



Visitor Single Sign-On

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What is Visitor Single Sign-On (SSO)?

Visitor Single Sign-On (SSO) allows you to map your customer account information with Comm100 fields, and synchronize the information from your login system to Comm100 Live Chat so that customers who want to access help through live chat can authenticate themselves prior to chatting by logging into their accounts. If they are already logged in elsewhere, they will chat with agents immediately.

Once customers log in your agents can view their account information in Comm100 Live Chat. This helps them know who they are chatting with and avoid asking the same standard questions, speeding up resolution and improving customer satisfaction.

Comm100 Live Chat Visitor SSO uses SAML (Security Assertion Markup Language), an XMLbased, open-standard data format for exchanging authentication and authorization data between your IDP (Identity Provider) and the Comm100 Live Chat server. When a customer clicks on the login option in the chat window, the Comm100 Live Chat server will ask your IDP server whether the customer has been authenticated. If the customer has already logged in SSO using the same browser, the IDP server will return the response to Comm100 and the customer will be connected to live agents immediately; otherwise, the login page will show up in the chat window, asking customers to log in. The credentials provided in the page are sent directly to your SSO server, not Comm100, which means this process of authenticate is done solely on the SSO service side, preventing man-in-the-middle hacks and other possible password breaches. Once authenticated, customer account information will be sent to Comm100 Live Chat. Your agents can see the information right in the Agent Console where you chat with customers. You can also make SSO authentication optional. Customers who choose to chat as a visitor will skip the authentication step. In this case your agents will not be able to view their account information in Comm100 Live Chat.

Benefits of Visitor Single Sign-On

1. Keep live chat exclusively for customers with accounts

You can choose whether your customers need to log into their accounts before chatting. If customers are required to login prior to chatting, visitors who don't have an account with you will not be able to access help through live chat. This helps you automatically keep out ineligible visitors if your live chat is exclusive for customers with accounts.

2. **Provide secure account related services over live chat**

The fact that Visitor SSO authenticates customers before chatting assures you that every customer participating in chat has already proven their identity, i.e. they are really who they claim to be. This means you don't need to worry about sharing sensitive information with your customers or making changes to their accounts if they ask you to do so over live chat, which is very common in many industries including banking, e-commerce, healthcare, and others.

3. **Share login between live chat and your website or other services**

It's very common that your customers have several logins with you: one for using the product, one for self-service in the help desk, one for forum discussion, and more. If you have a centralized access control system for these services or applications, Comm100 Live Chat Visitor SSO enables your customers to move between the live chat channel and other services or applications securely and conveniently with only one login.

4. **Provide smoother, more personalized, and more efficient chat services**

Since agents can see customer data from these other services or applications, they can help customers more effectively. This saves your customers time and enhances their experience while boosting customer satisfaction.

5. **Route customers to the appropriate agent**

Comm100 Live Chat Visitor SSO lets you take advantage of advanced routing rules to get your customers chatting with the agent best suited to handle their query. For example, you can direct customers to their account manager or route VIPs to specialist staff.

How to Set Up Visitor SSO

Comm100 Visitor SSO currently supports only SAML 2.0 HTTP POST Binding. Before getting started, please make sure the items below are well prepared:

1. The SSO Sign-in URL which can receive SAML Request
2. The IDP user authentication interface (like username/password form) fit to the size of Comm100 visitor chat window
3. IDP signed certificate. To ensure data security, Comm100 suggests adding a signature to the SAML Response returned from IDP to Comm100 SSO, which requires a certificate to verify signature validation.

SAML Request and Response

When SSO is enabled, client submits SAML to SSO Sign URL after visitor clicks on chat button. The request will be similar to below:

```
SAMLRequest=PHNhbWxwOkF1dGhuUmVxdWVzdCBJRd0iXzY2Rj1BNjQ2RTVBMUI2OEY2RDk4NkFCN
TEzMzAxNTU4IiBwZXJzaW9uPSIyLjAiIElzc3VlSW5zdGFudD0iMjAxNi.....0ZT48L1g1MD1EYXRhP
jwvS2V5SW5mbz48L1NpZ25hdHVyZT48c2FtbHA6TmFtZU1EUG9saWN5IEFsbG93Q3JlYXRlPSJ0cnVlI
iAvPjwvc2FtbHA6QXV0aG5SZXF1ZXN0Pg==&RelayState=62d1a273-4234-4269-a617-5562850943aa
```

From the above data, client submits the SAMLRequest and RelayState to the SSO Sign-in URL. The SAMLRequest is base64 encoded. Below is the request after decode:

```
<samlp:AuthnRequest ID="_66F9A646E5A1B68F6D986AB511301558" Version="2.0" Issue
Instant="2016-03-29T06:54:57Z" Destination="https://test.comm100.com/ssoidp/
ssoservice.aspx" ForceAuthn="false" IsPassive="false" ProtocolBinding="urn:oasis:
names:tc:SAML:2.0:bindings:HTTP-POST" AssertionConsumerServiceURL="https://ent.
comm100.com/VisitorSSO/AssertionConsumer.aspx?SiteId=1000187" xmlns:samlp="urn:
oasis:names:tc:SAML:2.0:protocol"><saml:Issuer xmlns:saml="urn:oasis:names:tc:
SAML:2.0:assertion">comm100livechat</saml:Issuer><Signature xmlns="http://www.
w3.org/2000/09/xmldsig#"><SignedInfo><CanonicalizationMethod Algorithm="http://
www.w3.org/2001/10/xml-exc-c14n#" /><SignatureMethod Algorithm="http://www.w3.org
/2000/09/xmldsig#rsa-sha1" /><Reference URI="#_66F9A646E5A1B68F6D986AB511301558">
<Transforms><Transform Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-sig
nature" /><Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"><Inclusive
Namespaces PrefixList="#default saml ds xs xsi" xmlns="http://www.w3.org/2001/10/
xml-exc-c14n#" /></Transform></Transforms><DigestMethod Algorithm="http://www.
w3.org/2000/09/xmldsig#sha1" /><DigestValue>ZpIdS0BNfMbyYgBBF3ryk+StDFs=</Digest
Value></Reference></SignedInfo><SignatureValue>XRLp0Zi5hErXUKWoVRvFwn3MTN9dHz
J7ULpDdoUgSKjuG/765kqSElly1AzZNg7ofgFHZk6qAjo3W1GM9mEbV3D5AgNazWdhEa6JfZ4vMn75Qf
2WJwPEIgkGxuiKrij6JBHSe67FbCQz2u0gG0qW+NP2uBwfrQ75Zg426V+Bro=</SignatureValue><Key
Info><X509Data><X509Certificate>MIIB/DCCAWWgAwIBAgIQ39LYOFey9K1A+f1T4C/ELzANBbkqkhi
G9w0BAQQFADAWMRQwEgYDVQQDEWtYWVogQ29.....
.....
YNNJhDLdw0QVn4QkZL5MhLHU+8zcaMwTERlQN3rQTAq4paz5oSVDMQyPbUAC/xsquUP44E=</X509
Certificate></X509Data></KeyInfo></Signature><samlp:NameIDPolicy AllowCreate="true"
/></samlp:AuthnRequest>
```

This uses standard XML format. In the sample above, the SSO Sign-in URL is a sample URL: <https://test.comm100.com/ssoidp/ssoservice.aspx>. Some necessary factors in SAML request are also included, like the algorithm for AssertionConsumerServiceURL (ACS URL), Issuer, Signature, the signature and certificate of the request, etc. Please note these values may be different depending on the Comm100 Account you use.

The SAMLResponse will be submitted to the AssertionConsumerServiceURL in SAMLRequest after visitors log into IDP. The response will be similar to the following:

```
SAMLResponse=PHNhbWxwO1Jlc3BvbnN1IE1EPSJf0TNFNDC2N0REMEIzRDE2MEZDQUMyNDc2QUEwNzFB-
NUEiIFZlcnNpb249IjIuMCIgSXNzdWVJbnN0YW50PSIyMDE2LTAzL.....2hyb211PC9zYW1sOkF0dH-
JpYnV0ZVZhbHVlPjwvc2FtbDpBdHRyaWJ1dGU+PC9zYW1sOkF0dHJpYnV0ZVN0YXRlbWVudD48L3N-
hbWw6QXNzZXJ0aW9uPjwvc2FtbHA6UmVzcG9uc2U+&RelayState=62d1a273-4234-4269-a617-
5562850943aa
```

The SAMLResponse here is also base64 encoded. After decode, you will get:

```
<samlp:Response ID="_93E4767DD0B3D160FCAC2476AA071A5A" Version="2.0" IssueInstant=
"2016-03-29T06:56:49Z" xmlns:samlp="urn:oasis:names:tc:SAML:2.0:protocol">
<saml:Issuer xmlns:saml="urn:oasis:names:tc:SAML:2.0:assertion">https://ent.
comm100.com/SSOIDP/</saml:Issuer><Signature xmlns="http://www.w3.org/2000/09/
xmldsig#"><SignedInfo><CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/
xml-exc-c14n#" /><SignatureMethod Algorithm="http://www.w3.org/2000/09/xmldsig
#rsa-sha1" /><Reference URI="#_93E4767DD0B3D160FCAC2476AA071A5A"><Transforms>
<Transform Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature"
/><Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"><InclusiveName
spaces PrefixList="#default saml ds xs xsi" xmlns="http://www.w3.org/2001/10/
xml-exc-c14n#" /></Transform></Transforms><DigestMethod Algorithm="http://www.
w3.org/2000/09/xmldsig#sha1" /><DigestValue>704jP9gZ0+0Iz9in6skavlU4hJU=</Digest
Value></Reference></SignedInfo><SignatureValue>MvtmAZkGmXX4DTLKAF7xPBezag1n+KGHhd
4rfUC19naVeheC0Po6x4dHvzFurW4Gdd3CvJWJX2FfFCuw0bNzKy00KQRxmnXXt22t46IiEG+yacY4Bdt
n1IqxeVsWxChdLarFwpGI7QvhcgMiosI1f00/tp78KLdLCQtqq9wnamc=</SignatureValue><KeyIn
fo><X509Data><X509Certificate>MIICATCCAwwqAwIBAgIQodaKi iLBD6VJDV/ExJ04bzANBgkqhkiG
9w0BAQQFADAXMRUwEwYDVQQDEwxD21wb251bnRQc.....
```

.....

```
4BQQzIJRzBR0wnI2+KdTc0kgQyRzp5qCA7VgwpYmVUmnVYInkbEIQ8N9pK1PJ4yg==</X509Cer-
tificate></X509Data></KeyInfo></Signature><samlp:Status><samlp:StatusCode Val-
ue="urn:oasis:names:tc:
```

```

SAML:2.0:status:Success" /></samlp:Status><saml:Assertion Version="2.0" ID="_
E53821ED9B08A9C2409CD1F62F7B89CB" IssueInstant="2016-03-29T06:56:49Z" xmlns:sam-
l="urn:oasis:names:tc:SAML:2.0:assertion"><saml:Issuer>https://ent.comm100.com/
SSOIDP/</saml:Issuer><saml:Subject><saml:NameID>1000246441</saml:NameID></saml:-
Subject><saml:AuthnStatement AuthnInstant="2016-03-29T06:56:49Z" /><saml:Attri-
buteStatement><saml:Attribute Name="email" NameFormat="urn:oasis:names:tc:SAM-
L:2.0:attrname-format:basic"><saml:AttributeValue>jack@comm100.com</
saml:AttributeValue></saml:Attribute><saml:Attribute Name="name" NameFormat="urn:
oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeValue>Jack</sam-
l:AttributeValue></saml:Attribute><saml:Attribute Name="department" NameFor-
mat="urn:oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeVal-
ue>Live Chat</saml:AttributeValue></saml:Attribute><saml:Attribute Name="phone"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:At-
tributeValue>18887787887</saml:AttributeValue></saml:Attribute><saml:At-
tribute Name="company" NameFormat="urn:oasis:names:tc:SAML:2.0:attr-
name-format:basic"><saml:AttributeValue>Comm100</saml:AttributeValue></
saml:Attribute><saml:Attribute Name="Plan" NameFormat="urn:oasis:names:tc:SAM-
L:2.0:attrname-format:basic"><saml:AttributeValue>Comm100 Live Chat</saml:At-
tributeValue></saml:Attribute><saml:Attribute Name="Sex" NameFormat="urn:oa-
sis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeValue>Male</
saml:AttributeValue></saml:Attribute><saml:Attribute Name="Favorite" NameFor-
mat="urn:oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeValue>-
Food</saml:AttributeValue></saml:Attribute><saml:Attribute Name="Plan Id" NameFor-
mat="urn:oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeValue>
1998</saml:AttributeValue></saml:Attribute><saml:Attribute Name="Source" Name-
Format="urn:oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeVal-
ue>Google</saml:AttributeValue></saml:Attribute><saml:Attribute Name="Browser"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:basic"><saml:AttributeVal-
ue>Chrome</saml:AttributeValue></saml:Attribute></saml:AttributeStatement></sam-
l:Assertion></samlp:Response>

```

The above SAMLResponse contains certain parts of the SAML agreement, including version declaration, signature, certificate and some data shown as follows:

1. NameId. This data must be returned from SSO. The login will fail without it. This value is to identify the visitor in Comm100 and will be used for the chat query.
2. Saml:Attribute. These are optional and unencrypted attribute data. You can configure the field mapping table in Comm100 Live Chat to map these data to the corresponding fields, like the system fields of Name, Email, Phone, Department, ProductService, custom fields and custom variables. Below is the configuration page:

If you'd like to enable visitor sign-in before a chat starts, you can select the option on the SSO Sign-in Options section.

Use Cases of Visitor Single Sign-On

Define sign-in requirement

You can define whether or not your customers need to sign into their accounts with you before having a chat. Three sign-in options are available to satisfy different business requirements:

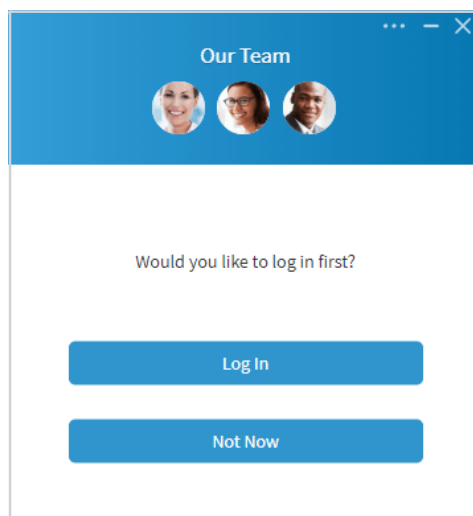
Campaign	Sign-In Options	
Default Plan	No sign-in	
Chatbot-Manufacture	Sign-in optional	<input type="checkbox"/> Skip the pre-chat form when visitors sign in. <input type="checkbox"/> Open sign-in page in the Embedded Chat Window.
Sales Campaign	Sign-in required	<input type="checkbox"/> Skip the pre-chat form when visitors sign in. <input checked="" type="checkbox"/> Open sign-in page in the Embedded Chat Window.

- **No Sign-In**

Your customers and visitors can start chatting with you right after clicking on your chat button, or after filling out your pre-chat survey (if you have pre-chat survey enabled).

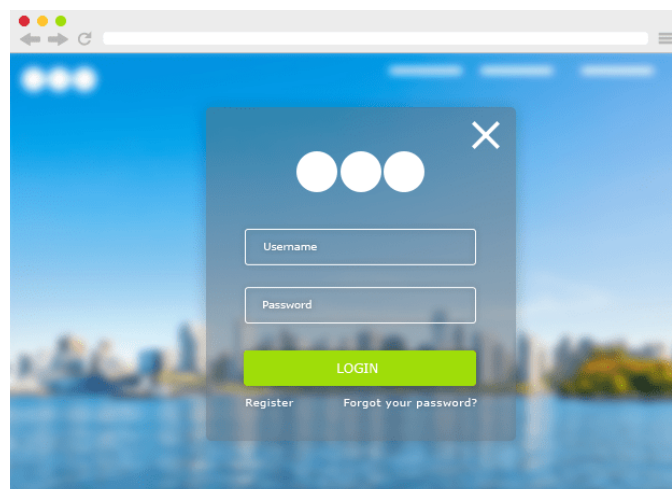
- **Sign-In Optional**

Give your customers and visitors the choice to log into their accounts or chat anonymously when initiating a chat. Logged-in customers will skip the pre-chat survey, while non-logged in visitors need to fill out your pre-chat survey before chatting.



- **Sign-In Required**









Your customers and visitors are required to log in prior to chatting. If a visitor doesn't have an account with you, he/she will not be able to access live chat. This option helps you automatically keep out ineligible visitors if your live chat is exclusive to customers with accounts.



Map Your Account Data with Comm100 Fields

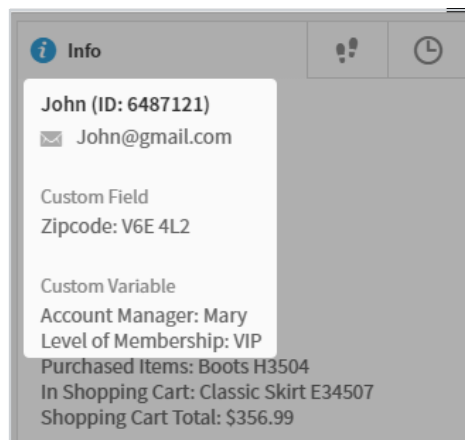
You can map your customer account information with the following Comm100 Live Chat fields as needed.

- System fields in your pre-chat survey – Country/Region, State/Province, City, Time Zone, Language
- Custom fields in your pre-chat survey
- Custom variables set up in your account

SSO Data Mapping		
SSO User Attribute	Comm100 Field	Operations
Name	{!Visitor.Name}	 
Email	{!Visitor.Email}	 
Zipcode	{!Pre-Chat.Zipcode}	 
Account Manager	{!Custom Variable.Account Manager}	 
+ New Field Mapping		

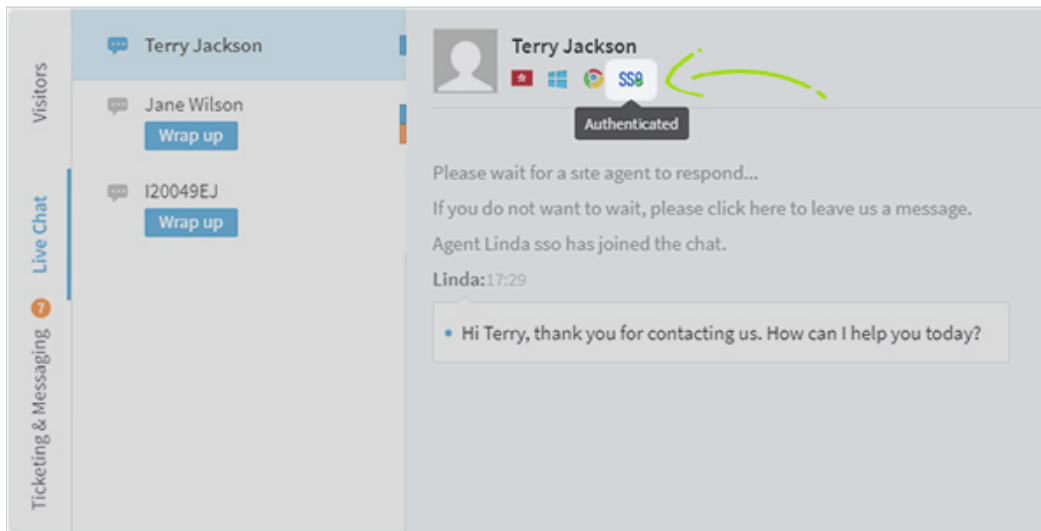
Customer Account Information in Agent Console

After your customer logs in and starts a chat, you can see his/her account information in the mapped fields of the Pre-Chat and Custom Variable sections. Additionally, the customer ID in your account system is also displayed in the Info tab, next to his/her name. You can use the ID to search for any additional information when needed.

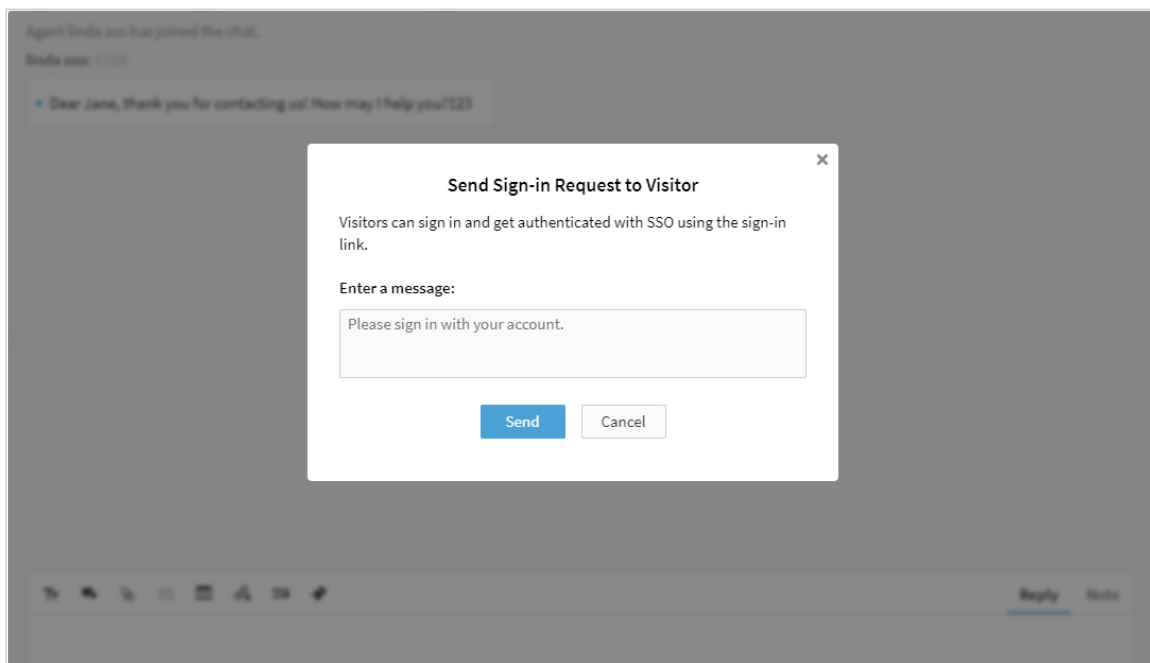


Request Visitors to Log in while Chatting

You can identify a logged-in customer by the SSO icon in the Agent Console.

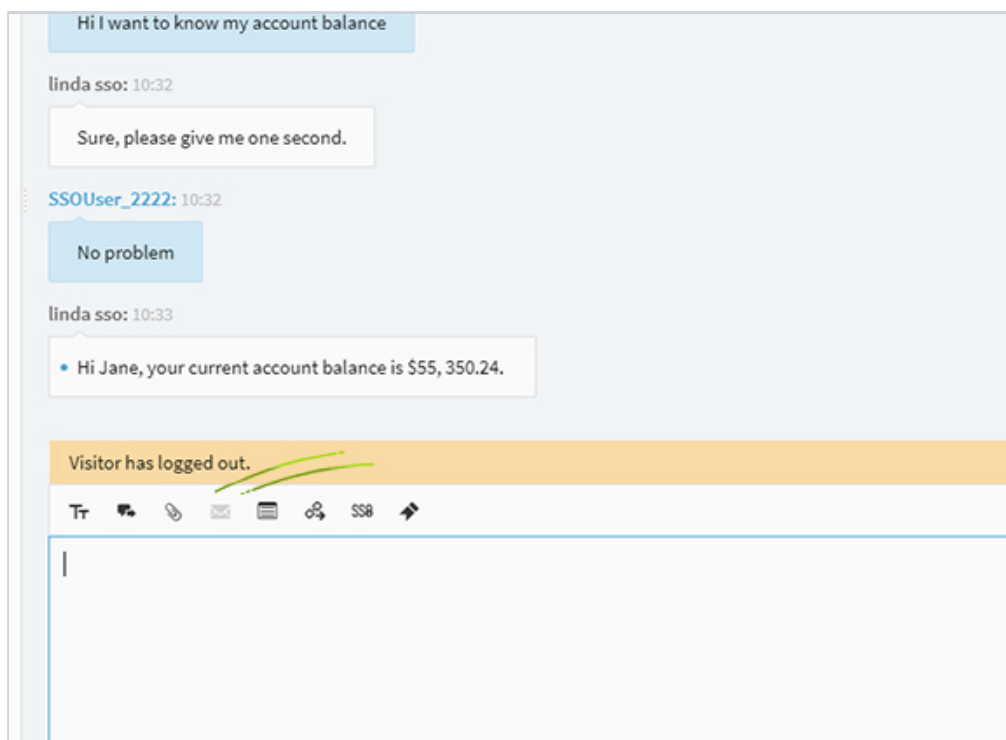


If a customer did not log in first and during a chat and you need to send over security sensitive information which requires user authentication, you can send a sign-in request to your customer anytime during the chat.



Automatic Logout via IdP Logout

In the IdP initiated single logout (SLO), if a user logs out from any of the applications belonging to a single login session, the user gets logged out from all applications that belong to the same session. IdP initiated logout is triggered when the user clicks a logout option from the IdP logout page. For example, a customer has logged out from your bank service portal, he/she would be automatically logged out from the Comm100 live chat session as well. This can help prevent unauthorized disclosure and protect customer's account security.



Create Custom Chat Routing Rules

You can use the mapped fields to create custom chat routing rules. For example, every customer in your account system may have a membership level, and customers of the different levels in your company are served by different teams. You can then map the membership level information with a Comm100 Live Chat field, and then create a rule to send your customers to the right team.

The screenshot shows a configuration window for chat routing rules. At the top, there are two tabs: "Route visitors to a specific department or agent" and "Route visitors based on custom rules", with the latter being selected. Below the tabs is a table titled "Rules".

Name	Conditions	Route to	Priority ?	Enable	Operations
VIP	Meet all of the following conditions: 1. If VIP is true	VIP Team	High	<input checked="" type="checkbox"/>	
Mark's Client	Meet all of the following conditions: 1. Account manager is Mark	Mark	Normal	<input checked="" type="checkbox"/>	

Search for Chat Transcripts with Customer ID

The customer ID in your account system is saved to the chat transcript when a chat session ends. You can use the customer ID as a filter in the History section to quickly find chats that previously occurred between you and the customer.

The screenshot shows a "Chats" search filter dialog. At the top, there are filter buttons for "2021/04/08", "Department", "Agent & Bot", and "Categ". Below these is a "+ New Filter" button. A filter rule is being created with "SSO User ID" selected from a dropdown, followed by "is" and an empty input field. There are "OK" and "Cancel" buttons at the bottom.

Visitor SSO FAQ

Is it possible to require visitors to sign in before chatting with us?

Yes. You can define whether or not your customers need to sign into their accounts with you before having a chat.

Where will the visitor username and password be stored?

The visitor username and password are not stored in Comm100 system. They are stored in your own database.

Can I have different SSO options on different campaigns?

Yes. You can set different sign-in options for different campaigns.

SSO Sign-In Options		
Campaign	Sign-In Options ?	
Default Plan	Sign-in optional ▼	<input type="checkbox"/> Skip the pre-chat form when visitors sign in. <input type="checkbox"/> Open sign-in page in the Embedded Chat Window.
Chatbot-Manufacture	Sign-in required ▼	<input type="checkbox"/> Skip the pre-chat form when visitors sign in. <input type="checkbox"/> Open sign-in page in the Embedded Chat Window.

What formats of the certificate are supported?

We support: .cer, .pem, .pfx, .der, .p7b

Does the certificate need to include the private key?

No.

Error: Querystring with key SiteId is null.

- You are missing the siteId parameter in the AssertionConsumer URL.
- When you send the POST request to this URL, you need to add the siteId parameter, like this:
<https://test-chat.yourdomain.com/VisitorSSO/AssertionConsumer.aspx?siteId=100019500>

Error: Value cannot be null.

Parameter name: key

at System.Web.Caching.CacheKey..ctor(String key, Boolean isPublic)

at System.Web.Caching.AspNetCache.Remove(String key, CacheItemRemovedReason reason)

at ComponentPro.Saml.MemoryCacheProvider.Remove(String key)

at Com.Comm100.LiveChat.VisitorSSO.AssertionConsumer.processSuccessResponse(Response samlResponse, String relayState)

at Com.Comm100.LiveChat.VisitorSSO.AssertionConsumer.OnLoad(EventArgs e)

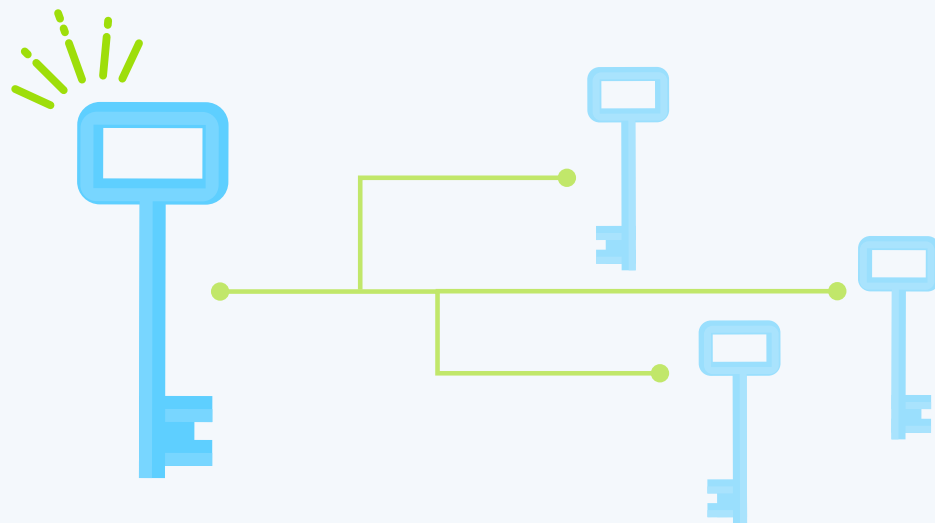
This is because the Return of RelayState is missing from the Form.

The SAMLResponse will be submitted to the AssertionConsumerServiceURL in SAMLRequest after visitors log into IDP. The respond can be similar as following:

```
SAMLResponse=PHNhbWxwO1Jlclc3BvbmlIE1EPSJfOTNFNDc2N0REMEIzRDE2MEZDQUMyNDc2QUEwNzFB  
NUEiIFZlcnNpb249IjIuMCIgSXNzdWVJbnN0YW50PSIyMDE2LTAzL.....
```

.....

```
2hyb211PC9zYW1s0kF0dHJpYnV0ZVZhbHVlPjwvc2FtbDpBdHRyaWJ1dGU+PC9zYW1s0kF0dHJpYnV0Z  
VN0YXRlbWVudD48L3NhbWw6QXNzZXJ0aW9uPjwvc2FtbHA6UmVzcG9uc2U+&RelayState=62d1a273-42  
34-4269-a617-5562850943aa
```





Let's chat

Comm100 is a leading global provider of omnichannel customer experience solutions with a mission to make online service and support delivery more genuine, more personalized, and more productive through meaningful conversations.

[Learn More](#)