



IIT MADRAS NETWORK EVOLUTION

1995 - 1996

- Campus network set up by Computer Centre at 144 Kbps backbone link.
- Internet connectivity to Administration, Chemical, Electrical, Metrology, and Ocean Engineering.
- By 1995, 18 buildings were LAN-connected to the external network.

1999 - 2001

- Each nodes connected through 10/100 Mbps.
- Fiber optic backbone deployed to enhance connectivity.
- **2000:** Hostels connected via fibre; added 2 Mbps BSNL link, planned 34 Mbps BSNL fibre link.

2004-2005

- Network has a 10 Gbps Central core and three zones: Academic, Hostel & Residential zones.
- Node count: 2000 Academic, 4000 Hostel, 1050 Residential.
- Bandwidth VSNL increased to 32 Mbps for academic & research needs.

2012-2013

- Internet bandwidth TATA Comm. (VSNL) upgraded from 45 Mbps to 90 Mbps
- Implemented Building wise VLAN segmentation
- Hostel network upgraded to Layer 3.

2016-2017

- 10 Gbps backbone with ~20,000 nodes across all zones.
- Network Core Switch upgraded from Cisco C6513 to Cisco C6807 (HA) & EDUROAM enabled.
- NKN bandwidth boosted from 2 Gbps to 10 Gbps.

2023-2025

- **Network Growth:** 30,000 wired nodes across Academic, Hostel & Residential Zones; Wi-Fi in campus common areas.
- **Core Upgrade:** Network Core Switch upgraded from Cisco C6807 to Cisco C9606 with HA.
- **Stronger Security:** Firewall upgraded from FG-3200D to Fortigate FG-6301F with HA.

1993 - 1994

- Extended Ethernet using repurposed telephone cables in star topology.
- First Network established from Aerospace Dept. connected via Cisco router & modems.
- LAN established covering CSB and BSB Through ERNET Project. First inter-building LAN set up in 1994.

1997-1998

- All Buildings in the Academic zone connected with Fiber link through Internet via 64 Kbps VSNL radio link.
- A dual ATM Ring 622 / 155 Mbps Redundancy Link connected 3 ATM Switches.
- Fibre backbone, enhanced UTP cabling, and ~15 buildings linked via remote bridges to Computer Centre & Internet.

2002-2003

- Fibre backbone, Room cabling and switches installed in Sharavathi, Cauvery & Krishna. Internet access enabled.
- Internet bandwidth upgraded to 6 Mbps.
- Installed Network Core Switch Cisco C6513 & Cisco Firewall ASA-5550

2006-2011

- Internet bandwidth VSNL (Tata Comm) upgraded from 32 Mbps to 45 Mbps.
- Campus node count crossed 6000; Academic Zone got 1 Gbps/100 Mbps nodes.
- Internet bandwidth 1 Gbps from NKN

2014-2015

- **Connectivity Boost:** Bandwidth upgraded (TATA: 90 Mbps to 200 Mbps, NKN: 1 Gbps to 2 Gbps) with fibre backbone for 18,000+ nodes.
- Wi-Fi in the Classroom Complex supported 500+ online test-takers; VPN services launched.
- **Stronger Security:** The Cisco ASA-5550 firewall upgraded to Fortigate UTM FG-3200D firewall.

2018-2022

- 25,000 wired nodes with dual fibre in Academic Zone; GPON deployed in the Residential Zone.
- Wi-Fi with virtual controller in academic zone; Enabling exams, courses & video conferencing.
- Next-Gen Firewall FG-6301F secured Hostel & Residential Zones.

