

Payment Card Industry Data Security Standard

Attestation of Compliance for Report on Compliance – Service Providers

Version 4.0

Revision 2

Publication Date: August 2023



PCI DSS v4.0 Attestation of Compliance for Report on Compliance – Service Providers

Entity Name: Clover Network, Inc.

Assessment End Date: 13-Sep-2024

Date of Report as noted in the Report on Compliance: 17-Sep-2024



Section 1: Assessment Information

Instructions for Submission

This Attestation of Compliance (AOC) must be completed as a declaration of the results of the service provider's assessment against the *Payment Card Industry Data Security Standard (PCI DSS) Requirements and Testing Procedures ("*Assessment"). Complete all sections. The service provider is responsible for ensuring that each section is completed by the relevant parties, as applicable. Contact the entity(ies) to which this AOC will be submitted for reporting and submission procedures.

This AOC reflects the results documented in an associated Report on Compliance (ROC). Associated ROC sections are noted in each AOC Part/Section below.

Capitalized terms used but not otherwise defined in this document have the meanings set forth in the PCI DSS Report on Compliance Template.

Part 1. Contact Information

Part 1a. Assessed Entity (ROC Section 1.1)

Company name:	Clover Network, Inc.
DBA (doing business as):	Clover Network, Inc., Clover Sport, LLC, Bypass Mobile, LLC
Company mailing address:	415 Mathilda Ave, Sunnyvale, CA 94085 USA
Company main website:	https://www.clover.com
Company contact name:	Cory Lesley
Company contact title:	Director, Risk and Control
Contact phone number:	+1 (402) 819-6682
Contact e-mail address:	cory.lesley@fiserv.com

Part 1b. Assessor (ROC Section 1.1)

Provide the following information for all assessors involved in the Assessment. If there was no assessor for a given assessor type, enter Not Applicable.

PCI SSC Internal Security Assessor(s)		
ISA name(s):	Not Applicable	
Qualified Security Assessor		
Company name:	VikingCloud	
Company mailing address:	70 West Madison Street suite 400, Chicago, IL, 60602	
Company website:	https://www.vikingcloud.com	
Lead Assessor name:	Mark Turner	
Assessor phone number:	+1 833 907 0702	
Assessor e-mail address:	markturner@vikingcloud.com	
Assessor certificate number:	204-190	



Part 2. Executive Summary					
Part 2a. Scope Verification					
Services that were <u>INCLUDED</u> in the	scope of the Assessment (select all	that apply):			
Name of service(s) assessed:	Clover Network, Clover Sport (Bypass Mobile) Payment Processing Services				
Type of service(s) assessed:					
Hosting Provider: Applications / software	Managed Services: ☐ Systems security services	Payment Processing: POI / card present			
☐ Hardware☐ Infrastructure / Network☐ Physical space (co-location)	☐ IT support ☐ Physical security ☐ Terminal Management System	☑ Internet / e-commerce☐ MOTO / Call Center☐ ATM			
☐ Storage ☐ Web-hosting services ☐ Security services ☐ 3-D Secure Hosting Provider ☐ Multi-Tenant Service Provider ☐ Other Hosting (specify): Content Manager	Other services (specify):	Other processing (specify):			
Account Management	☐ Fraud and Chargeback	☐ Payment Gateway/Switch			
☐ Back-Office Services	☐ Issuer Processing	☐ Prepaid Services			
☐ Billing Management	☐ Loyalty Programs	☐ Records Management			
☐ Clearing and Settlement	☐ Merchant Services	☐ Tax/Government Payments			
☐ Network Provider					
Others (specify):					
Note: These categories are provided for assistance only and are not intended to limit or predetermine an entity's service description. If these categories do not apply to the assessed service, complete "Others." If it is not clear whether a category could apply to the assessed service, consult with the entity(ies) to which this AOC will be submitted.					



Part 2. Executive Summary (continued)						
Part 2a. Scope Verification (continued)						
Services that are provided by the service provider but were <u>NOT INCLUDED</u> in the scope of the Assessment (select all that apply):						
Name of service(s) not assessed:	Clover POS					
Type of service(s) not assessed:	I					
Hosting Provider: Applications / software Hardware Infrastructure / Network Physical space (co-location) Storage Web-hosting services Security services 3-D Secure Hosting Provider Multi-Tenant Service Provider Other Hosting (specify):	Managed Services: Systems security services IT support Physical security Terminal Management System Other services (specify):		Payment Processing: POI / card present Internet / e-commerce MOTO / Call Center ATM Other processing (specify):			
☐ Account Management	☐ Fraud and Cha	rgeback	☐ Payment Gateway/Switch			
☐ Back-Office Services	☐ Issuer Processi	ng	☐ Prepaid Services			
☐ Billing Management	☐ Loyalty Progran	ns	☐ Records Management			
☐ Clearing and Settlement	☐ Merchant Servi	ces	☐ Tax/Government Payments			
☐ Network Provider						
Others (specify):						
Provide a brief explanation why any owner not included in the Assessment		The Clover POS is covered in a PCI DSS Pin Audit assessment dated 10/31/2023.				
Part 2b. Description of Role with (ROC Section 2.1)	Payment Cards					
Describe how the business stores, proctransmits account data.		Sport LLC is a lev Clover Network re (PAN, name, expi branded by Visa, Discover, or JCB.	oes not store PAN, name, card			



When the credit card holder purchases an item, Java script is loaded into the credit card holder's browser and the credit data (PAN, name, expiration date, card security code) is encrypted using the RSA4096 public Key issued by the Transarmor service prior to sending to Clover Network. First Data Merchant Services is a business unit in Fiserv that is responsible for the Transarmor service which is assessed separately as part of the Global Business Solutions (GBS) assessment (GBS-ROC, GBS-AOC).

After encryption (RSA 4096-bit), this java script will pass this encrypted card data (PAN, name, card security code, expiration date) to Clover Network tokenization service via API endpoint using a TLS v1.2 (AES 256-bit) protocol which will send the payment data (PAN, name, expiry, card security code) Clover Network Payment service where the transaction (PAN, name, expiry, Card Security Code) is sent to FDNA Rapid Connect (payment gateway) for processing using TLS 1.2 AES-256. Upon successful authorization the Clover Network Tokenization service sends the payment data (PAN, name, expiry, card security code) to Transarmor for the tokenization process.

For reoccurring transactions the Clover Network tokenization service prepares the card data (PAN, name, card security code, expiration date) by ensuring the data is encrypted prior to sending to Transarmor for tokenization. The flow of this process starts when Clover Network Tokenization service receives the API request. It first checks if the incoming request has encrypted card data (PAN, name, expiration date, card security code). If the card data is not encrypted, then it first does the encryption with the same Transarmor RSA4096 public key and then passes (TLS v1.2 (AES-256)) this encrypted PAN, name, card security code, and expiration date to the Transarmor service for tokenization.

The Transarmor services tokenizes the PAN and purges the card security code and sends the token back to the Clover Network tokenization service (TLS v1.2 (AES 256-bit)). The Transarmor token is then encrypted by Clover Network tokenization service using the GCP HSM service (AES 256-bit). After this Clover Network tokenization service generates a random alphanumeric wrapper around the token called a "Clover Network token" it then returns the "Clover Network token" to its clients (TLS v1.2 (AES 256-bit)). The Clover Network tokenization service stores the encrypted (AES 256-bit) Transarmor token in a SQL database.

Clover Network does not store any card data.

Upon receiving the "Clover Network token", the clients call the server-to-server Clover Network payment service API to process the payment and passes (TLS



v1.2 (AES 256-bit)) the "Clover Network token" is in the request body.

Once Clover Network payment Service (Auth) receives this payment API request it reaches out to Clover Network tokenization service for detokenization of the "Clover Network token".

For detokenizing the "Clover Network token", the Clover Network tokenization service pulls the Transarmor token from the database and passes that to the Transarmor service, The Transarmor service then detokenizes its token and returns back the encrypted card (RSA4096) data (PAN) to Clover Network.

Clover Network tokenization service returns this encrypted card data (PAN, name, expiry) to Clover Network payment service (auth), for payment processing, which is passed TLS v1.2 (AES 256-bit) to the First Data Merchant Services Rapid Connect (payment gateway) for actual payment processing.

During payment processing neither the Clover Network tokenization service nor Clover Network Payment service will store the PAN information. These services are only processing encrypted card data in memory during payment processing.

Payeezy is a payment gateway that accepts payment calls from merchants/clients through Payeezy APIs utilizing TLS 1.2 AES-256 bit encryption. When a request comes in, the Payeezy API translation layer checks for unencrypted PAN, if found PAN will be encrypted with voltage AES-256 bit encryption and sent to the Clover Network Tokenization services for tokenizing the PAN. Once the PAN has been tokenized the Clover token is sent back to Payeezy API transaction layer where the transaction layer calls Clover Network (Clover payment services) to process the payment using the Clover token. If the request contained only a Clover token and no PAN then the API transaction layer calls Clover Network (Clover payment services) to process the payment using the Clover token.

BIN lookup service provides the bin lookup API that allows clients to look up credit card BIN (Bank Identification Number) details based on the first 6 digits of the card number.

This service accepts credit card numbers in RSA 4096-bit encrypted format and decrypts them in memory and then finds the bin details in the BIN file which is prepopulated by a separate process of downloading and parsing the Global BIN File (GBF) from the Fiserv system.

Once this service finds a matching BIN, the BIN file then pulls its BIN information and returns it to clients. No data related to the credit cards is being stored.



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	Clover Sport accepts Visa, MasterCard, American Express, and Discover branded cards. Clover Sport collects card data (PAN, name, expiry) through a webbased API accessed via TLS 1.2 AES-128/256 by client mobile applications, then transmits the pertinent data to Clover Network Tokenization Service (separate assessment) via TLS 1.2 AES-256 encrypted connections. Clover Sport receives back payment token data that is stored along with truncated PAN (last four), name, and expiry for future transaction management as needed. No full PAN is ever stored by Clover Sport. Non-transactional data is in the form of adjustments, order lookups, and refunds where Clover Sport will connect to Clover Network (separate assessment) using token previously provided.		
Describe how the business is otherwise involved in or has the ability to impact the security of its customers' account data.	Not Applicable – Clover is not otherwise involved or impact the security of cardholder data.		
Describe system components that could impact the security of account data.	VPC access control lists AWS & GCP security groups		



Part 2. Executive Summary (continued)

Part 2c. Description of Payment Card Environment

Provide a high-level description of the environment covered by this Assessment.

For example:

- Connections into and out of the cardholder data environment (CDE).
- Critical system components within the CDE, such as POI devices, databases, web servers, etc., and any other necessary payment components, as applicable.
- System components that could impact the security of account data.

The following Clover logical environments were included in the production location:

- Firewalls
- AWS & GCP VPCs
- Servers for data transmission, encryption, and production support
- FIM
- IDS
- Antivirus
- Wireless Scanning
- Network connections
- Transmission protocols
- Encryption protocols
- Logging
- Time Synchronization
- Server Operating Systems

Indicate whether the environment includes segmentation to reduce the scope of the	☐ No
Assessment.	
(Refer to the "Segmentation" section of PCI DSS for guidance on segmentation)	

Part 2d. In-Scope Locations/Facilities (ROC Section 4.6)

List all types of physical locations/facilities (for example, corporate offices, data centers, call centers and mail rooms) in scope for this Assessment.

Facility Type	Total Number of Locations (How many locations of this type are in scope)	Location(s) of Facility (city, country)	
Example: Data centers	3	Boston, MA, USA	
Data Center	4	AWS: US-East-1a, US-East-1c, US-East-1d GCP - Dalles, Oregon, USA	
Offices	1	Sunnyvale, CA, USA	



Part 2. Executive Summary (continued)

Part 2e. PCI SSC Validated Products and Solutions (ROC Section 3.3)

Does the e	tity use any item identified on any PCI SSC Lists of Validated Products and Solutions*?	
☐ Yes	⊠No	

Provide the following information regarding each item the entity uses from PCI SSC's Lists of Validated Products and Solutions:

Name of PCI SSC- validated Product or Solution	Version of Product or Solution	PCI SSC Standard to which Product or Solution Was Validated	PCI SSC Listing Reference Number	Expiry Date of Listing
Not Applicable	N/A	Not Applicable	Not Applicable	Not Applicable

For purposes of this document, "Lists of Validated Products and Solutions" means the lists of validated products, solutions, and/or components appearing on the PCI SSC website (www.pcisecuritystandards.org)—for example, 3DS Software Development Kits, Approved PTS Devices, Validated Payment Software, Payment Applications (PADSS), Point to Point Encryption (P2PE) solutions, Software-Based PIN Entry on COTS (SPoC) solutions, and Contactless Payments on COTS (CPoC) solutions.



Part 2f.	Third-Part	y Service	Providers
(ROC Se	ection 4.4)		

(ROC Section 4.4)					
For the services being validated, does the entity have relationships with one or more third-party service providers that:					
•	on the entity's behalf (for example, payment service providers (PSPs, and off-site storage))	⊠ Yes □ No			
Manage system components included in network security control services, anti-ma management (SIEM), contact and call cersaaS, and FaaS cloud providers)	⊠ Yes □ No				
Could impact the security of the entity's C remote access, and/or bespoke software	DE (for example, vendors providing support via developers).	☐ Yes ⊠ No			
If Yes:					
Name of Service Provider:	Description of Services Provided:				
AWS					
GCP					
Cloudflare	Cloudflare Web Application Firewall				
Note: Requirement 12.8 applies to all entities in this list.					



Part 2. Executive Summary (continued)

Part 2g. Summary of Assessment (ROC Section 1.8.1)

Indicate below all responses provided within each principal PCI DSS requirement.

For all requirements identified as either "Not Applicable" or "Not Tested," complete the "Justification for Approach" table below.

Note: One table to be completed for each service covered by this AOC. Additional copies of this section are available on the PCI SSC website.

Name of Service Assessed: Clover Network, Clover Sport (Bypass Mobile) Payment Processing Services

PCI DSS Requirement	Requirement Finding More than one response may be selected for a given requirement. Indicate all responses that apply.				Select If Below Method(s) Was Used	
	In Place	Not Applicable	Not Tested	Not in Place	Customized Approach	Compensating Controls
Requirement 1:	\boxtimes	\boxtimes				
Requirement 2:	\boxtimes	\boxtimes				
Requirement 3:	\boxtimes	\boxtimes				
Requirement 4:	\boxtimes					
Requirement 5:	\boxtimes					
Requirement 6:	\boxtimes	\boxtimes				
Requirement 7:	\boxtimes	\boxtimes				
Requirement 8:	\boxtimes					
Requirement 9:	\boxtimes	\boxtimes				
Requirement 10:	\boxtimes	\boxtimes				
Requirement 11:	\boxtimes	\boxtimes				
Requirement 12:	\boxtimes	\boxtimes				
Appendix A1:		\boxtimes				
Appendix A2:		\boxtimes				
Justification for	Approach					



For any Not Applicable responses, identify which subrequirements were not applicable and the reason.

- 1.3.3 No wireless networks in scope.
- 1.4.4 Clover does not store cardholder data.
- 2.3.1 No wireless networks in scope.
- 2.3.2 No wireless networks in scope.
- 3.2.1 Clover does not store cardholder data.
- 3.3.2 Clover does not store SAD data.
- 3.3.3: Clover does not store SAD data.
- 3.4.1 Clover does not store cardholder data.
- 3.4.2: Not Applicable Best Practice.
- 3.5.1 Clover does not store cardholder data.
- 3.5.1.1: Not Applicable Best Practice.
- 3.5.1.2: Not Applicable Best Practice.
- 3.5.1.3 Clover does not store cardholder data.
- 3.6.1 Clover does not store cardholder data.
- 3.6.1.1 Not Applicable Best Practice.
- 3.6.1.2 Clover does not store cardholder data.
- 3.6.1.3 Clover does not store cardholder data.
- 3.6.1.4 Clover does not store cardholder data.
- 3.7.1 Clover does not store cardholder data.
- 3.7.2 Clover does not store cardholder data.
- 3.7.3 Clover does not store cardholder data.
- 3.7.4 Clover does not store cardholder data.
- 3.7.5 Clover does not store cardholder data.
- 3.7.6 Clover does not store cardholder data.
- 3.7.7 Clover does not store cardholder data.
- 3.7.8 Clover does not store cardholder data.
- 3.7.9 Clover does not store cardholder data.
- 4.2.1.1: Not Applicable Best Practice.
- 4.2.1.2 No wireless networks in scope.
- 4.2.2: No PAN is sent using end-user messaging.
- 5.2.3.1: Not Applicable Best Practice.
- 5.3.2.1: Not Applicable Best Practice.
- 5.3.3 Not Applicable Best Practice.
- 5.4.1: Not Applicable Best Practice.
- 6.3.2: Not Applicable Best Practice.
- 6.4.2 Not Applicable Best Practice.
- 6.4.3: Not Applicable Best Practice.
- 7.2.4: Not Applicable Best Practice.
- 7.2.5: Not Applicable Best Practice.
- 7.2.5.1: Not Applicable Best Practice.
- 7.2.6 Clover does not store cardholder data.
- 8.2.3 Clover does not have access to customer premise.
- 8.3.6: Not Applicable Best Practice.
- 8.3.10 Not Applicable Best Practice.
- 8.3.10.1: Not Applicable Best Practice.
- 8.4.2: Not Applicable Best Practice.



	8.5.1: Not Applicable Best Practice.
	8.6.1: Not Applicable Best Practice.
	8.6.2: Not Applicable Best Practice.
	8.6.3: Not Applicable Best Practice.
	9.5.1: No POS devices in use at Clover.
	9.5.1.1: No POS devices in use at Clover.
	9.5.1.2: No POS devices in use at Clover.
	9.5.1.2.1: No POS devices in use at Clover.
	9.5.1.3: No POS devices in use at Clover.
	10.4.1.1: Not Applicable Best Practice.
	10.4.2.1: Not Applicable Best Practice.
	10.7.2: Not Applicable Best Practice.
	11.3.1.1: Not Applicable Best Practice.
	11.3.1.2: Not Applicable Best Practice.
	11.4.7: Not Applicable Best Practice.
	11.5.1.1: Not Applicable Best Practice.
	11.6.1 Not Applicable Best Practice.
	12.3.1: Not Applicable Best Practice.
	12.3.3: Not Applicable Best Practice.
	12.3.4: Not Applicable Best Practice.
	12.5.2.1: Not Applicable Best Practice.
	12.5.3: Not Applicable Best Practice.
	12.6.2: Not Applicable Best Practice.
	12.6.3.1: Not Applicable Best Practice.
	12.6.3.2: Not Applicable Best Practice.
	12.10.4.1 Not Applicable Best Practice.
	12.10.7 Not Applicable Best Practice.
	A1.1.1: Not Applicable Best Practice.
	A1.1.2 Clover is not a multi-tenant service provider
	A1.1.3 Clover is not a multi-tenant service provider
	A1.1.4: Not Applicable Best Practice.
	A1.2.1 Clover is not a multi-tenant service provider
	A1.2.2 Clover is not a multi-tenant service provider
	A1.2.3: Not Applicable Best Practice.
	A2.1.1: Clover does not use early SSL or TLS.
	A2.1.2: Clover does not use early SSL or TLS.
	A2.1.3: Clover does not use early SSL or TLS.
For any Not Tested responses, identify which subequirements were not tested and the reason.	Not Applicable



Other:

Section 2 Report on Compliance

(ROC Sections 1.2 and 1.3.2) Date Assessment began: 04-Dec-2023 Note: This is the first date that evidence was gathered, or observations were made. Date Assessment ended: 13-Sep-2024 Note: This is the last date that evidence was gathered, or observations were made. ☐ Yes ☒ No Were any requirements in the ROC unable to be met due to a legal constraint? Were any testing activities performed remotely? If yes, for each testing activity below, indicate whether remote assessment activities were performed: ☐ No Examine documentation ☐ No Interview personnel ☐ No Examine/observe live data • Observe process being performed ☐ No ☐ Yes ⊠ No Observe physical environment ☐ No Interactive testing

☐ Yes

⊠ No



Section 3 Validation and Attestation Details

Part 3. PCI DSS Validation (ROC Section 1.7)

Indica Fu as Pa as Base as ap	All requirement — All requirement Not Tested in the ROC. Artial Assessment — One or more Not Tested in the ROC. Any requirement on the results documented in the ROC.	in the ROC dated 17-Sep-2024. PCI DSS assessment was completed: ts have been assessed and therefore no requirements were marked e requirements have not been assessed and were therefore marked uirement not assessed is noted as Not Tested in Part 2g above. The ROC noted above, each signatory identified in any of Parts 3b-3d, compliance status for the entity identified in Part 2 of this document				
	Compliant: All sections of the PCI DSS ROC are complete, and all assessed requirements are marked as being either In Place or Not Applicable, resulting in an overall COMPLIANT rating; thereby Clover Network Inc, / Clover Sport, LLC has demonstrated compliance with all PCI DSS requirements except those noted as Not Tested above.					
	Non-Compliant: Not all sections of the PCI DSS ROC are complete, or one or more requirements are marked as Not in Place, resulting in an overall NON-COMPLIANT rating; thereby (Service Provider Company Name) has not demonstrated compliance with PCI DSS requirements. Target Date for Compliance: YYYY-MM-DD An entity submitting this form with a Non-Compliant status may be required to complete the Action Plan in Part 4 of this document. Confirm with the entity to which this AOC will be submitted before					
	Compliant but with Legal exception: One or more assessed requirements in the ROC are marked as Not in Place due to a legal restriction that prevents the requirement from being met and all other assessed requirements are marked as being either In Place or Not Applicable, resulting in an overall COMPLIANT BUT WITH LEGAL EXCEPTION rating; thereby (Service Provider Company Name) has demonstrated compliance with all PCI DSS requirements except those noted as Not Tested above or as Not in Place due to a legal restriction. This option requires additional review from the entity to which this AOC will be submitted.					
	Affected Requirement	Details of how legal constraint prevents requirement from being met				



Part 3. PCI DSS Validation (continued)

Part 3a. Service Provider Acknowledgement

Signatory(s) confirms:

(Select all that apply)

- The ROC was completed according to *PCI DSS*, Version 4.0 and was completed according to the instructions therein.
- All information within the above-referenced ROC and in this attestation fairly represents the results of the Assessment in all material respects.
- PCI DSS controls will be maintained at all times, as applicable to the entity's environment.

Part 3b. Service Provider Attestation



Signature of Service Provider Executive Officer ↑	Date: 23-Sep-2024
Service Provider Executive Officer Name: Cory Lesley	Title: Director, Risk & Control

Part 3c. Qualified Security Assessor (QSA) Acknowledgement			
If a QSA was involved or assisted with this Assessment, indicate the role performed:	☐ QSA performed testing procedures.		
	☐ QSA provided other assistance. If selected, describe all role(s) performed:		



Signature of Lead QSA ↑	Date: 23-Sep-2024
Lead QSA Name: Mark Turner	



Signature of Duly Authorized Officer of QSA Company 1	Date: 23-Sep-2024
Duly Authorized Officer Name: Michael Aminzade	QSA Company: VikingCloud



Part 3d. PCI SSC Internal Security Assessor (ISA) Involvement			
If an ISA(s) was involved or assisted with this Assessment, indicate the role performed:	☐ ISA(s) performed testing procedures.		
Assessment, indicate the role performed.	☐ ISA(s) provided other assistance.		
	If selected, describe all role(s) performed:		



Part 4. Action Plan for Non-Compliant Requirements

Only complete Part 4 upon request of the entity to which this AOC will be submitted, and only if the Assessment has Non-Compliant results noted in Section 3.

If asked to complete this section, select the appropriate response for "Compliant to PCI DSS Requirements" for each requirement below. For any "No" responses, include the date the entity expects to be compliant with the requirement and provide a brief description of the actions being taken to meet the requirement.

PCI DSS Requirement Description of Requirement		Compliant to PCI DSS Requirements (Select One)		Remediation Date and Actions (If "NO" selected for any
		YES	NO	Requirement)
1	Install and maintain network security controls			
2	Apply secure configurations to all system components			
3	Protect stored account data			
4	Protect cardholder data with strong cryptography during transmission over open, public networks			
5	Protect all systems and networks from malicious software			
6	Develop and maintain secure systems and software			
7	Restrict access to system components and cardholder data by business need to know			
8	Identify users and authenticate access to system components			
9	Restrict physical access to cardholder data			
10	Log and monitor all access to system components and cardholder data			
11	Test security systems and networks regularly			
12	Support information security with organizational policies and programs			
Appendix A1	Additional PCI DSS Requirements for Multi- Tenant Service Providers			
Appendix A2	Additional PCI DSS Requirements for Entities using SSL/early TLS for Card-Present POS POI Terminal Connections			











