

PaperCut Payment Gateway Module CyberSource Secure Acceptance Quick Start Guide

CyberSource Secure Acceptance (SA) is a popular credit card processing gateway solution.

This guide is designed to supplement the *Payment Gateway Module* documentation and provides a guide to installing, setting up, and testing the *Payment Gateway Module* for use with the CyberSource SA service. The main *Payment Gateway Module* documentation may be downloaded from:

<http://www.papercut.com/anonftp/pub/pcng/ext/payment-gateway/PaymentGatewayModule.pdf>

IMPORTANT: *You should have a registered and active CyberSource merchant account with Secure Acceptance functionality activated before installing the payment gateway. CyberSource can assist with these tasks. The login information will be required during setup.*

Setup and testing time should take around 30 minutes. No system level restart is required; however the PaperCut application server will need restarting as part of the installation process. If other administrators are using the PaperCut administration interface at this time, it may be advisable to warn them of the pending restart.

This document is written assuming the reader has good server administration skills and is experienced with general PaperCut administration.

Stage 1: Configuring CyberSource SA

Several pieces of information are required from CyberSource before PaperCut can send users to the site. These can all be gained from the CyberSource Business Center as follows:

1. Log in to the CyberSource Business Center.
2. Navigate to `Tools & Settings -> Secure Acceptance -> Profiles`. If the 'Secure Acceptance' menu item is not present, then the SA functionality has not been enabled on your CyberSource account. Contact CyberSource to enable Secure Acceptance.
3. If you have not already created a Secure Acceptance profile, create one now. Note the profile ID, as it is used in the setup of the payment gateway module. Once created, leave the profile 'Inactive/Editable'. If you have an existing profile you wish to use, press the 'Deactivate' button to make it editable.
4. Select the `Customer Response Pages` profile item. Locate the setting `Transaction Response Page`. Tick the checkbox titled 'Hosted by you' and enter the URL:

<http://papercut:9191/rpc/gateway/cybersource-sa/user>

where 'papercut' is the hostname of the system running PaperCut. This hostname does not necessarily need to resolve externally (i.e. from the internet), because it is retrieved by the user and not CyberSource. The user is redirected to this URL (or to the `Custom Cancel Response Page URL`) after making a payment.

5. On the same page, find the setting `Custom Cancel Response Page`. Tick the checkbox titled 'Hosted by you' and enter the same URL as above:

<http://papercut:9191/rpc/gateway/cybersource-sa/user>

Replace 'papercut' as per the previous step.

6. Save your settings by pressing the `Save` button.
7. Select the `Notifications` profile item and locate the `Merchant Notifications -> Merchant POST URL` setting. Tick the checkbox and enter the below text (on one line):

`http://papercut.myorg.edu/rpc/gateway/cybersource-sa/transaction`

where 'papercut.myorg.edu' is a hostname that can be resolved from the internet. CyberSource will send transaction details to this address, which is enforced by CyberSource to use port 80, 443 or 8080. Section 'Stage 3: Firewall Configuration' has more information about ensuring this address is available.

PaperCut - Payment Gateway Module - CyberSource Secure Acceptance - Quick Start Guide

8. Press the `Save` button.
9. Navigate to the `Security` profile item. Press the `Create New Key` button.
10. Enter a `Key Name` of your choice.
11. For the `Signature Version` select `Version 1`.
12. For the `Signature Method` select `HMAC-SHA256`.
13. Press the `Generate Key` button.
14. Copy the generated `Access Key` and `Secret Key` to a safe place. This is sensitive information, and will be required when setting up the payment gateway.
15. Return to the profile home page.
16. The CyberSource SA profile configuration is complete. Activate the profile by pressing the `Promote to Active` button.

Stage 2: Installing the Payment Gateway Module

1. The Payment Gateway Module will function during the PaperCut NG 40 day trial period. After this, the module must be licensed. If you have been supplied with a new license, take the time to install it now. The license install procedure is documented in the PaperCut user manual chapter 'Licensing and Support'.
2. Download the Payment Gateway Module from the PaperCut website at <http://www.papercut.com/anonftp/pub/pcng/ext/payment-gateway/pcng-payment-gateway-module.exe>
3. Install the module into the same directory as PaperCut NG. This is normally:

```
C:\Program Files\PaperCut NG
```
4. Open the file:

```
[app-path]\server\lib-ext\ext-payment-gateway-cybersource-sa.properties
```


in a text editor such as Notepad.
5. Locate the line `cybersource-sa.enabled=N` and change the `N` to `Y`. This will enable the CyberSource SA module.
6. Locate the line `cybersource-sa.profile-id` and enter your profile ID.
7. Locate the line `cybersource-sa.secret-key` and copy in your secret key. There should be no spaces or newlines in the key.
8. Locate the line `cybersource-sa.access-key` and copy in your access key.
9. Configure other options in this file as discussed in General Configuration Options in the Payment Gateway Module documentation, or by referring to the comments in the file itself. Options include display language, currency, amount limits, access groups and custom error messages. You may like to enable a group restriction to limit access to administrators until configuration is complete.
10. Save the file and exit the text editor.
11. Restart the *PaperCut Application Server* service via Control Panel -> Administrative Tools -> Services and wait 30 seconds.
12. Check the end of the log file at `[app-path]\server\logs\server.log` for any obvious error messages.

Stage 3: Firewall Configuration

The CyberSource server communicates with the PaperCut server via HTTP to the URL specified in the `Merchant POST URL` setting in Stage 1. CyberSource enforces the use of ports 80 or 8080 for HTTP and port 443 for HTTPS (see Stage 5: Security for details). You will need to ensure that CyberSource is able to contact the PaperCut server via the internet on this hostname and port. This will usually involve the following network changes:

1. Set up a public DNS entry to ensure the PaperCut server is publicly accessible via a friendly name (e.g. `papercut.myorg.edu`). This will be the same name used for the `Merchant POST URL` setting in Stage 1.
2. Set up external firewall rules to port forward from the public address port (e.g. port 80) to the PaperCut server port 9191 (or 9192 for HTTPS).

It is important that the firewall policy only applies to external hosts. Internal hosts will require direct access to the PaperCut server.

During testing it may be appropriate to open access from any host, then lock down access to the CyberSource IP address range once it has been determined. Once a test transaction has been made via HTTP the CyberSource server IP address(es) may be gained from the payment gateway event log file (located at `[app-path]/server/logs/payment-gateway/event.log`).

3. Accessing the following URL with a web browser will display a simple confirmation page containing the current time, and can be used to test external access:

`http://papercut.myorg.edu:9191/rpc/gateway/cybersource-sa`

Stage 4: Testing

The Payment Gateway Module for CyberSource SA is now ready for testing. This test will involve performing a live transaction with a real credit card, testing real-world end-to-end functionality. Afterwards the payment may be voided/credited/refunded via the CyberSource Business Center. Note that transaction fees may be incurred for the payment or refund.

1. Log into the PaperCut user web interface at <http://papercut:9191/user>
2. A new link called Add Credit should appear in the left pane. Click this link.
3. Select an amount to add and press the 'Add Value' button.

Add credit using CyberSource Secure Acceptance

Username	sarah
Current Balance	\$88.50
Amount to add	<input type="text" value="\$10.00"/>

4. You should now be redirected to CyberSource SA for payment. Enter the payment details, including a valid credit card number and associated details as requested.
5. Continue and confirm that the value is placed on the user's PaperCut account and the transaction is listed in their transaction history. See the Troubleshooting section if you have any problems.
6. The transaction should appear in the CyberSource Business Center, and may be voided or credited.

Note: PaperCut will connect to CyberSource SA in "live" mode by default. If you have configured a CyberSource account in "test" mode, you can configure PaperCut to connect to the test order page by editing the `cybersource-sa.site-url` setting in the `[app-path]\server\lib-ext\ext-payment-gateway-cybersource-sa.properties` config file. Comments in the file contain the default "test" and "live" page URLs to configure.

Stage 5: Security

Transaction details are sent from CyberSource SA to PaperCut via a HTTP POST to the `Merchant POST URL`, along with the user when returning to the PaperCut web interface. These details are protected from forgery by several signatures, signed using a secret key specific to your setup.

While these transaction details do not contain the user's full card number, they may contain other information considered private, such as the billing address or email address. The security conscious may prefer to have these details sent over HTTPS instead of HTTP.

Enabling HTTPS involves two parts:

1. Ensuring that CyberSource POSTs transaction details to PaperCut via HTTPS.
2. Ensuring that users are redirected from CyberSource back to PaperCut via HTTPS.

Part 1 requires that PaperCut has been configured with a certificate signed by a trusted certificate authority (CA), so that CyberSource can validate the connection. For information about installing a CA signed certificate see the user manual section Appendix A. Tools (Advanced) -> SSL/HTTPS Key Generation.

Once PaperCut has been configured with a certificate, the three URLs configured in the CyberSource Business Center (`Transaction Response Page`, `Custom Cancel Response Page` and `Merchant POST URL`) may be configured to use 'https://' and port 443. E.g. for the `Merchant POST URL`:

<https://papercut.myorg.edu/rpc/gateway/cybersource-sa/transaction>

This public address should then port forward to the PaperCut server on port 9192.

Stage 6: Go-Live

If a group restriction was enabled in Stage 2, it can now be removed or altered to allow access to end-users. Your system is now live and will accept and charge credit cards.

Troubleshooting

Administrators may find information in the following log files useful when trying to troubleshoot setup/configuration problems or issues reported by end-users.

Payment Gateway Event Log:

[app-path]\server\logs\payment-gateway\event.log

This log contains gateway specific error messages and events.

Application Log:

[app-path]\server\logs\server.log

This log contains general application specific error messages and events.

Transaction Log:

[app-path]\server\logs\payment-gateway\transaction.log

This log contains a list of successful transactions in a tab-delimited form.

Please feel free to contact the PaperCut Software Development Team at support@papercut.com if you require assistance.