

# IoT Security Imperative: CloudIBN's Dedicated IoT VAPT Services for the USA

*Enhance IoT security with CloudIBN's dedicated VAPT services in the USA, designed to identify and eliminate vulnerabilities effectively.*

MAIMI, FL, UNITED STATES, June 27, 2025 /EINPresswire.com/ -- In an era where smart devices control everything from energy grids to healthcare systems, CloudIBN, a global cybersecurity leader, proudly announces the launch of its Dedicated IoT Vulnerability Assessment and Penetration Testing (VA&PT) Services for businesses and manufacturers across the United States. Built to confront the unique challenges of the Internet of Things, this specialised VAPT Services offering is designed to protect connected devices, embedded systems, and machine-to-machine networks from growing cyber threats.



CloudIBN - VAPT Services

The rollout aligns with increasing security pressures on smart device ecosystems, regulatory compliance mandates, and the surge in IoT adoption across critical sectors such as healthcare, manufacturing, logistics, and smart cities.

## Why IoT Security Is an Urgent Priority

The number of connected IoT devices is expected to surpass 25 billion by 2026. Yet, many of these devices are developed with performance—not security—in mind. This imbalance has resulted in a massive, unguarded attack surface for cybercriminals.

Common IoT Threat Vectors:

1. Default credentials or hardcoded passwords

2. Unencrypted communication protocols
3. Firmware vulnerabilities
4. Insecure APIs and cloud interfaces
5. Open ports and outdated software stacks

Once compromised, IoT devices can be used for lateral attacks, data exfiltration, ransomware, or as part of botnets like Mirai.

#### What Are IoT VA&PT Services?

Vulnerability Assessment and Penetration Testing (VA&PT) for IoT involves a thorough evaluation of both hardware and software elements. This includes:

1. Scanning for vulnerabilities in device firmware, embedded OS, and APIs
2. Simulating real-world attacks on communication protocols, wireless connections, and cloud integrations
3. Exploiting known and unknown flaws to understand potential damage
4. Documenting findings and recommending secure design and patch strategies

With CloudIBN's specialized VA & PT Services, manufacturers, OEMs, and system integrators gain deep visibility into their IoT ecosystem's security profile.

Wondering if your connected device is hackable?

Book a free IoT risk evaluation at: <https://www.cloudibn.com/contact/>

#### How CloudIBN's IoT VA&PT Works

CloudIBN has developed a device-to-cloud testing model tailored for IoT security:

##### 1. Asset Identification

Enumerate physical devices, APIs, mobile apps, edge nodes, and cloud backends

Map communication paths (Zigbee, MQTT, BLE, Wi-Fi, LTE, etc.)

##### 2. Firmware & Hardware Testing

Reverse-engineer firmware to detect backdoors, hardcoded credentials, and insecure functions

Analyze ports, UART, JTAG, and SoC vulnerabilities

Examine device tamper resistance and boot security

##### 3. Network & Protocol Testing

Pen-test network layers, sniff traffic, and attack communication protocols

Test TLS encryption and session management

##### 4. Cloud Interface & API Testing

Assess backend APIs for broken authentication, insecure data storage, and rate limiting issues

Identify vulnerabilities in cloud dashboards, third-party integrations, and OTA update mechanisms

##### 5. Exploitation Simulation

Execute local and remote attack scenarios, such as privilege escalation, buffer overflow, or man-in-the-middle (MITM)

##### 6. Reporting & Remediation Deliver structured technical reports and executive summaries

Provide device manufacturers and integrators with actionable recommendations

Need to secure your entire device stack—from silicon to cloud?

Contact CloudIBN's IoT VAPT Security Services team today: <https://www.cloudibn.com/lp/pr-vapt-services-in-usa/>

### The Growing Threat Landscape

1. IoT-based attacks increased 38% YoY in the US (2024–2025)
2. 97% of IoT devices analysed by security researchers had unpatched vulnerabilities
3. Major IoT breaches have cost US companies over \$3 billion in fines, recalls, and lawsuits

CloudIBN's VA & PT Services are designed to identify vulnerabilities early, during development and before public exposure.

### Why Choose CloudIBN?

1. Hardware & Embedded Security Experts – Engineers with experience in ARM, MIPS, and FPGA architectures
2. Compliance-Focused Testing – Aligned with standards like NIST IR 8259, OWASP IoT Top 10, and ISO/IEC 30141
3. Onsite & Lab-Based Testing – Physical device testing in controlled environments for realistic simulation
4. End-to-End Stack Coverage – From chip-level testing to REST API pen-testing and mobile integration review
5. Global IoT Security Lab – Equipped with oscilloscopes, logic analysers, RF scanners, and secure firmware reverse-engineering tools

### Building a Safer Connected Future

With billions of devices expected to come online in the next few years, IoT security can no longer be an afterthought. Whether you're a device manufacturer, integrator, or service provider, CloudIBN's IoT [VAPT Audit Services](#) ensure your innovation doesn't come at the cost of vulnerability. By combining deep domain expertise, hands-on device testing, and compliance-aligned methodology, CloudIBN is the ideal partner for organisations serious about securing their IoT infrastructure.

Related Services - Cybersecurity Services : <https://www.cloudibn.com/cybersecurity-services/>

### About CloudIBN

Founded in 1999, CloudIBN is an ISO 27001:2013, ISO 9001:2015 certified IT and Cybersecurity services provider. As a Microsoft Cloud Managed Services Partner, IBN specialises in VAPT, SIEM-SOAR consulting and deployment, cloud security, and compliance consulting. With a team of experienced lead auditors and cybersecurity specialists, IBN is committed to securing digital infrastructures worldwide

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