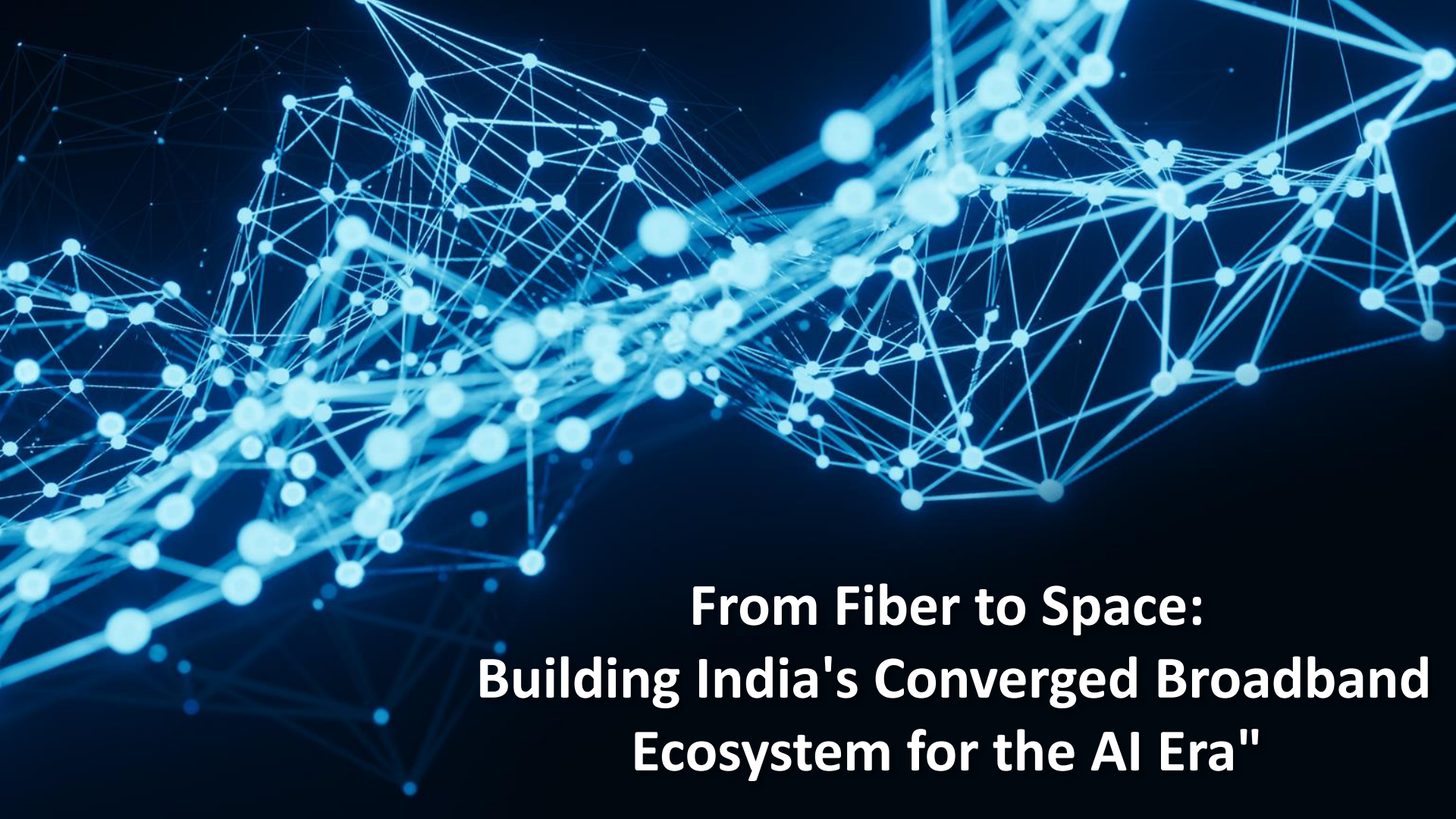


An abstract graphic featuring a complex network of glowing blue lines and nodes, resembling a fiber optic or data network, set against a dark blue background. The network is dense and interconnected, with some nodes appearing as bright white circles.

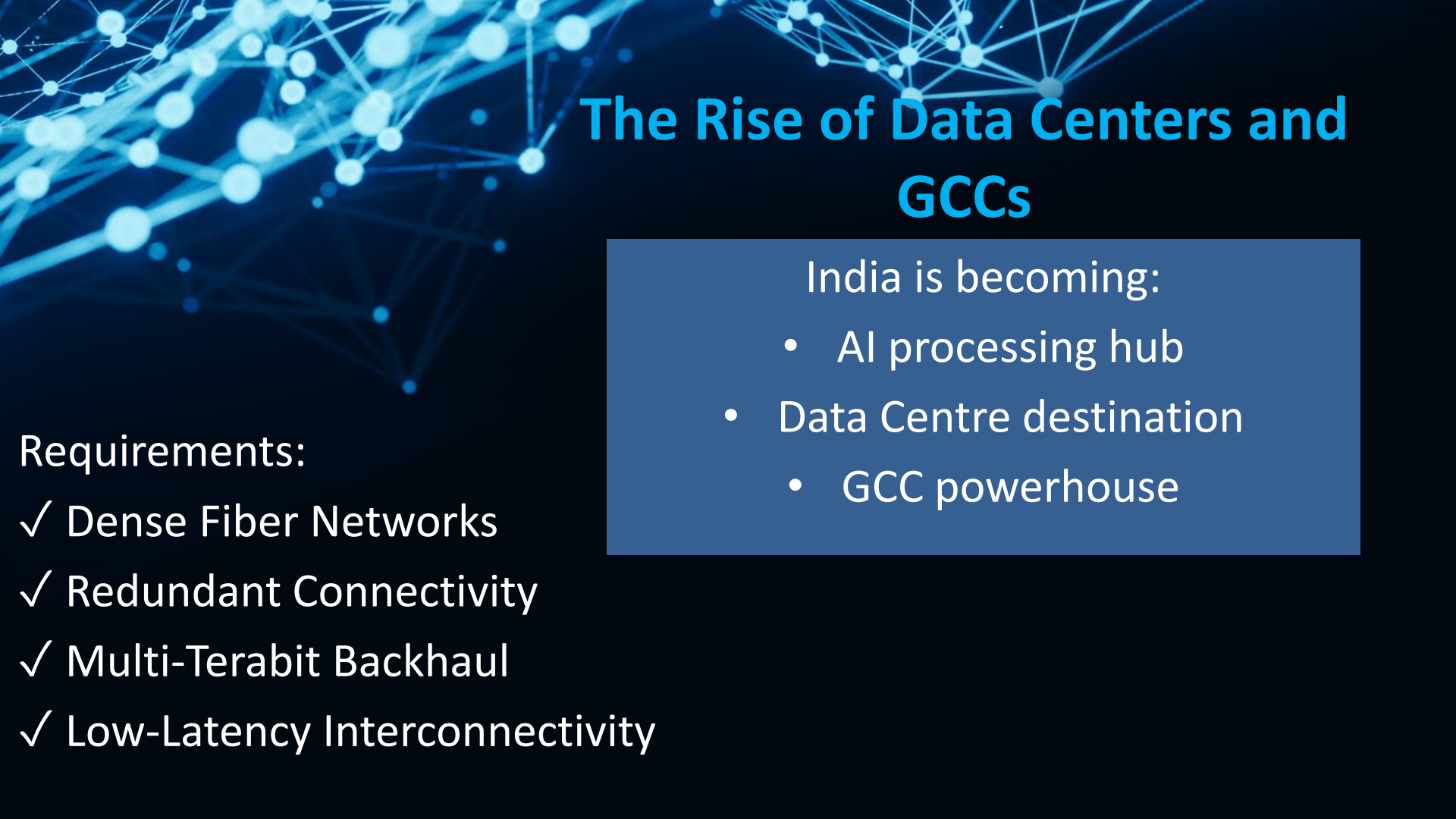
From Fiber to Space: Building India's Converged Broadband Ecosystem for the AI Era"

- 
- An abstract graphic in the top half of the slide features a complex network of glowing blue nodes and connecting lines, resembling a digital or neural network, set against a dark blue background.
- **India's Digital Consumption Explosion**
 - **India among the world's largest data consumers.**
 - **OTT, Gaming, AI applications and cloud services are driving unprecedented traffic. GCCs and Data Centers are moving beyond metros.**



Traffic Drivers

- ☐ **OTT Video**
- ☐ **AI Applications**
- ☐ **Gaming**
- ☐ **Video Conferencing**
- ☐ **AR/VR**



The Rise of Data Centers and GCCs

India is becoming:

- AI processing hub
- Data Centre destination
- GCC powerhouse

Requirements:

- ✓ Dense Fiber Networks
- ✓ Redundant Connectivity
- ✓ Multi-Terabit Backhaul
- ✓ Low-Latency Interconnectivity



»Question :???????

- " Can any single technology support India's next decade of digital growth??"

»ANSWER

- No

An abstract graphic on the left side of the slide, featuring a complex network of glowing blue nodes and connecting lines, resembling a fiber optic or data network structure.

Why Convergence Matters

FTTH + 5G + WiFi 7 + Edge CDN +
Satellite

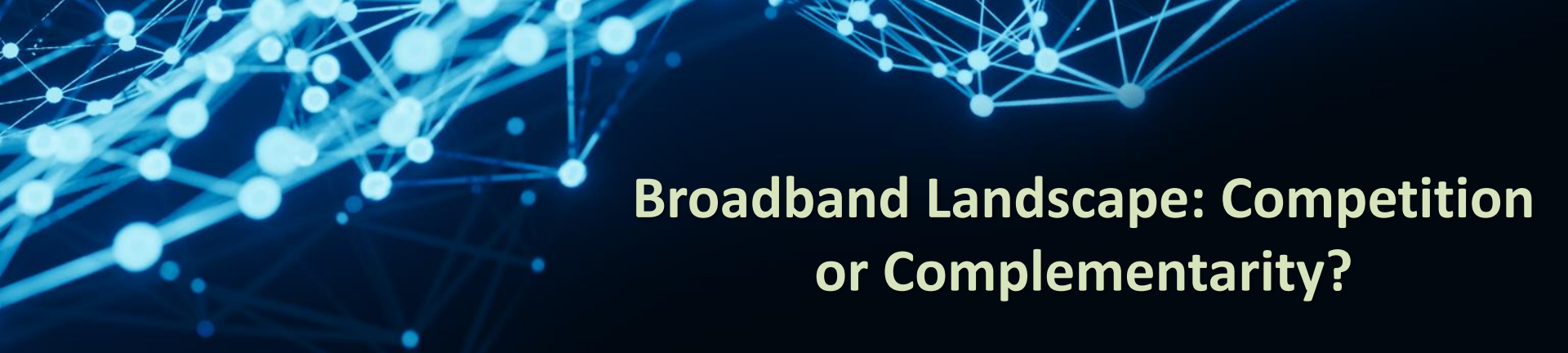


Together they deliver the digital
infrastructure required for Digital
Bharat

An abstract graphic on the left side of the slide, featuring a complex network of glowing blue nodes and connecting lines, resembling a fiber optic or data network structure.

Each technology solves a different problem.

- ❑ FTTH = Capacity
- ❑ 5G = Mobility
- ❑ FWA = Quick deployment
- ❑ Satellite = Reach
- ❑ WiFi 7 = Indoor experience



Broadband Landscape: Competition or Complementarity?

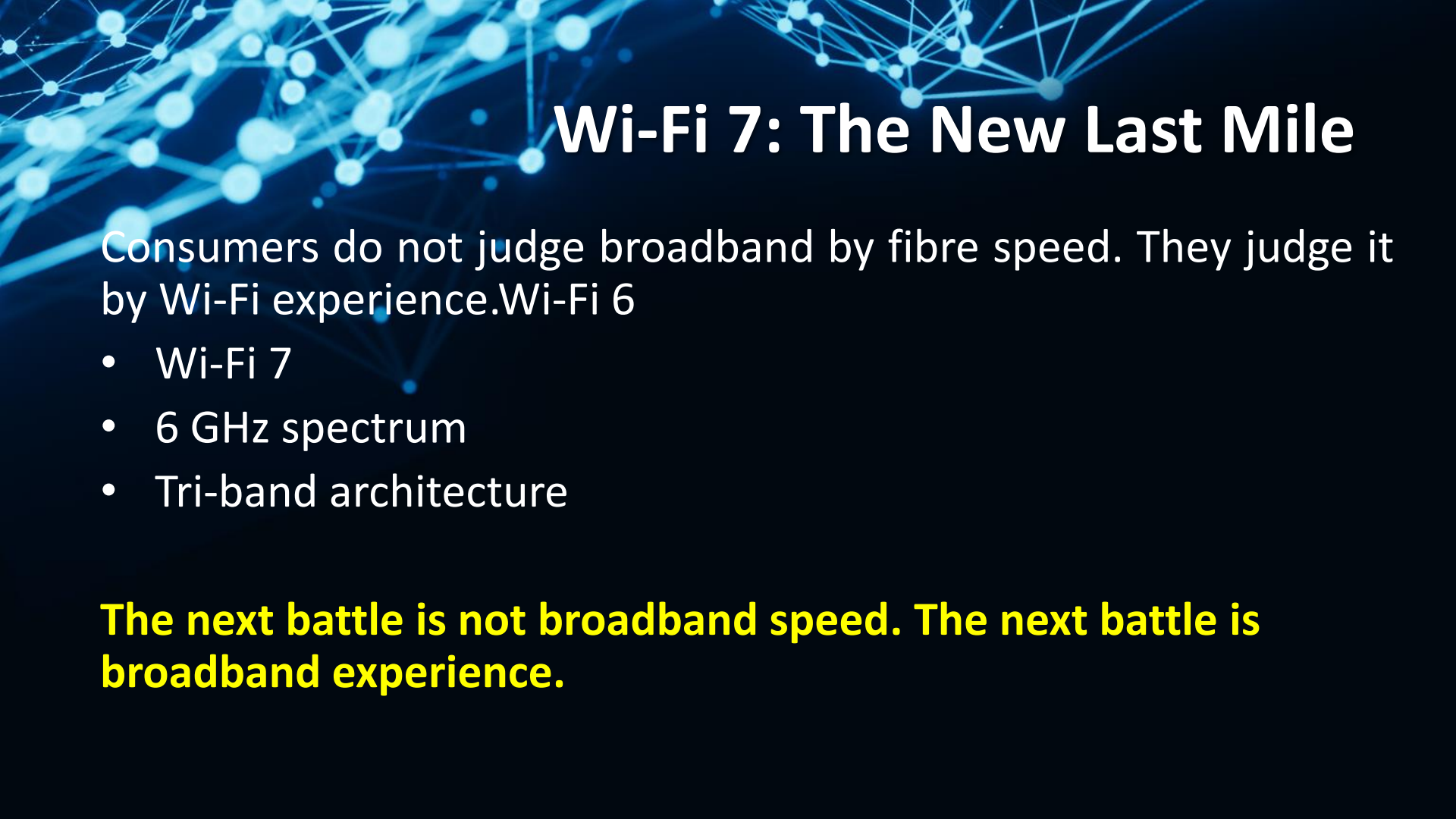
Technology

- FTTH
- Mobile Broadband
- 5G FWA
- Satellite

Best use case

- Homes, Enterprises, GCCs
- Mobility
- Rapid Broadband expansion
- Remote and difficult terrain

The future is not FTTH versus 5G versus Satellite. The future is FTTH + 5G + Satellite.

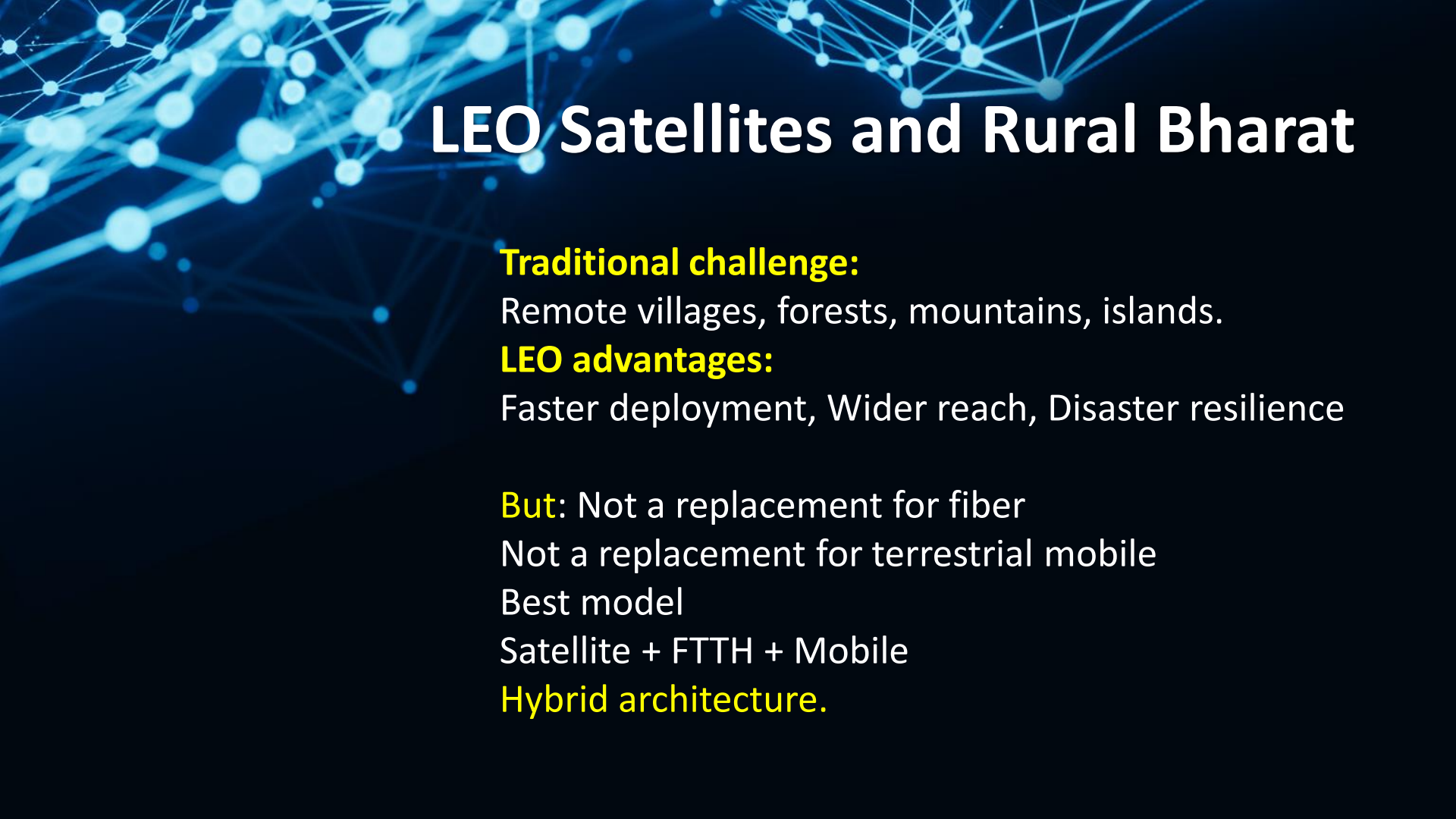


Wi-Fi 7: The New Last Mile

Consumers do not judge broadband by fibre speed. They judge it by Wi-Fi experience. Wi-Fi 6

- Wi-Fi 7
- 6 GHz spectrum
- Tri-band architecture

The next battle is not broadband speed. The next battle is broadband experience.



LEO Satellites and Rural Bharat

Traditional challenge:

Remote villages, forests, mountains, islands.

LEO advantages:

Faster deployment, Wider reach, Disaster resilience

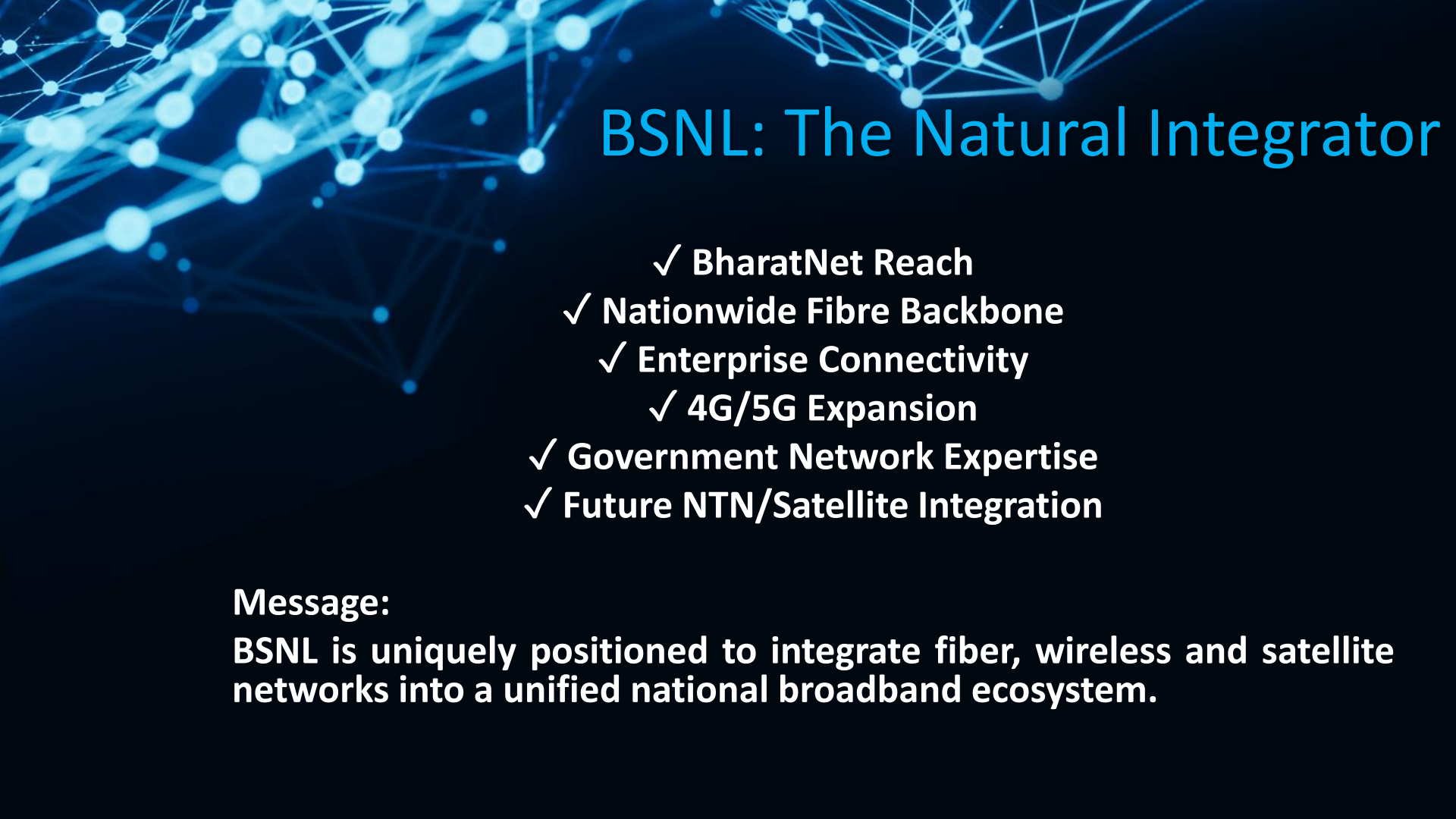
But: Not a replacement for fiber

Not a replacement for terrestrial mobile

Best model

Satellite + FTTH + Mobile

Hybrid architecture.

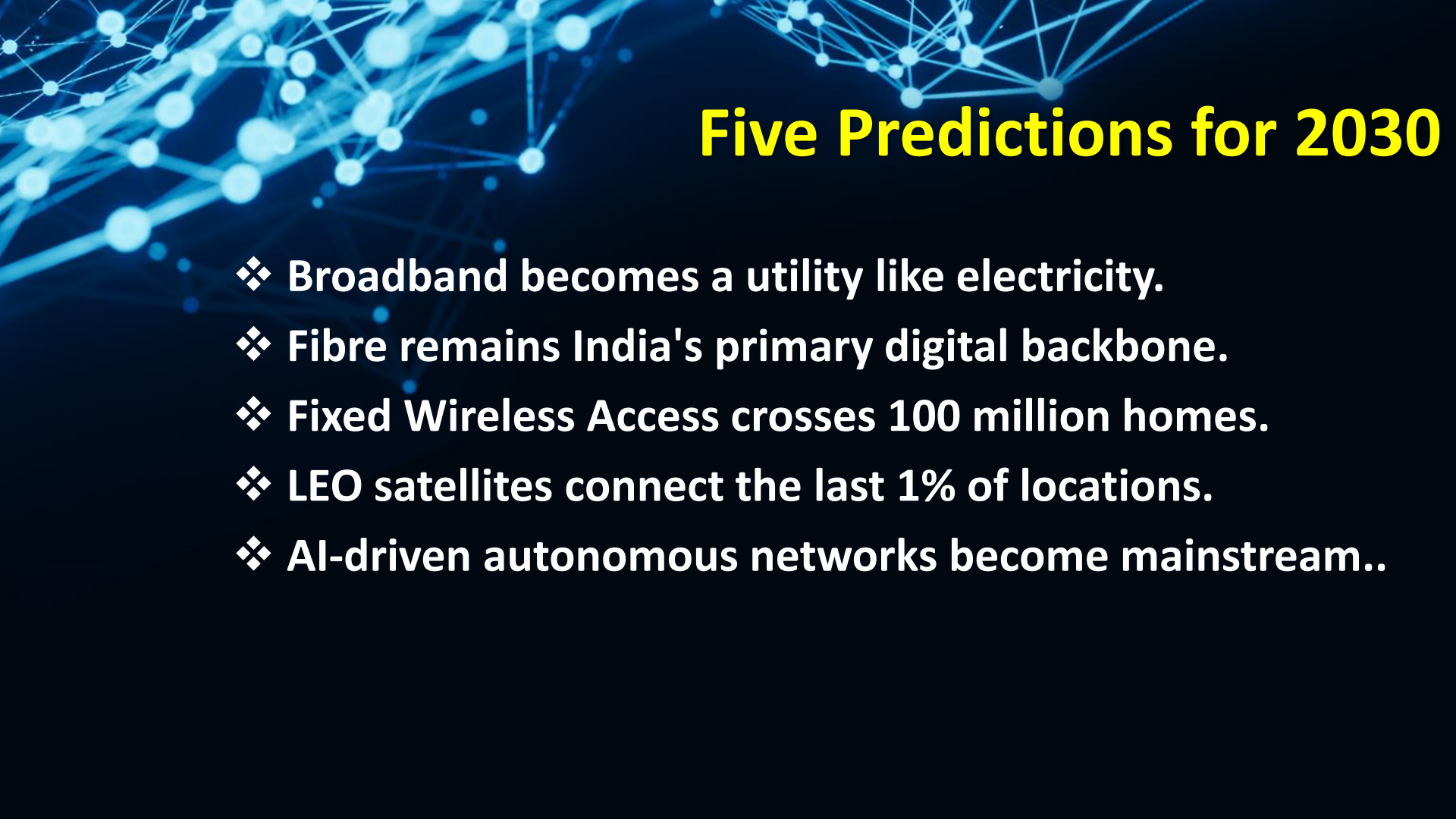


BSNL: The Natural Integrator

- ✓ BharatNet Reach
- ✓ Nationwide Fibre Backbone
- ✓ Enterprise Connectivity
- ✓ 4G/5G Expansion
- ✓ Government Network Expertise
- ✓ Future NTN/Satellite Integration

Message:

BSNL is uniquely positioned to integrate fiber, wireless and satellite networks into a unified national broadband ecosystem.



Five Predictions for 2030

- ❖ Broadband becomes a utility like electricity.
- ❖ Fibre remains India's primary digital backbone.
- ❖ Fixed Wireless Access crosses 100 million homes.
- ❖ LEO satellites connect the last 1% of locations.
- ❖ AI-driven autonomous networks become mainstream..

An abstract graphic in the top left corner of the slide. It features a dark blue background with a network of glowing light blue nodes and connecting lines, resembling a digital or fiber-optic network. The nodes vary in size and brightness, and the lines are thin and translucent.

"India's broadband future will not be built by a single technology. It will be built by the intelligent convergence of fiber, wireless, Wi-Fi, cloud and satellite networks. The winners will not be those who deploy the fastest network, but those who create the most seamless digital experience for every citizen.

The future belongs not to a single network, but to a seamlessly connected ecosystem.

BSNL is committed to enabling that vision of a truly Connected Bharat."

An abstract graphic in the top left corner of the slide. It features a complex network of glowing blue lines and nodes, resembling a molecular structure or a digital network. The nodes are of varying sizes and brightness, and the lines connect them in a web-like pattern. The overall color scheme is dark blue, with the glowing elements providing a strong contrast.

THANK YOU