

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

No. 2017/RBCC/7/10/e-Office/DSC Policy for IR

New Delhi, Dated: 21.07.2017

**The General Manager,  
All Zonal Railways, Core & Production Units.**

**Director General  
NAIR, Vadodra,  
RDSO, Lucknow**

**Director,  
All Centralized Training Institutes.**

**CAO,  
COFMOW, DLW Patiala**

**Sub:- Digital Signature Certificate (DSC) Policy for Railway Units**

Competent Authority has approved Digital Signature Certificate (DSC) policy for all Railway Units. DSC policy is attached herewith.

This issues with the concurrence of Finance Directorate of Ministry of Railways.

  
**(Gaurav Sharma )  
Director ME (C&IS)**

**DA: As above**

No. 2017/RBCC/7/10/e-Office/DSC Policy for IR

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2. Principle Directors of Audit, All Indian Railways/ PUs
3. The Dy. Comptroller and Auditor General of Indian (Railways), Room No – 224, Rail Bhawan, New Delhi

  
**For Finance Commissioner/Railways**

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Document No:		Version No: 1.0-d2	Date Issued: dd/mm/yyyy
Document Title: Policy on Lifecycle Management of Digital Signature Certificates on Indian Railways			



भारत सरकार  
रेल मंत्रालय (रेलवे बोर्ड)  
नई दिल्ली 110 001

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)  
NEW DELHI 110001

**Document No**

*Policy on Lifecycle Management of Digital Signature Certificates on Indian Railways*

**Version History:**

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1.		1.0-d0	

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1.

## 1. Background & Introduction

Electronic (Digital) Signatures were introduced by the Information Technology Act 2000 and elaborated further in its amendment in 2008. The act provided for the creation of the Controller of Certifying Authorities (CCA) which in turn created Certifying Authorities (CA) which formed the Public Key Infrastructure (PKI) for the country.

Note: For better understanding of the concept of DSC's and Public Key Infrastructure (PKI) please read the annexed Brochure issued by the CCA on Digital Signatures.

Digital Signatures provide the following features:

- These are analogous to Handwritten Signatures in the digital domain.
- Provides legal validity
- Digital Signatures can verified electronically
- Tampering of Digitally Signed Digital Documents can be detected

Note: It should be noted that Digital Signatures ensure validity only when the digitally signed record / document is in the original digital form. A printed copy of a digitally signed document shall not retain the verification / validation feature of the original document.

Digital Signature Certificate(s) (DSC) are being used on Indian Railways for applications like e-tendering, issue of e-Gazette etc.

Upto 2014, NIC-CA handled the task of providing CA services for all Government offices. Instructions for obtaining DSC's from NIC-CA were issued vide letter number **2007/RBCC/516/Tender Portal dated 06/06/2012**.

However in July 2014, NIC-CA temporarily stopped issuing / renewing DSC's. Inorder to circumvent this development, further instructions were issued to permit procurement of DSC's for official use from any of the Certification Authorities approved by the Controller of Certification Authorities of India (CCA). The instructions were issued vide letter number **2012/RBCC/5/3/Digital Certificate dated 13/08/2014**.

A large number of DSC's are already in use in the offices of Indian Railways. These numbers are likely to increase substantially with the introduction of applications like eOffice / SPARROW / PRISM etc.

There is a need ensure uniformity of DSC's and its associate software,such that these can be used universally across all applications that are already functional or are likely to be deployed in the future.

## 2. Objectives and Scope this document

This document details a comprehensive policy for lifecycle management of DSC's for use on the Indian Railways. The policy is aimed to provide appropriate user guidance to systematize and economize the use of DSC's.

The instructions contained in this document have been prepared for ensure uniformity and avoid incompatibilities of between various applications that use DSC's.

This policy shall be applicable for lifecycle management of all Digital Signature Certificates procured as official equipment / service on Indian Railways.

## 3. Details / Instructions

The following paragraphs provide specific instructions for the lifecycle management of DSC's.

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### 3.1 Prerequisites for obtaining DSC's

The following pre-requisites may kindly be ensured from all applicants of DSC's

#### 3.1.1 Aadhaar ID and linked cellphone

1. All applicants shall have an Aadhaar ID.
2. The Aadhaar ID shall be linked to a cellphone number. The number used should preferably be such that it remains permanent with the user. Use of officially issued cell phone numbers should be avoided, as process of change of registered mobile numbers adds additional complexity during transfers / postings.

Note: Kindly look up instructions for Aadhaar and linking of cell phone number at the UIDAI Website: <https://uidai.gov.in/> at the URL: <https://ssup.uidai.gov.in/web/quest/update>

#### 3.1.2 Personal Email-ID on gov.in domain

1. All applicants shall have a personal email-ID on the "gov.in" domain. The applicant shall ensure that the email account is current and functional.
2. The email account on "gov.in" domain mandatorily requires the user to register a cellphone number. The number used should preferably be such that it remains permanently with the user. Use of officially issued cell phone numbers should be avoided, as process of change of registered mobile numbers adds additional complexity during transfers / postings.

Note: Kindly look up instructions for obtaining gov.in email-ID at the REIS website at: <http://www.reis.railnet.gov.in>

### 3.2 Planning for procurement

#### 3.2.1 Selecting Class of DSC's

DSC's are classified into different classes by the CCA, namely: **Class 0, Class 1, Class 2 and Class 3**. Although other classes are permitted these are special cases.

Note: Please look at the annexed copy of the webpage of CCA detailing the classes of DSC's.

**Class 2** DSC's shall be used by default DSC's for applications on Indian Railways.

**Class 3** DSC's shall be mandated, where required, especially for financial transactions.

#### 3.2.2 Selecting Type of Key Store

The private key associated with the digital signatures needs to be stored securely.

Note: Please read the annexed note on Storage of private key used by subscribers for creating Digital Signatures, issued by CCA for better understanding of the features of different types of storage options.

For applications on Indian Railways, USB Crypto Tokens shall be used by default for storage of the private key and associated certificates.

Any other option for storage shall be used after approval by the C&IS Directorate of Railway Board.

#### 3.2.3 Sources for Procurement

DSC services and required crypto-tokens shall be purchased only from the CCA approved Certification Authorities (CA). The website of CCA shall be checked to ascertain the approved agencies.

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Note: Please see the CCA website at: <http://www.cca.gov.in/cca/>

### **3.2.3.1 Purchase of DSC's through NICSI (A PSU of Dept of Electronics & Information Technology)**

In order to facilitate e-Governance initiatives, National Informatics Centre (a unit of Department of Electronics and Information Technology), has delegated procurement of DSC's and tokens to its PSU NIC Services Incorporated (NICSI).

Note: Please see the copy of the notice (annexed) informing this delegation as obtained from NICSI website <http://nicSI.com>

NICSI provides a large range of services for e-Governance projects; therefore they pre-ensure working of DSC drivers with most applications. Therefore it is recommended that DSC's and tokens should be sourced from NICSI.

Incase, for any reason, DSC's/ tokens need to be procured from other CCA approved sources, it shall be ensured by the indenter / purchaser that the DSC software is compatible with the applications on which these are planned to be used.

### **3.3 Filling the Registration form for DSC**

The application forms for DSC's and tokens are service provider specific. Forms and instructions under the head 'DSC and Token' may be followed on NICSI website.

The copy of the application form of (n)Code Solutions is used as guide.

Note: Please find the copy of the Registration Form for Digital Certificate (Government) attached as annexure to this document.

Please use the following as guide to fill to the registration form:

#### **3.3.1 Use Registration Form for Digital Certificate (Government)**

Please use the form specifically meant for government offices. (The same is annexed)

#### **3.3.2 Selection of Class of DSC**

Please select Class 2 by default or. Class 3 if required. (Class 2 and Class 3 are technically almost the same. However, the identity verification guidelines, issued by CCA, mandate physical verification of the applicant making the application and subsequent renewal process complex

#### **3.3.3 Select Validity**

Select Validity of two years by default, unless the DSC user is likely to be retiring from service earlier; in such a case select the period that covers officer's retirement date.

#### **3.3.4 Sign & Encrypt**

Select the option for both Sign & Encrypt use for the DSC.

#### **3.3.5 Follow all instructions correctly**

Follow all instructions provided on the registration form to ensure a error free submission. The colour of the ink used for filling the form is mandated. It needs to be followed correctly.

#### **3.3.6 Unique Email-ID**

Use the personal Email-ID created on the gov.in domain as the Unique Email ID.

### 3.3.7 Unique Mobile Number

Use the personal cellphone number (the one which linked to Aadhaar) as the unique mobile number.

### 3.3.8 Identity Details of Applicant

Use the Railways identity card as the document of identity of the applicant. The attested copy shall be attached.

### 3.3.9 Organization Name

This is an important field and shall be filled in as below as an illustration:

Officer Group	Information to be filled in
Group A	<b>Organization Name:</b> Ministry of Railways <b>Office Address:</b> Service & Year ( e.g. <i>IRTS 1994</i> ) C/O Confidential Cell, Room No. NNN, Ministry of Railways Rail Bhavan, Raisina Road, New Delhi 110001.
Group B	<b>Organization Name:</b> Ministry of Railways <b>Office Address:</b> Service & Year C/O Confidential Cell, Room No. NNN, HQ Address of ZR / PU / CTI etc
Group C	<b>Organization Name:</b> Ministry of Railways <b>Office Address:</b> Service & Year C/O Confidential Cell, Room No. NNN, Provide Address of the Cadre Controlling Authority
Group D	<b>Organization Name:</b> Ministry of Railways <b>Office Address:</b> Service & Year C/O Confidential Cell, Room No. NNN, Provide Address of the Cadre Controlling Authority

The above method of filling the registration form ensures that the DSC can be used by the officer for the full duration of the validity and irrespective of incumbency on any post.

This saves a significant cost by utilizing the full validity of DSC (2 years) and also conserves resources which otherwise shall be needed to cancel and reissue DSC's whenever an officer is transferred.

### 3.3.10 Authorization Letter part of the Registration Form

The Authorization Letter part of the form shall be verified and signed by officer(s) nominated by the Confidential Cell of the Railway Unit. All officers in JAG and above grade shall be empowered to sign the authorization letter. Other officers may be nominated by the respective officers (JAG & Above) to sign the authorization letters.

The following details of these nominated officers shall be maintained by the respective confidential cells to be produced on demand:

1. Name
2. Service / Year
3. Designation
4. ID Card Number
5. Email IC (NIC personal on gov.in domain)
6. Aadhaar Number

## 7. Cell Number

### 3.4 One DSC per officer

Only one DSC shall be issued to an officer. In case there is a requirement to have Class 2 and Class 3 DSC's then the higher Class DSC shall be issued.

In case under exceptional circumstances more than one DSC is required to be issued, it shall be duly justified by the officer requesting for the same.

### 3.5 Process of procurement

Individually DSC's are low cost items. However, at times there may be a need to buy in bulk. Therefore the following processes are recommended for purchasing DSC's:

Purchase Mode	Cost Limit	Remarks
Purchase by Officer in Group A & B	Limited to Cost of one DSC.	<ul style="list-style-type: none"> <li>• Group A &amp; B officers shall purchase DSC for themselves on reimbursement basis, or through imprests controlled by them.</li> <li>• Purchase of DSC shall be permitted for fresh procurement and renewal of DSC on the expiry of validity of the previously purchased one.</li> <li>• The amount of reimbursement shall be limited to the lower of the following values: <ul style="list-style-type: none"> <li>○ Actual cost of purchase</li> <li>○ Rate as per the NISCI Rate Contract. In case NISCI does not have a current rate contract, the rates of the last available rate contract shall be used by indexing the same with an inflation rate of 10% per annum.</li> </ul> </li> <li>• The reimbursement shall self sanctioned by the officer procuring the DSC. There shall be no further separate sanctioning process.</li> </ul>
Purchase of DSC for sub-ordinate officers	Limited to Cost of one DSC	<ul style="list-style-type: none"> <li>• Group C &amp; D personnel, who are required to use DSC's for official work, are authorized to purchase DSC's on reimbursement as detailed above.</li> <li>• The reimbursement of the expenses for the purchase shall be sanctioned by the Controlling officer in JAG or above grade.</li> </ul>

### 3.6 Safekeeping use & expenses during validity of DSC

#### 3.6.1 Safekeeping of Token and PIN

Safekeeping of the crypto-token, Digital Certificates, PIN etc. is the personal responsibility of the officers to whom the DSC is issued.

The officer shall ensure that the DSC's remain fully functional and active at all times.

Note: As per the IT Act, documents signed or messages sent using the DSC are deemed to be signed by the holder of the DSC, therefore the DSC / PIN should not be shared as the complete liability rests on the holder of the DSC..

#### 3.6.2 Use of DSC's

Officers shall use the DSC's issued as required. The DSC's provided can be used for signing the documents and also for sending secure encrypted messages to other users.

The officers can use the DSC's to digitally sign their personal documents i.e. income tax returns etc. and also send encrypted messages.

#### 3.6.3 Expenses on maintenance of DSC's

The DSC procured using this procedure do not incur any maintenance or service charges over the validity. However, in case of loss / damage of token or loss of PIN, locking out due to multiple wrong PIN's, etc, the services provider may levy certain charges for recovery / reissue.

Such charges shall be paid personally by the officer concerned and shall not be reimbursed.

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### **3.7 Action to be taken on transfer postings**

The DSC is issued to the officer by name, thus the officer shall take it along with him / her on transfer postings. The details about the DSC shall be entered into the LPC of the officer clearly mentioning the CA, initialization date and validity.

### **3.8 Action to be taken in case of retirement of DSC holder**

In case of superannuation or Voluntary Retirement, DSC shall be deposited with Confidential cell which shall process further for revocation of DSCs and submission of necessary documents to the Administration.

### **3.9 Disposal at end of validity**

At the end of validity of the DSC, the CA informs the user and prompts for renewal of the same. The officer may either opt for renewal or seek a altogether new DSC. In both cases the process of procurement is similar to the initial process.

The USB crypto-token can be reused if permitted by the CA.

The USB tokens shall not be returned to the office by the officers. The officers shall follow advice of CA for safe disposal of the non-used USB crypto-tokens.

## **4. Reference**

The following references can be studied for further information.

1. [Brochure on Digital Signatures by CCA of India \(Annexed\)](#)
2. UIDAI Website: <https://uidai.gov.in/>
3. Railway Employee Information System. <http://www.reis.railnet.gov.in>
4. [Classes of DSC's \(Annexed\)](#)
5. [Storage Options for DSC's \(Annexed\)](#)
6. CCA India Website <http://www.cca.gov.in/cca/>
7. NICS I Website <http://nicsi.com>
8. [Notice of NICS I for procurement of Digital Signatures for Government Organization \(Annexed\)](#)
9. [Copy of the Registration Form of \(n\)Code Solutions \(Annexed\)](#)
10. [Information Technology Act 2000 amended 2008 \(Section II, VI, VII & VIII Clauses 3, 5, 14-42\)](#)