National Internet Exchange of India (NIXI)

Prelims: *Current events of national and international importance*

Why in News?

Recently, NIXI marked the completion of one year of its Internet Governance Internship & Capacity Building Scheme (IGICBS).

> *The Internet Governance Internship & Capacity Building Scheme (IGICBS) aims to build awareness and develop expertise in internet governance (IG) among Indian citizens.*

- NIXI is ***a non-profit organization*** under Section 8 of the Companies Act 2013.
- **Aim –** To improve India's internet infrastructure and digital inclusion and ***enable the exchange of domestic internet traffic within India.***
- **Nodal Ministry –** The Ministry of Electronics and Information Technology (MeitY).
- **Functions –** NIXI serves as a neutral platform to facilitate traffic exchange among Internet Service Providers (ISPs), content delivery networks (CDNs), and other network operators.
- **Direct peering and exchange –** It allow them to connect their networks to swap traffic directly, rather than routing it through expensive third-party transit providers.
- This *reduces latency* by avoiding multiple international routing hops and *improves overall Quality of Service (QoS)* for internet users.
- **Key divisions and services –** NIXI primarily perform 3 operations through its divisions.
- **Internet Exchange (IX NIXI)** – Helps ISPs connect and share internet traffic within India.
- **INRegistry –** Operates and manages *India's .IN country code top level domain (ccTLD).*
    - The Govt. of India delegated the operations of INRegistry to NIXI in

2004.

- **Indian Registry for Internet Names and Numbers (IRINN) –** It is responsible for managing the National Internet Registry (NIR) in India.
- Also instrumental in representing India's position in global internet governance forums.
- **Significance – Data Security –** Helps reduce the risk of Indian internet data being intercepted by foreign agencies.
- **Network Reliability –** Ensures continuity of internet services during cyber threats, cable disruptions, or natural disasters through a strong domestic infrastructure.
- **Future-Ready Internet –** Supports next-generation internet requirements driven by smart devices and intelligent systems through adoption of Internet Protocol version 6.
- **Digital Inclusion –** Makes the internet more inclusive by supporting small internet service providers and expanding connectivity in remote and underserved areas.

References

1. PIB | NIXI
2. NIXI - About Us

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