

## What is a Digital Certificate?

Digital Certificates are the digital equivalent of Physical / Paper based certificates. Physical / Paper based certificates are driver's licenses, passports or employee id card. These Physical Certificates serve as identity of an individual for a certain purpose, e.g. a driver's license identifies someone who can legally drive in a particular country.

Likewise, a Digital Certificate can be presented electronically to prove your identity or your right to access information or services on the Internet.

Physical Certificates are issued by Governing bodies like RTO, Passport offices, etc. Likewise Digital Certificates are issued by governing body known as the Certifying Authority (CA). Digital Certificates can be used as the legally in India as per Information Technology Act, 2000.

## Why do we need Digital Certificate?

In this age, Electronic Commerce, Electronic Document Submission, Electronic Banking, Online Shopping, Virtual Malls and other electronic services are becoming need of the hour. Organizations need to offer convenience and flexibility of round-the-clock service and location independence to the customers.

However, people are hesitant of taking advantage of this new medium of online business due to concerns about privacy and security. Encryption alone is not enough, as it provides no proof of the identity of the sender of the encrypted information. Without special safeguards, you risk being impersonated online.

A Digital Certificate addresses these problems and provides an electronic means of proving your identity. It also provides you with a high level of security for your online transactions. You can use certificates to encrypt information such that only the intended recipient can read it. You can digitally sign information to provide assurance to the recipient that it has not been changed in transit, and enable verification that you actually sent the message.

Digital certificates can be used as to verify an individual or a company's identity. It can be used in a variety of ways including to control access on web sites, to create virtual private networks, to secure e-mail, and to guarantee the authenticity of downloaded software.

## Where can we use Digital Certificates?

The Information Technology Act, 2000 provides for use of Digital Signatures on the documents submitted in electronic form in order to ensure the security and authenticity of the documents filed electronically. This is the only secure and authentic way that a document can be submitted electronically.

- Digital Certificates can be used for secure email and web-based transactions, or to identify other participants of web-based transactions.
- Digital Certificates can be used to prove ownership of a domain name and establish encrypted secured sessions between the website and the user for web based transactions.
- Digital Certificates can also be used for signing web forms, e-tendering documents and submitting documents.

## From where can I buy a Digital Certificate?

Certifying Authorities are appointed by the office of the Controller of Certifying Authorities (CCA) under the provisions of IT Act, 2000. Presently, there are total Seven Certifying Authorities

authorized by the CCA to issue the Digital Certificates in India.

The details of these Certification Agencies are as follows:

<b>Sr. No</b>	<b>Certifying Authority Name</b>	<b>Certifying Authority Website</b>
1	Tata Consultancy Services	<a href="http://www.tcs-ca.tcs.co.in">http://www.tcs-ca.tcs.co.in</a>
2	National Informatics Center (NIC)	<a href="http://nicca.nic.in/">http://nicca.nic.in/</a>
3	IDRBT Certifying Authority	<a href="http://idrbtca.org.in/">http://idrbtca.org.in/</a>
4	SafeScript CA Services, Sify Communications Ltd.	<a href="http://www.safescript.com">http://www.safescript.com</a>
5	(n) Code Solutions CA	<a href="https://www.ncodesolutions.com/">https://www.ncodesolutions.com/</a>
6	MTNL Trust Line	<a href="http://www.mtnltrustline.com/">http://www.mtnltrustline.com/</a>
7	Customs & Central Excise	<a href="http://icert.gov.in/">http://icert.gov.in/</a>
8	E-Mudhra	<a href="http://www.e-mudhra.com/">http://www.e-mudhra.com/</a>

### **Need more Information on Digital Certificates?**

For more information on digital signature, please visit the website of Controller of Certifying Authorities: <http://www.cca.gov.in>