

Public Sector Undertakings (PSUs) Quantum Threat Intelligence Report

Critical Threat Landscape

Immediate Quantum Risks (2024-2025)

- MeitY whitepaper specifically calling upon strategic sectors dealing with national security infrastructure to identify vulnerable areas
- NITI Aayog warns India's quantum leap poses national security risks with growing quantum investments
- Government acknowledging increasing frequency and sophistication of cyberattacks on critical infrastructure

Sector-Specific Vulnerabilities

- **Power Grid**
NTPC, PowerGrid infrastructure controlling 70% of India's electricity
- **Oil & Gas**
ONGC, IOC operational data and pipeline control systems
- **Transportation**
Railways reservation system handling 23 million passengers daily
- **Financial**
SBI, PNB core banking serving 500+ million customers
- **Defence PSUs**
HAL, BEL have sensitive defence production data

Business Impact

- **National Security**
Critical infrastructure compromised affecting 1.4 billion citizens
- **Economic Disruption**
Power, transport, and financial systems interdependencies
- **Sovereign Risk**
State secrets and strategic information vulnerable to foreign adversaries
- **Digital India Mission**
Government's digitisation efforts compromised without quantum security

Timeline Urgency

- **National Quantum Mission**
Accelerated quantum research creating immediate security needs
- **Strategic Autonomy**
Atmanirbhar quantum security requirements by 2027
- **International Pressure**
G20 quantum security commitments requiring rapid implementation

Key Statistics

- 15 major PSUs controlling 60% of India's critical infrastructure quantum-vulnerable
- ₹3.8 trillion PSU sector assets at quantum risk
- 89% of PSU CISOs unaware of quantum threat timeline

Immediate Actions Required

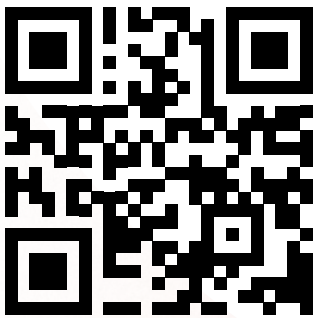
- **National Coordination**
Align with MeitY quantum security roadmap
- **Critical Asset Protection**
Prioritize power, finance, and transport systems
- **Indigenization**
Develop Atmanirbhar quantum security capabilities
- **Inter-PSU Collaboration**
Share quantum security best practices and resources

Sources

- MeitY Quantum Preparedness Whitepaper (PIB Release: 2144023, July 2025)
- NITI Aayog National Security Risk Assessment (April 2025)
- Government Cybersecurity Measures Report (PIB: 2116341)
- CERT-In Critical Infrastructure Guidelines



Tomorrow's **Quantum** **Security, Today.**



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