



**Provincial IDIM Program
BC Services Card**

Service Owner Testing Guide

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1 Document Purpose and Intended Audience

This document is intended as a guide for the service owner’s testing team during testing and production verification.

As the service owner’s testing team, your job is to test and verify the integration of the authentication service with your online service. IDIM has written this guide to assist you during this process.

This guide:

- Describes the scope of testing and production verification.
- Provides information to allow you to effectively and efficiently test in the test environment.
- Outlines how you can perform production verification.

This document is also a reference for the service owner’s technical team when planning their testing strategy.

2 Overview

2.1 Background

The Identity Assurance Services (IAS) system is an identity and authentication service developed by the IDIM Program as part of the BC Services Card initiative with ICBC (Insurance Corporation of British Columbia) and the Ministry of Health. Identity services provide information about a person. Authentication services prove a person is who they say they are. These services allow a citizen to securely access programs and services.

To learn more about the IAS system, refer to the [Solution Architecture Overview](#) document.

2.2 Description

The IAS system was created as an identity and authentication service to integrate with your online service in a way that’s easy for your clients to use. The high level steps required to integrate with your online service are as follows:

Figure 1: Onboarding Phases for the BC Services Card



During the Design, Develop and Test phase, the following activities are required:

- Review policies and standards
- Ensure privacy and security is addressed
- Design your solution
- Test your integration

While there is testing activity going on at every phase of the integration life cycle, this document covers the testing component of the Design, Develop and Test phase.

The Test step consists of two activities:

- A. IDIM completes their own internal testing and then,
- B. The service owner performs testing of the integration.

3 Scope of Testing

The scope of testing is to confirm that the integration between your online service and the IAS authentication system has been implemented correctly.

3.1 In Scope

Your team will need to do the following tests:

- **Integration between systems**
 - Is the login process correctly initiated from your service? When the tester clicks to log in from your service are they directed to the appropriate login screen?
 - If the tester cancels out of the login process are they directed to the appropriate page? Is appropriate messaging displayed?
 - Is the logout process correctly initiated from your service? When the tester clicks to logout from your service are the sessions correctly ended?
- **Identity attributes**
 - Does your system receive the correct identity information (or attributes) from the authentication service after the tester has logged in? These are the attributes defined (and documented in the Information Sharing Requirements Schedule) between IDIM and your Organization, such as date of birth or address information. You need to check that these identity attributes are being passed from the IAS system.
- **Branding**
 - Is the correct branding on all the login screens?

3.2 Out of Scope

As the IDIM team has already done extensive testing of the IAS Authentication Service, your team does not need to test:

- **Functionality** - the IAS system has been thoroughly tested, including all identity information management, login processes, static content, links and help files.
- **Performance** - the IAS system has been fully tested and meets performance objectives.
- **Security** - along with several external security testers, the IDIM team has tested the technical security of the IAS system.

4 Test

This section provides further information on how you perform integration testing.

Note: Testing is only performed in the test environments.

4.1 Conditions

The following table describes the conditions that must be in place before you can test.

Type	Criteria
Pre-Conditions	<ul style="list-style-type: none"> ➤ IDIM has implemented your integration in the test environment. ➤ Your technical team has configured the following pages in your online service: <ul style="list-style-type: none"> • Login page – the page where a user logs in • Cancel page – during the login process, the user can choose to cancel logging in, and this is the page that the user is taken when that happens • Your landing page - after a user has successfully logged in • Your landing page - after a user has successfully logged out

Post-Conditions	<ul style="list-style-type: none"> ➤ All test scenarios have been executed. ➤ The integration has been validated, and any issues resolved.
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4.2 Testing Inputs

Once the pre-conditions have been met, the following must be in place before you can begin testing:

- Your technical team’s documents describing your online service’s integration details such as URLs and identity attributes, so you can validate that the integration has been completed to specifications.
- Virtual test card data provided to you by IDIM, after the IDIM team completes the technical integration. This virtual card data is provided as an Excel file and:
 - Replicates the data that would be stored in a user’s account after they have logged in for the first time, including the passcode and email address associated with their card serial number.
 - Includes the identity attributes requested to be shared with your online service from the IAS system as part of the information sharing requirements.
 - Is fictional data created for the test environment; it’s the only data that will work in this environment.

See [Appendix 1](#) for an example of how the virtual card data opens in Excel.

4.3 Testing Outputs

When testing is complete and there are no issues, the output to the process is an email to IDIM from you, confirming that testing is complete.

4.4 Integration Issues Found During Testing

Throughout testing, integration issues may be identified. For IDIM-related integration issues, the following information is required by IDIM:

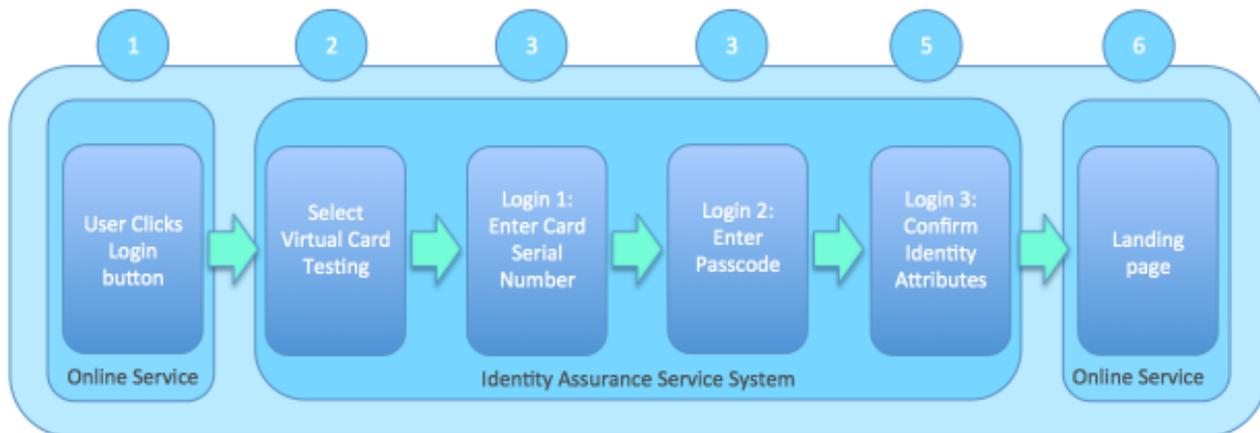
- A full description of the issue, including steps to reproduce and screen shots.
- Whether the issue is preventing testing from continuing.
- Contact information for the best person in your team to discuss the issue with.

Report the issue, with the required information, to your IDIM Onboarding Coordinator.

4.5 How to test

To help you fully test the integration, including the login process, the IDIM Program has developed a virtual card testing mode to simulate a physical card tap. As part of testing, you use the virtual card testing mode instead of tapping a physical card to authenticate. The virtual card testing mode requires you to enter a valid card serial number, rather than using physical Test Cards and USB Readers. Once a valid card serial number is entered, the login application continues with the login process as if a physical card were tapped.

The testing begins on your login page where the user clicks the login button, and ends at your landing page when they have successfully logged in. Figure 2 shows the user flow (next page):

Figure 2 User Flow


The following aspects are being tested:

1. Clicking the login button on your access page calls the login page. Click the ‘Use virtual card testing’ option.
2. Login 1 shows the ‘enter card serial number’ input box and ‘cancel login’ link, with your branding at the top.
3. Login 2 shows the ‘enter passcode’ input box and ‘cancel login’ link, with your branding at the top.
4. Login 3 shows the identity attributes and ‘cancel login’ link, with your branding at the top and side.
5. Upon successful login, the user is taken to your landing page.

The IAS system is not passing any error data, all you need to test is:

- A successful login or fail
- Integration between the systems
- Branding

4.6 Support and communication

If you need testing support, contact your Onboarding Coordinator. [Appendix 2](#) details test case scenarios should you need them.

When testing is complete, inform IDIM.

5 Verifying in Production

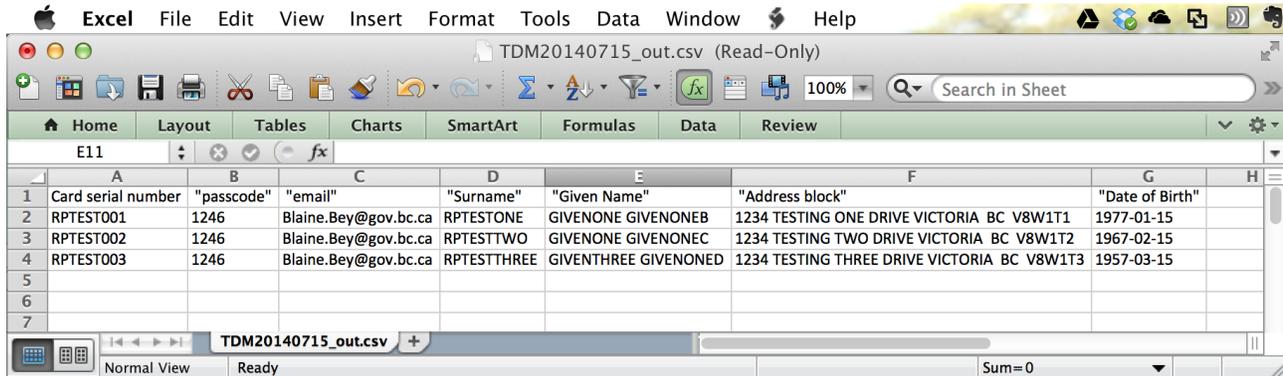
When testing has been signed off in the test environment, and pre-production documents are signed, the IDIM technical team completes the technical integration changes in production. Your technical team also completes the production configuration changes in your online service, before going live.

When production verification is complete, IDIM will help you make final checks to ensure that the integration is correct. However, IDIM will not be able to perform production verification; that’s something you need to do.

In order to perform production verification, a person with a BC Services Card taps their card to log in. This person needs to be an authorized user of your online service. Any issues discovered in production are reported to IDIM in the same way as outlined above for the test environment.

Appendix 1: Excel File screenshot

The following screen shot shows an example of how the virtual card data opens in Excel:



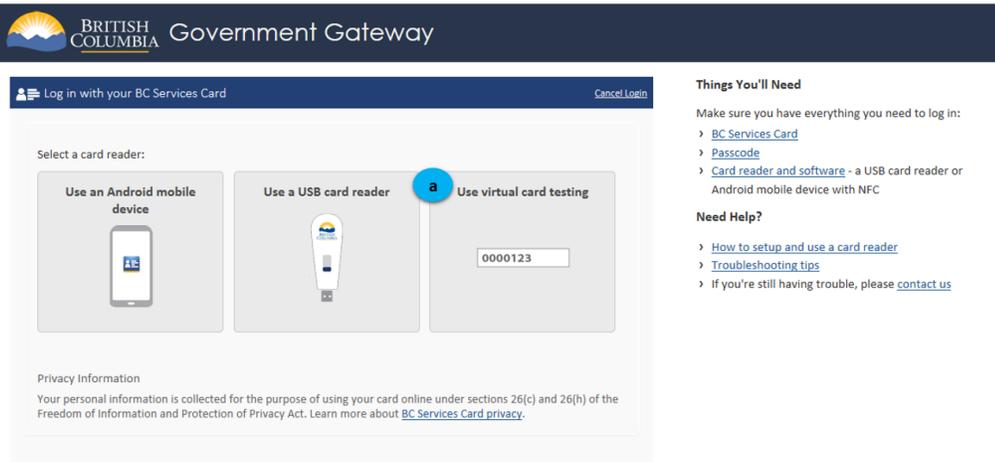
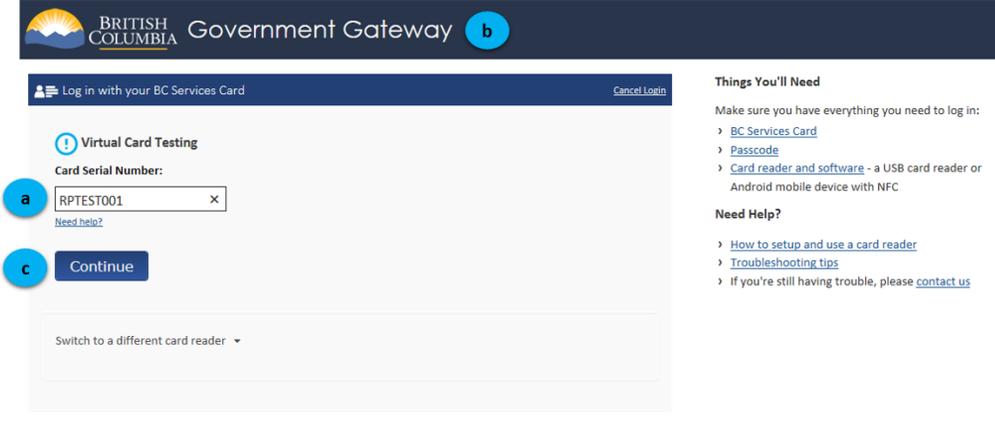
	A	B	C	D	E	F	G	H
1	Card serial number	"passcode"	"email"	"Surname"	"Given Name"	"Address block"	"Date of Birth"	
2	RPTEST001	1246	Blaine.Bey@gov.bc.ca	RPTESTONE	GIVENONE GIVENONEB	1234 TESTING ONE DRIVE VICTORIA BC V8W1T1	1977-01-15	
3	RPTEST002	1246	Blaine.Bey@gov.bc.ca	RPTESTTWO	GIVENONE GIVENONEC	1234 TESTING TWO DRIVE VICTORIA BC V8W1T2	1967-02-15	
4	RPTEST003	1246	Blaine.Bey@gov.bc.ca	RPTESTTHREE	GIVENTHREE GIVENONED	1234 TESTING THREE DRIVE VICTORIA BC V8W1T3	1957-03-15	
5								
6								
7								

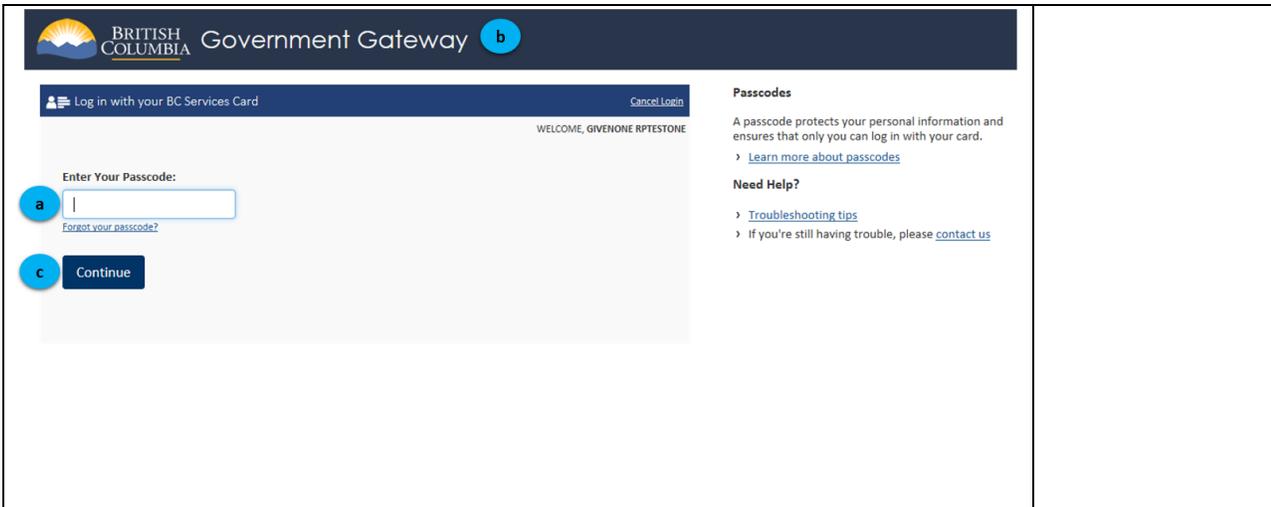
The data in columns A (card serial number) and B (passcode) are required for logging in, and the data in columns C and beyond match the identity attributes you have requested.

Appendix 2: Test Scenarios for the Test Environment

The following test cases detail the steps required to test that the authentication service is configured correctly in the test environment.

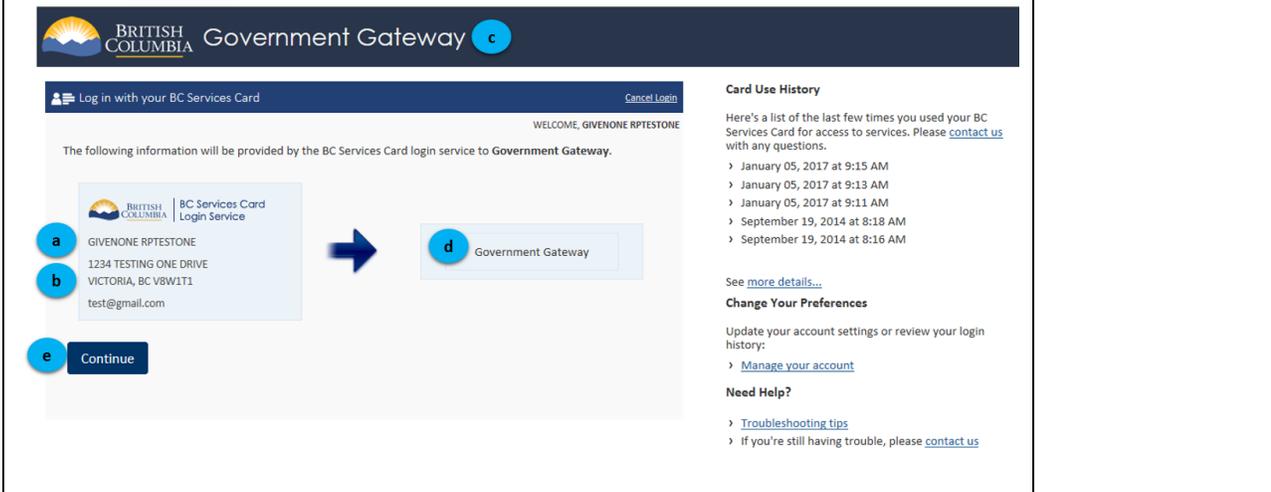
A. Log in to Service Owner site

Steps	Expected Results
Step 1: Start – start at your site’s login page and click the login link or button.	Clicking login link or button opens Login 1 page.
Step 2: Log in Entry page a. Click the ‘Use virtual card testing’ card reader option. 	Log in 1 opens on clicking ‘Use virtual card testing’ option
Step 3: Log in page 1 – enter card serial number a. Enter a virtual card serial number from the Excel test data file. b. Check that the header is branded correctly on the page. c. Click Continue . 	Branding is correct, card serial number accepted and Log in 2 page opens on click continue.
Step 4: Log in page 2 – enter passcode a. Enter the corresponding passcode from the Excel test data file (from the same row number as the virtual card serial number). b. Check that the header is branded correctly on the page. c. Click Continue .	Branding is correct, passcode accepted and Login 3 page opens on click continue.


Step 5: Log in page 3 – validate data

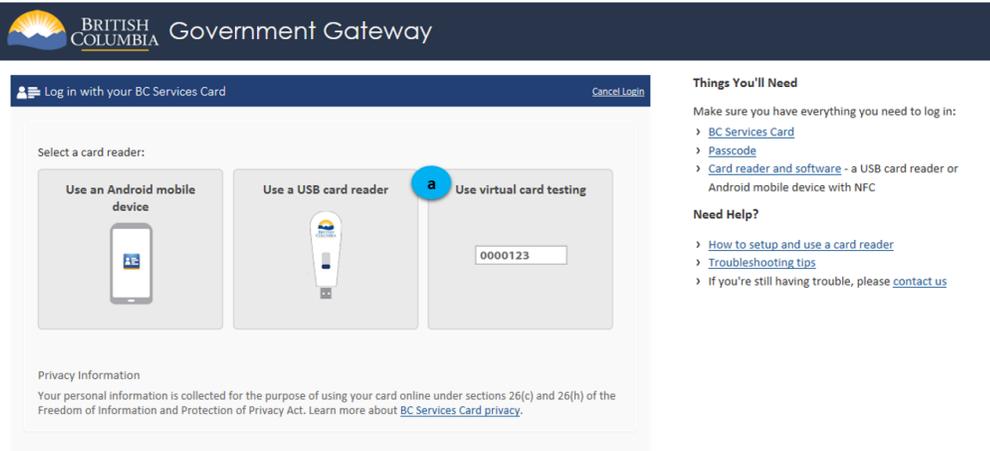
- a.** Check that the identity attributes displayed match the identity attributes in the Excel file.
- b.** Check that the identity attributes displayed match the identity attributes specified at the design stage.
- c.** Check that the header is branded correctly on the page.
- d.** Check that the graphic to the right of the arrow is branded correctly.
- e.** Click **Continue**.

Branding and identity attributes correct, your landing page opens on click continue.



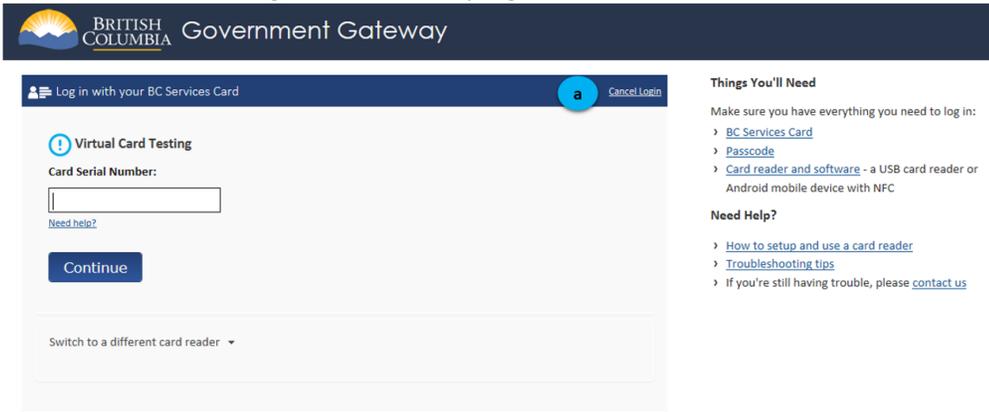
<p>Step 6: Your landing page</p> <p>a. Check that the correct landing page is loaded.</p> <p>b. Run your own functional test scripts to ensure that the data attributes from the IAS system are correct, for example, if your logged in state displays the user's name on the page, ensure it matches the name on the virtual card data; or check that the user identifier has been written into the database.</p>	Landing page displayed with data attributes as expected.
<p>Step 7: Log out</p> <p>a. Click the log out button.</p> <p>b. Check that the appropriate logged out page is loaded.</p>	User logs out, correct landing page loaded.

B. Cancel Log In

<p>Step 1: Start</p> <p>Start at your site's login page and click the login link.</p>	Clicking login link or button opens Login 1 page.
<p>Step 2: Log in Entry page</p> <p>a. Click the 'Use virtual card testing' option.</p> 	Log in 1 opens on clicking 'Use virtual card testing' option

Step 3: Log in page 1

a. Click the 'cancel login' link in the top right hand corner.



BRITISH COLUMBIA Government Gateway

Log in with your BC Services Card [Cancel Login](#)

Virtual Card Testing

Card Serial Number:

[Need help?](#)

[Continue](#)

Switch to a different card reader ▾

Things You'll Need

Make sure you have everything you need to log in:

- › [BC Services Card](#)
- › [Passcode](#)
- › [Card reader and software](#) - a USB card reader or Android mobile device with NFC

Need Help?

- › [How to setup and use a card reader](#)
- › [Troubleshooting tips](#)
- › If you're still having trouble, please [contact us](#)

Clicking cancel login exits the login pages and takes user to your cancel page.