

JURISDICTION AND VENUE

3. This is an action for patent infringement which arises under the Patent Laws of the United States, in particular, 35 U.S.C. §§271, 281, 284, and 285.

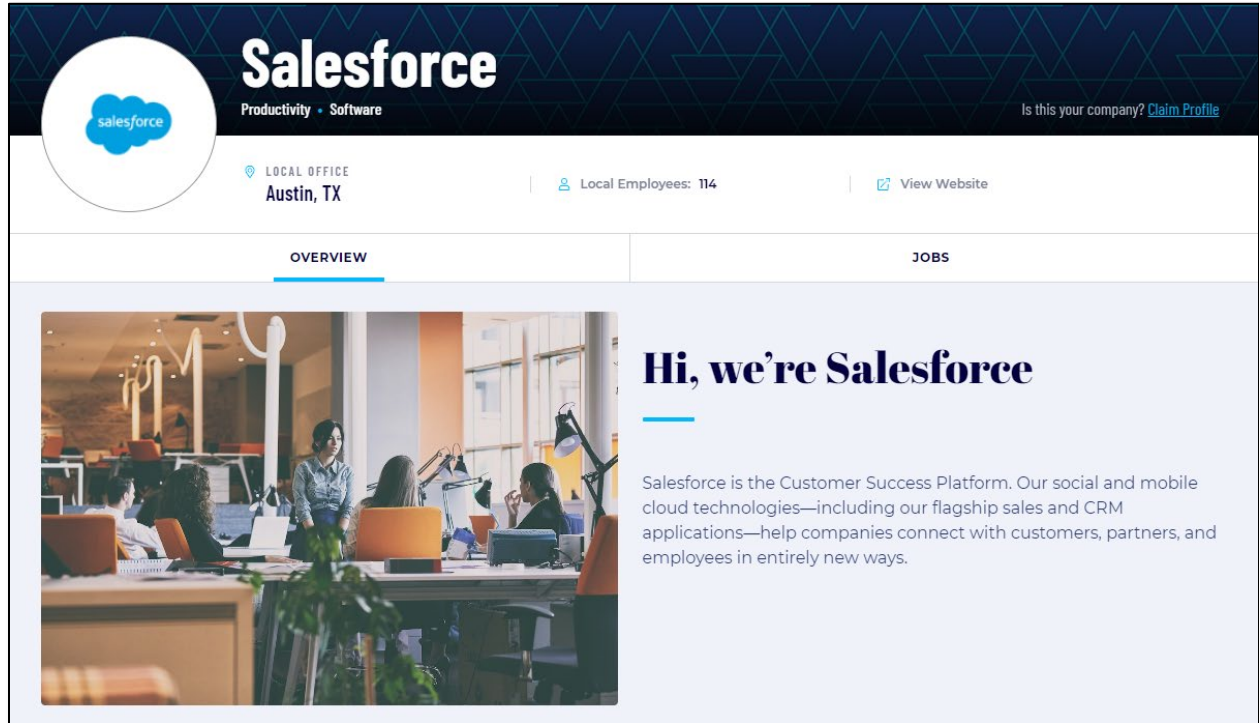
4. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has specific and general personal jurisdiction over Defendant pursuant to due process and/or the Texas Long Arm Statute because Defendant has committed acts giving rise to this action within Texas and within this judicial district. The Court's exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice because Salesforce has established minimum contacts with the forum. For example, on information and belief, Defendant has committed acts of infringement in this judicial district, by among other things, selling and offering for sale products that infringe the asserted patent, directly or through intermediaries, as alleged herein.

6. Venue in the Western District of Texas is proper pursuant to 28 U.S.C. §§1391 and 1400(b) because Defendant has committed acts of infringement in this judicial district and has regular and established places of business in this judicial district and in Texas. As non-limiting examples, on information and belief, Defendant uses office space in Austin for client meetings. Salesforce has more than 300 employees that work in this judicial district, including employees working in the cities of Waco, Austin, and San Antonio. The titles of said employees include "Vice President," "Principal Architect," and "Senior Director."

7. Upon information and belief, the majority of Salesforce's nationwide workforce is working from home and will continue to be allowed to do so until at least August of 2021. Upon information and belief, some of the Salesforce employees working in the Western District utilize

their home as a principal place of business for Salesforce. Additionally, such employees are allowed to advertise that they are, for example, an Austin Salesforce employee. Because of such representations, local magazines advertise Salesforce as having a place of business in Austin.



Source: <https://www.builtinaustin.com/company/salesforce>

COUNT ONE - INFRINGEMENT OF U.S. PATENT NO. 8,923,899

1. Brazos re-alleges and incorporates by reference the preceding paragraphs of this Complaint.

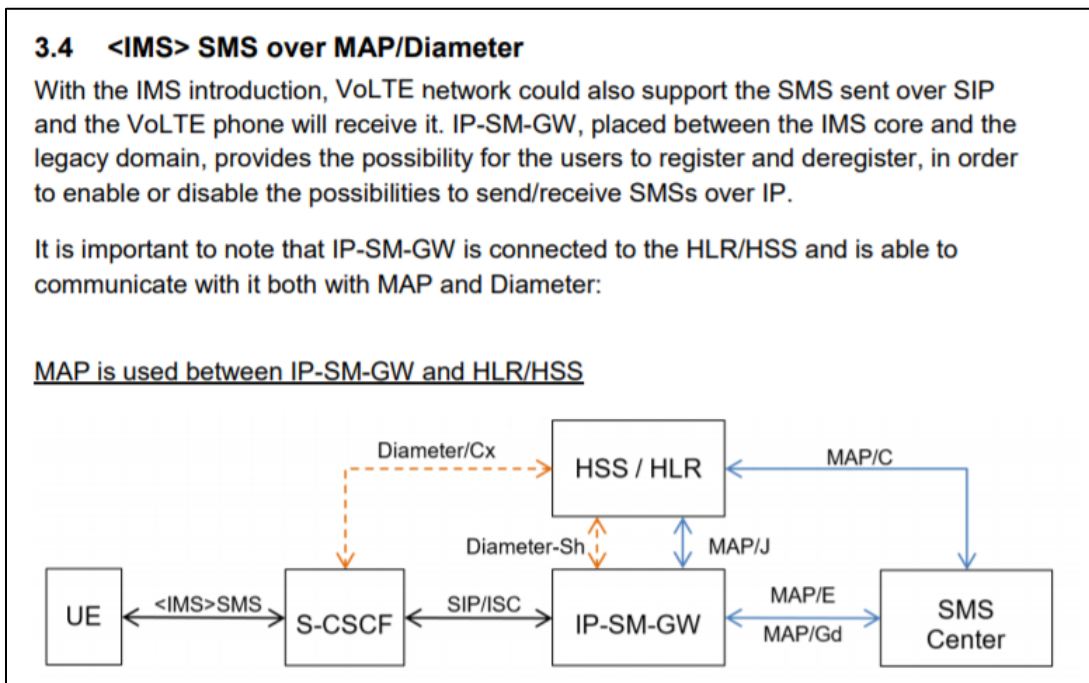
2. On December 30, 2014, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,923,899 (“the ‘899 Patent”), entitled “Interface between restful web services and packet-switched networks for text messaging.” A true and correct copy of the ‘899 Patent is attached as Exhibit A to this Complaint.

3. Brazos is the owner of all rights, title, and interest in and to the ‘899 Patent, including the right to assert all causes of action arising under the ‘899 Patent and the right to any

remedies for the infringement of the ‘899 Patent.

4. Salesforce makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this judicial district, products such as, but not limited to, Salesforce MobileConnect API (collectively, the “Accused Products”).

5. Salesforce partners with carriers (aggregators) who can support SIP/IMS 4G SMS. VoLTE network can support the SMS sent over SIP protocol and the VoLTE enabled phone will receive it. Users can send and receive SMSs over IP on their devices from the IMS network. This IMS network acts as an interface.



Source: <https://www.gsma.com/newsroom/wp-content/uploads//NG.111-v1.0.pdf>, Page 17.

GSM Association
Official Document NG.111 - SMS Evolution

Non-confidential

C.1 Introduction

As described in GSMA IR.92 [13], VoLTE network has to support the SMS sent over SIP. The VoLTE phone will receive a common (binary) SMS and the native client will display this message as any other. The only difference is that this time the SMS is sent from an IMS network over SIP protocol. The purpose is not just to support common text messages, but (more importantly) to support OTA messaging for (U)SIM provisioning, SMS 'non-text' applications or Message Waiting Indication for Voice Mail.

Figure 36 SMS over IMS interfaces

Source: <https://www.gsma.com/newsroom/wp-content/uploads/NG.111-v1.0.pdf>, Page 37

Annex D <IMS> SMS over MAP/Diameter

D.1 IP-SMGW Functionalities

The network functionality which provides messaging service in the IMS network is called IP-SM Gateway (IP-SM-GW) and from the IMS point of view it is an Application Server.

Figure 37 IP-SMGW architecture

Source: <https://www.gsma.com/newsroom/wp-content/uploads/NG.111-v1.0.pdf>, Page 1

6. Salesforce provides integration of the SMS gateways with various applications. It also provides REST API for simple Web services of Salesforce. The APIs have various functions and operations like making workflow and managing the campaigns. Further, the MobileConnect API is responsible for the delivery of SMS (text messages) through the MobileConnect application. These messages originate from web services or mobile apps of Salesforce and are delivered to user equipment.

Use the MobileConnect API

Subscribe Mobile Numbers to a Short Code

Delivery of an outbound SMS message through the MobileConnect application requires an active short code and keyword subscription. MobileConnect assists marketers and developers with the creation of message subscriptions through the SMS Opt-In template.

MobileConnect supports three variations of the SMS Opt-In:

1. Single Opt-In: Contact texts JOIN (or another specified keyword) to your short code to subscribe to a specified keyword on that short code.
2. Double Opt-In: Contact texts JOIN (or another specified keyword) to your short code and receives a text message asking them to reply Y or YES to confirm their subscription. Upon replying Y or YES, MobileConnect subscribes the contact to the specified keyword on that short code.
3. Double Opt-In with Age Confirmation: Contact texts JOIN (or another specified keyword) to your short code, the contact reply to the initial confirmation message and confirm with their birth date before subscribing to the specified keyword on that short code.

CTIA and MMA best practices state that SMS subscriptions originating from a web form or mobile app must use the Double Opt-In variation. Use the MobileConnect QueueMO REST API to replicate the original inbound text of JOIN. This way, the contact will only receive one text message that requires replying with Y or YES to finalize creation of the subscription.

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/using-the-mobileconnect-api.htm>, Page 1.

7. The text messages are sent using the SMS gateways and the IMS network. Generally, the SMS gateways use session initiation protocols like Short Message Peer-to-Peer (SMPP) for sending of the text messages. Also, Salesforce supports SIP phones and Computer Telephony Integration (CTI), which is the practice of tying the phone system together with the computer systems.

3. Next, routing rules are used to determine which agent should receive the call. Once the appropriate agent is selected, the call is delivered to the agents SIP phone, soft phone or by ringing a traditional handset.
4. Simultaneously, a screen pop is displayed to the agent with all of the relevant customer information retrieved from Salesforce. The agent can use that information to resolve the caller's unique problem. Call time is also reduced because the agent doesn't waste time fumbling through multiple systems to find information. The call is then logged, recorded and stored in the NewVoiceMedia cloud with a link to the recording added to the Salesforce record.

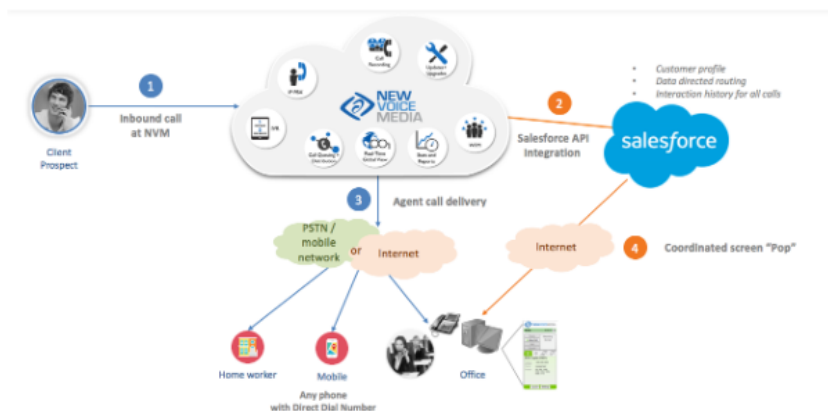


Figure 1 - Example of Cloud-to-Cloud Telephony Integration for Inbound Calls

Source: <https://www.salesforce.com/blog/2016/07/computer-telephony-integration-cti-works.html>, Page 3

8. The RESTful API includes SMS resources. For sending a message from a web application to the user equipment, the Send operation of RESTful API initiates a message to one or more mobile numbers. The Send operation is converted to the first session initiation protocol (SIP request). The SIP request contains information related to mapping to the user equipment. The information related to the communication is stored in the form of attributes inside data fields (MAP-Relay Protocol (RP) data). The data consists of mapped address details (address data) of a subscriber which are stored in Subscribers. Such data includes the originating mobileNumber (MAP RP-Originating-Address) and the target mobileNumber (RP-Destination-Address field).

POST /sms/v1/messageContact/{id}/send

Overview

Initiates a message to one or more mobile numbers.

URL Parameters

Name	Type		Description
id	string	Required	The encoded message ID

JSON Parameters

Name	Type		Description
mobileNumbers	array	Required	An array of one or more mobile numbers
Subscribers	array		Array of up to 250 subscriber records where the message is sent to. Subscribers is different from mobileNumbers because it allows you to specify a SubscriberKey value and the mobile number as the unique identifier for that record.
Subscribers.MobileNumber	string		Specifies the mobile number used as the unique identifier for that record.
Subscribers.SubscriberKey	string		Specifies the SubscriberKey value used as the unique identifier for that record.
Subscribers.Attributes	array		Set real-time attributes for individual personalization strings, per subscriber. The subscriber attribute must match the attribute string in the message. You can pass attributes that are not used as attributes in the message into the SMS send log. The dictionary key is available as a standard replacement string in AMPScript.

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/postMessageContactSend.htm>, Page 9.

9. The SIP request further pulls out the message body. The message body of the message text is mapped to MAP TP-User Data field by a transfer protocol. A text value is used in place of the message's original text and stored in messagetext field (MAP RP-User-Data field).

messageText	string	Text value to be used in place of the message's original text. This value is required when override is true.
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Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/postMessageContactSend.htm>, Page 10.

10. The SIP request is further forwarded to the packet-switched network by targeting

the specified phone numbers.

Usage

The phone number must use the correct format for the designated country code. For example, a mobile number from the United States must include the numerical country code 1 and the area code displayed in the sample CSV file. The numerical country code mentioned here applies only to the phone number itself, and that any separate field containing country code information must conform to [ISO-3306-1 alpha-2 standards](#).

Example Request

```
Host: https://YOUR_SUBDOMAIN.rest.marketingcloudapis.com
POST /sms/v1/messageContact/MzA6Nzg6MA/send
Content-Type: application/json
Authorization: Bearer YOUR_ACCESS_TOKEN

{
  "mobileNumbers": [
    "13175551212"
  ],
  "Subscribe": true,
  "Resubscribe": true,
  "keyword": "JOINSMS",
  "Override": true,
  "messageText": "Welcome to Code@",
  "ContentURL": "http://image.exct.net/lib/fe6d15707662057c7411/m/1/dj_CC_AUS.jpg",
  "SendTime": "2012-10-05 20:01"
}
```

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/postMessageContactSend.htm>, Page 11.

11. Based on the SIP request, the messages are sent to the user equipment associated with the phone numbers. Salesforce provides an example below. The SIP request sends two messages, where each phone number corresponds to a name. One is sent to "Michael" used for the first name, and the other is sent to "Kristen" on their user equipment.

The MobileConnect message with API key MzA6Nzg6MA is saved in Marketing Cloud with only one open personalization string equal to %%FirstName%%. The following call sends two messages: one with "Michael" used for first name, the other with "Kristen".

```
Host: https://YOUR_SUBDOMAIN.rest.marketingcloudapis.com
POST /sms/v1/messageContact/MzA6Nzg6MA/send
Content-Type: application/json
{
  "Subscribers": [
    {
      "MobileNumber": "1555554410",
      "SubscriberKey": "ExampleSubKey1",
      "Attributes": {
        "FirstName": "Michael"
      }
    },
    {
      "MobileNumber": "1555552254",
      "SubscriberKey": "ExampleSubKey2",
      "Attributes": {
        "FirstName": "Kristen"
      }
    }
  ],
  "Subscribe": "true",
  "Resubscribe": "true",
  "keyword": "JOINSMS",
  "Override": "false",
  "SendTime": "2012-10-05 20:01"
}
```

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/postMessageContactSend.htm>.

12. The MobileConnect API in return receives a response (second SIP request) from the packet-switched network. The received response indicates if the first request was accepted, and the message was delivered. In this case, a tokenId is also returned. This tokenId is used to retrieve the MAP-RP data with POST operation of the MobileConnect API.

Example Response

If the request is valid, the API returns a token that can be used to make a follow-up call to check the status of the request.

```
HTTP/1.1 202 Accepted
{
  "tokenId": "c21NCNSDN2sMMWM2miosdjEHH",
}
```

Error Response

If the request was not valid, the API returns a 400 response with details on the error. This example includes the following errors:

- The keyword does not exist in the account
- The mobile number includes hyphens

```
HTTP/1.1 400 Bad Request
{
  "errors" : [
    "1-317-555-1212 is not a numeric string",
    "Keyword TestKeyword is invalid for the code on the message"
  ]
}
```

Message	Details
Message id {0} is not valid.	The messageID value provided in the URL was not in a valid format.
Message {0} is not valid for the client.	The messageID value included in the URL does not match a valid value within the account.

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/postMessageContactSend.htm>, Page 13.

13. The API takes the tokenId (in MAP RP-User-Data field) as the input of GET operation and converts the response (second SIP request) into status operation. In response to the operation, attributes of the communication (MAP TP-User Data field), like mobile numbers, are extracted from the dialed party. Also, the delivery status of the message is identified in the response of this operation. This status is transmitted to the calling party via a web application.

GET /sms/v1/queueMO/deliveries/{tokenId}

Overview

Retrieves the delivery status of a queued MO.

URL Parameters

Name	Type		Description
tokenId	string	Required	Token Id returned for the queued MO

Usage

Example Request

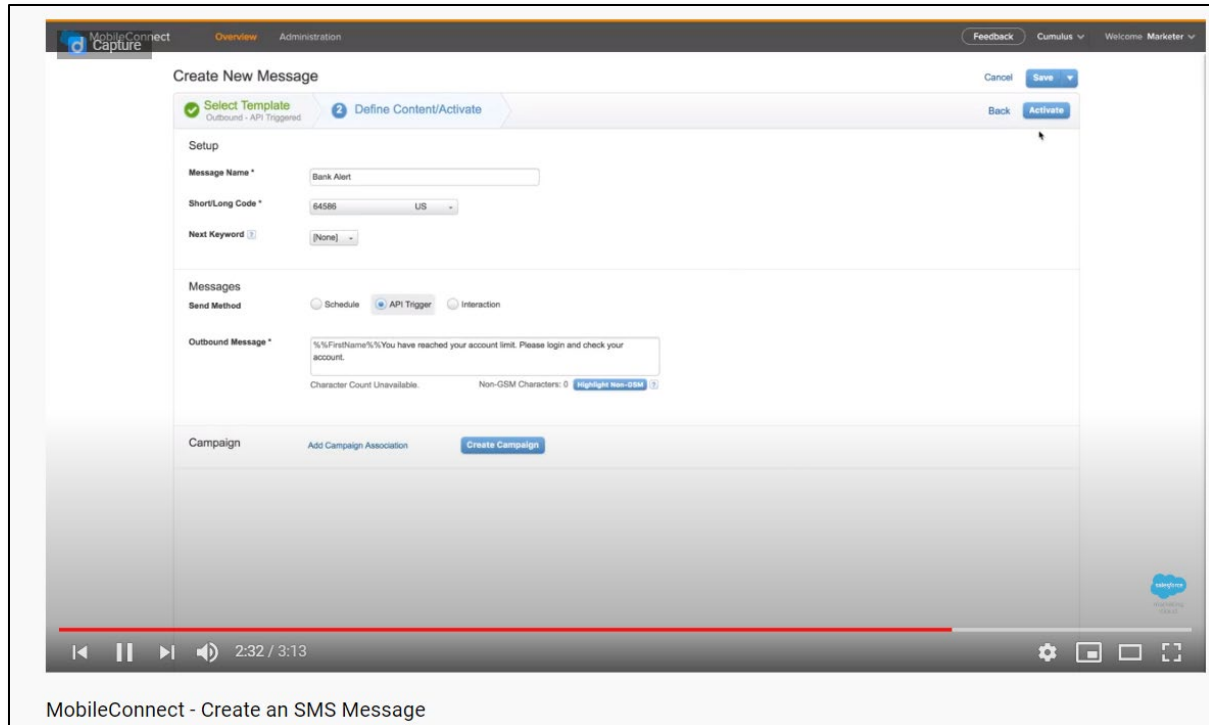
```
Host: https://YOUR_SUBDOMAIN.rest.marketingcloudapis.com
GET /sms/v1/queueMO/deliveries/OXFoN2ZtT2xWazJLSFzkOVY3MGNZQTo3Njow
Content-Type: application/json
Authorization: Bearer YOUR_ACCESS_TOKEN
```

Example Response

```
{
  "tracking": [
    {
      "mobileNumber": "15555555555",
      "statusCode": "200",
      "message": "Carrier Success"
    }
  ]
}
```

Last Updated: Apr 21, 2020

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/getQueueMOdelivery.htm>, Page 13.



Source: <https://www.youtube.com/watch?v=QUL12UwcDHI>

SMS Status Codes

This table includes status codes returned from MobileConnect API calls for all locations. Use these codes to evaluate and troubleshoot your SMS sends.

Code	Status	Definition
1000	QueuedToSfmcSendService	Message queued to internal send service.
1500	QueueFailureToSfmcSendService	Message failed to queue to internal send service. Retry your send.
1501	ValidationError	Internal validation error. Retry your send.
2000	DeliveredToAggregator	Message delivered to aggregator. Status will be updated when delivery confirmation comes from carrier or mobile device. For shared codes, this is the final status.
2500	FailedToAggregator	Message not delivered to aggregator. Retry your send.
2501	UnknownToAggregator	Unknown aggregator error.
2600	ThrottledToAggregator	Message not accepted by aggregator due to capacity issues. Send will be retried automatically.
3000	Enroute	Message is en route to carrier. Waiting on carrier confirmation.
3001	SentToCarrier	Message sent to carrier. Waiting to be accepted by carrier.
3002	AcceptedByCarrier	Message accepted by carrier. Waiting for delivery confirmation.
3400	Unknown	Unknown error
4000	Delivered	Message delivered to mobile device.
4500	Undeliverable	Message not delivered to mobile device.
4501	Expired	Message expired. Message exhausted the carrier retry process. Mobile device may be out of carrier range.
4502	Deleted	Message deleted by the carrier.
4503	Rejected	Message rejected. Carrier may have detected a loop or assumed that message is spam.

Source: <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/sms-status-codes.htm>.

14. In view of preceding paragraphs, each and every element of at least claim 5 of the ‘899 Patent is found in the Accused Products.

15. Salesforce continues to directly infringe at least one claim of the ‘899 Patent, literally or under the doctrine of equivalents, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States, including within this judicial district, without the authority of Brazos.

16. Salesforce has received notice and actual or constructive knowledge of the ‘899 Patent since at least the date of service of this Complaint.

17. Since at least the date of service of this Complaint, through its actions, Salesforce

has actively induced product makers, distributors, retailers, and/or end users of the Accused Products to infringe the '899 Patent throughout the United States, including within this judicial district, by, among other things, advertising and promoting the use of the Accused Products in various websites, including providing and disseminating product descriptions, operating manuals, and other instructions on how to implement and configure the Accused Products. Examples of such advertising, promoting, and/or instructing include the documents at:

- <https://www.gsma.com/newsroom/wp-content/uploads//NG.111-v1.0.pdf>
- <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/using-the-mobileconnect-api.htm>
- <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/routes.htm>
- <https://www.salesforce.com/blog/2016/07/computer-telephony-integration-cti-works.html>
- <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/postMessageContactSend.htm>
- <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/getQueueMOLelivery.htm>
- <https://www.youtube.com/watch?v=QUL12UwcDHI>
- <https://developer.salesforce.com/docs/atlas.en-us.noversion.mc-apis.meta/mc-apis/sms-status-codes.htm>

18. Since at least the date of service of this Complaint, through its actions, Salesforce has contributed to the infringement of the '899 Patent by having others sell, offer for sale, or use the Accused Products throughout the United States, including within this judicial district, with

knowledge that the Accused Products infringe the '899 Patent. The Accused Products are especially made or adapted for infringing the '899 Patent and have no substantial non-infringing use. For example, in view of the preceding paragraphs, the Accused Products contain functionality which is material to at least one claim of the '899 Patent.

JURY DEMAND

Brazos hereby demands a jury on all issues so triable.

REQUEST FOR RELIEF

WHEREFORE, Brazos respectfully requests that the Court:

(A) Enter judgment that Salesforce infringes one or more claims of the '899 Patent literally and/or under the doctrine of equivalents;

(B) Enter judgment that Salesforce has induced infringement and continues to induce infringement of one or more claims of the '899 Patent;

(C) Enter judgment that Salesforce has contributed to and continues to contribute to the infringement of one or more claims of the '899 Patent;

(D) Award Brazos damages, to be paid by Salesforce in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by Salesforce of the '899 Patent through the date such judgment is entered in accordance with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. § 284;

(E) Declare this case exceptional pursuant to 35 U.S.C. § 285; and

(F) Award Brazos its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Dated: December 18, 2020

Respectfully submitted,

/s/ James L. Etheridge

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