Type	Definition
queue			
	engagementsInQueue	int	Count of engagements in queue
	queuedEngagementsWithinSLA	int	Count of queued engagements within SLA
	queuedEngagementsExceedingSLA	int	Count of queued engagements exceeding SLA
	percentWithinQueueSLA	int	queuedEngagementsWithinSLA divided by engagementsInQueue
	maxTimeInQueue	long	Max time in queue for engagements which are queued at the moment of query.
	avgTimeInQueue	long	Average time in queue for engagements which are queued at the moment of query.
	trendingPercentWithinQueueSLA	int	Number of assigned from queue chats (initial assignment only) which met SLA/completed initial queue requests (in the last 2 hours).
	trendingPercentOfAbandons	int	Percent of abandoned chats from completed initial queue requests (in the last 2 hours).
	trendingAvgTimeInQueue	long	Average time in queue for completed initial queue requests (in the last 2 hours).
engagement			
	activeEngagements	int	Count of active engagements

Category	Metric	Type	Definition
	nonDispositionEngagements	int	Count of engagements with no disposition.
	saleQualifiedEngagements	int	Count of sale qualified engagements
	percentSaleQualified	int	saleQualifiedEngagements/activeEngagements
	engagementsWithinLastHour	int	Count of engagements that occurred within the last hour
	engagementsWithinHandleTimeGoal	int	Count of engagements within handle time goal
	engagementsExceedingHandleTimeGoal	int	Count of engagements exceeding handle time goal
	escalatedChats	int	Count of engagements that were escalated
	maxEngagementDuration	long	Maximum duration of all engagements.
	avgEngagementDuration	long	Includes all queued engagements that occurred in the last 2hrs
	avgInitialAgentResponseTime	long	Includes all queued engagements that occurred in the last 2hrs
	avgAgentResponseTime	long	Includes all queued engagements that occurred in the last 2hrs
agent			
	availableEngagementSlots	int	maxEngagements minus activeEngagements for this agent
	engagementUtilization	int	(activeEngagements+engagementsInQueue)/(activeEngagements+availableEngagementSlots). The denominator can also be thought of as sum of max chats for all available agents (or "total slots").
	agentsLoggedIn	int	Count of agents logged in
	activeAgents	int	Count of active agents. An agent is active when the agent is available.
	agentsOnBusy	int	Count of agents on busy
	agentUtilization	int	activeEngagements/(activeEngagements+availableEngagementSlots). The denominator can also be thought of as sum of max chats for all available agents (or "total slots").

Category: Queue, Dimension: Engagements

```

{
  "category": "queue",
  "dimension": "engagements",
  "engagements": [
    {
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagement, makes sense in case of conference request placed
in queue
      "businessRuleAttribute.<name>": string/list,
      "businessRuleID": string, // Default
      "businessRuleName": string, // Default
      "businessUnits": [ // return the initially requested BusinessUnit info
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "customerID": string,
      "currentPages":
        {
          "currentPageMarker": string,
          "currentPageURL": string
        },
      "deviceType": string,
      "engagementID": string, // Default
      "inConference": boolean, // Default
      "inServiceLevelAgreement": boolean, // Default
      "language": string,
      "launchType": string,
      "pages": // Default
        {
          "launchPageID": string,
          "launchPageMarker": string
        },
      "position": int, // Default
      "priority": int // Default
      "saleQualified": boolean, // not supported
      "score": int, // Default
      "timeInQueue": long, // Default
      "transferred": boolean,
      "visitorAttribute.<name>": string/list,
    },
    ...
  ]
}

```

Category: Queue, Dimension: Agents

```

{
  "category": "queue",
  "dimension": "agents",
  "agents": [
    {
      "activeEngagements": int,           // Default
      "agentAttribute.<name>": string/list, // unsupported, represents the aggregated set of agent's attributes involved in the engagement that could be serviced by
specific agent, makes sense in case of conference request placed in queue
      "agentFullName": string           // Default
      "agentID": string,                 // Default
      "agentStatus": string,            // Default
      "agentTimeInStatus": long,        // Default
      "avgAgentResponseTime": long,     // Default
      "avgEngagementDuration": long,    // Default
      "avgInitialAgentResponseTime": long, // Default
      "businessRuleAttribute.<name>": string/list, // unsupported
      "businessUnits": [                // unsupported
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ]
      "canServiceCount": int,           // Default
      "maxAgentResponseTime": long,     // Default
      "maxEngagements": int,           // Default
      "routingAttribute.<name>": string/list,
      "visitorAttribute.<name>": string/list, // unsupported
    },
    ...
  ]
}

```

Category: Queue, Dimension: Business Rules

```

{
  "category" : "queue",
  "dimension" : "businessRules",
  "businessRules" : [
    {
      "abandoned": int, // Returned with startDate and endDate parameters
      "abandonedWithinSLA": int, // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific business rule, makes sense
in case of conference request placed in queue
      "assignedFromQueue": int, // Returned with startDate and endDate parameters
      "assignedWithinSLA": int, // Returned with startDate and endDate parameters
      "avgTimeInQueue": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessRuleID": string, // Default // Returned with startDate and endDate parameters
      "businessRuleName": string, // Default // Returned with startDate and endDate parameters
      "businessUnits": [ // return the aggregated value of initially requested BusinessUnit
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ]
      "engagementsInQueue": int, // Default
      "maxTimeInQueue": long, // Default
      "percentEngagementsQueued": int, // Default
      "percentWithinQueueSLA": int, // Default
      "routingAttribute.<name>": string/list,
      "totalInitialTimeInQueue": long, // Returned with startDate and endDate parameters
      "visitorAttribute.<name>": string/list
    },
    ...
  ]
}

```

Category: Queue, Dimension: Pages

```

{
  "category" : "queue",
  "dimension" : "pages",
  "pages" : [
    {
      "abandoned": int, // Returned with startDate and endDate parameters
      "abandonedWithinSLA": int, // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific page, makes sense in
      case of conference request placed in queue
      "assignedFromQueue": int, // Returned with startDate and endDate parameters
      "assignedWithinSLA": int, // Returned with startDate and endDate parameters
      "avgTimeInQueue": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessUnits": [ // return the aggregated value of initially requested BusinessUnit
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ]
      "engagementsInQueue": int, // Default
      "launchPageID": string, // Default // Returned with startDate and endDate parameters
      "launchPageMarker": string, // Default // Returned with startDate and endDate parameters
      "maxTimeInQueue": long, // Default
      "percentEngagementsQueued": int, // Default
      "percentWithinQueueSLA": int, // Default
      "routingAttribute.<name>": string/list,
      "totalInitialTimeInQueue": long, // Returned with startDate and endDate parameters
      "visitorAttribute.<name>": string/list
    },
    ...
  ]
}

```


Category: Queue, Dimension: Custom Attribute

```

{
  "category": "queue",
  "dimension": "<attributeType>.<name>",
  "<attributeType>.<name>": [
    {
      "abandoned": int, // Returned with startDate and endDate parameters
      "abandonedWithinSLA": int, // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific custom demension, makes
sense in case of conference request placed in queue
      "assignedFromQueue": int, // Returned with startDate and endDate parameters
      "assignedWithinSLA": int, // Returned with startDate and endDate parameters
      "avgTimeInQueue": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessUnits": [ // return the aggregated value of initially requested BusinessUnit
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ]
      "engagementsInQueue": int, // Default
      "globalAbandoned ": int,
      "globalRequestsQueued": int,
      "globalServicedInSLA ": int, // All agent requests: number of queued engagements that were assigned to an agent within the SIA; not only initial assignment but also
transfers, conferences, etc.
      "maxTimeInQueue": long, // Default
      "percentEngagementsQueued": int, // Default
      "percentWithinQueueSLA": int, // Default
      "routingAttribute.<name>": string/list,
      "totalInitialTimeInQueue": long, // Returned with startDate and endDate parameters
      "value": string, // Default. Unique value for attributeType.<name>
      "visitorAttribute.<name>": string/list
    },
    ...
  ]
}

```

Category: Queue, Dimension: Summary

```
{
  "category": "queue",
  "dimension": "summary",
  "summary": {
    "avgTimeInQueue": long,           // Default, average time-in-queue of currently enqueued engagements (time of transfer-to-queue is excluded); this
    field is not returned if a queue is empty & there is nothing to take an average of.
    "engagementsInQueue": int,       // Default, count of enqueued engagements currently (an instant metric)
    "maxTimeInQueue": long,          // Default
    "percentWithinQueueSLA": int,    // Default
    "queuedEngagementsExceedingSLA": int, // Default
    "queuedEngagementsWithinSLA": int, // Default
    "trendingAvgTimeInQueue": long   // Default, weighted-average of time-in-queue (only already dequeued chats are considered, time of transfer-to-
    queue is excluded)
    "trendingPercentWithinQueueSLA": "int", // Default
    "trendingPercentWithinQueueSLA": "int", // Default
    "trendingPercentOfAbandons": int, // Default
  }
}
```

Category: Engagement, Dimension: Engagements

```

{
  "category": "engagement",
  "dimension": "engagements"
  "engagements": [
    {
      "agentAttribute.<name>": string/list,           // represents the aggregated set of agent's attributes involved in the engagements
      "agents": [                                     // Default
        {
          "agentID": string,
          "agentAlias": string,
          "agentFullName": string
        },
        ...
      ],
      "agentGroups": [
        // Default, return
        // the agentGroup info of engagement owner (the owner enters the engagement)
        {
          "agentGroupID": string,
          "agentGroupName": string
        },
        ...
      ],
      "businessRuleAttribute.<name>": string/list,
      "businessRuleID": string,                       // Default
      "businessRuleName": string,                     // Default
      "businessUnits": [                             // Default, return the BusinessUnit info of engagement owner (the owner enters the engagement)
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "currentPages":                                // Default
        {
          "currentPageMarker": string,
          "currentPageURL": string
        },
      "customerID": string,
      "deviceType": string,
      "endDate": {
        "iso": "2012-10-26T08:20:36.000+00:00",      // in client's timezone
        "timestamp": 1273676351723
      }
    }
  ],
  "engagementActive": boolean,
  "engagementAvgAgentResponseTime": long,           // Default
  "engagementDuration": long,                       // Default
  "engagementID": string,                            // Default // Returned with startDate and endDate parameters
  "engagementInitialAgentResponseTime": long,       // Default
  "engagementMaxAgentResponseTime": long,           // Default
  "engagementStatus": string,                       // Default
  "engagementTimeInStatus": long,                   // Default
  "escalated": boolean,
  "finalOwningAgentID": string,

```

```
"inConference": boolean,           // Default
"language": string,
"launchType": string,
"owningAgent": string,             // Default
"pages":                            // Default
  {
    "launchPageID": string,
    "launchPageMarker": string
  },
"participantCount": int,           // Default
"persistent": boolean,             // Default
"saleQualified": boolean,          // Default
"startDate": {
  "iso": "2012-10-26T08:20:36.000+00:00", // in client's timezone
  "timestamp": 1273676351723
}
"totalAgentResponseTime", int,     // Returned with startDate and endDate parameters
"totalAgentResponseCount": int,    // Returned with startDate and endDate parameters
"transferred": boolean,            // Default
"visitorAttribute.<name>": string/list,
},
...
]
}
```

Category: Engagement, Dimension: Agents

```

{
  "category": "engagement",
  "dimension": "agents",
  "agents": [
    {
      "activeEngagements": int,           // Default
      "agentAnsweredEngagements": int,    // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific agent
      "agentFullName": string,           // Default // Returned with startDate and endDate parameters
      "agentID": string,                 // Default // Returned with startDate and endDate parameters
      "agentStatus": string,             // Default
      "agentTimeInStatus": long,         // Default
      "avgAgentResponseTime": long,      // Default
      "avgEngagementDuration": long,     // Default
      "avgInitialAgentResponseTime": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessUnits": [                // return the aggregated value of BusinessUnit info for all engagements where agent participate (the BusinessUnit of the
owner is taken for engagement)
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "closedEngagements": int,          // Default
      "loginDuration": long,
      "maxAgentResponseTime": long,     // Default
      "maxEngagements": int,            // Default
      "nonDispositionEngagements": int,
      "routingAttribute.<name>": string/list,
      "totalAgentResponseCount": int,    // Returned with startDate and endDate parameters
      "totalAgentResponseTime": int,    // Returned with startDate and endDate parameters
      "visitorAttribute.<name>": string/list
    },
    ...
  ]
}

```

Category: Engagement, Dimension: Business Rules

```

{
  "category": "engagement",
  "dimension": "businessRules",
  "businessRules": [
    {
      "activeEngagements": int,          // Default
      "agents": [                      // Default
        {
          "agentID": string,
          "agentFullName": string
        },
        ...
      ]
      "agentAnsweredEngagements": int,  // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific business rule
      "avgAgentResponseTime": long,     // Default
      "avgEngagementDuration": long,    // Default
      "avgInitialAgentResponseTime": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessRuleID": string,         // Default // Returned with startDate and endDate parameters
      "businessRuleName": string,      // Default // Returned with startDate and endDate parameters
      "businessUnits": [               // return the aggregated value of BusinessUnit info for all engagements that belong to specific BusinessRule (the BusinessUnit of
the owner is taken for engagement)
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ]

      "closedEngagements": int,        // Default
      "maxAgentResponseTime": long,    // Default
      "nonDispositionEngagements": int,
      "routingAttribute.<name>": string/list,
      "totalAgentResponseCount": int,  // Returned with startDate and endDate parameters
      "totalAgentResponseTime": int,  // Returned with startDate and endDate parameters
      "totalEngagementDuration": int,  // Returned with startDate and endDate parameters
      "totalWrapupTime": long,        // Returned with startDate and endDate parameters
      "visitorAttribute.<name>": string/list
    },
    ...
  ]
}

```

Category: Engagement, Dimension: Pages

```

{
  "category": "engagement",
  "dimension": "pages",
  "pages": [
    {
      "activeEngagements": int,           // Default
      "agents": [                       // Default
        {
          "agentID": string,
          "agentFullName": string
        },
        ...
      ],
      "agentAnsweredEngagements": int,   // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific page
      "avgAgentResponseTime": long,     // Default
      "avgEngagementDuration": long,    // Default
      "avgInitialAgentResponseTime": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessUnits": [                // return the aggregated value of BusinessUnit info for all engagements that belong to specific BusinessRule (the BusinessUnit of the
owner is taken for engagement)
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "closedEngagements": int,         // Default
      "launchPageID": string,          // Default // Returned with startDate and endDate parameters
      "launchPageMarker": string,      // Default // Returned with startDate and endDate parameters
      "maxAgentResponseTime": long,    // Default
      "nonDispositionEngagements": int,
      "routingAttribute.<name>": string/list,
      "totalAgentResponseCount": int,   // Returned with startDate and endDate parameters
      "totalAgentResponseTime": int,    // Returned with startDate and endDate parameters
      "totalEngagementDuration": int,   // Returned with startDate and endDate parameters
      "totalWrapupTime": long,         // Returned with startDate and endDate parameters
      "visitorAttribute.<name>": string/list
    }
  ],
  ...
}

```

Category: Engagement, Dimension: Pages

```

{
  "category": "engagement",
  "dimension": "pages",
  "pages": [
    {
      "activeEngagements": int,           // Default
      "agents": [                       // Default
        {
          "agentID": string,
          "agentFullName": string
        },
        ...
      ],
      "agentAnsweredEngagements": int,   // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific page
      "avgAgentResponseTime": long,     // Default
      "avgEngagementDuration": long,    // Default
      "avgInitialAgentResponseTime": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessUnits": [                // return the aggregated value of BusinessUnit info for all engagements that belong to specific BusinessRule (the BusinessUnit of the
owner is taken for engagement)
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "closedEngagements": int,         // Default
      "launchPageID": string,          // Default // Returned with startDate and endDate parameters
      "launchPageMarker": string,     // Default // Returned with startDate and endDate parameters
      "maxAgentResponseTime": long,    // Default
      "nonDispositionEngagements": int,
      "routingAttribute.<name>": string/list,
      "totalAgentResponseCount": int,  // Returned with startDate and endDate parameters
      "totalAgentResponseTime": int,   // Returned with startDate and endDate parameters
      "totalEngagementDuration": int,  // Returned with startDate and endDate parameters
      "totalWrapupTime": long,        // Returned with startDate and endDate parameters
      "visitorAttribute.<name>": string/list
    }
  ],
  ...
}

```


Category: Engagement, Dimension: Custom Attribute

```

{
  "category": "engagement",
  "dimension": <attributeType>.<name>,
  "<attributeType>.<name>": [
    {
      "activeEngagements": int,           // Default
      "agentAnsweredEngagements": int,    // Returned with startDate and endDate parameters
      "agentAttribute.<name>": string/list, // represents the aggregated set of agent's attributes involved in the engagements that belong to specific custom dimension
      "agents": [                         // Default
        {
          "agentID": string,
          "agentFullName": string
        },
        ...
      ],
      "avgAgentResponseTime": long,       // Default
      "avgEngagementDuration": long,      // Default
      "avgInitialAgentResponseTime": long, // Default
      "businessRuleAttribute.<name>": string/list,
      "businessUnits": [                 // return the aggregated value of BusinessUnit info for all engagements that belong to specific BusinessRule (the BusinessUnit of the
owner is taken for engagement)
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "closedEngagements": int,           // Default
      "maxAgentResponseTime": long,       // Default
      "nonDispositionEngagements": int,
      "requestsAssigned": int,
      "routingAttribute.<name>": string/list,
      "totalAgentResponseCount": int,     // Returned with startDate and endDate parameters
      "totalAgentResponseTime": int,      // Returned with startDate and endDate parameters
      "totalEngagementDuration": int,     // Returned with startDate and endDate parameters
      "totalWrapupTime": long,            // Returned with startDate and endDate parameters
      "value": string,                    // Default. Unique value for attributeType.<name>
      "visitorAttribute.<name>": string/list
    },
    ...
  ]
}

```

Category: Engagement, Dimension: Summary

```
{  
  "category" : "engagement",  
  "dimension" : "summary",  
  "summary" : {  
    "activeEngagements": int,           // Default  
    "avgAgentResponseTime": long,      // Default  
    "avgEngagementDuration": long,     // Default  
    "avgInitialAgentResponseTime": long, // Default  
    "engagementsInLastHour": int,      // Default  
    "engagementsExceedingHandleTimeGoal": int, // Default  
    "engagementsWithinHandleTimeGoal": int, // Default  
    "escalatedChats": int,             // Default  
    "maxEngagementDuration": long,  
    "nonDispositionEngagements": int,  
    "percentSaleQualified": int        // Default  
    "saleQualifiedEngagements": int,    // Default  
  }  
}
```

Category: Agent, Dimension: Agents

```

{
  "category": "agent",
  "dimension": "agents",
  "agents": [
    {
      "activeEngagements": int,           // Default
      "agentAttribute.<name>": string/list // represents the set of agent's attribute's names
      "agentFullName": string           // Default // Returned with startDate and endDate parameters
      "agentID": string,                 // Default // Returned with startDate and endDate parameters
      "agentStatus": string,            // Default
      "agentTimeInStatus": long,        // Default
      "agentUtilization": int,
      "assignedCount": int,
      "availableUtilization": int,
      "avgConversionProductQuantity": double
      "avgDispositionTime": long,
      "avgEngagementHandleTime": long,
      "avgEngagementHandleTimeSLA": double,
      "avgInitialAgentResponseTime": long,
      "avgOrderValue": double
      "businessUnits": [                // Default, returns the list of BusinessUnits that assigned to agent // Returned with startDate and endDate parameters
        {
          "businessUnitID": string,
          "businessUnitName": string
        },
        ...
      ],
      "busyClickCount": int,            // Default
      "chatsPerLaborHour": double
      "closedEngagements": int,        // Default
      "conversionCount": int,
      "conversionProductQuantity": int,
      "cumulativeLaborUtilization": double
      "initialResponseWithinSLA": double
      "loginDuration": long,           // Default
      "loginTime": long,               // Default
      "partiallyPopulated": boolean,
      "maxEngagements": int,           // Default
      "percentAssisted": int,
      "percentConversion": double,
      "percentEndedByCustomer": double,
      "salesPerLaborHour": double,
      "totalAvailableTime": long,      // Default
      "totalBusyTime": long,           // Default
    },
    ...
  ]
}

```

Category: Agent, Dimension: Summary

```
{  
  "category": "agent",  
  "dimension": "summary",  
  "summary": {  
    "activeAgents": int,           // Default  
    "agentsLoggedIn": int,        // Default  
    "agentsOnBusy": int,          // Default  
    "agentUtilization": int,      // Default  
    "availableEngagementSlots": int // Default  
    "engagementUtilization": int, // Default  
  }  
}
```

Metric XML Schema

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns="http://www.touchcommerce.com/schema/apiservice/metric-response-2.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.touchcommerce.com/schema/apiservice/metric-response-2.0"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified"><!-- COMMON TYPES -->
<xs:complexType name="dateType">
  <xs:sequence>
    <xs:element name="iso" type="xs:dateTime"/>
    <xs:element name="timestamp" type="xs:long"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="dateArray">
  <xs:sequence>
    <xs:element name="date" type="dateType" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="attributeArray">
  <xs:sequence>
    <xs:any processContents="lax" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<!-- SUB-FIELDS TYPES -->
<xs:complexType name="agentGroupsArray">
  <xs:sequence>
    <xs:element name="agentGroups"
      type="agentGroupsType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="agentGroupsType">
  <xs:all>
    <xs:element name="agentGroupID" type="xs:string"/>
    <xs:element name="agentGroupName" type="xs:string"/>
  </xs:all>

```

```
</xs:complexType>
<xs:complexType name="pagesType">
  <xs:all>
    <xs:element name="launchPageID" type="xs:string" minOccurs="0"/>
    <xs:element name="launchPageMarker" type="xs:string" minOccurs="0"/>
  </xs:all>
</xs:complexType>
<xs:complexType name="currentPageType">
  <xs:all>
    <xs:element name="currentPageMarker" type="xs:string" minOccurs="0"/>
    <xs:element name="currentPageURL" type="xs:string" minOccurs="0"/>
  </xs:all>
</xs:complexType>
<xs:complexType name="businessUnitArray">
  <xs:sequence>
    <xs:element name="businessUnit"
      type="businessUnitType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="businessUnitType">
  <xs:all>
    <xs:element name="businessUnitID" type="xs:string"/>
    <xs:element name="businessUnitName" type="xs:string" minOccurs="0"/>
  </xs:all>
</xs:complexType>
<xs:complexType name="agentArray">
  <xs:sequence>
    <xs:element name="agent"
      type="agentType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="agentType">
```

```

<xs:all>
  <xs:element name="agentID" type="xs:string"/>
  <xs:element name="agentFullName" type="xs:string" minOccurs="0"/>
  <xs:element name="agentAlias" type="xs:string" minOccurs="0"/>
</xs:all>
</xs:complexType>
<!-- Dimensions type types -->
<xs:complexType name="summaryDimensionType">
  <xs:all>
    <xs:element name="agentUtilization" type="xs:int" minOccurs="0"/>
    <xs:element name="trendingPercentOfAbandons" type="xs:int" minOccurs="0"/>
    <xs:element name="availableEngagementSlots" type="xs:int" minOccurs="0"/>
    <xs:element name="avgInitialAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="maxEngagementDuration" type="xs:long" minOccurs="0"/>
    <xs:element name="engagementUtilization" type="xs:int" minOccurs="0"/>
    <xs:element name="trendingAvgTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="maxTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="queuedEngagementsExceedingSLA" type="xs:int" minOccurs="0"/>
    <xs:element name="activeAgents" type="xs:int" minOccurs="0"/>
    <xs:element name="percentSaleQualified" type="xs:int" minOccurs="0"/>
    <xs:element name="avgEngagementDuration" type="xs:long" minOccurs="0"/>
    <xs:element name="agentsOnBusy" type="xs:int" minOccurs="0"/>
    <xs:element name="trendingPercentWithinQueueSLA" type="xs:int" minOccurs="0"/>
    <xs:element name="queuedEngagementsWithinSLA" type="xs:int" minOccurs="0"/>
    <xs:element name="avgTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="engagementsWithinHandleTimeGoal" type="xs:int" minOccurs="0"/>
    <xs:element name="activeEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="saleQualifiedEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="nonDispositionEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="engagementsInQueue" type="xs:int" minOccurs="0"/>
    <xs:element name="percentWithinQueueSLA" type="xs:int" minOccurs="0"/>
    <xs:element name="agentsLoggedIn" type="xs:int" minOccurs="0"/>
    <xs:element name="engagementsExceedingHandleTimeGoal"
      type="xs:int"
      minOccurs="0"/>
    <xs:element name="avgAgentResponseTime" type="xs:long" minOccurs="0"/>
  </xs:all>
</xs:complexType>

```

```

    <xs:element name="engagementsInLastHour" type="xs:int" minOccurs="0"/>
    <xs:element name="engagementProductType" type="xs:string" minOccurs="0"/>
  </xs:all>
</xs:complexType>
<xs:complexType name="agentsDimensionArray">
  <xs:choice>
    <xs:element name="agent"
      type="agentsDimensionType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:choice>
</xs:complexType>
<xs:complexType name="agentsDimensionType">
  <xs:all>
    <xs:element name="loginTime" type="xs:long" minOccurs="0"/>
    <xs:element name="totalBusyTime" type="xs:long" minOccurs="0"/>
    <xs:element name="agentID" type="xs:string" minOccurs="0"/>
    <xs:element name="closedEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="loginDuration" type="xs:long" minOccurs="0"/>
    <xs:element name="visitorAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="maxEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="agentStatus" type="xs:string" minOccurs="0"/>
    <xs:element name="avgInitialAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="businessUnits" type="businessUnitArray" minOccurs="0"/>
    <xs:element name="busyClickCount" type="xs:int" minOccurs="0"/>
    <xs:element name="agentAnsweredEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="totalAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="totalAgentResponseCount" type="xs:int" minOccurs="0"/>
    <xs:element name="avgEngagementDuration" type="xs:long" minOccurs="0"/>
    <xs:element name="agentAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="agentTimeInStatus" type="xs:long" minOccurs="0"/>
    <xs:element name="activeEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="nonDispositionEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="businessRuleAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="totalAvailableTime" type="xs:long" minOccurs="0"/>
    <xs:element name="maxAgentResponseTime" type="xs:long" minOccurs="0"/>
  </xs:all>

```



```

    <xs:element name="agentFullName" type="xs:string" minOccurs="0"/>
    <xs:element name="avgAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="canServiceCount" type="xs:int" minOccurs="0"/>
    <xs:element name="engagementProductType" type="xs:string" minOccurs="0"/>
  </xs:all>
</xs:complexType>
<xs:complexType name="businessRulesDimensionArray">
  <xs:choice>
    <xs:element name="businessRule"
      type="businessRulesDimensionType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:choice>
</xs:complexType>
<xs:complexType name="businessRulesDimensionType">
  <xs:all>
    <xs:element name="closedEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="visitorAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="avgInitialAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="totalWrapupTime" type="xs:long" minOccurs="0"/>
    <xs:element name="maxTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="businessUnits" type="businessUnitArray" minOccurs="0"/>
    <xs:element name="totalInitialTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="agentAnsweredEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="totalAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="totalAgentResponseCount" type="xs:int" minOccurs="0"/>
    <xs:element name="avgEngagementDuration" type="xs:long" minOccurs="0"/>
    <xs:element name="totalEngagementDuration" type="xs:long" minOccurs="0"/>
    <xs:element name="agentAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="routingAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="percentEngagementsQueued" type="xs:int" minOccurs="0"/>
    <xs:element name="avgTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="activeEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="nonDispositionEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="businessRuleAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="maxAgentResponseTime" type="xs:long" minOccurs="0"/>
  </xs:all>

```

```

<xs:element name="businessRuleName" type="xs:string" minOccurs="0"/>
<xs:element name="agents" type="agentArray" minOccurs="0"/>
<xs:element name="businessRuleID" type="xs:string" minOccurs="0"/>
<xs:element name="engagementsInQueue" type="xs:int" minOccurs="0"/>
<xs:element name="percentWithinQueueSLA" type="xs:int" minOccurs="0"/>
<xs:element name="assignedWithinSLA" type="xs:int" minOccurs="0"/>
<xs:element name="assignedFromQueue" type="xs:int" minOccurs="0"/>
<xs:element name="abandoned" type="xs:int" minOccurs="0"/>
<xs:element name="abandonedWithinSLA" type="xs:int" minOccurs="0"/>
<xs:element name="avgAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="engagementProductType" type="xs:string" minOccurs="0"/>
</xs:all>
</xs:complexType>
<xs:complexType name="pagesDimensionArray">
  <xs:choice>
    <xs:element name="launchPage"
      type="pagesDimensionType"
      minOccurs="0"
      maxOccurs="unbounded"/>
    <xs:element name="page"
      type="pagesDimensionType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:choice>
</xs:complexType>
<xs:complexType name="pagesDimensionType">
  <xs:all>
    <xs:element name="closedEngagements" type="xs:int" minOccurs="0"/>
    <xs:element name="visitorAttribute" type="attributeArray" minOccurs="0"/>
    <xs:element name="launchPageID" type="xs:string" minOccurs="0"/>
    <xs:element name="avgInitialAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="totalWrapupTime" type="xs:long" minOccurs="0"/>
    <xs:element name="maxTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="businessUnits" type="businessUnitArray" minOccurs="0"/>
    <xs:element name="totalInitialTimeInQueue" type="xs:long" minOccurs="0"/>
    <xs:element name="launchPageMarker" type="xs:string" minOccurs="0"/>
  </xs:all>

```

```

<xs:element name="agentAnsweredEngagements" type="xs:int" minOccurs="0"/>
<xs:element name="totalAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="totalAgentResponseCount" type="xs:int" minOccurs="0"/>
<xs:element name="avgEngagementDuration" type="xs:long" minOccurs="0"/>
<xs:element name="totalEngagementDuration" type="xs:long" minOccurs="0"/>
<xs:element name="agentAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="routingAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="percentEngagementsQueued" type="xs:int" minOccurs="0"/>
<xs:element name="avgTimeInQueue" type="xs:long" minOccurs="0"/>
<xs:element name="activeEngagements" type="xs:int" minOccurs="0"/>
<xs:element name="nonDispositionEngagements" type="xs:int" minOccurs="0"/>
<xs:element name="businessRuleAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="maxAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="agents" type="agentArray" minOccurs="0"/>
<xs:element name="engagementsInQueue" type="xs:int" minOccurs="0"/>
<xs:element name="percentWithinQueueSLA" type="xs:int" minOccurs="0"/>
<xs:element name="assignedWithinSLA" type="xs:int" minOccurs="0"/>
<xs:element name="assignedFromQueue" type="xs:int" minOccurs="0"/>
<xs:element name="abandoned" type="xs:int" minOccurs="0"/>
<xs:element name="abandonedWithinSLA" type="xs:int" minOccurs="0"/>
<xs:element name="avgAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="engagementProductType" type="xs:string" minOccurs="0"/>
</xs:all>
</xs:complexType>
<xs:complexType name="engagementsDimensionArray">
  <xs:choice>
    <xs:element name="engagement"
      type="engagementsDimensionType"
      minOccurs="0"
      maxOccurs="unbounded"/>
  </xs:choice>
</xs:complexType>
<xs:complexType name="engagementsDimensionType">
  <xs:all>
    <xs:element name="score" type="xs:int" minOccurs="0"/>
    <xs:element name="endDate" type="dateType" minOccurs="0"/>
  </xs:all>

```

```
<xs:element name="engagementTimeInStatus" type="xs:long" minOccurs="0"/>
<xs:element name="engagementActive" type="xs:boolean" minOccurs="0"/>
<xs:element name="escalated" type="xs:boolean" minOccurs="0"/>
<xs:element name="agentGroups" type="agentGroupsArray" minOccurs="0"/>
<xs:element name="visitorAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="language" type="xs:string" minOccurs="0"/>
<xs:element name="position" type="xs:int" minOccurs="0"/>
<xs:element name="startDate" type="dateType" minOccurs="0"/>
<xs:element name="pages" type="pagesType" minOccurs="0"/>
<xs:element name="currentPages" type="currentPagesType" minOccurs="0"/>
<xs:element name="deviceType" type="xs:string" minOccurs="0"/>
<xs:element name="finalOwningAgentID" type="xs:string" minOccurs="0"/>
<xs:element name="businessUnits" type="businessUnitArray" minOccurs="0"/>
<xs:element name="engagementStatus" type="xs:string" minOccurs="0"/>
<xs:element name="timeInQueue" type="xs:long" minOccurs="0"/>
<xs:element name="engagementInitialAgentResponseTime"
    type="xs:long"
    minOccurs="0"/>
<xs:element name="totalAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="totalAgentResponseCount" type="xs:int" minOccurs="0"/>
<xs:element name="launchType" type="xs:string" minOccurs="0"/>
<xs:element name="persistent" type="xs:boolean" minOccurs="0"/>
<xs:element name="transferred" type="xs:boolean" minOccurs="0"/>
<xs:element name="engagementMaxAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="engagementDuration" type="xs:long" minOccurs="0"/>
<xs:element name="agentAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="routingAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="inConference" type="xs:boolean" minOccurs="0"/>
<xs:element name="priority" type="xs:int" minOccurs="0"/>
<xs:element name="inServiceLevelAgreement" type="xs:boolean" minOccurs="0"/>
<xs:element name="engagementID" type="xs:string" minOccurs="0"/>
<xs:element name="engagementAvgAgentResponseTime" type="xs:long" minOccurs="0"/>
<xs:element name="businessRuleAttribute" type="attributeArray" minOccurs="0"/>
<xs:element name="customerID" type="xs:string" minOccurs="0"/>
<xs:element name="businessRuleName" type="xs:string" minOccurs="0"/>
<xs:element name="saleQualified" type="xs:boolean" minOccurs="0"/>
```

```

    <xs:element name="agents" type="agentArray" minOccurs="0"/>
    <xs:element name="businessRuleID" type="xs:string" minOccurs="0"/>
    <xs:element name="owningAgent" type="xs:string" minOccurs="0"/>
    <xs:element name="participantCount" type="xs:int" minOccurs="0"/>
    <xs:element name="avgAgentResponseTime" type="xs:long" minOccurs="0"/>
    <xs:element name="engagementProductType" type="xs:string" minOccurs="0"/>
  </xs:all>
</xs:complexType>
<!-- Category types -->
<xs:simpleType name="categoryType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="engagement"/>
    <xs:enumeration value="queue"/>
    <xs:enumeration value="agent"/>
  </xs:restriction>
</xs:simpleType>
<!-- Dimension types -->
<xs:simpleType name="dimensionType">
  <xs:union>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="summary"/>
        <xs:enumeration value="agents"/>
        <xs:enumeration value="businessRules"/>
        <xs:enumeration value="pages"/>
        <xs:enumeration value="engagements"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="[a-zA-Z]+(Attribute.)[a-zA-Z]+"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:union>
</xs:simpleType>
<!-- Root XML element -->

```

```
<xs:complexType name="responseType">
  <xs:all>
    <xs:element name="category" type="categoryType" minOccurs="1" maxOccurs="1"/>
    <xs:element name="dimension"
      type="dimensionType"
      minOccurs="1"
      maxOccurs="1"/>
    <xs:element name="summary"
      type="summaryDimensionType"
      minOccurs="0"
      maxOccurs="1"/>
    <xs:element name="agents"
      type="agentsDimensionArray"
      minOccurs="0"
      maxOccurs="1"/>
    <xs:element name="businessRules"
      type="businessRulesDimensionArray"
      minOccurs="0"
      maxOccurs="1"/>
    <xs:element name="pages"
      type="pagesDimensionArray"
      minOccurs="0"
      maxOccurs="1"/>
    <xs:element name="engagements"
      type="engagementsDimensionArray"
      minOccurs="0"
      maxOccurs="1"/>
  </xs:all>
</xs:complexType>
<xs:element name="response" type="responseType"/>
</xs:schema>
```

Example Metric/real-time Queries

- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=queue&dimension=engagements&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=queue&dimension=agents&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=queue&dimension=businessRules&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=queue&dimension=pages&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=queue&site=XXX&dimension=agentAttribute.language>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=queue&dimension=summary&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=engagement&dimension=engagements&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=engagement&dimension=agents&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=engagement&dimension=businessRules&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=engagement&dimension=pages&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=engagement&site=XXX&dimension=businessRuleAttribute.ruleGroupings>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=engagement&dimension=summary&site=XXX>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=agent&site=XXX&dimension=agents>
- Query: <https://api.touchcommerce.com/v3/metric/realtime?category=agent&dimension=summary&site=XXX>

Errors

Use Case	HTTP Status Code	Error Message	Example
Correct path but bad parameter name OR Correct path, correct parameter name, but bad parameter value or bad field name in the filter or malformed filter	400	Malformed request	transcript/list
Bad username or bad password	401	Access denied	user is not properly authenticated.
Bad access	403	Access denied	inaccessible siteID, user doesn't have correct role
Bad path	404	Path not found	v3/transcripts
Over throttle limit	429	Rate limit exceeded	if limit is 1 query per second, and user tries 2 per second
Query timeout	504	Timeout - please try again	
Internal error	500	Internal error	Error during XML/JSON transformation

Exporting Historic Data to 3rd Party Systems

1. Establish your initial baseline by querying all engagements with startDate between two dates
2. Keep track of the maximum startDate in the result set (d0)
3. On subsequent invocations, always query for engagements with startDate between d0 and the current date/time.

Repeat steps 2 & 3.