

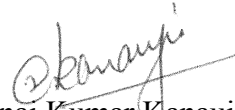
No. 8-5/2014-IT-V
Government of India
Ministry of Communications and IT
Department of Telecommunications
Sanchar Bhawan, 20, Ashok Road
New Delhi-110 001

New Delhi, Dated the 27th March' 2015

Subject: **Time Stamping Service**

Kindly find enclosed herewith a copy of Department of Electronics & Information Technology D.O. No. 19(23)/2014-CCA dated 16.03.2015 on the subject cited above for information/ necessary action.

Enclosure: As above


(Vinai Kumar Kanaujia)
Director (IT-V)
Telephone: 23036509

Copy to:

1. PS to Hon'ble MoC&IT
2. PPS to Secretary(T)
3. PPS to Member(S), Member(T), Member(F), Special Secretary(T)
4. PPS Advisor(O), Advisor(T), Advisor(F)
5. All Sr. DDG/DDG/JS level officers of DoT(Hq.)
6. Heads of all Attached Offices/ Subordinate Offices/ Field Offices/ Statuary bodies/ Autonomous bodies/CPSEs
7. Sr. Technical Director & Principal System Analyst, NIC-DOT

आर एस शर्मा
सचिव
R S Sharma
Secretary



भारत सरकार
संचार और सूचना प्रौद्योगिकी मंत्रालय
इलेक्ट्रॉनिकी और सूचना प्रौद्योगिकी विभाग
Government of India
Ministry of Communications &
Information Technology
Department of Electronics &
Information Technology (DeitY)

DO No.19(23)/2014-CCA
16th March, 2015

Dear Secretary,

The Office of CCA has been set up under the Information Technology (IT) Act, 2000 to facilitate the Electronic Signature environment and the functions of Certifying Authorities (CA). More than 90 lakh Digital Signature Certificates (DSC) have been issued by these CAs. These DSCs are being used in a number of applications including Real Time Gross Settlement System & Structured Financial Messaging System of the RBI, filing of company returns with the Ministry of Corporate Affairs, filing of Income Tax returns, issue of import/export licenses by DGFT, eProcurement, share trading and by the Booking Agents for Indian Railways among others.

2. The Regulations under the Information Technology Act, 2000 mandates that the Certifying Authority shall provide Time Stamping Service for its subscribers. Time stamping legally establishes time of any reference that requires a timestamp. The reference could be documents, transactions, certificates, contracts etc. The Digital Signature functions integrates with the time stamping process to mathematically link the reference with time derived from a designated national time source to generate a time stamp. These timestamps can be verified to establish the time attestation required for providing stronger evidence.

3. The benefits of time stamping electronic documents include the following:

- Accurate time in conformance with Government Guidelines
- Digitally signed timestamps.
- Verifiable in future.
- Assured integrity and non-reputability.
- Fraud detection.
- Electronic Notary.

Potential Use Cases where Time Stamping would provide strong evidence includes eTendering, eProcurement, financial transactions, emails, contracts, eFiling, patent filing, trademark, share trading and office automation.

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Dir (IT-2)

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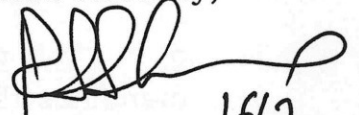
4. Time Stamping Service has been launched by the Honourable Minister for Communications & Information Technology, Shri Ravi Shankar Prasad. The service is being offered by Certifying Authorities as per the Regulations under the IT Act, 2000. The Time source for implementation is the National Physical Laboratory (NPLI).

5. A copy of the Brochure that has been prepared in this regard is attached for your information. Further details of the service can be visited at <http://cca.gov.in/timestamping>

6. I request you to consider integration of Time Stamping into applications that are already operational or in the pipeline in your Ministry / Department. Any query on this can be routed to Shri T A Khan (info@cca.gov.in), Controller of Certifying Authorities, in this department.

With regards,

Yours sincerely,


(RS Sharma) 16/3

Encl: As above.

To

Secretaries of All Ministries / Departments, Government of India.

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GOVERNMENT OF INDIA
 Ministry of Communications And Information Technology
 Department of Electronics And Information Technology
 Controller of Certifying Authorities

Time Stamping

The Regulations under the Information Technology Act, 2000 mandates that the Certifying Authorities shall provide Time Stamping Service for its subscribers. Time stamping legally establishes time of any reference that requires a timestamp. The reference could be documents, transactions, certificates, contracts etc. The Digital Signature function integrates with the time stamping process to mathematically link the reference with time derived from a designated national time source to generate a time stamp. These timestamps can be verified to establish the time attestation required for references. Time stamping services are operated by Certifying Authorities (CAs). Like CAs, Time stamping services are also managed by trusted personnel, operated in a secure environment and subjected to audit and compliance.

Time Stamping-Key Benefits

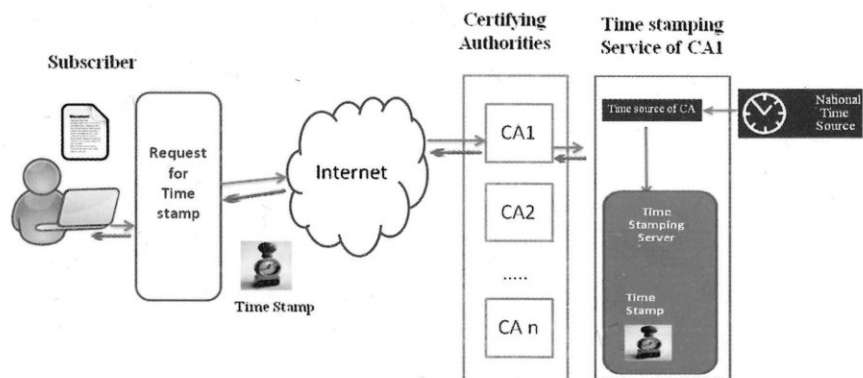
- Accurate time in conformance with Government Guidelines
- Digitally signed timestamps
- Verifiable in future
- Assured integrity and non-repudiability
- Fraud detection
- Electronic Notary
- Content to be time stamped is protected from public exposure

Time Stamping- Application

Provide stronger evidence in

- Office automation workflows
- Financial transactions
- E-filing
- Share trading
- Emails, contracts
- Medical records
- E-tendering, E-procurement
- Patent, Trademark & Geographical Indicators (GI) filing etc

Time Stamping Service Framework



Time Stamping

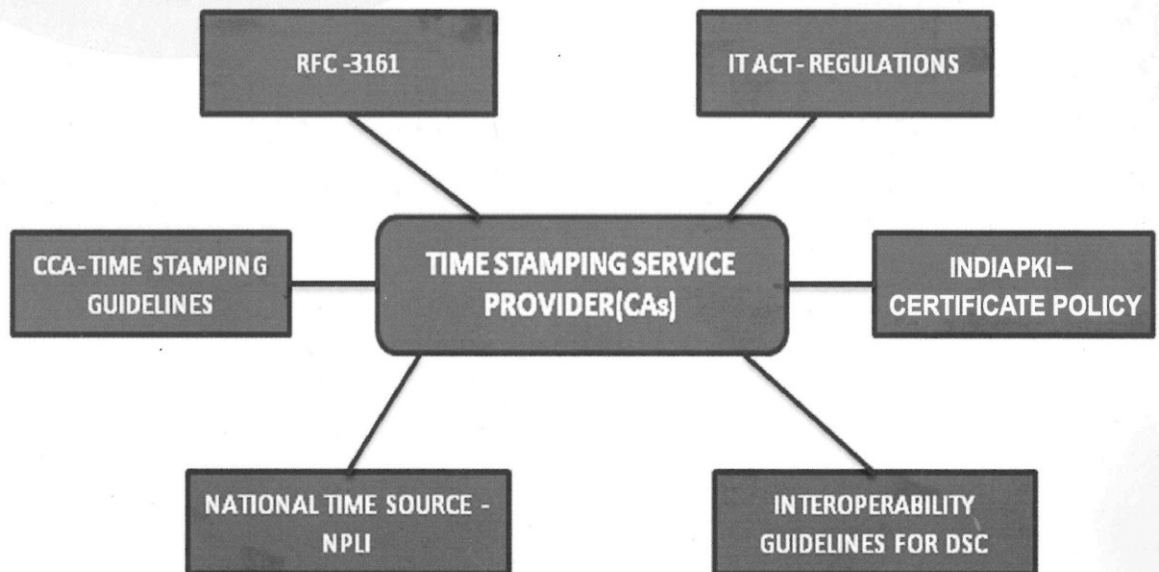
Time Stamp

Time stamp is a notation that indicates (at least) the correct date and time of an action and identity of the person or device that sent or received the time (IT Act). Time Stamp is a digital signature of a time Stamping Service that establishes the integrity of a reference submitted by subscriber on a specific date and time.

Time Stamping

Time-Stamping is a service that asserts a time stamp by using Digital Signature which denotes a point in time with respect to a reference received from a subscriber. Subscriber submits a request containing the reference to the time stamping service and obtains a digitally signed timestamp in response. Time source for this implementation is the National Physical Laboratory (NPLI).

Time Stamping Policy and Time Source Frame Work



A person or a client can access the time stamping service provider using software application. The time stamping client generates the hash* of the document or transaction or any other reference and construct a timestamp-request and sends it to the time stamping service. Nobody can decipher the original document/transaction since it is the hash of the document/transaction that is sent to the time stamping service, thus ensuring privacy. On the verification of request, time stamping service digitally signs the request along with time derived from a designated national time source and sends the resultant timestamp-response to client. The client must validate signature in the time stamp and keep it safe. The time stamping provider will keep a register of time stamps issued for future verification.

*HASH is an algorithm that maps or translates one set of bits into another (generally smaller) set in such a way that a message yields the same result every time the algorithm is executed using the same message as input.