FINALISATION OF TECHNOLOGY ARCHITECTURE UNDER IT 2.0
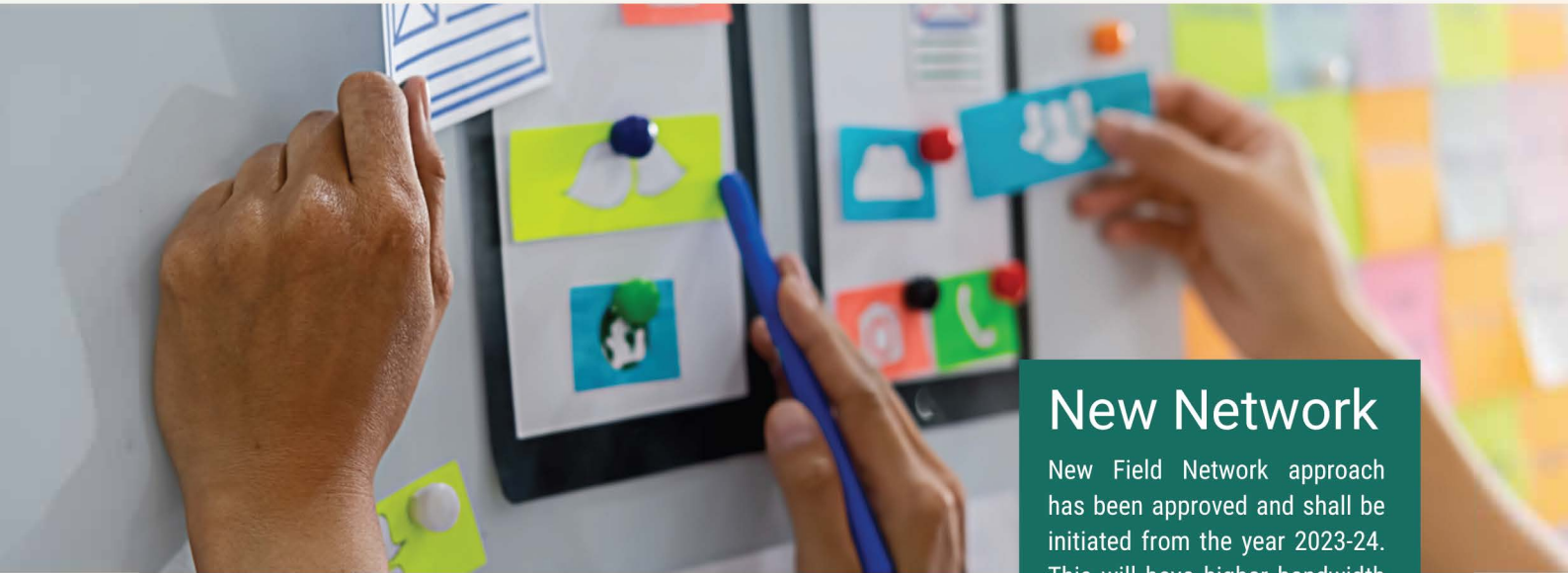
Project Steering Committee under IT 2.0 had approved the Technology Architecture laying the foundation of IT modernisation. It envisages comprehensive approach to leveraging technology to drive business success and create value for Post Office customers. It will utilise cloud computing, machine learning on one hand and improvement of functionality in Post Offices, Mail Offices and Account Offices on other hand.

(Contn Page 2)

New Network

New Field Network approach has been approved and shall be initiated from the year 2023-24. This will have higher bandwidth for Post Offices and Mail offices, with new field routers. The new network shall have better cyber security and tighter control on usage.

Tech-Dev Team

The Department had approved various positions for technology team and core development team for the unified development of all Postal, Mail offices, accounting Solution. The team shall be operational in the next 6 months stationed at Delhi
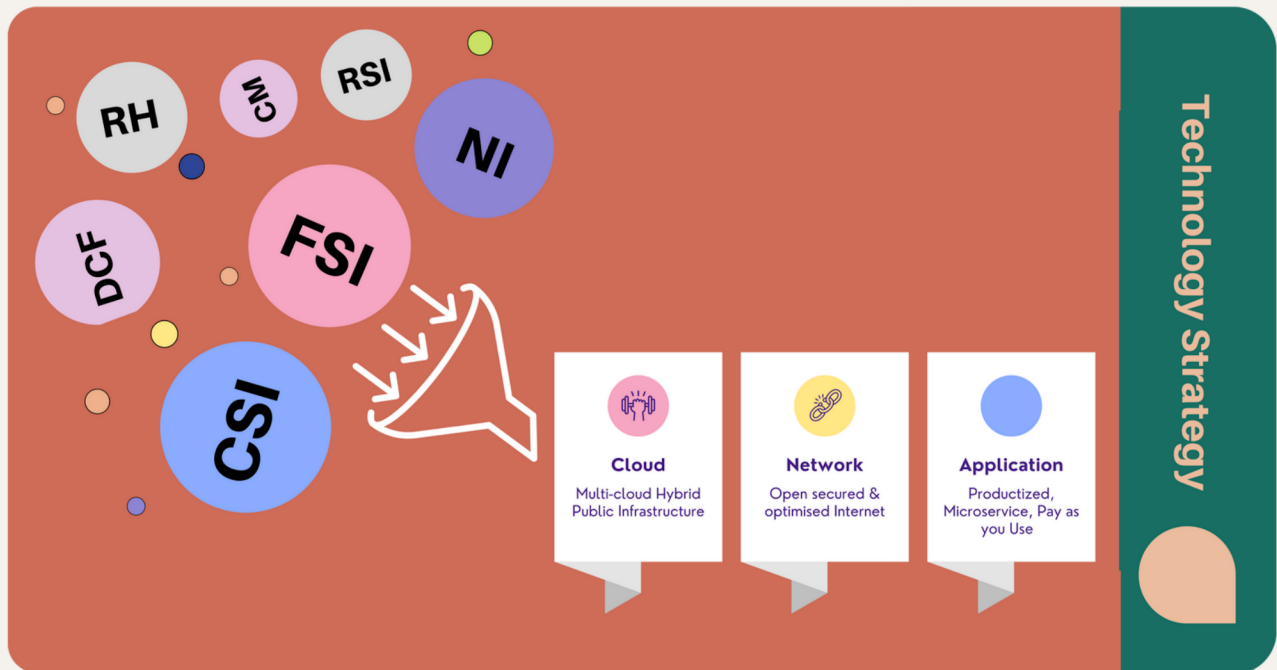
DATACENTRE

To ensure seemless migration from IT 1.0 to IT 2.0, Steering Committee had approved the unified transition approach towards DC & DR for DoP along with IPPB. IPPB shall manage the unified DC & DR during the transition period and will move them to the new location.

SIMPLIFICATION OF IT MGT

Cloud
Multi-cloud Hybrid Public Infrastructure

Network
Open secured & optimised Internet

Application
Productized, Microservice, Pay as you Use

Technology Strategy

IT 1.0 had 8 different tracks with multiple solution partners. The large IT footprint of the Department required effective risk mitigation which was achieved through disaggregated vendor approach. Over the years, the ICT landscape has matured and brought in the culture of digitisation. IT 1.0 brought in 'digitization' by focusing on converting analogue information into a digital format, while IT 2.0 is about 'digitalization' which involves using digital technologies to fundamentally change how DoP shall operate and deliver value to customers.

IT 2.0 is a continuity project to take forward the capital asset built during the past decade. It is aimed to simplify Governance at the Central level.

By using cloud infrastructure DoP shall get Data centre, Disaster Recovery, IT Security, and Network Management as all-in-one package service in opex mode without an upfront investment on infrastructure.

By the unification of various field network services into one turn-key provider, all Departmental Post Offices will benefit by having automatic switching of Active-Active links. There shall be single access to network fault management and sufficient redundancies on link failures.

And instead of having multiple system integrators with different vendors, the new architecture envisages single control of all application with specialised IT resources under the umbrella of CEPT.
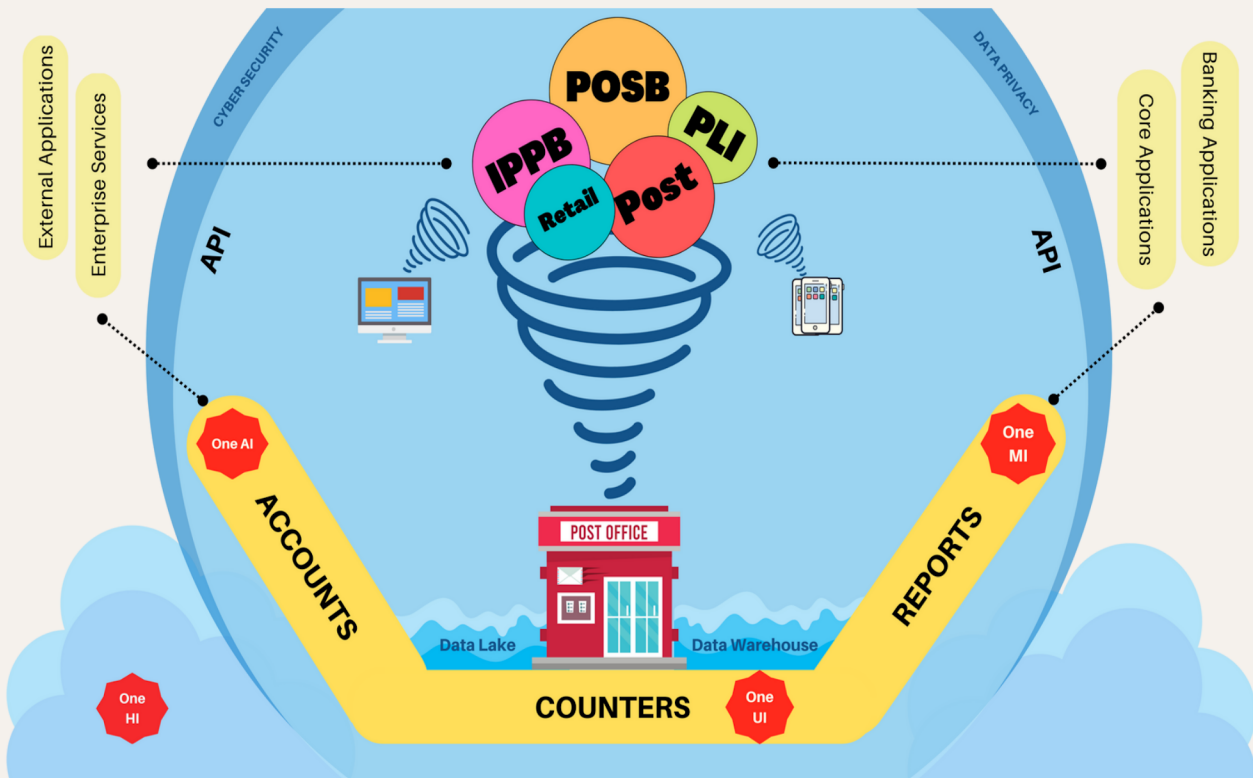
CCC

The Steering Committee had approved the setting up of an independent Command Control Centre which shall double up as the Network Operation Centre & Security Operations Centre. This centre will be set up at CEPT Bangalore and which shall independently manage and govern IT infrastructure across all offices.

ONE MI – ONE UI – ONE AI

Imagine a scenario when the Counter clerk has to log in to the system once and operate a single user interface for banking, insurance, mail booking, retail booking, common service centre services, and all third-party services. That all the transactions from all sub-offices and branch offices flow into the treasury and reconciliation happens in real time. This is what is called the **One-User Interface (One UI)**

That all Sub-Division, Division, Region, Circles and Directorates get all reports in one dashboard which is customisable by users, integrated with all applications, has easy data visualisation, and is collaborative to ensure that it can be shared in real-time. That there are no reminder emails by administrative officers to send information, reports or data. That with a click of a mouse decision-makers are able to get the trends, patterns, and insights from the postal data warehouse. This is what is called a **One Management Interface (One MI).**

That all transactions from across all channels be it websites, mobile apps, Post office counters, Agents, social media, and third parties flow to the central pool of the 'data lake' with clear governance and structure. That Accounting units have a single source of truth and that there is seamless integration with PFMS. And that authorised users are able to perform analytics, data mining, and machine learning to generate various insights on finance, investigation, and fraud. This is what is called the **One Accounting Interface (One AI).**

All Roads lead to Post Office

One UI, MI and AI bring back Post Office at the centre once again. All applications/vendors will invariably follow Post Office IT discipline and shall only have Post-Office-defined front-end, backend and accounting systems.

APPROACH METHODOLOGY

Roadmap

Banking	Network	Insurance	Postal	Go-Live
September 2022	April 2023	September 2024	September 2024	December 2024

Department of Posts IT is at a unique cusp of brownfield and greenfield projects. Where some of the IT systems are developed and matured, but on other hand, some are yet to be explored and roped in. Therefore, IT 2.0 is a 'Blue Field Project' that involves a combination of both green field and brown field approaches. In this blue field project, new projects will also be initiated on an existing system, but with a new and independent infrastructure. This approach is less costly and less risky than a pure green field project, as it can leverage some existing resources, while still allowing for flexibility in design and development

It will also ensure the reuse of existing hardware as far as possible from the Data Centre, field network hardware and existing network connectivity, And also bring in cutting-edge technologies on the other hand. Therefore, this blue field will be the 'Phased Approach' instead of the 'Big-bang Approach' and make sure that there is sufficient overlap between the legacy and new system.

Cyber Security and Data Privacy are the key pillars on which the Blue Field projects of IT 2.0 will ride. Therefore, a strong cyber security framework is being developed by which all the new application development and management will be governed.

DIGI-DAK
(Digital Driven Accelerated Knowledge-base)
Issued by:
Technology Division
Postal Directorate,
Sansad Marg, New Delhi-110001
technologydivision@indiapost.gov.in
https://www.indiapost.gov.in