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“Let’s celebrate World Wi-Fi Day”



WORLD™
Wi-Fi Day



**Wireless
Broadband
Alliance**

Wi-Fi enables
human potential

Wi-Fi acts as a global
equalizer

Wi-Fi accelerates
economic, social, and
environmental impact

Public Wi-Fi in India - Technical Enablers & Strategies to Accelerate Adoption

- India's Connectivity Opportunity
- Current State of Public Wi-Fi
- Technical Enablers & Recommendations for Growth

Economic Value of Wi-Fi



\$5 trillion global economic value of Wi-Fi

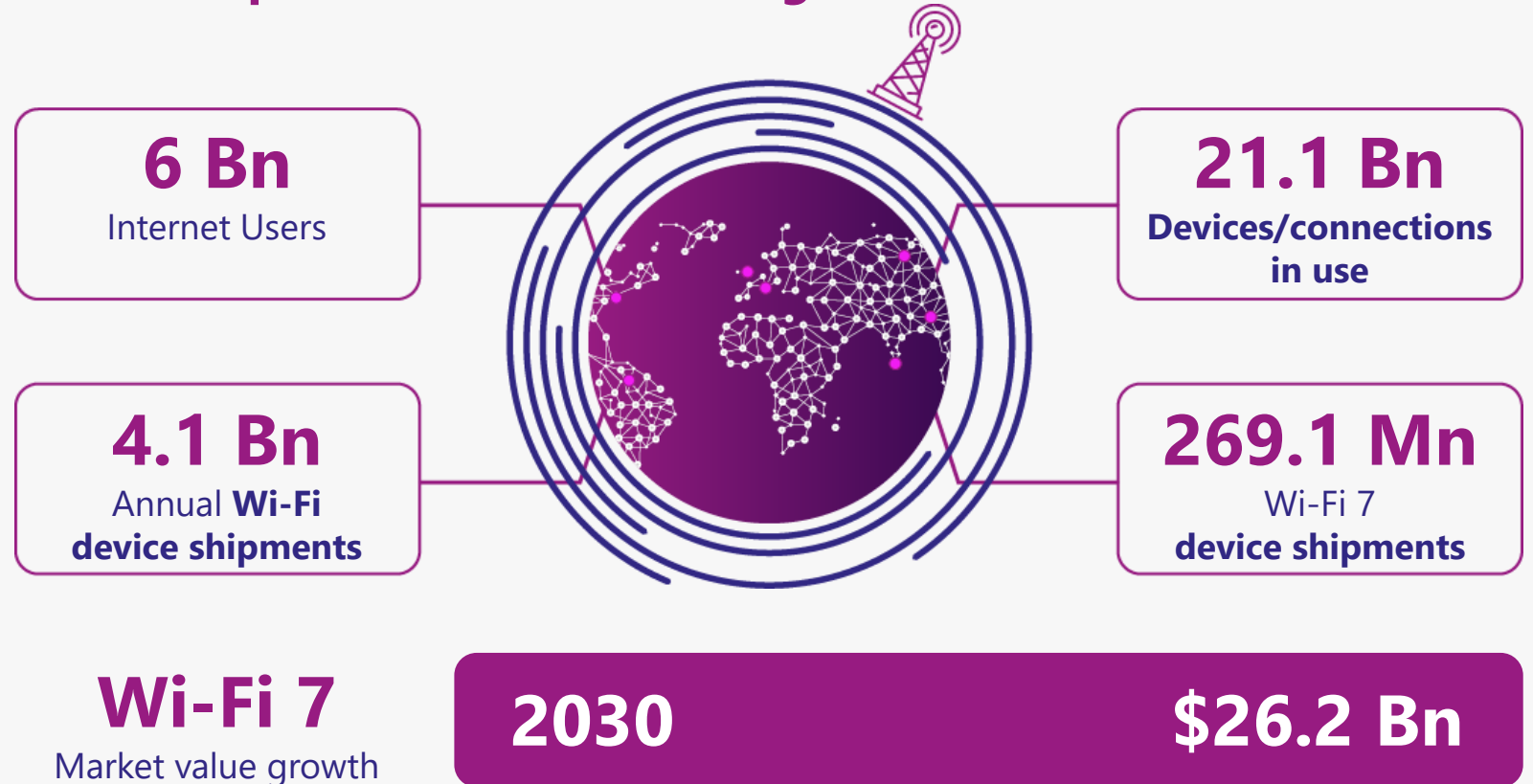


7.54 million jobs generated by Wi-Fi in US by 2027



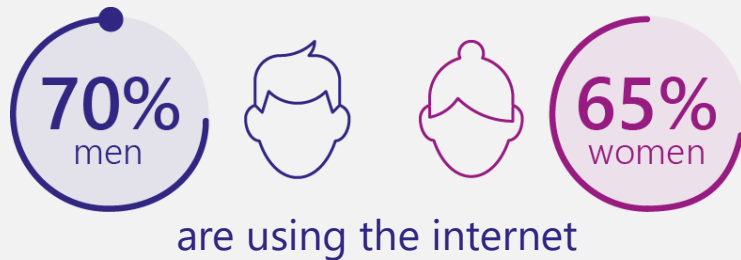
3.4% GDP contributed by Wi-Fi across large economies

Online Population & Device Usage



Key Message: Wi-Fi is foundational to global economic growth

Gender Disparity



90% of adolescent girls and young women in low-income countries remain offline.

Internet Users



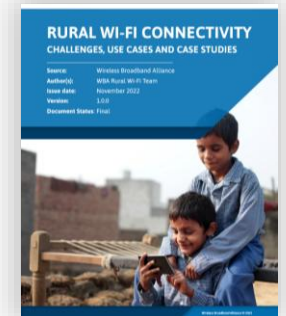
Key Message: Access remains unequal and must be addressed

Connectivity Challenges

75% of world's population is online (**6 billion people**). Approx **1/2 billion people** in India are offline



DOWNLOAD THE WBA RURAL WI-FI REPORT



Public Wi-Fi Can Deliver:

- ✓ Affordable broadband access
- ✓ Digital inclusion
- ✓ Small business connectivity
- ✓ Smart cities & public services
- ✓ Mobile network offload

India: A Unique Connectivity Market

- 1.46 billion population
- 900M+ internet users
- Rapid growth in video, AI & cloud applications
- Mobile-first market with high data consumption
- Significant indoor connectivity challenges

Registration Friction

- OTP/SMS requirements
- Captive portals
- Repeated logins

Lack of Roaming

- Credentials do not travel between networks

Security Concerns

- User distrust of public Wi-Fi

Limited Awareness

- Users often default to mobile data

“The Reality is every additional click reduces adoption”

Current State of Public Wi-Fi

Public Wi-Fi Landscape

- PM-WANI initiative launched in 2020
- Railway stations among the world's largest public Wi-Fi deployments
- Airports, malls, hotels and universities increasingly connected
- Growing participation from ISPs and local entrepreneurs

Key Challenges

- Despite infrastructure investment:
- User adoption remains fragmented
- Multiple onboarding experiences
- Limited roaming
- Repeated registrations

Result: Wi-Fi remains less convenient than mobile broadband

Technical Enablers For Building Seamless Public Wi-Fi

1. Passpoint (Hotspot 2.0)

- Automatic network discovery
- Secure authentication

2. OpenRoaming

- Global federation of trusted identities
- Automatic onboarding across participating networks
- OpenRoaming solves the user experience and roaming challenge

3. PM-WANI

- PM-WANI solves the business and regulatory framework

4. Convergence

- PM WANI & OpenRoaming are highly complementary
- OpenRoaming as an Authentication Layer for PM-WANI
- Telecom Operators, Enterprises & Communities become Identity Providers

5. Cybersecurity

- WPA3 Enterprise - Strong Security, Improved User Trust
- Certificate-based authentication, PKI, RadSec, AAA
- SSID Management
- NO to open networks and PSK

6. Cloud-based Wi-Fi Management

- Centralized operations
- Policy enforcement

Key Take-Aways



India has close to 1 billion internet users and 8% year on year growth reinforcing India's position as one of the world's largest and fastest evolving digital markets



Approximately 500 million people remain offline



Public Wi-Fi, PM-WANI, Passpoint, and OpenRoaming can help bridge the affordability and access gap for the next wave of users