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## **Overview:**

PSCU cards are displayed in DNA as external accounts (credit cards) or Card Agreements (debit cards), however there is no ability to use PSCU to manage these accounts or display real time account information. Financial Institution employees today must open a separate browser window, navigating to PSCU QuickAssist, log in to QuickAssist and re-enter search information to locate an account.

This application integrates PSCU QuickAssist with DNA, allowing the employee to simply slide in a list of PSCU credit and debit cards and select one to launch QuickAssist. PSCU QuickAssist is launched within the default Windows browser, allowing the employee to view and manage the PSCU account without the need to log in to QuickAssist and search for the desired account.

PSCU does not currently have a QuickAssist test environment. Therefore, both DNA test and production environments may be configured to point to the same PSCU environment. Be sure to take the necessary security precautions to protect your live PSCU data while testing.

This document describes the installation of the server component which creates a SAML single sign on token per PSCU requirements. The SAML token is signed by the FI's private key and encrypted using PSCU's public certificate.

### Prerequisites:

A prerequisite to using this application is to engage with PSCU for access to QuickAssist via Single Sign On. PSCU will assign a SAML EntityID to the institution and provide the PSCU public certificate to be used.

Additionally, a digital certificate meeting PSCU requirements will need to be purchased by the financial institution. This public certificate will need to be provided to PSCU and installed in their environment prior to using this application.

The certificate may be purchased for a subdomain such as "pscu.mycu.com". It may also be used by IIS for HTTPS encryption of the data to and from the server.

This server application requires the FI's certificate be in the form of a PFX file, containing both the FI's private key and public certificate, secured by a password. If the Certificate Authority it was purchased from did not provide it in this format, OpenSSL may be used to create a PFX file from PEM files:

https://www.ssl.com/how-to/create-a-pfx-p12-certificate-file-using-openssl/

# Server Installation:

The PSCU QuickAssist DNAapp requires a server application to provide the Single Sign On integration with PSCU. This server application is strictly used to satisfy PSCU's Single Sign On requirements: creating a SAML token signed by the institution's private digital certificate and encrypted by PSCU's public digital certificate.

This server does not connect to DNA and in general should not be installed on a DNA or SAF server. It is better to find a separate Windows IIS server with capacity for this additional, small application.

Perform the following steps to install the PSCU QuickAssist server:

Prerequisites:

Insure the following prerequisites have been installed:

- Windows Server 2012 or above
- Windows IIS 8 or above
- ✓ Ensure you can open up <u>http://localhost</u> successfully.



Install Support Components:

Follow the respective instructions for installing each of the following components:

- Microsoft IIS URL Rewrite extension <u>https://www.iis.net/downloads/microsoft/url-rewrite</u>
- Node <u>https://nodejs.org</u> (Choose the correct bit version matching your system) Microsoft Azure iisnode – <u>https://github.com/Azure/iisnode</u> (Choose correct bit version matching your system)
- Configure IIS "Handler Mapping" to prevent HTTP Error 500.19

- 1. Open IIS Manager
- 2. Select the root node (Server Name).
- 3. Open the "Feature Delegation" option.
- 4. Set the Handler Mappings to Read/Write.

Feature Del	ver levels	Reset All Delegation Custom Site Delegation	
n IIS Manager.	e the default delegation state for reactives at 10	wei ieveis	Help
Group by: No Grouping			
Name	Delegation	^	
ASP.NET Impersonation	Read/Write		
Authentication - Anony	Read Only		
Compression	Read/Write		
Default Document	Read/Write		
Directory Browsing	Read/Write		
Error Pages	Read/Write		
Feature Delegation	Read/Write		
Handler Mappings	Read/Write		
HTTP Response Headers	Read/Write		
Logging	Read Only		
MIME Types	Read/Write		
Modules	Read Only		
Output Caching	Read/Write		
Request Filtering	Read/Write		
SSL Settings	Read Only		
URL Rewrite	Read/Write		
Web Platform Installer	Read/Write	~	

 Ensure you can open up all the apps at <u>http://localhost/node</u> successfully, including <u>http://localhost/node/express/myapp/foo</u>



Install PSCU QuickAssist Server:

- Download PSCU QuickAssist application (location TBD)
- Unzip to C:\pscu
- Install node\_modules for server application:

```
Open a "cmd" window cd \pscu
```

npm ci

• Add PSCU Application to IIS using IIS Manager. Click on "Sites", right click on "Default Web Site", click on "Add Application ..."

à	Explore
	Edit Permissions
0	Add Application
	Add Virtual Directory
	Edit Bindings
	Manage Website
39	Refresh
×	Remove
0	Install Application From Gallery
	Rename
	Switch to Content View

 Specify Alias of "pscu" and set the Physical path to location of unzipped server application: C:\pscu

Add Application	?	$\times$
Site name: Default Web Site Path: /		
Alias: Application pool:		
pscu DefaultAppPool	Select	
Example: sales		
Physical path:		
C:\pscu		
Pass-through authentication		
Connect as Test Settings		
Enable Preload		
ОК	Cancel	

Connections	<b>A</b>		Actions
VOP-DBRIM10 (CHECKFREE\c	/pscu Home		Explore Edit Permissions
Application Pools		ib pà:	Basic Settings
V Sites		View Virtual Directories	
> 🔐 node			Manage Application
>	Authentic Compression Default Directory Error Pages Document Browsing	Browse Application Browse *:80 (http)	
	🔁 🐔 📗 🏴 .		Advanced Settings
	Handler HTTP Logging MIME Types M Mappings Respon	lodules	Gallery
	pe 😂 🔒 🛒		Help
	Output Request SSL Settings URL Rewrite Caching Filtering		
	Management	•	
	Configurat Editor		
	Editor		

Copy the signing certificate purchased per PSCU requirements into the c:\pscu\certificates directory

```
<add key="PSCU_CERTIFICATE_FILE"
value="certificates/PSCU saml encryp prod.txt" />
```

• Configure the institution specific parameters in C:\pscu\web.config file

Your PSCU assigned Client ID and Entity ID:

```
<add key="FI_CLIENT_ID" value="12345" /> <add key="FI_ENTITY_ID" value="FI:8488:saml20:PROD" />
```

The location and password of your PFX signing certificate:

```
<add key="FI_PFX_FILE" value="certificates/FI.pfx" /> <add key="FI_PASSPHRASE" value="Password123" />
```

• Add a certificate to IIS for https encryption of data.

The AppMarket requires that only HTTPS URL's are used. Therefore, the DNA "PSCU" Calc Var URL which points to this server must begin with "HTTPS". If you do not have a digital certificate for encrypting your IIS servers, you may use the digital certificate purchased for PSCU requirements. • Configure the PSCU specific parameters in C:\pscu\web.config file

PSCU App ID and Entity ID:

```
<add key="PSCU_APP_ID" value="8488" />
<add key="PSCU_ENTITY_ID" value="PSCU:saml20:prod" />
```

• Temporarily configure for Debug Mode in C:\pscu\web.config file

Setting VALIDATE\_SIGNATURE to "false" allows the proper connection between the DNA desktop and this server.

```
<add key="VALIDATE SIGNATURE" value="false" />
```

Setting DEMO\_MODE to "true" causes this server to respond with a static screen shot of QuickAssist. A PSCU connection is not required. This helps you verify that everything is working correctly between the DNA desktop client and this server, without involving the connection to PSCU.

```
<add key="DEMO MODE" value="true" />
```

 Ensure you can browse to <u>http://localhost/pscu/sso</u> successfully. You should see the screen below

Jearch	🛗 Recent Tra	nsactions				Q SHOW ALL		DECLINED	Q POSTED	⊖ Print ∨
oy T x2222 - P *	Show 10 V	entries		Filte	r by card			Sear	ch:	
ast 10 searches *				THUE	Selection Selection					
Financial Institution Info	🛗 Date 💵	m Post Date	🖶 PI ID 🗐	<b>О</b> Туре	Merchant Name	Dication []	D Amount 1	¶⊄ Status		
ward One	+ 03/22/2020	03/22/2020	4200000010002222	Payment	*Payment*		\$125.00	PENDING	Reverse	
hone : 727-555-7890 🕜	+ 03/18/2020	03/18/2020	4200000010002222	Payment	*Payment*		\$55.00	PENDING	Reverse	
	+ 02/27/2020	02/27/2020	510000010006666	Merchandise sale	Regional House of Pancakes	Portland, OR	\$25.80	POSTED	Dispute	Reverse
Cardholder Info	+ 02/27/2020	02/27/2020	5100000010006666	Merchandise sale	Grey Wizard Games	Colorado Springs, CO	\$48.95	POSTED	Dispute	Reverse
oy Tenenbaum	+ 02/26/2020	02/26/2020	510000010006666	Merchandise sale	Mineo's Pizza	Pittsburgh, PA	\$5.80	PENDING	Reverse	
te. 101 L. Petersburg , FL 33716	+ 02/26/2020	02/26/2020	510000010006666	Merchandise sale	Sailor Bob's Baithouse	Myrtle Beach, SC	\$12.80	PENDING	Reverse	
ne: (800) 443-7727	+ 02/26/2020	02/26/2020	5100000010006666	Merchandise sale	Piggly Wiggly	Charleston, SC	\$17.40	POSTED	Dispute	Reverse
: (800) 443-7728 iness: (800) 443-7729	+ 02/26/2020	0 02/26/2020	5100000010006666	Late Charge	*Late Fee*		\$30.00	POSTED	Reverse	
l: 321-65-4987 B: 01/05/1940	+ 02/23/2020	02/25/2020	4200000010002222	Merchandise sale	Mobil		\$180.00	DECLINED	Reverse	
ther's Maiden Name: utherford	+ 02/21/2020	02/22/2020	4200000010002222	Merchandise sale	Spatula City	Tampa, FL	\$75.00	POSTED	Dispute	Reverse
all: rdprofile@pscu.com	Showing 1 to 10	of 10 entries							Previous	1 Next
Secondary:	_									

• Turn Debug Mode off in C:\pscu\web.config file

Setting VALIDATE\_SIGNATURE to "true" performs a verification process to validate the signature sent by the DNA client before allowing them to connect with this server.

```
<add key="VALIDATE SIGNATURE" value="true" />
```

Now that you've verified proper operation between the DNA desktop and this server, it's time to add the connection to PSCU to see real QuickAssist screens. Specify the PSCU's endpoint to post the SAML response

```
<add key="PSCU_SERVICE_URL"
value="https://pfs.pscu.com/sp/ACS.saml2" />
```

This will launch PSCU QuickAssist in the default Windows browser with Single Sign On.

```
<add key="DEMO MODE" value="false" />
```

#### Server Configuration:

DNA External Accounts and Card Agreements often include items that are unrelated to PSCU card accounts. To filter out these non-PSCU items, two configuration parameters are provided in the C:\pscu\web.config file. Leaving these values blank will display all External Accounts and all Card Agreements to the user:

#### **Credit Cards**

CREDIT\_CARD\_CODES is a comma separated list of DNA Account Minor Type Codes that represent PSCU credit cards:

```
<add key="CREDIT CARD CODES" value="" />
```

For example, if PSCU credit cards use PSC1, PSC2, PSC3 for their DNA Account Minor Type Codes, use the following configuration:

<add key="CREDIT CARD CODES" value="PSC1, PSC2, PSC3" />

ACCOUNT\_STATUS\_CODES is a comma separated list of DNA Account Status Codes that determines which accounts are displayed:

<add key="ACCOUNT STATUS CODES" value="" />

For example, if PSCU credit cards use ACT, CO, CWB for their DNA Account Status Codes, use the following configuration:

```
<add key="ACCOUNT STATUS CODES" value="ACT,CO,CWB" />
```

#### **Debit Cards**

DEBIT\_CARD\_CODES is a comma separated list of DNA Card Agreement Type Codes Account Minor Type Codes that represent PSCU debit cards:

```
<add key="DEBIT CARD CODES" value="" />
```

For example, if PSCU debit cards use PS11, PXYZ for their DNA Card Agreement Type Codes, use the following configuration:

```
<add key="DEBIT CARD CODES" value="PS11, PXYZ" />
```

To make it easier to find these codes, they are displayed on the far right for both credit and debit cards. In the example below, all External Accounts and Card Agreements are displayed. If "VISA" credit cards are not serviced by PSCU, do not add them to the list of CREDIT\_CARD\_CODES. And as VRU is not a debit card, do not add that Card Agreement Type to the list of DEBIT\_CARD\_CODES.

QuickAssist		4	Quick
Cre	dit Cards		Search
41231 Visa Cre	1111111113 edit Card	VISA	Multiple With
<b>41111</b> Visa Cre	1111111112 edit Card	VISA	dr Roles
Del	bit Cards		Account In
_	ACTIVE	NOT ACTIVE	quiry Detai
999999 Voice R	90000441941 esponse Unit	VRU	QuickAssist

### User ID translation:

The PSCU QuickAssist DNAapp provides Single Sign On to PSCU QuickAssist, passing the DNA user ID to PSCU. But sometimes a user's DNA User ID and their PSCU User ID are not the same. For those users a translation file is provided to translate User ID's between systems.

```
<add key="PSCU_USER_TRANSLATION_FILE"
value="assets/userIdTranslationFile.csv" />
```

It is located in C:\pscu\assets\userIdTranslationFile.csv and is prepopulated with a few example values. It is a simple comma separated variable (CSV) file where each line represents a user id to be translated between systems. The first value is the DNA user id (shown in blue below), the second value is the PSCU user ID (shown in green below). It is important not to remove or modify the first line When this server is loaded, the translation file will be read into memory and used to translate user id's between systems. Any user ID not found in this file will not be translated, the DNA user ID will be passed to PSCU.

### DNA userID, PSCU UserId

MARYDOUGLAS,mdouglas MACKDHONI,mack.dhoni VMIRENA,MirenaV JBANKER,Jbanker1

## **Graceful Application Reloading:**

By default, this application will start one process for each CPU available:

```
nodeProcessCountPerApplication="0"
```

To gracefully, restart this server, edit the C:\pscu\web.config file. This file is monitored, and any change will terminate all processes, first allowing outstanding requests to complete, then start new processes for each CPU.

But more importantly, the User Id translation file will be re-read into memory and any changes to the web.config file will take effect. There is no need to restart IIS after a configuration change.

## Logging:

Limit the information written to the log file by setting a specific log level. The default level for the logger is "info"

<add key="LOG LEVEL" value="info" />

A log file is generated by this application: C:\pscu.log. It logs information at each SAML token generation step. Step 02 logs the DNA bank ID assigned to the institution, the user ID (after user id translation) and the card number selected (card numbers are masked in the log).

Other information logged may be useful to the server application developers to assist in problem resolution. This log is cleared each time the server is started.

# **Revision History**

Date	Version	Change
06/2024	1.1.18	Configure the account status codes to filter the credit cards Updated PSCU certificate for DNA 2024
04/2024	1.1	Fixed the issue in filtering the credit cards
07/2023	1.1	Updated PSCU certificate for DNA 2023
03/2022	1.1	Migrate DNA version to 4.7.3 Support to decrypt debit card numbers to display to user Fixed the issue of showing the wrong current value for the debit card numbers
12/2020	1.1	Add Support for PSCU Debit Cards Support Active Directory User ID's from DNA Translate DNA User ID's to PSCU User ID's via Translation Table Support DNA Slide Out for fewer clicks
9/2019	1.0	Initial Version