Date: December 17, 2019



Jeffrey A. Neville

CardinalCommerce Corporation 8100 Tyler Boulevard Mentor 44060 UNITED STATES OF AMERICA

Re: EMVCo Letter of Approval – EMV 3-D Secure SDK Product

Approval / Reference Number: 3DS_LOA_SDK_CACC_020200_00224

Approval Date: December 17, 2019
Approval Expiration Date: November 20, 2021

Product Provider Name: CardinalCommerce Corporation

Registration Number: CACC.V 17 0010

3DS SDK Name: Cardinal Mobile SDK

3DS SDK Version: 2.2.1

Tested Operating System Version(s): Android 9.0

Supported Operating System Version(s): Android 10.0 9.0 8.1 8.0 7.1 6.0

Implementation Conformance Statement: 3DS_ICS_SDK_CACC_020200_00224

EMV 3-D Secure Specification: Version 2.2.0,

Version 2.1.0

EMV 3-D Secure SDK Specification: Version 2.2.0,

Version 2.1.0

EMV 3-D Secure Specification Bulletins: 204 v5, 214 v1

EMV 3-D Secure SDK Specification Bulletins 205 v1, 213 v1

3-D Secure Test Plan Name: EMV® 3-D Secure 2.2.0 Test Plan

3-D Secure Test Plan Version: 2.2.0.3

3-D Secure Test Plan Bulletin(s): N/A

Dear Jeffrey A. Neville,

EMVCo, LLC ("EMVCo"), a Delaware limited liability company, has received your request for EMV 3-D Secure approval for the 3DS SDK identified above. In connection with your request for approval, we have reviewed your report, identified by file number UL_CompTestReport_ID1709 which was generated by UL TS B.V..

After assessing such file, EMVCo has determined that the above referenced 3DS SDK sufficiently conforms to EMV® 3-D Secure – SDK Specification and EMV® 3-D Secure – Protocol and Core Functions Specification.

EMVCo hereby grants your 3DS SDK EMV 3-D Secure Approval, based on the requirements stated in the EMV 2.1.0 and/or 2.2.0 Specifications. Please note that EMVCo may publicly identify your 3DS SDK as an approved 3DS SDK, including in EMVCo's published list of approved 3DS SDK Products.

EMVCo's grant to your 3DS SDK is subject to the Specific Terms and Conditions to the Letter of Approval attached hereto as Attachment A. Because EMVCo's grant is subject to such limitations, including certain events of termination, you and any third parties should confirm that such approval is current and has not been terminated by referring to the list of approved 3DS SDK published on the EMVCo website (www.emvco.com)

This Letter of Approval is valid while the approval number is posted on the EMVCo website.

EMVCo, LLC

By:	
Name:	
Title:	EMVCo 3-D Secure Testing Group Chair

Attachment A Specific Terms and Conditions to Letter of Approval

During testing, the following issues were identified. Restrictions identified must be disclosed to customers (issuers or other product providers to whom the Product Provider intends to sell the product).
Restrictions, if any:
Comments, if any: