



Cyber and Network Security Infrastructure Configuration

AICTE Sponsored Online Short-Term Training Program (STTP)

Bharati Vidyapeeth (Deemed to be University) College of Engineering, Pune

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Evolving Trends



- Internet of Things
 - Wider proliferation of sensors and devices
- Smart Infrastructures
 - Connected utilities – water distribution, waste disposal, surveillance
- V2X
 - Smart Transportation, Vehicle to vehicle, vehicle to infrastructure

IoT and SDN



IoT Environments

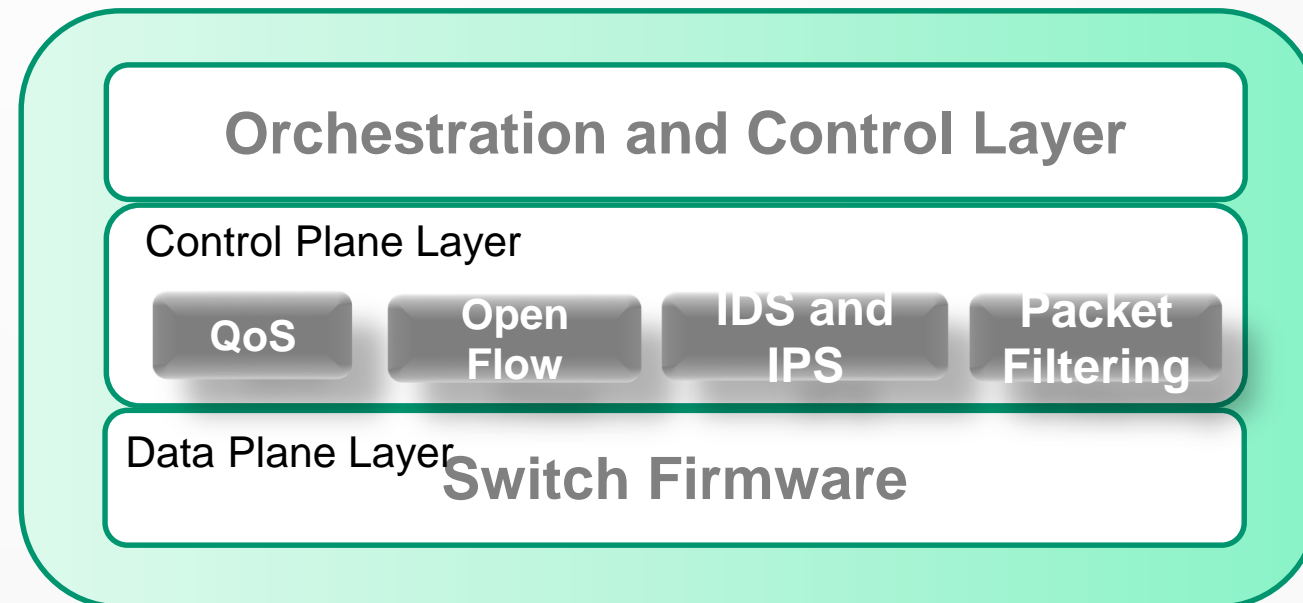
- IoT Platforms
- Field level data
- IoT Security

SDN & EDGE Security

- SDWAN/SDN Orchestration
- Real-time Data Analytics
- Security Zones

Light Weight Cryptography

IoT Authentication



Cloud & Virtualization



- Cloud and Virtualization
 - Event-driven Architectures & Microservices
 - Service level security
 - Hypervisor security
- Extended Detection and Response
 - Analytics and Automation

5G Services



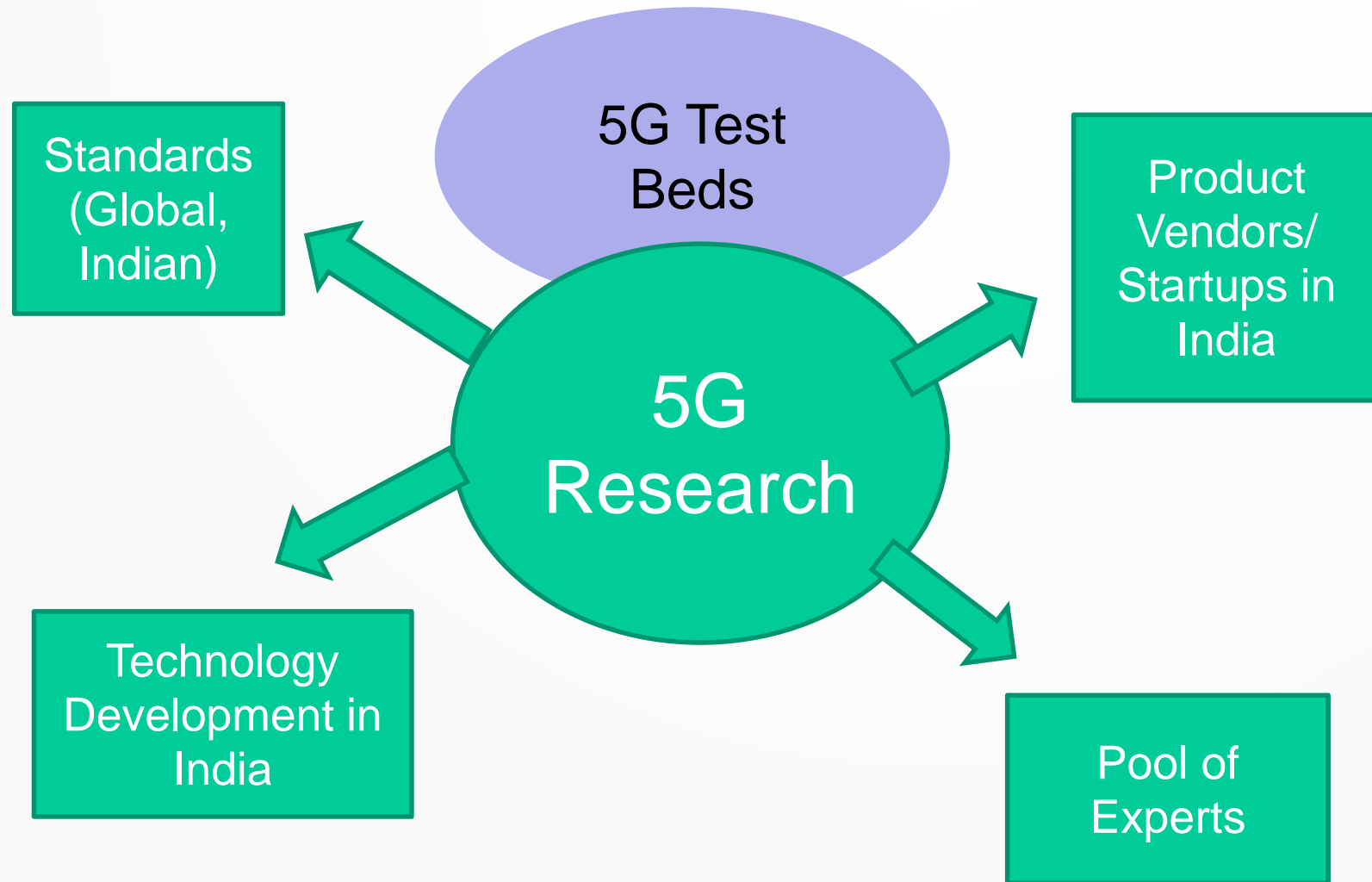
Types of Services	Typical requirements	Applications
Enhanced mobile broadband (eMBB)	High capacity	Mobile Internet
Ultra-reliable low latency service (URLLC)	Low latency and high reliability	Automobile
Massive machine type communications (mMTC)	Massive connection of wide area of immobile devices	Metering, agriculture, climate etc

5G & AI

Security & QoS

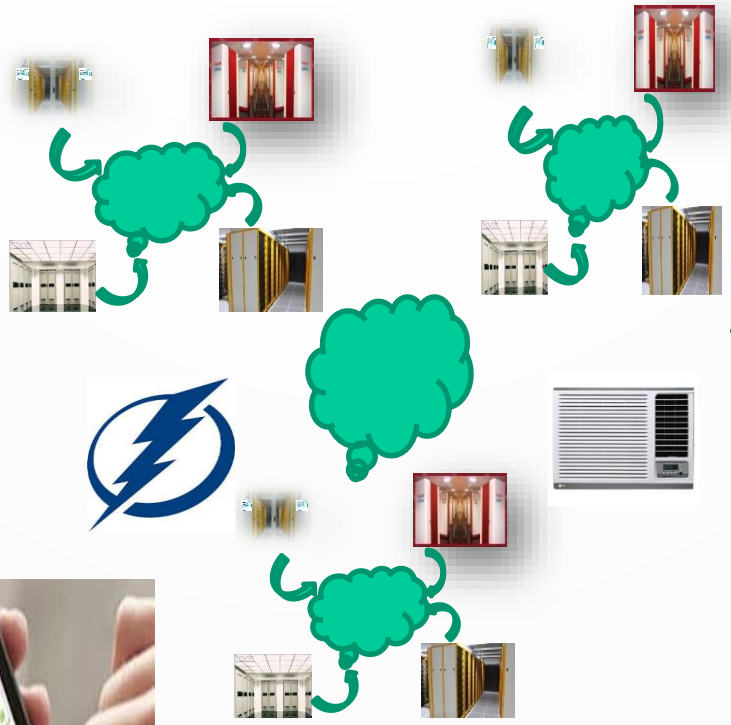
Edge Computing

5G R&D Focus in India



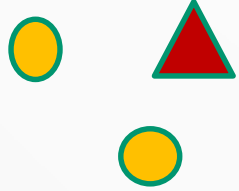
Evolutionary
&
Revolutionary
Applications

Expanding Digital Footprints & Data



Cloud,
Virtualization

IoT sensors and
Gateway

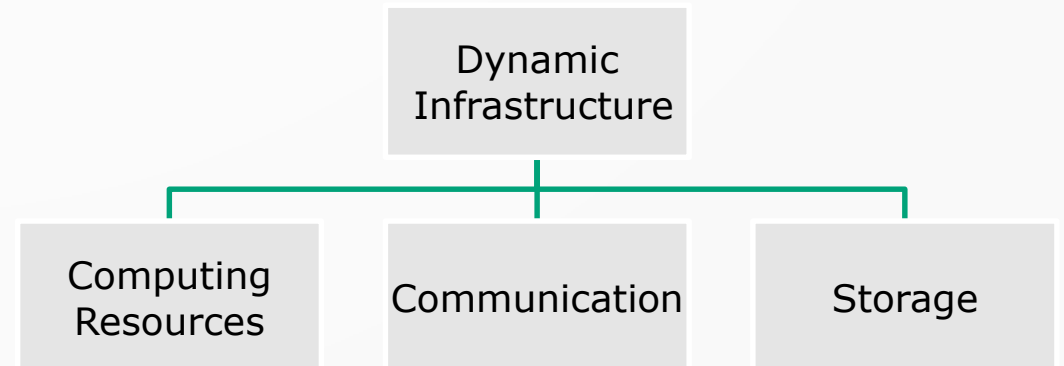


Static to Dynamic Infrastructures



Ensuring Compliance to security, Complexity in monitoring and enforcing security control

Elasticity, Load balancing, Optimal use of resources, Ease of Access





Critical Infrastructure Protection

- Industrial control systems (ICS) and Supervisory Control And Data Acquisition (SCADA)
- Vulnerabilities
 - Human-Machine Interface
 - Remote Terminal Units
 - Programmable Logic Controllers
 - Protocols/Communication
- Power/Oil/Gas...Sectors

OT Security

Specific Protocols

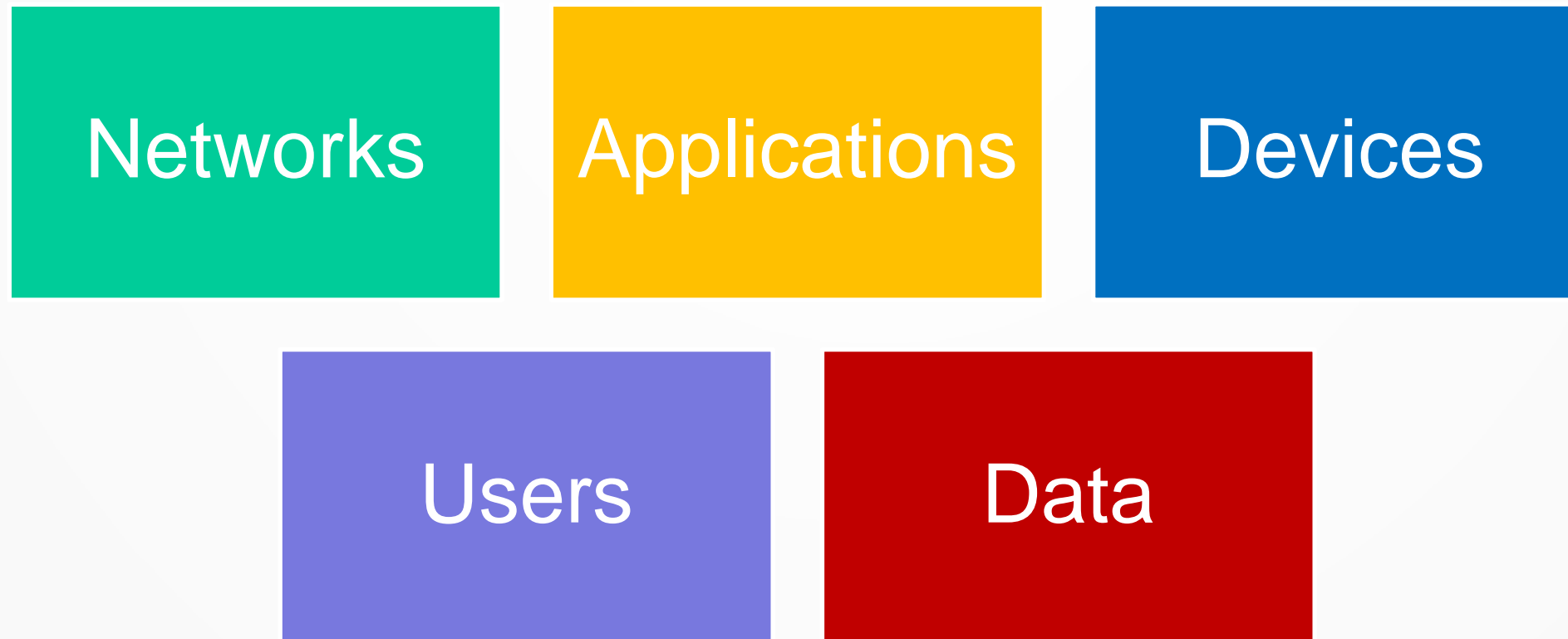
Security Testbed



Information & Data Security

- Blockchain
 - Trustworthy transactions
- Artificial Intelligence
 - Data Analytics and Actionable Intelligence
- Privacy Enabled Technologies
 - Privacy Preserving Data Mining

Zero Trust Architecture



Zero trust assumes there is no implicit trust granted
Granular user-access control and preventing lateral movement
Policy Decision point (PDP) and Policy Enforcement Point (PEP)

Short-Term Training Program (STTP)



- Effective & Timely Intervention
- Evolving Cyber Security Threats
- Comprehensive covering all Elements
- Practical Insights
- Enable you Devise Effective Security Architecture & Implementation

All the Best for the Training Program

Government's Initiative

Urge you to kindly visit and leverage ISEA Program

<https://www.infosecawareness.in/>



Thank You

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