DIGILOCKER: MOVING A STEP AHEAD IN PROMOTING PAPERLESS GOVERNANCE

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ABSTRACT

DigiLocker is one of the key initiatives under the Digital India Programme. This was released by the Department of Electronics and Information Technology (DeitY), Government of India. DigiLocker is a "digital locker" service launched by the Government of India in February 2015 to provide a secure dedicated personal electronic space for storing the documents of resident Indian citizens. The storage space (maximum 10 MB at the time of launching & now upgraded to 1GB) is linked to the Unique Identification Authority of India (Aadhaar number) of the user. The space can be utilized for storing personal documents like University certificates, Permanent account number (PAN) cards, voter id cards, etc., and the URIs of the e-documents issued by various issuer departments. There is also an associated facility for e-signing documents. The service is intended to minimize the use of physical documents and to provide authenticity of the e-documents. It will also provide secure access to government issued documents. It is also intended to reduce administrative expenses of government departments and agencies and to make it easy for the residents to receive services. To sign up the user must possess an Aadhaar Card and a mobile number linked to it (Now linking to Aadhaar number is not mandatory - You just need a mobile number to create an account in DigiLocker).

Keywords: *Cloud Storage, DigiLocker, Digital India, eSign, UID*

I. DIGITAL INDIA

Digital India is a campaign launched by the Government of India to ensure that Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. It was launched on 1 July 2015 by Prime Minister Narendra Modi. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components. These include: The creation of digital infrastructure, Delivery of services digitally and Digital literacy.

1.1   Vision of Digital India initiative

1.1.1 Infrastructure**:** The Digital India initiative has a vision to provide high speed internet services to its citizens in all gram panchayats. Bank accounts will be given priority at individual level. People will be provided with safe and secure cyber space in the country.

1.1.2 Governance and services**:** Government services will be available online where citizens will be ensured easy access to it. Transactions will be made easy through electronic medium.

1.1.3 Digital empowerment of citizens: This is important factor of the Digital India initiative to provide universal digital literacy and make digital sources easily accessible. The services are also provided in Indian languages for active participation.

1.2   Pillars of Digital India

Digital India is an umbrella programme that covers multiple Government Ministries and Departments. It weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal. Each individual element stands on its own, but is also part of the larger picture. Digital India is to be implemented by the entire Government with overall coordination being done by the Department of Electronics and Information Technology (DeitY). Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes. Each of these areas is a complex programme in itself and cuts across multiple Ministries and Departments.
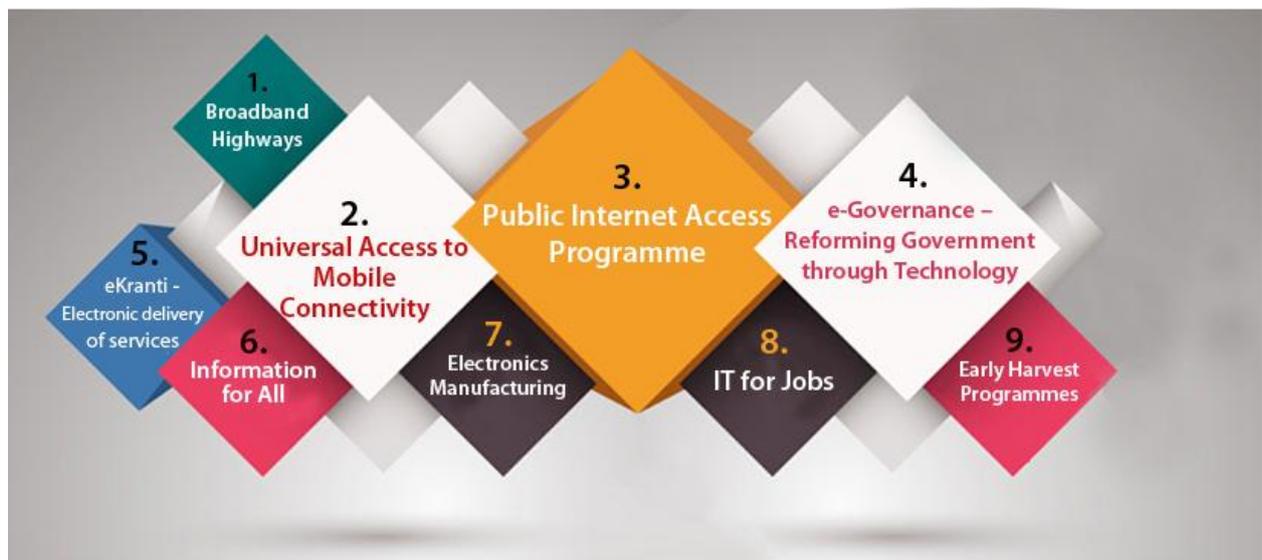

Fig 1.2 pillars of digital india

1.3   Projects

Prime Minister Narendra Modi launched the Digital Media week to push the use of technology to connect and empower people in areas relating to health, education, labour, employment, and commerce etc. The initiative comprises of several projects which will focus on better governance, knowledge and universal phone connectivity across the country. Under this programme, the government plans to introduce Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, IT for Jobs and much more.

The governance will shift from e-governance to m-governance where "M is not Modi Governance, it is mobile governance," said Modi. The initiative aims to bring big investments in the technology sector and this initiative will help in creating a participative, transparent and responsive government.

Here are some key initiatives which form a part of Digital India week

1.3.1 DigiLocker

The service was launched as an important facility to store crucial documents like Voter ID Card, Pan Card, BPL Card, Driving License, education certificates, etc. in the cloud.

1.3.2 MyGov.in

The portal works as an online platform to engage citizens in governance through a "Discuss", "Do" and "Disseminate" approach.

1.3.3 ESign Framework

ESign is an online electronic signature service in India to facilitate an Aadhaar holder to digitally sign a document. The signature service is facilitated by authenticating the Aadhaar holder via the Aadhaar-based e-KYC (electronic Know Your Customer) service. To eSign a document, one has to have an Aadhaar card and a mobile number registered with Aadhaar. With these two things, an Indian citizen can sign a document remotely without being physically present.

1.3.4 Swach Bharat Mission mobile app

The app will enable organizations and citizens to access information regarding the cleanliness drive and achieve the goals of the mission.

1.3.5 National Scholarship Portal

This initiative aims at making the scholarship process easy. From submitting the application, verification, sanction and disbursal to end beneficiary, everything related to government scholarships can be done on this single portal online.

1.3.6 EHospital

Online Registration System under this initiative enables people to avail services like online registration, payment of fees and appointment, online diagnostic reports, checking on the availability of blood online, etc.

1.3.7 Digitize India Platform

This initiative will involve digitization of data and records on a large scale in the country to make easy and quick access to them possible.

1.3.8 Bharat Net

Under this initiative, a high-speed digital highway will connect all 250,000 gram panchayats of the country. This is the world's largest rural broadband project using optical fiber.

1.3.9 Wi-Fi Hotspots

Development of high speed BSNL Wi-Fi hotspots throughout the country is yet another initiative to improve digital connectivity in the country.

1.3.10 Next Generation Network

Launched by BSNL, this service will replace 30-year old telephone exchanges to manage all types of services like voice, data, multimedia and other types of communication services.

1.3.11 Electronics Development Fund

The fund will be set up to support the manufacturing of electronics products that would help create new jobs and reduce import. The funds will promote innovation, research and product development to create a resource pool within the country.

1.3.12 Centre of Excellence on Internet of Things (IOT)

In partnership with NASSCOM, DeitY and ERNET in Bangalore, Centre of Excellence will enable rapid adoption of IoT technology and encourage a new growth strategy. IoT will help the citizens in services like transport system, parking, electricity, waste management, water management and women's safety to create smart cities, smart health services, smart manufacturing and smart agriculture, etc.

II. WHAT IS DIGILOCKER?

DigiLocker is one of the key initiatives under the Indian Government's flagship program, Digital India, with an aim of transforming India into a digitally empowered nation. It is simply a private secure space in a government owned public cloud where an individual can keep safe his documents, files or certificates to be able to download or share them online with various stakeholders as and when required.

2.1   Vision behind DigiLocker

Giving a boost to the idea of e-governance, with paperless governance being one of its postulates, DigiLocker is private cloud storage helpful in issuance & verification of certificates & documents digitally. This Aadhaar (UID) linked storage space will help the individuals to store their documents online and verify them online using the eSign facility.

2.2   Benefits of the DigiLocker

➢ Registered individuals can store and then access their digital documents anytime, anywhere and share them online.

➢ The service is free, safe, secure & user-friendly.

➢ Best initiative to make governance paper-free, saving environment.

➢ Documents issues by government departments can be directly pushed by the department into your DigiLocker, hence reducing administrative overheads.

➢ Self-uploaded documents can be authenticated by eSign (digital way of self-attestation).

2.3   Steps to create a DigiLocker account

✓ Visit the Sign Up page official DigiLocker website https://digilocker.gov.in/.

✓ Enter your functional Mobile Number in the text box on the right side of the screen & Click 'Continue' button.

✓ You will receive an SMS with an OTP (One Time Password) on your mobile number.

✓ Enter the OTP received on your mobile number in the second text box and click 'Verify' button.

✓ Once the OTP is verified, you are prompted to set your 'Username' & 'Password' for the first time. Password should be secure (8-30 characters long with at least one alphabet, one number & one special character).

✓ You will then be prompted to enter your Aadhaar details (If you wish to add) else you can click on 'Skip entering Aadhaar details and continue'.

✓ While your new DigiLocker is getting configured, you will receive a message saying "Do not 'refresh' or press 'Back button' during the process". After waiting for a few minutes, refresh the page.

- ✓ You will be taken to the Login page: enter your login credentials & you are done.

- ✓ You will now receive a congratulatory note saying, "Congratulations, your DigiLocker account was successfully created. You can start using it now."

- ✓ Verify your email by entering the email id in the Text box and clicking the 'Verify' button.

- ✓ You will receive a verification email in your mailbox. Click on the "Click Here to Verify" hyperlink.

- ✓ You will now be redirected to the DigiLocker website. Sign in & Start uploading your documents, files & certificates into your safe, secure & private cloud space.

2.4   Key components of DigiLocker account

Each resident's DigiLocker account has the following sections:

- ➢ Dashboard – This section is the first page you see when you login and shows a summary of all your documents.

- ➢ Issued Documents – This section shows the URIs (links) of the documents or certificates issued to you by the Govt. department or other agencies participating in DigiLocker.

- ➢ Uploaded Documents – This section shows all the documents which are uploaded by you. You can update the document type, eSign and share these uploaded documents.

- ➢ Shared Documents – This sections shows the list of documents which you share with others (via email).

- ➢ Activity – This section is a log of the activities you performed in you DigiLocker account. The log included the details about the activities such as file upload, download, eSign etc.

- ➢ Issuers – This section lists the departments and agencies that are registered on DigiLocker as Issuers. If these departments have issued any document/certificate to you, it will appear in the form of a URI (link) in your Issued Documents section.

2.5   Security Features of DigiLocker

DigiLocker is safe and secure to use. We are taking all precautionary measures to ensure your data is protected and uncompromised. Please find the list of security measures that have been implemented till now. This list will expand as more safety features get added.

- Standard Practices: DigiLocker follows standard software development practices of uniform coding standards, guidelines and reviews. Every release is reviewed and tested internally for security and penetration vulnerabilities before getting deployed on our servers.

- 256 Bit SSL Encryption: DigiLocker uses 256 bit secure socket layer (SSL) Encryption for information transmitted during any activity. Mobile Authentication based Sign Up: DigiLocker uses mobile authentication based signup via OTP (one time password) for authenticating users and allowing access to the platform.

- Aadhaar Authentication based Issued Document Access: To receive issued documents from registered issuers, citizens need to authenticate themselves using Aadhaar's Biometric or Mobile OTP authentication service.

- ISO 27001 certified Data Centre: The application is hosted in a ISO 27001 security certified data centre.

- Data Redundancy: Data is backed up in secure environment with proper redundancy.

- Timed Log Out: To protect citizen's account from unauthorized access, our system is designed to terminate session automatically if extended inactivity is detected.

- Security Audit: The DigiLocker application has been security audited by a recognized audit agency and the application security audit certificate has been obtained.

- User Consent Based System: The data from DigiLocker is shared only with the citizen's explicit consent. All sharing and access activities are logged and conveyed to the citizen. Organizations that need access to citizens' certificates need to register on DigiLocker and seek explicit consent from the citizen.

III. CONCLUSION

The administration has launched the facility of digital locker, an ambitious project of the Central government, which will enable people to store digitalized copies of important documents online. This is great step towards promoting paperless governance and to do away with the physical moment of documents. To implement digital locker effectively, High level of digital literacy and connectivity to remote areas is required. Besides this, there are other factors like cyber crime, finance, net neutrality and changing the mindset of people, which should also be taken into consideration.

REFERENCES

[1] Mehek Gulati, Digital India: Challenges and Opportunities, *International Journal of Management, Information Technology and Engineering, Vol 4, Issue 10, Oct 2016*

[2] Dr.T.V.Ramana, IT (India Talent) +IT (Information Technology) =IT (India Tomorrow), *International Journal of Academic Research Vol 2 Issue 3(1), July-September-2015*

[3] Jinal Jani, Girish Tere, Digital India: A need of Hours, *International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue 8, August 2015*

[4] https://en.wikipedia.org/wiki/Digital_India

[5] https://digilocker.gov.in/

[6] http://blog.escanav.com/2015/07/17/digital-india-challenges-and-opportunities/