Data Collection API

User Manual

NUANCE

Table of Contents

NUANCE

Overview

The Data Collection API (DCAPI) is used to supplement data at the engagement level within Nuance Digital Engagement Platform (NDEP). It can be leveraged for agents while a chat is in-progress or gathered for reporting purposes. Customers often use it to attribute sales conversion data to the proper agent.

This document describes the endpoints used to support server-side visitor profiles. This new API is called the Data Collection API (DCAPI) and includes extensions to the Customer Engagement API (CEAPI). The data passed via these endpoints is used to persist data in a server-side visitor profile. This can maintain a single profile for an individual visitor across multiple devices. The purpose of persisted data visitor profiles is to allow client applications to request recommendations from the system before engaging with a visitor.

API Token Authentication

Nuance Data Collection API (DCAPI) now supports the OAuth2-based authorization framework for application-level tokens. OAuth2 provides authorization based on the Client Credentials Grant Flow of the OAuth2 specification.

Here is a list of the steps required to access the API using OAuth2-based authorization.

- Client registers their application with Nuance.
- Client application requests the access token using the Authorization Server.
- Client application uses the access token in every API request.

Registering the Application

Clients may request application registration with Nuance by contacting their Client Services Manager (CSM). The CSM will register your application with the Nuance System Team.

The **clientId** is used by the service API to identify your application and to build login URLs.

The **clientSecret** is used to authenticate the identity of your application. It must be kept private between the application and the API.

Note. The client is responsible for storing the clientID and the clientSecret securely. If this information is compromised, you will have to request a lock on the account and request a new registration with your CSM.

NUANCE

Obtaining an Access Token

The client application must connect to the Auth server using the clientID and clientSecret provided by Nuance. The clientId and clientSecret must be formatted properly for transmission. Formatting requires you to concatenate the clientId, a colon ":" character, and the clientSecret into a single string as follows:

```
clientId:clientSecret
```

The resulting string should be Base-64 encoded and inserted into the Authorization Header in the following format:

```
Authorization: Basic [Base-64 encoded string]
```

Example
Request URL: https://auth.touchcommerce.com/oauth-server/oauth/token
Response Format: JSON

Note. Domain names may vary for each client.

Sample Request for Obtaining an Access Token
POST https://auth.touchcommerce.com/oauth-server/oauth/token
Form Data
client_id:"ceapiId"
grant_type:"client_credentials"
Form Data Details
- **client_id** – The **clientId** provided by the CSM when the client application was registered with Nuance.
- **grant_type** – This value should be **client_credentials** for the CE-API. When Nuance adds for other APIs, this value may be different for the new APIs.

Request Header:
Host: auth.touchcommerce.com
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Authorization: Basic Y2VhcGlDbGllbnRJZDpjZWFwaUNsaWVudFNlY3JldA==

NUANCE

Sample Response from Nuance

```
{
access_token:
"eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOlsiY2VhcGkiXSwic2NvcGUiOlsicmVhZCIsIndyaXRlIl0sInNpdGVzIjpb
IjE1NCIsIjMwNiJdLCJleHAiOjE0ODIyNzMyOTMsImp0aSI6IjM1ZjNjYzVmLWEyMmUtNDc5Yi1iNTM4LWIxYTkzNjI3YTk1YiIsImNsaW
VudF9pZCI6ImNlYXBpcQ2xpZW50SWQifQ.jU3SaGeHYkxNaRVdbZhJFcI6rbeKjXQqfnjccib4gsChs9Ed2ZpbjgONpOUNdwJFwwE3BT3h-
wDRiaSUqieczOXc058aI1yGuAwr9nDDy4ex5sP9kGsOMEkw3PJaIdYfqAKJW2BU9LJ1efvhPGNHzRv7ivOHVNHWacB-
XeaGVVjbXXx4AJrHDrP-C-
0fiK7AlCNuaYIGV47c9e3_479MGJpfEVcQVhhoZB6DlbVtrf3IFPLD456M5MoqC0kTGn2wJfmUSM77eCNDcC7cMdDokvb1sAaOmhLMaJku
GfmvkXT7v7Yqm0_LA4GsHcPsmN9J8Dk4oyuhUTJYunBsdr_RRQ",
token_type: "bearer",
expires_in: 59,
scope: "read write",
sites : [ "154", "306" ],
jti : "10dc19a9-48c4-4446-b141-d5179e5f21f1"
}
```

Response Details

- **Access token** – The access token must be included in all API data requests.
- **Token type** – The token type is "bearer" and must be included in all API data requests.
- **Expires in** – This value indicates the expiration time of the token in seconds. The client app should monitor this value and request a new token whenever necessary. If the app uses an expired token the server will return a code 401 "Access Token Expired" message.
- **Scope** – Scope indicates the access permissions for this token. If a disallowed action is performed, the server will return an error.
- **Sites** – Indicates the site IDs that are valid for this token. If the request tries to access a site that is not on the list, the server will return an error.
- **jti** – The ID for the access token that is used for tracking purposes. Clients can ignore this value.

NUANCE

Using the Access Token in an API Request

The access token must be present in every API data request. It must be in the authorization header in the following format:

```
Authorization: Bearer [access token]
```

Sample API Request with Bearer Token

POST   https://api.touchcommerce.com/engagementAPI/v1/customer/agentAvailability?businessUnitID=22&output=JSON&siteID=306

Note. Domain names may vary for each client.

Request header:

Host: api.touchcommerce.com

Authorization: Bearer
eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOlsiY2VhcGkiXSwic2NvcGUiOlsicmVhZCIsIndyaXRlIl0sInNpdGVIjpbIjE1NCIsIjMwNiJdLCJleHAiOjE0ODIyNzM5MDYsImp0aSI6IjEwZGMxOWE5LTQ4YzQtNDQ0Ni1iMTQxLWQ1MTc5ZTVmMjFmMSIsImNsaWVudF9pZCI6ImNlYXBpQ2xpZW50SWQifQ.Ax348la0IXKY_iTIYgvKcJB2_KJBRJcN5Td0Nk5546jhpun1pw4XN81PBtE0U4V7mT-F9GOPTJhKKlpd5NPe-
ugmiSImQhncHzy3jE0_L0vToXzcxBGDu4EBzrmnWV29zZfQ_bfz7XIrpk7xxuRXQnWkGT1nVn2RYhek9HDQN9psGfJEqyRAcgHc4Lw26UxUqC4sz8_80mdMr8eUe6rOVHmiYOd9bVpCX4yYYRg9_5AFpZG-
BzkugbMu2CY7IFR1VxbGsGdF1GIUdX_C7j03hfykLBjCmEsD_jhKDVKCWINqbmMEqg4LsVbKqB6qFMh1OuOYjrFrxWm_i-GNqNzUPg

Sample API Response from Nuance

200 OK

API Elements

Data Collection Endpoints

Endpoint	Usage	Events Generated
conversion	This endpoint is called when a conversion event takes place in the client application.	Always fires a *conversionFunnel.conversion* event.
customEvent	This endpoint is called when any relevant event fires on the client application.	The list of relevant events should be defined in the program definition.
exposed	This endpoint is called when a new Nuance engagement launches in the client application.	Always fires a *conversionFunnel.exposed* event.
startSession	This endpoint is called when a new user session begins on the client application.	Always fires a *conversionFunnel.eligible* event.

Business Rule Collection Endpoint

Endpoint	Usage	Events Generated
recommendation	This endpoint requests a business rule recommendation from the client app for the current customer.	Fires a *conversionFunnel.targeted* event if all conditions are met for one or more business rules (SSVP-59). See also ssbr30.xsd for possible values. (Taken from the code in the JSON example under the recommendation endpoint toward the end of this document.)

NUANCE

Data Collection Attributes

Data collection attributes can be passed with each endpoint.

Attribute Type	Name/Value Pairs	Parameter
Application Attributes	Name / value pairs associated with the application.	Attributes are collected by the *sessionID* parameter.
Business Rule Attributes	Name / value pairs associated with the business rule.	Can only be passed with the Recommendation Endpoint.
Custom Variables	Name / value pairs containing information that should be persisted.	
Engagement Attributes	Name / value pairs associated with the engagement.	Attributes are collected by the *engagementID* parameter.
Visitor Attributes	Name / value pairs associated with the user / visitor.	Attributes are collected by the *customerID* parameter.

Custom Variables

Custom variables can be written into the visitor profile. They are used for targeting purposes but they are not available for reporting. When you pass a custom variable, you must specify the variable's lifespan persistence. Persistence option values are **volatile** and **persistent**.

Start Session

The *startSession* endpoint is called when a new user session begins on the client application. This call can be made before an engagement begins

https://api.touchcommerce.com/v1/dataCollection/startSession

URI	startSession
HTTP Method	POST
Formats	JSON

Parameters

Parameter Name	Description	Required	Data Constraints
applicationID	Id associated with the application, if applicable.	No	String
applicationVersion	Version number associated with the application, if applicable.	No	String
attributes	List of any modifiable name/value attributes that will be associated with this customer, engagement or session.	No	N/A
attributes:action	Action to be performed on this attribute.	No	Must be one of: • **append** • **set** • **remove** Default value is **append**.
attributes:attributeType	Type of attribute being set or modified.	Yes	Must be one of: • **engagementAttribute** • **visitorAttribute** • **applicationAttribute**
attributes:externalCustomerID	Can only be used for *visitor attributes*. If this *visitor attribute* is being used as a unique identifier for the user, this field value should be *yes*.	No	Must be either **yes** or **no**. Default is **no**.
attributes:name	Name of this attribute.	Yes	String

NUANCE

Parameter Name	Description	Required	Data Constraints
attributes:value	Value of this attribute. Can be multi-valued.	Yes	String
browserType	Browser type, if applicable.	No	String
browserVersion	Browser version, if applicable.	No	String
customVariables	Stores information for targeting.	No	N/A

customVariables:action	Action to be performed on this custom variable.	No	Must be one of:
			  • **append**
			  • **set**
			  • **remove**
			Default value is **append**.

customVariables:name	Name of this custom variable.	Yes	String
customVariables:persistence	Recommended lifespan persistence for the session.	No	Must be either **volatile** or **persistent**. Default value is **persistent**.
customVariables:value	Value of this custom variable. Can be multi-valued.	Yes	String
deviceType	Type of device.	No	String
engagementID	Id of the engagement. This value is provided by the Nuance platform. Used only for **engagement attributes**.	No, but required for **engagementAttributes**	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
OS	Operating system name.	No	String
sessionID	Id of current session.	No	String
siteID	Id of the site. This value is provided by the Nuance platform It is a static value for the client application.	Yes	Integer
tcCustomerID	The customerID is provided by the Nuance CEAPI when the **/engagement** endpoint is called.	No	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
viewID	Identifier for the current content displayed (or otherwise provided) to the customer.	No	String

NUANCE

Response Values

Name	Type	Description
tcCustomerID	Integer	If a *tcCustomerID* was not provided in the request, then a *tcCustomerID* is generated and returned in the response. and return it in the response.
sessionID	Integer	If a *sessionID* was not provided in the request, then a *sessionID* is generated and returned in the response.

Request Example

POST https://api.touchcommerce.com/v1/dataCollection/startSession

POST Body:

```
{
  "tcCustomerID": "12345",
  "siteID": "6789",
  "viewID": "value",
  "applicationID": "myClientApp4.5.2",
  "applicationVersion": "v6.7.8.9",
  "deviceType": "iPad2",
  "OS": "iOS9",
  "browserType": "Safari",
  "attributes":[
      {
        "name":"device",
        "value":"iPad",
        "attributeType":"applicationAttribute"
      },
      {
        "name":"place",
        "value":"LA",
```

NUANCE

```
            "attributeType":"visitorAttribute"
        }
    ]
 }
```

Response Example

```
200 OK

{
  "tcCustomerID": "12345",

  "sessionID": "567890"

}
```

Conversion

The *conversion* endpoint is called when a sales conversion event takes place in the client application.

https://api.touchcommerce.com/v1/dataCollection/conversion

URI	conversion
HTTP Method	POST
Formats	JSON

Parameters

Parameter Name	Description	Required	Data Constraints
agentGroupID	Id of the current agent group as defined in Portal. This parameter is used to determine hours of operations. **Note:** • Hours of operation can be set in Portal at the AG or the BU level. • Where hours are set at the AG level, the AG setting has priority. • Where hours of operation are *not* set at the AG level, the BU setting has priority. • Where hours of operation are not set at either the AG or the BU level, this field value defaults to **true**.	No	Integer
attributes	List of any modifiable name/value attributes that is associated with this customer, engagement or session.	No	N/A
attributes:action	Action being performed on this attribute.	No	Must be one of: • **append** • **set** • **remove** Default value is **append**.

NUANCE

Parameter Name	Description	Required	Data Constraints
attributes:attributeType	Type of attribute being set or modified.	Yes	Must be one of: • **engagementAttribute** • **visitorAttribute** • **applicationAttribute**
attributes:externalCustomerID	Used for *visitor attributes*. If this *visitor attribute* can be used as a unique identifier for the user, it must be indicated by a *yes* value in this field.	No	Must be either **yes** or **no**. Default is **no**.
attributes:name	Name of this attribute.	Yes	String
attributes:value	Value of this attribute. Can be multi-valued.	Yes	String
businessUnitID	Id of the current business unit as defined in Portal. This parameter is used to determine hours of operations. **Note:** • Hours of operation can be set in Portal at the AG or the BU level. • Where hours are set at the AG level, the AG setting has priority. • Where hours of operation are *not* set at the AG level, the BU setting has priority. • Where hours of operation are not set at either the AG or the BU level, this field value defaults to **true**.	No	Integer
clientOrderNumber	Unique identifier for this order.	No	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
conversionAttributes	List of any name/value pairs that is associated with this conversion.	No	N/A
conversionAttributes:name	Name of this conversion attribute.	Yes	String
conversionAttributes:value	Value of this conversion attribute.	Yes	String
customVariables	Used to store targeting information for chat routing.	No	N/A

NUANCE

Parameter Name	Description	Required	Data Constraints
customVariables:action	Action to be performed on this custom variable.	No	Must be one of: • **append** • **set** • **remove** Default value is **append**.
customVariables:name	Name of this custom variable.	Yes	*String*
customVariables:persistence	Recommended persistence lifespan.	No	Must be either **volatile** or **persistent**. Default value is **persistent**.
customVariables:value	Value of this custom variable. Can be multi-valued.	Yes	*String*
engagementID	ID of the engagement. This value is provided by the Nuance platform. Used only for *engagement attributes*.	No, but required for **engagementattribute s**	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
orderType	Client provided order type to be associated to this order.	No	String, possible values are: [a-z], [A-Z], [0-9], [ ], [-], [_]
products	List of product information associated with this conversion.	Yes	N/A
products:count	Product count.	Yes, must be present at least in one product	Integer
products:product	Product name.	Yes	String
products:productAttributes	List of product attributes associated with this product.	No	N/A
products:productAttributes:name	Name of this product attribute.	Yes	String
products:productAttributes:value	Value of this product attribute.	Yes	String
products:type	Product type.	No	String
products:value	Product value or cost.	No	Number
sessionID	Id of current session.	No, but required for **applicationattributes**	String

NUANCE

Parameter Name	Description	Required	Data Constraints
siteID	ID of the site. This value is provided by Nuance and is a static value for the client application.	Yes	Integer
tcCustomerID	The customerID parameter is provided by the CEAPI when the */engagement* endpoint is called OR by the DCAPI when the */startSession* endpoint is called.	Yes	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
viewID	Identifier for the current content displayed (or otherwise provided) to the customer.	No	String

Request Example

POST https://api.touchcommerce.com/v1/dataCollection/conversion

POST Body:

```
{
  "tcCustomerID": "12345",
  "siteID": 6789,
  "clientOrderNumber": "123456789",
  "orderType": "orderTypeValue",
  "viewID": "6789231234",
  "products": [
    {
      "product": "iPhone7s",
      "type": "phones",
      "count": 1,
      "value": 100.00,
      "productAttributes": [
       {
         "name": "attributeName",
         "value": "attributeValue"
       }
```

NUANCE

```
        ]
      }
   ],
   "conversionAttributes": [
      {
         "name": "attributeName",
         "value": "attributeValue"
      }
   ],
   "attributes":[
      {
         "name":"sale",
         "value":"iPhone 5S",
         "attributeType":"visitorAttribute",
         "action":"set"
      },
      {
         "name":"sale",
         "value":"Galaxy S7",
         "attributeType":"visitorAttribute"
      }
   ]
}
```

Response Example

`200 OK`

NUANCE

Custom Event

The *customEvent* endpoint is called when any relevant event fires on the client application. The list of relevant events should be defined in the program definition.

https://api.touchcommerce.com/v1/dataCollection/customEvent

Parameters

Parameter Name	Description	Required	Data Constraints
attributes	List of any modifiable name/value attribute to be associated with this customer, engagement, or session.	No, but every request must contain either *attributes* or *customVariables* section.	N/A
attributes:action	Action to be performed on this attribute.	No	Must be one of: • **append** • **set** • **remove** Default value is **append**.
attributes:attributeType	Type of attribute being set or modified.	Yes	Must be one of: • **engagementAttribute** • **visitorAttribute** • **applicationAttribute**
attributes:externalCustomerID	Can be used only for *visitor attributes.* If this *visitor attribute* can be used as a unique identifier for this user, please indicate it using a **yes** value in this field.	No	Must be either **yes** or **no**. Default is **no**.
attributes:name	Name of this attribute.	Yes	String
attributes:value	Value of this attribute. Can be multi-valued.	Yes	String
customVariables	Can be used to store information that can be used for targeting.	No, but every request must contain at least *attributes* or *customvariables* section	N/A

NUANCE

Parameter Name	Description	Required	Data Constraints
customVariables:action	Action to be performed on this custom variable.	*No*	Must be one of: • **append** • **set** • **remove** Default value is **append**.
customVariables:name	Name of this custom variable.	*Yes*	*String*
customVariables:persistence	Recommended persistence lifespan.	*No*	Must be either **volatile** or **persistent**. Default value is **persistent**.
customVariables:value	Value of this custom variable. Can be multi-valued.	*Yes*	*String*
engagementID	ID of engagement provided by the Nuance platform. Only used for engagement attributes.	No, but required for *engagement attributes*	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
sessionID	ID of the current session.	No, but required for *application attributes*	String
siteID	ID of the site provided by the Nuance platform. This is a static value for the client application.	Yes	Integer
tcCustomerID	The customerID is provided by the CEAPI when the */engagement* endpoint is called OR by the Data Collection API when the */startSession* endpoint is called.	Yes	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
viewID	Identifier for the current content displayed (or otherwise provided) to the customer.	No	String

NUANCE

Request Example

POST https://api.touchcommerce.com/v1/dataCollection/customEvent

POST Body:

```
{
    "tcCustomerID":"1234567422342",
    "engagementID":1234567890123,
    "sessionID":"eeeeHjsdge34f2345_6",
    "siteID":306,
    "attributes":[
        {
            "name":"TDATARecommendedAgentGroup",
            "value":"myAgentGroupName",
            "attributeType":"engagementAttribute",
            "action":"set"
        },
        {
            "name":"TDATARecommendedAgentGroup",
            "value":"myAnotherAttribute",
            "attributeType":"engagementAttribute"
        },
        {
            "name":"sellAttribute",
            "value":"phone1",
            "attributeType":"visitorAttribute",
            "action":"set",
            "externalCustomerID":"yes"
        },
        {
            "name":"sellAttribute",
```

NUANCE

```json
            "value":"actionBuy",
            "attributeType":"visitorAttribute",
            "action":"remove"
        },
        {
            "name":"phoneType",
            "value":"iPhone5s",
            "attributeType":"applicationAttribute",
            "action":"append"
        }
    ],
    "customVariables":[
        {
            "name":"customName",
            "value":"customValue",
            "persistence":"persistent"
        },
        {
            "name":"customName",
            "value":"newData",
            "action":"set"
        }
    ]
}
```

Response Example

```
200 OK
```

NUANCE

Exposed

The *exposed* endpoint is called when a new Nuance engagement launches in the client application.

https://api.touchcommerce.com/v1/dataCollection/exposed

URI	exposed
HTTP Method	POST
Formats	JSON

Parameters

Parameter Name	Description	Required	Data Constraints
attributes	List of any modifiable name/value attributes that you want to associate to this customer, engagement or session.	No	N/A
attributes:action	Action to be performed on this attribute.	No	Must be one of: • **append** • **set** • **remove** Default value is **append**.
attributes:attributeType	Type of attribute that we are setting or modifying.	Yes	Must be one of: • **engagementAttribute** • **visitorAttribute** • **applicationAttribute**
attributes:externalCustomerID	Can be used only for *visitor attributes*. If this *visitor attribute* can be used as a unique identifier for this user, please indicate it using a **yes** value in this field.	No	Must be either **yes** or **no**. Default is **no**.
attributes:name	Name of this attribute.	Yes	*String*
attributes:value	Value of this attribute. Can be multi-valued.	Yes	*String*
customVariables	Can be used to store information that can be used for targeting.	No	N/A

NUANCE

Parameter Name	Description	Required	Data Constraints
customVariables:action	Action to be performed on this custom variable.	No	Must be one of: • **append** • **set** • **remove** Default is value **append**.
customVariables:name	Name of this custom variable.	Yes	*String*
customVariables:persistence	Recommended persistence lifespan.	No	Must be either **volatile** or **persistent**. Default value is **persistent**.
customVariables:value	Value of this custom variable. Can be multi-valued.	Yes	*String*
siteID	Id of site provided by Nuance and will be a static value for client application.	Yes	Integer
tcCustomerID	The **customerID** is provided by the Nuance Engagement API when the */engagement* endpoint is called or by the Nuance Data Collection API when the */startSession* endpoint is called.	Yes	String, possible values are: [a-z], [A-Z], [0-9], [-], [_]
viewID	Identifier for the current content displayed (or otherwise provided) to the customer	No	String

Response Values

Name	Type	Description
tcCustomerID	Integer	if a tcCustomerID was not provided in the request, then we generate a tcCustomerID and return it in the response)

Request Example

POST https://api.touchcommerce.com/v1/dataCollection/exposed

NUANCE

POST Body:

```
{
  "tcCustomerID": "12345",    //customerID provided by the Touch Commerce engagement API when the
"GET engagement" API endpoint is called          //provided by Touch Commerce and will be a static
value for client application
  "siteID": "6789",            //ID associated with the application, if applicable
  "viewID": "value",          //identifier for the current content displayed (or otherwise provided)
to the customer
  "visitorAttributes": [      //List of any name/value pairs that you want to associate to this
visitor
    {
      "name": "value",        //name and value of this attribute
      "externalCustomerID": "Yes"  //If this visitor attribute can be used as a unique identifier
for this user, please indicate it using a "yes" value in this field.  Otherwise, "no"
    }
  ],
  "applicationAttributes": [  //List of any name/value pairs that you want to associate to this
application
    {
      "name": "value"          //name and value of this attribute
    }
  ],
  "customVariables": [        //Can be used to store information that can be used for targeting
    {
      "name": ["value"],      //name and value(s) of this attribute. Can be multivalued.
      "persistence": "value"  //recommended persistence lifespan. Values are "volatile" or
"persistent"
    }
  ]
```

NUANCE

```
}
```

Response Example

```
200 OK
```

```
{
  "tcCustomerID": "12345",
}
```

NUANCE

Recommendation Endpoint

https://api.touchcommerce.com/v1/dataCollection/recommendation

Example JSON Input Data

```
{

  "tcCustomerID": "12345",    //customerID provided by the Touch Commerce engagement API when the
"GET engagement" API endpoint is called         //provided by Touch Commerce and will be a static
value for client application
  "siteID": "6789",           //ID associated with the application, if applicable
  "viewID": "value",          //identifier for the current content displayed (or otherwise provided)
to the customer
  "visitorAttributes": [      //List of any name/value pairs that you want to associate to this
visitor
    {
      "name": "value",        //name and value of this attribute
      "externalCustomerID": "Yes"  //If this visitor attribute can be used as a unique identifier
for this user, please indicate it using a "yes" value in this field.  Otherwise, "no"
    }
  ],
  "applicationAttributes": [  //List of any name/value pairs that you want to associate to this
application
    {
      "name": "value"         //name and value of this attribute
    }
  ],
  "customVariables": [        //Can be used to store information that can be used for targeting
    {
      "name": ["value"],      //name and value(s) of this attribute. Can be multivalued.
```

NUANCE

```
        "persistence": "value"  //recommended persistence lifespan. Values are "volatile" or
"persistent"
    }
  ]
}
```

JSON Schema
```
{
  "$schema": "http://json-schema.org/draft-04/schema#",

  "type": "object",

  "properties": {

    "tcCustomerID": {

      "type": "string"

    },

    "siteID": {

      "type": "string"

    },

    "sessionID": {

      "type": "string"

    },

    "visitorAttributes": {

      "type": "array",

      "items": {

        "type": "object",

        "properties": {
```

NUANCE

```
    "name": {

      "type": "string"

    },

    "externalCustomerID": {

      "type": "string"

    }

  }

},

"applicationAttributes": {

  "type": "array",

  "items": {

    "type": "object",

    "properties": {

      "name": {

        "type": "string"

      }

    }

  }

},

"customVariables": {

  "type": "array",

  "items": {
```

```
        "type": "object",

        "properties": {

          "name": {

            "type": "array",

            "items": {

              "type": "string"

            }

          },

          "persistence": {

            "type": "array",

            "items": {

              "type": "string"

            }

          }

        }

      }

    }

  }

}
```

Example JSON Output
```
{
  "recommendedActionName": "RECOMMEND_PRODUCT", // recommendation of an action that requesting client is
recommended to take towards visitor, see ssbr30.xsd for possible values
  "data": { // Data section carrying data relevant to recommended action such as product id, content URL
etc. Data is specified as a set of key-value pairs.
```

NUANCE

```
    "catalog-num": 1000,
    "prod-id": "XYZ-123"
    // more name-value pairs can follow
  }
}
```