

# **NEXUS PERSONAL APPLICATION**

Pos Digicert Sdn. Bhd.

**Document Version 1.0** 

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## **Important Notice**

#### Please read the instruction below carefully

User who has received smart card from June 2017 onwards and using Windows 7 is required to install Windows Update KB3033929 before performing authentication (section 4.4).

#### Note :

User that has difficulties in accessing the system due to PIN request window not prompting after selecting the certificate, there is a high possibility that the Windows Updates KB3033929 has not been installed yet. This is a known bug with Windows 7 SP1 which does not support SHA-2 signed DLL (only supports SHA1). However, if you managed to perform authentication/signing with the latest smart card, then you may skip windows updates step.

- What is the complication if user did not perform the required instruction?
  - 1. Electronic ID may not be able to display on the Nexus Personal window.
  - 2. After selecting certificate to perform authentication, PIN request window will not be prompted.

#### Step to Install or update Windows Updates KB3033929 on Windows 7

Download the Windows 7 Updates KB3033929.

1. Windows 7 32bit - Click the following link. <u>https://www.microsoft.com/downloads/details.aspx?familyid=2f79c9bf-18b4-413d-9931a283d1496400</u>

2. Windows 7 64bit - Click the following link. <u>https://www.microsoft.com/downloads/details.aspx?familyid=e70d8989-dcfe-47be-86b7249e182c95bd</u>

Additional download link and information: Technical description on the windows patch update KB3033929 can be found below. <u>https://technet.microsoft.com/en-us/library/security/3033929</u>

https://support.microsoft.com/en-us/help/3033929/microsoft-security-advisory-availabilityof-sha-2code-signing-support

## 1 Introduction

This document is a reference for smart card certificate user on usage of the Nexus Personal application.

Nexus Personal application is a cryptographic middleware, interlinking smart cards and secure systems/applications. A smart card stores certificates and corresponding private keys used for authentication or signing. A smart card reader is a data input device that reads data from the smart card.

Below is a list of guides available in this manual:

- Nexus Personal Installation Guide on page 6
- Smart Card Reader Installation Guide on page 8
- Nexus Personal Usage on page 12
- Start Nexus Personal Application on page 12
- View Smart Card Certificate on page 13
- Change Smart Card PIN on page 14
- Authentication using Nexus Personal and Smart Card on page 17
- Uninstall Nexus Personal Application on page 19
- Uninstall Smart Card Reader on page 20
- . Troubleshooting on Nexus Personal and Smart Card Reader on page 22
- Glossary of Terms on page 23

#### 1.1 Intended Audience

Pos Digicert's smart card certificates user.

#### Requirement Description CPU Personal Computer with Pentium IV 3GHz or higher Memory Minimum 1 GB of RAM Windows 7, 8 and 10 **Operating System** Web Browsers Microsoft Internet Explorer 11.0 and above Mozilla Firefox 44.0 and above Google Chrome 46.0 and above (With 128-bit encryption)

30 MB space required

#### **1.2 System Requirement**

#### 1.3 Acronym

Hard Disk Space

No.	Acronym	Definition
1.	CD	Compact Disc
2.	NRIC	National Registration Identity Card Number
3.	IT	Information Technology
4.	URL	Universal Resource Locator
5.	PIN	Personal Identification Number
6.	CCID	Chip Card Interface Device
7.	LED	Light-Emitting Diode
8.	USB	Universal Serial Bus

## 2 General Information

Nexus Personal version 4.27.7 installer is available in the CD provided during the purchased of the smart card certificate or downloadable from Pos Digicert's website:

https://www.posdigicert.com.my/downloadpage/driver

The installer is available in 32-bit and 64-bit for Windows only.

Pos Digicert Sdn Bhd   So 🗙		Θ	- 0
← → C	om.my/downloadpage/driver		⊕ ☆
POS Digicert	OUR BUSINESS ABOUT US SOLUTION AND SERVICES SUPPORT DOWNLOAD	MEDIA	CONTAC
	NEXUS PERSONAL SETUP - 2048		
	NEW Nexus Personal Version 4.27.7 & DOWNLOAD - NEXUS PERSONAL (32BIT) - ZIP - 4.37MB   & DOWNLOAD - NEXUS PERSONAL (64BIT) - ZIP - 6.93MB		

#### Note:

For new user purchase of smart card certificate (full package), Pos Digicert Sdn. Bhd. shall provide you three items as listed below:

- CD Installer That contains installation file for Nexus Personal 4.27.7 and Rockey200 smart card reader.
- Smart Card Printed with user's name and NRIC/Passport number.
- Smart Card reader device Either Rockey200 or Rockey301(R301).

For smart card certificate renewal, Pos Digicert shall only provide the CD Installer and smart card printed with user's name and NRIC/ Passport number.

## 3 Installation Guide

This section will guide you on how to install Nexus Personal application and smart card reader device onto your computer.

Note : Please ensure you have administrative privileges to install the software.

#### 3.1 Nexus Personal Version 4.27.7 Installation Guide

	Pos Digicert Sdn Bhd   So X	θ
	← → C ■ Secure   https://www.posdigicert.com.my/downloadpage/driver	
	POS Digicert OUR BUSINESS ABOUT US SOLUTION AND SERVICES SUPPORT DOWNL	.0AD MED
	NEXUS PERSONAL SETUP - 2048	
	NEW Nexus Personal Version 4.27.7 & DOWNLOAD - NEXUS PERSONAL (32811) - ZIP - 4.37MB   & DOWNLOAD - NEXUS PERSONAL (64811) - ZIP - 6	93MB
	Nexus Setup - eSPKB ▲ DOWNLOAD - EXE - 6.39MB   ▲ GUIDELINE - PDF - 856KB	
	Nexus Setup - BNM / CAB DOWNLOAD - EXE - 127.7KB SUIDELINE - PDF - 6.39MB	
1.	<ul> <li>Download the Nexus Personal version 4.27.7 32-bit or 64-bit from the URL Section 2. Or</li> <li>Use the Nexus Personal CD installer provided by Pos Digicert Sdn. Bhd.         <ul> <li>Insert the CD into CD-ROM Drive.</li> <li>Go to CD-ROM drive &gt; NexusSetup &gt; Open the Nexus Personal-4.27.7 f</li> </ul> </li> </ul>	provided in older.
	Share View Extract	
	> This PC > Downloads > nexus personal 64bit (2) > nexus personal 64bit v 🖏 Search nex	us personal 6
	Name     Type     Compressed siz       Image: personal-4.27.7_amd64     Image: personal size     6,3	e Passv 579 KB No
	nare view Extract	
	This PC > Downloads > nexus_personal_32bit (4) > nexus_personal_32bit Search nexus_	personal_32b
	Name     Type     Compressed size	Passwo
	B personal-4.27.7_i386 2 Windows Installer Package 3,962	KB No
2.	<ul> <li>Double click on the installation file to install. Choose which version is applicable</li> </ul>	for you.
	<ul> <li>For 64bit, your installation file is personal-4.27.7_amd64 as per label 1.</li> </ul>	
	• For 32bit, your installation file is personal-4.27.7_i386 as per label 2.	

1	Nexus Personal Securi	ty Client			
	Please wait wh	le Windows configures Nexus Personal	Security Client		
		E	Cancel		
		Nexus Per	sonal Security Client		1
			lease wait while Windows config	gures Nexus Pers	onal Security Client
				1	Cancel
3.	<ul> <li>The installe</li> <li>Note:</li> <li>If "User Ac</li> </ul>	er shall run and complete b cess Control" screen is prot	y itself. mpted, click <b>Yes</b> to con	tinue with in	istallation,
-	otherwise	kindly refer to your compared	any's IT personnel for	further assis	tant.
	Programs and Features	Danal 3: All Control Danal Items - 3: Programs an	- Easturar		A Search Droot
	Central Parel Name	and 7 As control Parlentens 7 Programs and	a realists		v gi statch Progr
	Control Panel Home	Uninstall or change a program			
	Turn Windows features on or	To uninstall a program, select it from the li	st and then click Uninstall, Change, or Repl	ur.	
	off Install a program from the	Organize • Uninstall			
1	network	Name Nexus Personal Security Client	Publisher Technology Nexus AB	Installed On 5 7/5/2018	24.7 MB 4.27.7
		Notepad++ (64-bit x64)	Notepad++ Team	15/12/2017	7.03 MB 7.5
		PDF Complete Corporate Edition	NXP Semiconductors PDF Complete, Inc	3/11/2017 3/11/2017	18.1 MB 3.10050.10439.10 105 MB 4.1.33
4.	<ul> <li>Nexus Pers</li> <li>Go to Cont</li> <li>Client as possible</li> </ul>	onal has successfully instal <b>rol Panel</b> -> <b>Programs and</b> er red highlighted box.	lled in your computer. Features -> Ensure the	re is a <b>Nexu</b>	s Personal Security
		U.	→ -		
		Å /	へ 増か  に  G NG		
5.	Click on sh	ow hidden icons arrow loca	ated on the window sys	stem tray as	per red highlight
	box to see	the Nexus Personal icon.			
	<ul> <li>Double clic</li> </ul>	k on the Nexus Personal ic	on to launch the applic	ation windo	<i>N</i> .
	NOTE:	Nexus Personal shall star	t automatically after a	uccossfully i	nstalled or upon
	windows st	art up.		uccessiuny n	

			🕐 Nexus Personal — 🗆 🗙
			File View Token Help
			Nexus Personal 🌈 📓
6.	•	Nexus Personal will be	launched and shown empty without any smart card as shown above.
		Please refer to Section continue to Section 3.	<ul><li>4.2 if smart card reader driver has already been installed, else</li><li>2 for smart card reader installation guide.</li></ul>

#### 3.2 Smart Card Reader Installation Guide

This section will guide you on how to install smart card reader device onto your computer.

**Note:** Pos Digicert has two types of smart card reader device. Both function in a same way but differences only at installation steps.

Pos Digicert shall provide you with one of the following devices:

- 1. Rockey200 Smart Card Reader Refer Section 3.2.1
- 2. Rockey301 (R301) Smart Card Reader Refer Section 3.2.2

#### 3.2.1 Installation Guide for Rockey200 Smart Card Reader



		NexusSetup	10						
		Thie I		Drive (E) MV	DATA 051618	> Ne	wijeSatijn		
		5	~ · · · · · · · · · · · · · · · · · · ·	Name	/		Jobsecop		
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		n Files (x86)		V Files Cu	Personal-4.27	ne Di	SC (3)		
				Rocke	y Driver				
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		Rockey Driv	/er						
		: Share	View						
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		9s	^	Name					
		m Files		✓ Files Cu	urrently on	the D	isc (3)		
		in thes (xoo)		32Bit	driver				
				X04_0	Inver				
1.	In:	sert the CD prov	/ided by Pos	Digicert int	to the CD R	I MOS	Drive.		
	■ G0	to CD ROM Dr	ive > Nexus S	Setup > Roc	key Driver	•			
	■ Th	e driver is avail	able in 32bit	and 64bit.					
	Sha	re View							~ (
	«« F	Rockey200 > Rockey2	200 Driver (Windo	ws 7) > 32Bit_	driver	~ Č	Search 32Bit_d	river	Q
	-	Name	1		Date modified		Туре	Size	
		🚱 install	(1		4/11/2009 1:36	PM	Application	2,	073 KB
			4						
	l xe	4_driver							
		Share View					83		
		« Rockey200 Driver	( > X64 driver	5 v 1	Search X64	driver			
	int	^ Name	^	~	Date modif	fied	Type		
		example	. (	2)	23/4/2007	10-07 AI	M Appli		
	ts	instDrv_	RK200_64	2)	1/7/2010 9:	45 AM	Applic		
	12131	Setup.d	11		23/4/2007	9:59 AM	1 Applic		
2.	■ Se	lect which versi	on is applica	hle to vou	Double cli	ck ins	tallation file	to insta	
		• For 32bit.	vour installa	ation file sh	ould be as	ner l	abel 1.		
		$\circ$ For 64bit.	your installa	ation file is	instDrv Rk	(200	64 as Label	2	
			, o an ino cane						
			Language se	lection			×		
				Please select a	a language to	) use d	uring the		
				ristalia uori.					
				The shall					
				English			~		
					OK		Cancel		
					UN				
2		lect language in	stallation as	English >					
5.	- se	ieut ianguage In	istallation dS		CIICK <b>UR</b> .				



#### 3.2.2 Installation Guide for Rockey301 (R301) Smart Card Reader

- Note :
- Rockey301 is a CCID compliant smart card reader with USB 2.0 full speed support. It offers a plug-and-play solution. No installation of driver is needed.



- 1. Plug in Rockey301 smart card reader into your computer, the reader will install all necessary drivers by itself.
  - Your computer shall automatically detect and recognize the device.
  - The LED shall turn to red colour indicates that your computer detecting the smart card reader.

## 4 Nexus Personal Usage

This section will guide you on the usage of Nexus Personal application.

#### Note:

- 1. Nexus Personal version 4.27.7 is only compatible with new smartcard that was released around June 2017 onwards.
- 2. Ensure the Nexus Personal application is running before using the smart card to access the intended system/application.
- 3. Ensure the smart card reader device is already plugged in and detected by the computer .



## 4.1 Start Nexus Personal Application

4.2	View Smart Card Certificate
1.	<ul> <li>Insert the smart card into the smart card reader.</li> <li>Once the smart card is inserted, the LED indicator shall start to blink. This indicates that the smart card reader has detected your smart card.</li> </ul>
	Image: Second seco
2.	<ul> <li>Double click on the Nexus Personal icon to launch the application window.</li> </ul>
3	An "Electronic ID" will appear on Nexus Personal screen as shown above
э.	<ul> <li>Double click on Electronic ID to view the certificate information.</li> </ul>
	<ul> <li>Note:</li> <li>Nexus Personal application will detect and also display available certificate from Internet</li> </ul>
	Explorer (IE) certificate store.
	Nexus Personal - Token         Token information         Title:       Electronic ID         Serial number:       20404         Manufacturer:       Technology Nexus AB         Profile:       PKCS#15 profile         Type:       CardOS V5.3         Card reader:       ACS USB 0         Certificates:       Digital Signature (MOHD AHMAD BIN MOHD         PIN       Close

#### 4.3 Change Smart Card PIN

**Note**: The steps below are only for Changing PIN. If your smart card PIN is blocked, you need to send the smart card to Pos Digicert by hand or via courier service to unblock your PIN. This section does not help to solve the PIN blocked issue.

	Nexus Personal     File     View     Token     Help     Import     Electronic ID     Nexus Personal     Same	
<ol> <li>Insert the smart</li> <li>Select on the residuence</li> </ol>	card into smart card reader and ensure indicator is ON. spective <b>Electronic ID</b> -> Click <b>PIN</b> icon on the top.	

	Nexus Personal - PIN Management Wizard
	PIN Management
	PIN codes can be managed using this wizard.
	What is a Min code?
	from unauthorized use. PIN codes should be kept secret.
	< Back Next > Cancel
2 Click Novt	
	Nexus Personal - PIN Management Wizard
	PIN Management Select electronic idenity token to manage.
	The list below shows all available tokens.
	Select a loken
	Tokens Stored in
	Electronic ID
	< Back Next > Cancel
3. Click Next.	
	Nexus Personal - PIN Management Wizard
	PIN Management
	You can choose between changing or unblocking a PIN code. You should only unblock a PIN that has been locked.
	Electronic ID
	PIN1
	Do you want to change of unblock the FIN code?
	Select action to take
	© Unblock PIN

4.	<ul> <li>Tick Change PIN option -&gt; Click Next.</li> </ul>
	Nexus Personal - PIN Management Wizard         Change PIN         To change the PIN, the current PIN must be entered together with the new PIN.         Electronic ID         PIN1         Enter the current PIN and the new PIN. The new PIN must be confirmed.         Current PIN:         Maxameter         To change the PIN.
	< Back Next > Cancel
5.	<ul> <li>Enter Current PIN.</li> <li>Enter New PIN -&gt; Enter Confirm new PIN.</li> <li>Click Next.</li> <li>Note:</li> <li>Nexus Personal PIN policy for smart card certificates is restricted to 8 characters only (may consists of alphanumeric and special characters)</li> </ul>
	Nexus Personal - PIN Management Wizard
	The PIN Management Wizard is Complete         You have successfully changed PIN1 on         Electronic ID.         Note: That old PIN is not valid anymore, and that         always when accessing PIN1 on Electronic ID the         new PIN should be used.
6.	<ul> <li>Click Finish.</li> <li>The smart card can be used as usual by using new PIN.</li> </ul>
	· · · · · · · · · · · · · · · · · · ·
	Note: You may try to perform authentication using the new PIN to confirm on the PIN change.

	Nexus Personal - Authenticate   Nexus Personal - Authenticate   Enter PIN1 for Electronic ID.   PIN:     Mexus     Verify my identity     Cancel		
1.	<ul> <li>Upon authentication is required, Nexus Personal application will prompt PIN request window as above.</li> </ul>		
	Enter your smart card PIN and click Verify my identity.		
	<ul> <li>If successful, you will able to access the system/application and perform your</li> </ul>		
	transaction as usual.		
	Note:		
	Nexus Personal PIN policy for smart card certificates is restricted to 8 characters only		
	(may consists of alphanumeric and special characters).		
	<ul> <li>Your smart card will be blocked if you type three invalid PINs consecutively</li> </ul>		

#### 4.4 Authentication Using Nexus Personal and Smart Card

4.5 About Nexus Version

1.	•	Launch the Nex	us Personal application
			Contents and index F1
			About Nexus Personal
			Import PIN Export
			Nexus Personal
2.	•	Click Help -> Cli	ck About Nexus Personal.
			About Nexus Personal ? ×
			Nexus Personal
	Nexus Personal v. 4.27,7 Copyright (C) 2016 Technology Nexus AB All rights reserved		
			http://www.nexusgroup.com     .       Components     Close

- **3.** Nexus Personal application version shall be displayed as per red colour highlighted box. Note:
  - Click **Close** to close the window.

#### 4.6 Exit Nexus Personal



## 5 Uninstall Guide

## 5.1 Uninstall Nexus Personal Application

This section will guide you on how to uninstall the Nexus Personal version 4.27.7.



-			
		Nexus Personal Security Client	×
		The following applications should be closed before continuing the install:	2
		Nexus Personal	
		Automatically close applications and attempt to restart them after setup is complete.	
		Do not close applications. (A Reboot may be required.)	
		OK Cancel	
5.	If the screet	en above is prompted, leave selection to auto-defa	ult -> Click <b>OK</b> .
	1	Vexus Personal Security Client	
		Please wait while Windows configures Nexus Personal Se	curity Client
		Gathering required information	
			Cancel
6.	<ul> <li>Wait for t</li> </ul>	he Nexus Personal Security Client uninstallation pro	cess to complete.
	<ul> <li>If your computer prompt User Access Control -&gt; Click Yes to continue with uninstallation.</li> </ul>		
	<ul> <li>Nexus Personal Security Client dialog box will close once Uninstallation process</li> </ul>		
	completes.		
	<ul> <li>Press F5 at Program and Features, double check that the Nexus Personal Security Client has been removed and successfully uninstalled</li> </ul>		
1			

#### 5.2 Uninstall Smart Card Reader

This section will guide you on how to uninstall Rockey200 Smart Card Reader.



		ROCKEY200 Driver Uninstall	– 🗆 X
		P	Welcome to the ROCKEY200 Driver Uninstall Wizard
			This wizard will guide you through the uninstallation of ROCKEY200 Driver.
			Before starting the uninstallation, make sure ROCKEY200 Driver is not running.
			Click Uninstall to start the uninstallation.
		$\langle \wedge \rangle$	
			Uninstall Cancel
2.	Click Uninstall.		
	Note:		
	Click Cancel to c	ancel uninstallation	
		ROCKEY200 Driver Uninstall	- X
	1	Please wait while ROCKEY200 Driv	rer is being uninstalled.
	,	Uninstalling ROCKEY200 Driver dri	ver
	2		
	=		
	3		
	e	Windows Installer	
			< Back Next > Cancel
3.	<ul> <li>Wait for a few s</li> </ul>	econds until next sc	reen is shown
		ROCKEY200 Driver Uninstall	X
		, Th	Completing the BOCKEY200 Driver
			Uninstall Wizard
			Your computer must be restarted in order to complete the uninstallation of ROCKEV200 Driver. Do you want to reboot
		× (£3)	now?
			Reboot now
			○ I want to manually reboot later
			Z Bady Einich Canad
	T		
4.	<ul> <li>Select Reboot n</li> </ul>	ow -> Click Finish.	

## 6 Troubleshooting

#### 6.1 Troubleshooting Nexus Personal Application

This section will guide you on troubleshooting the Nexus Personal application.

No.	Error message/cause	Solution
1.	Nexus Personal does not	Refer the following steps:
	detect your Smart Card.	1. Ensure your Smart Card reader is connected to your PC and installed
	<u>"Electronic ID" does not</u>	with the correct driver.
	show in Nexus Personal	2. Restart Nexus Personal
	Application.	-Go to icon Nexus Personal at Taskbar.
		-Right click at Nexus Personal and Exit.
		3. Start Nexus Personal
		-Go to start -> All Program > Personal > Double click at Personal or
		Search for Nexus Personal and double click the Nexus Personal.
		-Check that "Electronic ID" should be shown inside the Nexus Personal.
		4. Clear Cache
		-On the Nexus Personal-> Click View menu -> Click Preferences -> Card
		Readers tab.
		-Click "Empty Cache" -> Click OK.
2.	Nexus Personal <u>does not</u>	Ensure your Smart Card reader is connected to your PC and installed with
	detect your certificate.	the correct driver.
	"Electronic ID" displayed	
	but certificate name is	
	<u>empty.</u>	

#### 6.2 Troubleshooting Smart Card Reader

This section will guide you on troubleshooting the Smart Card Reader.

If you have no access permission or non-technical experience to perform the steps below, kindly seek assistance from your company's IT Personnel, otherwise call our Customer Service 03-8800 8008 to report the issue.

No.	Error message/cause	Solution
1.	If the solution provided	Q Services - D X
	in Section 6.1 does not	File Action View Help
	solve your issue, check	Services (Local) Q Service Service (Local Computer)
	the Smart Card service is	Smart Card General Log On Recovery Dependencies Status Startup Type Log ^
	configured correctly.	Service name: SectorStd Running Automatic (D., Loc Stop the service name: Smart Card Manual Loc
		Bunning Manual Loc     Beorpton: Manages access to smart cards read by this     onputer. If this service is stopped, this     computer.     Starts Dype     Automatic     Curve any service is stopped, this     Service status: Started     Curve any service that apprenetes that apprenetes that apprenetes     Stat poismeter:     OK Cancel Acole     Manual Loc     Manual Loc
		\Extended (Standard /
		1.Go to Start -> Control Panel -> Administrative Tools -> Services 2.Select Smart Card (Double click -> Change the Startup Type to AUTOMATIC and Service status to STARTED, then click OK).

## 7 Glossary of Terms

No.	Acronym	Description
1.	Certificate	The digital ID of a user issued by a Certification Authority.
2.	Digital Certificate	The digital equivalent of a paper certificate (i.e. passport, driver's license or identity card). The file contains the individual's public key and a signature made by a Certification Authority. It serves to prove the individual's identity or right to access information or services on the Internet.
3.	Personal Identification Number (PIN)	A secret code used for identification purposes.
4.	Pos Digicert's Smart Card	The Smart Card stores a digital certificate, and a pair of keys (a private key and a public key). The digital certificate is issued by the Pos Digicert Sdn. Bhd. Certification Authority (CA).
5.	Reader and Smart Card	A pair that consists of a Smart Card and its reader. Since every token must have a reader, this pair is treated as one object.
6.	Smart Card	A card, the size of a credit card, that has memory and a processor.
7.	Smart Card reader	Hardware which is used to read the Smart Card. It can be external to a computer (using a cable connection) or internal. You insert your Smart Card into this component so that information can be extracted from it.