



SMS Guide

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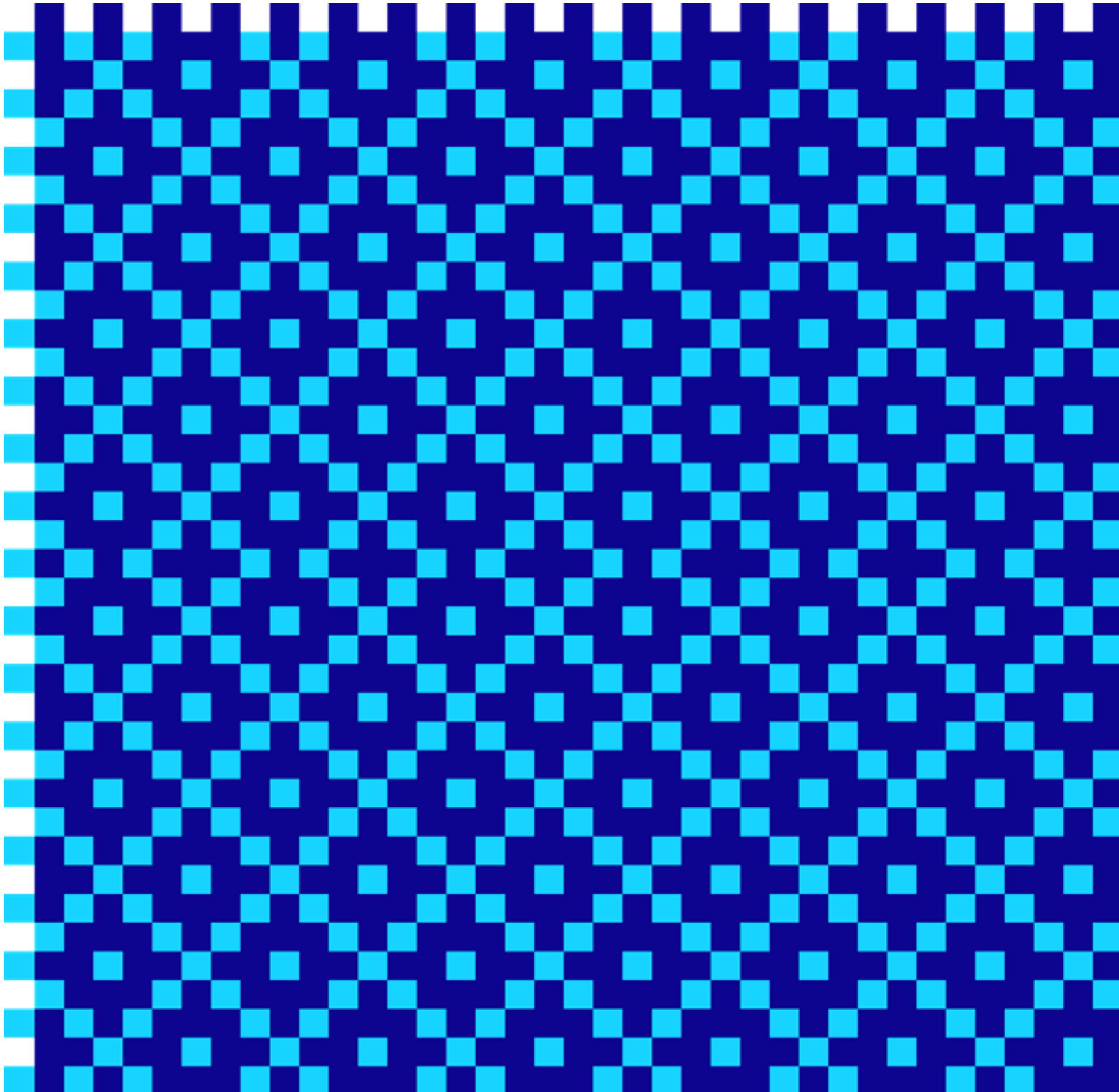
For the latest technical documentation, see the [Documentation Portal](#).

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About this Document

This guide describes the Thredd 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 Thredd SMS one.

What’s Changed?

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

Related Documents

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

Document	Description
Smart Client Guide	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.
Web Services Guide	Describes how to use the Thredd web services SOAP API to create and manage cards.
Virtual Cards Guide	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 [Documentation Portal](#) for a full suite of documentation.



1 Introduction

This topic introduces the Thredd 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 Personal Identification Number (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 Thredd 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: The SMS service is currently only supported via our SOAP-based web services and is not available on the Thredd REST-based Cards API.

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

IMPORTANT: If your programme is sending SMS messages to cardholders with a Singapore mobile number (starting +65), contact your account manager or Thredd representative to be advised on specific Singapore regulation.

1.1 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.

1.1.1 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.

1.1.2 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](#).

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

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



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).

1.1.3 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).

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

1.2 How does the SMS Solution Work?

The Thredd 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 Thredd to send SMS messages to the cardholder via the Amazon SNS Service Provider, Thredd uses an internal web API called Thredd Messenger. Thredd 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 Thredd SMS solution.

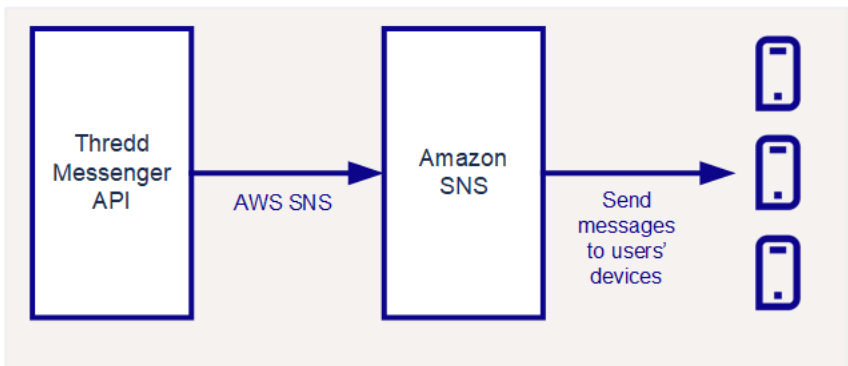


Figure 1: Components in the Thredd SMS solution

1.3 How do I get the new SMS Service?

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

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



1. Using Smart Client, Thredd 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 Thredd 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, Thredd will make the solution live.



Appendix A - Default messaging

This section lists the default messages available in the Thredd 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	<i>Your card ending ****%PAN4% is active now. CVV number relating to the card is: %CVV%. Thank you</i>
2	Balance Enquiry	<i>Your Card balance is %CURCODE% %CBAL%</i>
3	Card Creation	<i>Your card ending ****%PAN4% is created. CVV number relating to the card is: %CVV%. Thank You</i>
4	Card Renewal	<i>CVV number relating to your card ending ****%PAN4% is: %CVV%. Thank You</i>
5	Card Replacement	<i>Your card ending with ****%OLDPAN4% is replaced by card ending with ****%PAN4%. New card CVV is: %CVV%. Thank You</i>
6	Load	<i>An amount of %CURCODE% %AMT% loaded to your Card ending with ****%PAN4%. Your current balance is %CURCODE% %CBAL%. Thank You</i>
7	PIN Retrieval	<i>Dear %FNAME%, your PIN for your card ending %PAN4% is: %NEWPIN%. Kind Regards, %SENDER%</i>
8	Status Change	<i>Your card ending ****%PAN4% is now blocked/unblocked. Thank You</i>
9	Card Image Regeneration	<i>CVV number relating to your card ending ****%PAN4% is: %CVV%. Thank You</i>
10	Card Conversion	<i>Your virtual card ending ****%PAN4% is successfully converted in to physical. Thank You</i>
11	Activation and Load	<i>Your card ending ****%PAN4% is active now. An amount of %CURCODE% %AMT% is loaded. Your current balance is %CURCODE% %CBAL%. Thank You</i>
12	Balance Adjustment	<i>An amount of %CURCODE% %AMT% is %DEBORCRED% your card ending ****%PAN4%. Thank You</i>
13	Balance Transfer	<i>An amount of %CURCODE% %AMT% is transferred from your card ending ****%PAN4% to card ending ****%NEWPAN4%. Your current balance is %CURCODE% %CBAL%</i>
14	Change Groups	<i>Settings is changed for your card ending ****%PAN4%. Thank You</i>
15	Extend Expiry	<i>Thredd expiry of your card ending ****%PAN4% is extended to %GPSEXP%. Thank You</i>
16	Unload	<i>An amount of %CURCODE% %AMT% is debited from your card ending ****%PAN4%. Thank You</i>
17	Unload and Status Change	<i>Your card ending ****%PAN4% is now blocked/unblocked and an amount of %CURCODE% %AMT% is debited. Thank You</i>



Response code	Event	Default message text
18	Update Cardholder	<i>Card holder details of your card ending ****%PAN4% is updated. Thank You</i>
19	Mobile wallets only Send Mobile Activation code to Cardholder	<i>%MOB_ACTIVATION_CODE% is your %WALLET% verification code for card ending ****%PAN4%. Please enter it when prompted</i>
20	Mobile wallets only Notification of Tokenisation	<i>Your card ending ****%PAN4% has been successfully registered with %WALLET%</i>
21	CVC2 Unblock	<i>Message from %SENDER%. The CVC2 counter for your card ending ****%PAN4% has been unblocked. Thank you</i>



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 Thredd 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 page provides a list of glossary terms used in this guide.

A

Amazon SNS

Amazon Simple Notification Service (SNS) is a fully managed messaging service which enables you to send notifications directly to your customers.

C

CVV

Card Verification Value. A 3-digit number which provides added security.

CVV2

The Card Verification Value (CVV) on a credit card or debit card is a 3 digit number on VISA, MasterCard and Discover branded credit and debit cards. Cardholder's are typically required to enter the CVV during any online or cardholder not present transactions. CVV numbers are also known as CSC numbers (Card Security Code), as well as CVV2 numbers, which are the same as CVV numbers, except that they have been generated by a 2nd generation process that makes them harder to guess.

E

EHI

The External Host Interface (EHI) is a Thredd system that enables Thredd customers to receive and respond to real-time transaction data as well as financial messages.

P

PAN

The card's 16-digit primary account number (PAN) that 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.

Personal Identification Number (PIN)

The 4 to 12 digit value known only to the cardholder, which they may enter at POS or ATM to authenticate themselves.

S

Smart Client

Smart Client is Thredd's user interface for managing your account on the Thredd Platform. It is also called Smart Processor Thredd. Smart Client is installed as a desktop application and requires a VPN connection to Thredd systems in order to be able to access your account.

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.

T

Thredd Web Services API

Thredd's SOAP-based Application Program Interface (API) which enables integration of your systems with Thredd.

V

Validation

Checks to confirm the card is valid, such as CHIP cryptograms, mag-stripe data (if available) and expiry date



VROL System

Visa Dispute Resolution Online system, provided by Visa for managing transaction disputes.



Document History

Version	Date	Description	Author
1.4	23/04/2024	Updates to content to align with taxonomy updates on our Documentation Portal.	WS
	07/06/2023	Updated Operations email address to be occ@thredd.com	MW
	15/05/2023	Note added to Introduction regards programmes sending SMS messages in Singapore.	JB
1.3	27/04/2023	Guide rebrand to new company name and brand identity.	JB
1.2	01/12/2022	Updated Copyright Statement.	MW
1.1	13/09/2022	New guide layout and HTML version now available	PC
1.0	20/07/2022	First version	AL



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