



GPS SMS Guide

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1. About this Document

This guide describes the GPS SMS Solution which you can use to send notifications directly to your customers.

Target Audience

This guide is aimed at new clients who do not have their own SMS solution or in-app messaging set up, and existing clients switching from the existing IP Comms solution to the new GPS SMS one.

What's Changed?

To find out what's changed since the previous release, see the [Document History](#) section.

1.1. Related Documents

Refer to the table below for other documents that should be used in conjunction with this guide.

Document	Description
<i>Smart Client Guide</i>	Describes how to use Smart Client, which is an administration application that can be used to view and manage cards and transactions in your program.
<i>Web Services Guide</i>	Describes how to use the GPS SOAP API to send requests to GPS, and which provides specifications on the available web service calls.
<i>Virtual Cards Guide</i>	Describes how to create virtual cards and configure the virtual image that is displayed to your customers on your website or customer app.

Tip! See the [GPS Developer Portal](#) for a full suite of documentation.

2. Overview

This topic introduces the GPS mobile text messaging (SMS) solution which enables you to communicate better with your customers and enhance the customer experience.

Using this solution, you can send messages to customers' SMS-enabled devices to provide PIN reminders and balance queries, perform card activation, and block and unblock cards.

You can automate SMS messages or initiate them at scheme master level.

You use GPS Web Services to trigger the SMS messages, using the **SmsBalance** or **Sms_Required** parameters for API calls such as **Card Activate** (Ws_Activate)¹, **Card Activate and Load** (Ws_Activate_Load), **Card Load** (Ws_Load) etc. For a full list of the calls that provide SMS parameters, see the [Web Services Guide](#).

Note: GPS charge a fee for sending SMS messages. Refer to your GPS contract for details.

2.1. What are the Benefits?

Using SMS messaging, you can give customers more control over their accounts and improve accessibility for cardholders. The following examples show how you can use SMS messaging in your deployment.

2.1.1. Send Customised Messages

Messages can be configured and sent to customers based on an 'event' such as card activation or a balance enquiry. You can either configure your own messages to use for events or use the default messages provided. For a list of the default messages, see [Appendix A – Default messaging](#).

Messages can be configured using standard variables (denoted by the % symbol) which you substitute with your own data. Messages of up to 150 characters can be sent.

You can also specify when a message is to be sent and the language used. The language of the message is based on the country of residence of the cardholder. For more information about where to find this information on the Card Master screen, see the [Smart Client Guide](#).

Use Case: Standard Activation Message

You can send a message on card activation; for example: *"Your card ending ****%PAN4% is active now. CVV number relating to the card is: %CVV%. Thank you"*, where %PAN4% is substituted with the masked PAN (containing only the last 4 digits) and %CVV% is the card verification value.

¹ In Card Activate (Ws_Activate), the SMS parameter is capitalised as 'SMSBalance'

2.1.2. Add Security

You can send SMS messages to customers to notify them of when changes are made to key data fields. For example, you can message a cardholder when loads have been made and funds are available.

You do this by sending details of the transaction amount and balance using the **SmsBalance** or **Sms_Required** parameters for API calls such as **Card Activate** (Ws_Activate)², **Card Activate and Load** (Ws_Activate_Load), **Card Load** (Ws_Load) etc. For a full list of the calls that provide SMS parameters, see the [Web Services Guide](#).

Use Case: Load Message

You can send a message to notify customers when a load has been made and funds are available: *"An amount of %CURCODE% %AMT% loaded to your Card ending with ****%PAN4%. Your current balance is %CURCODE% %CBAL%. Thank You"*, where %CURCODE% is the Currency Code, %AMT% is the amount, %CBAL% is the current balance, and %PAN4% is substituted with the masked PAN (containing only the last 4 digits).

2.1.3. Send a PIN

You can send an SMS message containing a customer's PIN using the **Card PIN Control** (WS_PinControl) web service, with the **Sms_Required** field.

For example, you can use this feature when a card PIN has been blocked and needs to be regenerated. This means customers do not need WIFI or to use an application when out and about; instead, they can receive messages direct to their mobile device and continue to access their funds.

Use Case: Send PIN

You can send an SMS message to customers containing a PIN number. For example, *"Dear %FNAME%, your PIN for your card ending %PAN4% is: %NEWPIN%. Kind Regards, %SENDER%"*, where %FNAME% is the customer's name, %PAN4% is substituted with the masked PAN (containing only the last 4 digits), %NEWPIN% is the PIN number, and %SENDER% is your details (the program manager).

2.1.4. Comply with PCI Regulations

Information containing a full PAN, either stored or transmitted, is governed by PCI rules. To remain PCI compliant, you can send an SMS message to communicate specific information only to customers.

Use Case: Virtual Cards

To avoid the need for your front-end application to be fully PCI compliant, you can communicate the expiry date, CVV and the first 6 and last 4 digits of a virtual card in the card

² In Card Activate (Ws_Activate), the SMS parameter is capitalised as 'SMSBalance'

image sent by the application, and then use SMS to send the remainder of the PAN. For more information, see the [Virtual Cards Guide](#).

2.2. How does the SMS Solution Work?

The GPS SMS solution is based on Amazon Simple Notification Service (Amazon SNS). Amazon SNS enables you to send notifications directly to your customers' SMS-enabled devices. It supports SMS text messaging to over 200 countries, mobile push notifications to Amazon, Android, Apple, Baidu, and Microsoft devices, and also email notifications.

Tip! For more information about Amazon SNS, see: [Amazon Simple Notification Service](#).

For GPS to send SMS messages to the cardholder via the Amazon SNS Service Provider, GPS uses an internal web API called GPS Messenger. GPS Messenger processes and forwards the SMS message to Amazon SNS which, in turn, sends it to customers.

The figure below shows the components involved in the GPS SMS solution.

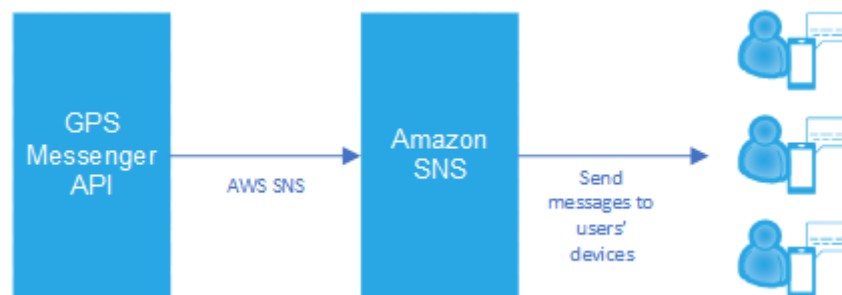


Figure 1: components in the GPS SMS solution

2.3. How do I get the new SMS Service?

To benefit from the new SMS solution, contact your GPS Business Development Manager or Account Manager.

GPS will then work with you to configure the SMS solution as follows:

1. Using Smart Client, GPS configures the SMS provider at program manager level.
2. You select the countries the SMS messages will be sent in. For a list of supported regions and countries see: <https://docs.aws.amazon.com/sns/latest/dg/sns-supported-regions-countries.html>
3. You select the SMS messages you want to send to clients, and GPS configures these at scheme master level.
4. You test the SMS service in the UAT environment using any token with a mobile telephone number correctly assigned to it.
5. After testing, GPS will make the solution live.

Appendix A – Default messaging

This section lists the default messages available in the GPS SMS solution for each 'event' such as card activation or balance enquiry. These defaults are used if you do not specify your own message for a particular event.

You can substitute the variables denoted by the % symbol with your own data. These variables are shown below.

Default Messages

Response code	Event	Default message text
1	Activation	Your card ending ****%PAN4% is active now. CVV number relating to the card is: %CVV%. Thank you
2	Balance Enquiry	Your Card balance is %CURCODE% %CBAL%
3	Card Creation	Your card ending ****%PAN4% is created. CVV number relating to the card is: %CVV%. Thank You
4	Card Renewal	CVV number relating to your card ending ****%PAN4% is: %CVV%. Thank You
5	Card Replacement	Your card ending with ****%OLDPAN4% is replaced by card ending with ****%PAN4%. New card CVV is: %CVV%. Thank You
6	Load	An amount of %CURCODE% %AMT% loaded to your Card ending with ****%PAN4%. Your current balance is %CURCODE% %CBAL%. Thank You
7	PIN Retrieval	Dear %FNAME%, your PIN for your card ending %PAN4% is: %NEWPIN%. Kind Regards, %SENDER%
8	Status Change	Your card ending ****%PAN4% is now blocked/unblocked. Thank You
9	Card Image Regeneration	CVV number relating to your card ending ****%PAN4% is: %CVV%. Thank You
10	Card Conversion	Your virtual card ending ****%PAN4% is successfully converted in to physical. Thank You
11	Activation and Load	Your card ending ****%PAN4% is active now. An amount of %CURCODE% %AMT% is loaded. Your current balance is %CURCODE% %CBAL%. Thank You

Response code	Event	Default message text
12	Balance Adjustment	An amount of %CURCODE% %AMT% is %DEBORCRED% your card ending ****%PAN4%. Thank You
13	Balance Transfer	An amount of %CURCODE% %AMT% is transferred from your card ending ****%PAN4% to card ending ****%NEWPAN4%. Your current balance is %CURCODE% %CBAL%
14	Change Groups	Settings is changed for your card ending ****%PAN4%. Thank You
15	Extend Expiry	GPS expiry of your card ending ****%PAN4% is extended to %GPSEXP%. Thank You
16	Unload	An amount of %CURCODE% %AMT% is debited from your card ending ****%PAN4%. Thank You
17	Unload and Status Change	Your card ending ****%PAN4% is now blocked/unblocked and an amount of %CURCODE% %AMT% is debited. Thank You
18	Update Cardholder	Card holder details of your card ending ****%PAN4% is updated. Thank You
19	Mobile wallets only Send Mobile Activation code to Cardholder	%MOB_ACTIVATION_CODE% is your %WALLET% verification code for card ending ****%PAN4%. Please enter it when prompted
20	Mobile wallets only Notification of Tokenisation	Your card ending ****%PAN4% has been successfully registered with %WALLET%
21	CVC2 Unblock	Message from %SENDER%. The CVC2 counter for your card ending ****%PAN4% has been unblocked. Thank you

Standard Variables

Variable	Description
%FNAME%	Name
%AMT%	Amount
%CURCODE%	Currency Code
%CBAL%	Current Balance
%PAN4%	Masked PAN, showing last 4 digits
%NEWPIN%	PIN number
%CVV%	CVV (card verification value)
%SENDER%	Program manager, SMS message detail on product master screen

Mobile Wallet Variables

Variable	Description
%MOB_ACTIVATION_CODE%	Represents the activation code in Payment_Token.activation_code
%MOB_ACTIVATION_EXP_GMT%	Represents the expiry date/time of the activation code in Payment_Token.activation_code_Expdate (this is date and time in GMT)
%MOB_ACTIVATION_EXP_LOCAL%	Represents the expiry date/time of the activation code in Payment_Token.activation_code_Expdate but expressed in the timezone of CARDDETAILS.country country
%MOB_ACTIVATION_MINUTES%	Represents the number of minutes from now that the activation code will still be valid for (subtract Payment_Token.activation_code_Expdate GMT value from current GMT value and convert into whole minutes)
%MOB_ACTIVATION_LAST4_TEL%	Represents the last 4 digits of the phone number to digitise (PAYMENT_TOKEN.device_tel_num)
%WALLET%	Represents the wallet being used; for example, Google Pay, Apple Pay

FAQs

This section provides answers to common questions about the GPS SMS solution.

Q. What regions and countries are supported?

The regions and countries supported are determined by those supported by Amazon SNS. For a list of these, see: [Supported Regions and countries – Amazon Simple Notification Service](#)

Q. Can I configure custom messages?

You can configure your own messages to use for 'events' such as card activation or balance enquiry, or use the default messages.

Q. Are default messages available?

If you choose not to configure your own messages, default messaging is provided. For a list of the default messages, see [Appendix A – Default messaging](#).

Glossary

This section explains the terms and abbreviations used in this document.

Amazon SNS	Amazon Simple Notification Service (SNS) is a fully managed messaging service which enables you to send notifications directly to your customers.
CVV	Card Verification Value. A 3-digit number which provides added security.
EHI	The GPS External Host Interface (EHI) is a system which provides real-time transactional data and control over your transaction authorisations.
GPS Web Services	GPS's SOAP-based Application Program Interface (API) which enables integration of your systems with GPS.
PAN	The Primary Account Number (PAN) is the card identifier found on payment cards, such as credit cards and debit cards, as well as stored-value cards, gift cards and other similar cards. The card's 16-digit PAN is typically embossed on a physical card.
PCI	Payment Card Industry. This body sets standards and security requirements for organisations that process debit and credit card transactions.
PIN	Personal Identification Number.
Push notifications	Pop-ups that appear on a mobile device. These messages may appear while customers are using their phones, or on the lock screen if the device is not in use.
Smart Client	GPS's user interface for managing your account on the GPS Apex platform.
SMS	SMS (Short Message Service) is a text messaging service component of most telephone, internet, and mobile device systems. It uses standardised communication protocols that let mobile devices exchange short text messages.

Document History

Version	Date	Description	Author
1.0	20/07/2022	First version	AL