Public Data Office

The Public call offices (PCO) changed the urban and rural communication scenario in 1980s. In India, manned and automated (coin operated payphone) PCOs are still opeational. According to the Telecom Regulatory Authority of India (TRAI), there were about 4.2 million (42 lakh) PCOs operating as of 2006 in India.
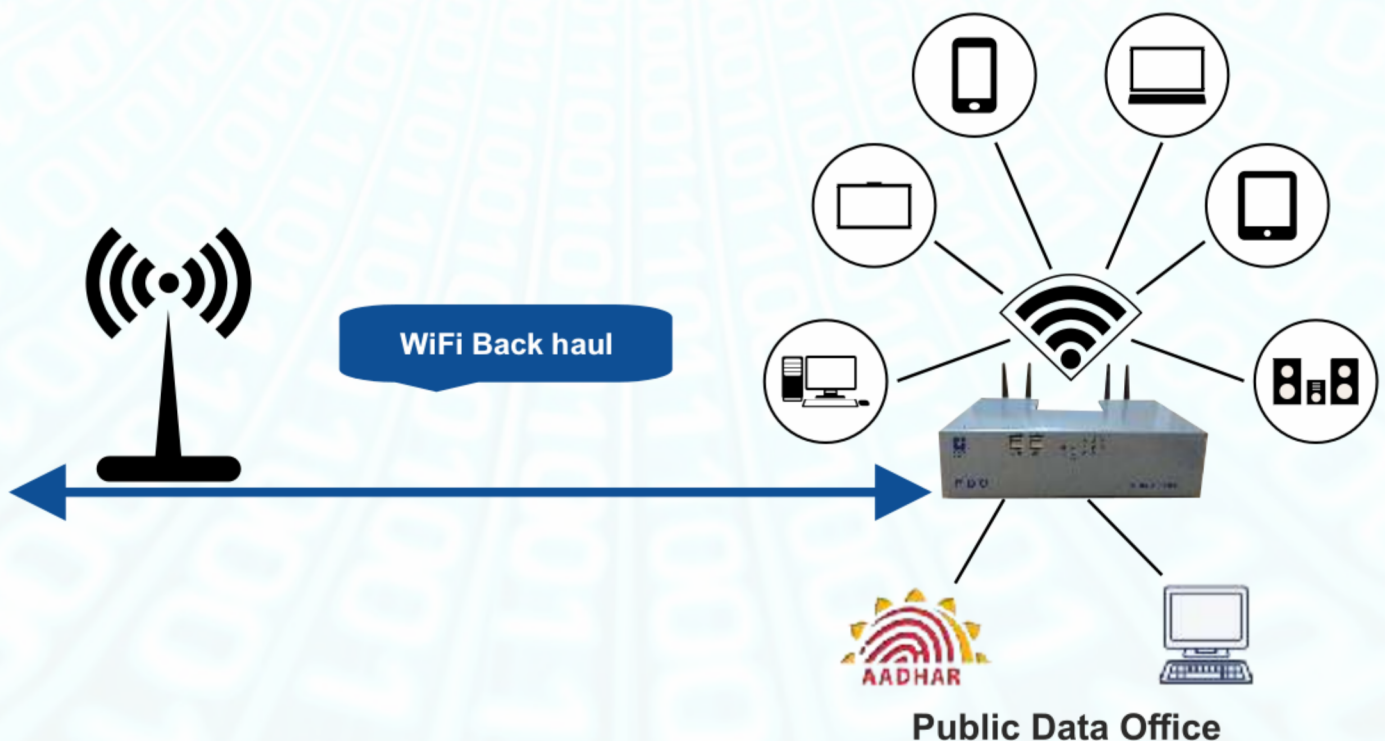
C-DOT has designed PDO in similar lines of PCO to offer data services on WiFi to end users. Public Data Office consists of WiFi access point, computing hardware, billing system, and voucher management entity to enable PDO operator to provide WIFI services to end user. Back haul can either be on Ethernet or WiFi from nearest POP.

Users can purchase vouchers from PDO operator after verification using OTP and get connected to internet as per the purchased plans. PDO operator is at liberty to generate his own plans both for pre-paid and post-paid use cases.

The computing engine in PDO is based on C-DOT thin client with standard linux operating system, enabling PDO operator to use PDO as a general purpose PC, in addition to billing and voucher management.

C-DOT PDO supports both local authentication as well as cloud based authentication as per the TRAI regulation.

Architecture of PDO for VLE:

WiFi Back haul

Public Data Office

Specifications

- An Indoor unit, powered by 12V DC power supply.

Computing Hardware:

- ARM v7 compliant Cortex-A8 processor, running at 800MHz.
- 1GB DDR3 RAM and 8GB eMMC upgradable to 16GB
- High Speed I/O & Peripherals:
  - Display
    - VGA output port
    - HDMI Output port
  - Ethernet: 10/100 Mbps Port.
  - USB 2.0 Host ports
    - 4 USB ports on front panel
  - Audio
    - 1x Line Out port
    - 1x Mic-In port
- Power: 12V DC @ 3A, 7W

WiFi Backhaul

- Based on IEEE 802.11 a/b/g/n
- Supports 2x2 Mimo with data throughput upto 100Mbps (depending on distance and LOS)
- Remoting of antenna with LMR 200 cable
- Supports Patch/Omni/Grid/Sector antenna, based on distance from POP
- Association with WiFi POP upto distance of 10Kms, based on the antenna used.
- Transmit power: 4W EIRP

WiFi Hotspot

- Based on IEEE 802.11 b/g/n
- Supports 2x2 Mimo with data throughput upto 100Mbps (depending on distance and LOS)
- Remoting of antenna with LMR 200 cable
- Supports Patch/Omni/Sector antennas, depending on area to be covered
- Effectively covers a radius of 400mts, outdoor, with LOS from client devices
- Transmit power: 4W EIRP

First level of WiFi Authorization   : Open/WPA/WPA2/WPA-Enterprise

Second level of Authorization   : Mobile OTP

Software

- Operating System supported: Ubuntu
- Billing software : Prepaid and post paid plans, Volume based billing, Time based billing etc.

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