

## IoT Use Case Master List

### 1. Energy and Network Efficiency

- Gateway and extender low-power states during periods of inactivity
- Dynamic radio power management across WiFi, Zigbee, and Thread
- Selective band enablement (e.g. disable 5 GHz while maintaining 2.4 GHz)
- Wake mechanisms allowing messaging continuity during low-power states
- Room-level awareness to balance device activity and power consumption
- Advanced platform power states including SoC hibernation
- Use of low-power radios to trigger higher-power system resources

### 2. Smart Home Automation

- Event-driven automation across sensors, lighting, HVAC, and security devices
- Presence-based automation using device and user context
- Local control and automation leveraging edge compute capabilities
- Coordination across broadband and entertainment platforms
- Security-triggered automation scenarios
- Privacy-aware automation with local-first execution models
- Extensible automation models supporting existing and deployed devices

### 3. Video and Entertainment Integration

- Entertainment devices acting as smart home controllers
- Matter-based casting and content sharing scenarios
- Multi-device orchestration across video, audio, and lighting
- Residential and hospitality deployment scenarios

### 4. Onboarding and Provisioning

- Secure device commissioning and identity attestation
- Credential and key management for Matter and non-Matter devices
- Local onboarding workflows with optional cloud involvement
- Split commissioner models involving gateways and mobile devices
- Support for pre-provisioned and supply-chain initialized devices
- Standardized onboarding state models

### 5. Cloud and Remote Management

- Remote device management and telemetry via standardized data models
- Integration with TR-181, TR-369, and related management frameworks
- Out-of-home device visibility and control
- Firmware lifecycle and update management

## **6. Ecosystem Expansion**

- Onboarding and management of third-party ecosystems
- Protocol bridging through Barton APIs
- Multi-room and multi-unit automation scenarios
- Support for residential, hospitality, and SMB environments

## **7. IoT Device assurance and Troubleshooting**

- Device presence and reachability status
- Detection of broken or degraded integrations
- Visibility into onboarding and commissioning failures
- Health indicators suitable for fleet-level operations
- Support for low-power and battery-constrained devices