Instructions for Key Pair Generation on Smart Card.

To generate key pair on smart card, Reader drivers should be installed on the machine. You may be required to change some browser settings also. The complete process of certificate generation is given in this write-up.

For SCR 335 Reader & Datakey Intelligent Smart Card

♦ Plug-in Card reader in to USB port of your system

♦ Open the Browser and go to https://nicca.nic.in

♦ Go to Support and click Download-Datakey Reader S/W

♦ Click on option **1**) and save it on desktop or any desired folder.

♦ Unizip this file with Winzip and run Setup.exe and press Next for two or three time and finish.

♦ Reboot your system.

This will install Datakey Reader drivers on your system.

To ensure that drivers are installed properly follow these steps.

♦ Insert your Smart card in the reader. The reader will start blinking.

♦ Click Start→ Programs→ Rainbow Technology→ iKey 2000 Series Software→ Click on CIP Utility. A new window will open having two partitions. In the left side of the window a number of slots (Slot 10 to Slot 14 in general) will be displayed and in the right side Slot information will be displayed. Generally Slot 14 or at least one slot is labeled **as "SCM Microsystems Inc. SCR33x USB Smart Card Reader 0 (330) (Not Logged In)".** In the right side pane of this window Smart Card information as mentioned below will be displayed.

Token Overview

Serial Number: 36532233
Label: Dkccos 6.0 Token
Vendor: *Datakey, Inc.
Manufacture Date: 06/13/2002
Free Memory: 29180

(This ensures that the drivers are installed properly and smart card is also working)

If reader is not blinking and card information is not displayed, then you may be required to restart the following services. (Right Click My Computer-→ Manage→Services and Applications→ Services)

     i.   Datakey Log Services

     ii.   Datakey Token Services

     iii.   Smart Card

♦ **Now Initialize your smart card**. In CIP Utility, Right Click on Slot#14 and click Initialize Token. And click Continue Initialization. This will initialize your Smart Card and Set Passphrase as "PASSWORD".

1. Browser Settings

Active-X controls need to be enabled in your Internet browser. In order to ensure this, please do the following:

♦ Open a browser window

♦ Go to Tools **>>** Internet Options **>>** Security

♦ Click 'Custom Level' and set security level as 'Medium' and enable all Active-X controls

2. Enrollment Instructions - Generating Key Pair

When you enroll for a digital certificate, cryptographic keys are generated and stored on your Smart Card. For generating the Key Pair on Smart Card select the appropriate CSP – (**Datakey RSA CSP**)

♦ Open the Browser and go to https://nicca.nic.in

♦ Click Member Login and login with User-id / Password issued by NIC Certifying Authority

♦ Insert your smart card in the Card Reader

♦ Click **Enroll** OR **Step-1** for generating your Digital Certificate key pairs. (An Electronic Form will appear, which is self-explanatory. You are required to fill in Your details as mentioned in Digital Signature Certificate Request Form and submitted to NICCA)

- **Certificate Class**: It is fixed at the time of User-id creation.
- **Certificate Type**: Select Signing Certificate or as desired or as suggested / instructed by Certifying Authority
- Do you have a certificate request already generated? Click No
- Fill in the seven mandatory fields under "**Contents of your Digital Certificate**"
- **Cryptographic Service Provider**: Select **Datakey RSA CSP.** Do not Scroll down the page with mouse wheel; it changes the selected option. To avoid this move arrow away from selected option and click left mouse-button once.
- Check all entries once again and Click Generate Request.

(A confirmatory message will be displayed on your computer screen. Read it and Click OK). At this time you will be prompted to enter Passphrase/PIN of the smart card.)

- Enter Passphrase / PIN of the smart card.

Your Digital Certificate key pair will be generated on smart card.

A request Number will also be generated and displayed on your computer screen. Please note it down for further follow up.

No need to go to Step-2.

Go to **Step-3** OR **Step-4** to view the status of your DSC Request or simply click **View Status** on the top of the page.

Once RA administrator and CA Administrators process the certificate request, your Digital certificate will be generated and authentication PIN will be sent to you on your email address.

3. Downloading Digital Certificate on Smart Card

- Open the Browser and go to https://nicca.nic.in
- Click Member Login and login with User-id / Password issued by NIC Certifying Authority
- Click on **View Status** - This will show the status of your DSC request. If the certificate has been generated a link will be provided on the DSC request number.
- Click on **DSC Request Number**

- Enter Authentication PIN (**Ten Digit Alphanumeric code - all CAPITAL LETTERS**) and click on Download. First Certificates of CCA and NICCA will be downloaded on your system and then your certificate will be downloaded on the smart card.

4. Download and Install Certificate Chain

When you download your certificate on smart card, the certificate chain is also downloaded and installed in your browser.. In case you are using your certificate (Smart card) on some other system, make sure certificate chain is also installed on that system. To download and install certificate chain follow these steps.

- Open the Browser and go to https://nicca.nic.in
- Click Certificate Chain (CCA & NICCA Certs)
- Click on Download (Left Hand Side Window pane) and Click Download Certificate Chain (,zip format). Save this file on Desktop or your desired location.
- Unzip this file with Winzip. This will display a number of files.
- Right click on **chain2 (Including nicca2 & cca2 certs). p7b** and click install certificate. This will install the certificate chain (nicca & cca certificates).

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NOTE: Until your certificate is generated and downloaded successfully, you will not be able to access these keys for use or for backup purposes. It is therefore extremely important to ensure the following until your certificate is downloaded successfully:

For Smart Card / USB Token Users:

- Do not format your machine
- Do not re-install or upgrade your internet browser
- Do not re-initialize the card/token

If the above conditions are not met, your keys will be lost permanently and you will not be able to download your certificate. In such cases, the only option is to apply for a fresh certificate.

Your digital certificate is related to the cryptographic keys stored on your machine (or Smart Card / USB Token, as applicable). Hence, it's necessary for you to download the certificate onto the same machine (or Smart Card / USB Token, as applicable) from where you enrolled for the certificate.