



UPnP: The Discovery & Service Layer for IoT

April 2015



UPnP Forum
www.upnp.org

- UPnP is one of the most widely adopted connectivity standards worldwide
- The Internet of Things requires a robust discovery, service & service framework
- The UPnP Forum developed UPnP+ with the Internet of Things in mind
- UPnP+: Builds upon the foundation of UPnP with increased focus on cloud, security, scalability and services

UPnP: A Proven Foundation For Connectivity

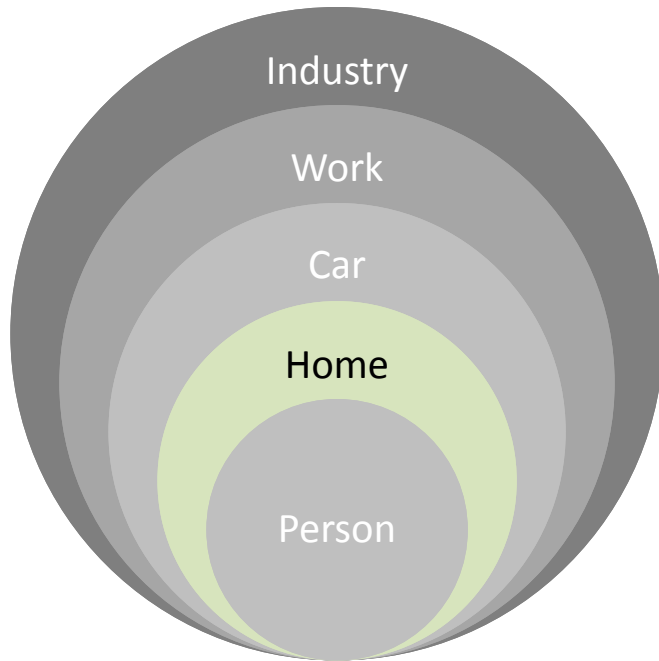
- Over 2 billion devices powered by UPnP
- The UPnP Forum has 15 years experience developing connectivity frameworks
- Built on a foundation of flexible and scalable data models
- Existing device control protocols for home automation devices
- Available in open source and commercial environments, across every major operating system and programming language

The Next Frontier: Internet of Things

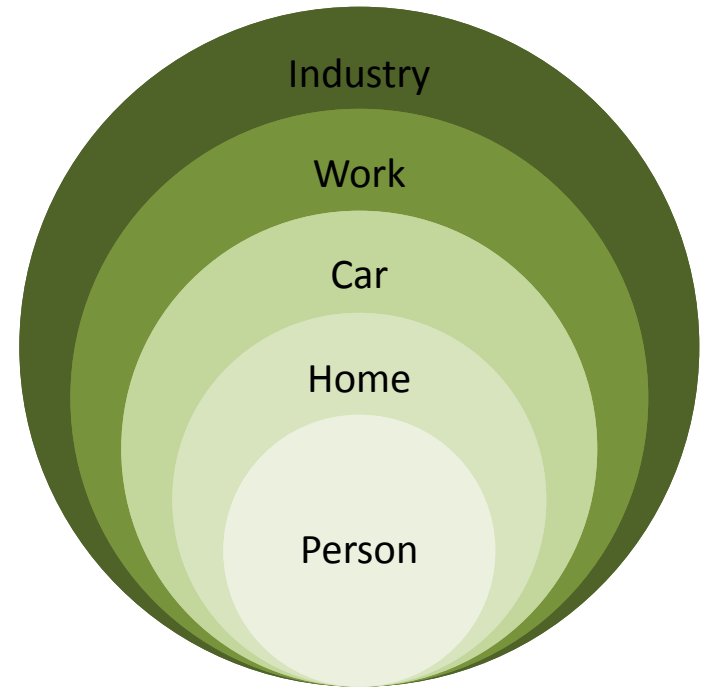
- The Internet of Things is expected to be a \$19 trillion market opportunity
- Every industry across the industrial, enterprise and consumer market sectors will be impacted by the Internet of Things
- There is no universal standard for discovery and service delivery in the Internet of Things
- UPnP's maturity and market acceptance make it the logical choice for the Internet of Things

UPnP+: Expanding UPnP Beyond The Connected Home

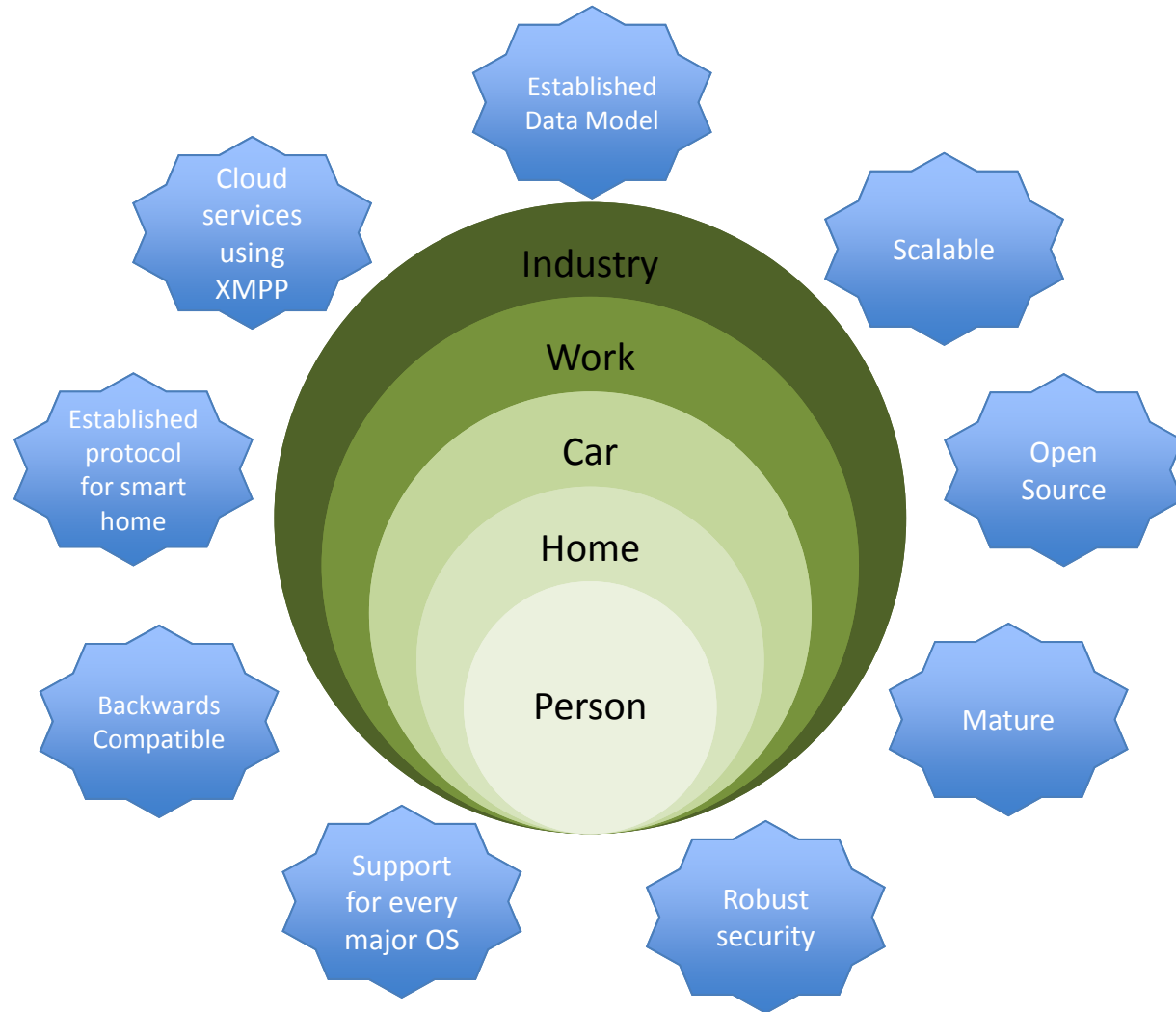
Original UPnP Focus



Scope of UPnP+



UPnP+: Expanding UPnP Beyond The Connected Home



- Bridging & Sensor Management
 - Low power bridging of IP & non-IP technologies
- Cloud & Anywhere Access
 - UPnP+ uses well-recognized XMPP framework for cloud connectivity
- Established Data Model Scalable at Speed of Internet
 - UPnP+ enables defining new IoT devices in minutes while using certifiable ISO specification
- Robust Security Required For Certification
 - UPnP+ certification requires implementation of role-based security service

Key Takeaways

- UPnP is a proven connectivity framework used by thousand of manufacturers today
- UPnP's wide availability across every major OS, in open source and commercial environments, and in every major programming language, lays the foundation for UPnP+
- UPnP+ incorporates widely accepted industry technologies to enable the robust and modern connectivity and service framework that the Internet of Things needs to deliver on its promise
- UPnP+ is a modern, backwards compatible framework that is more widely adopted than any of the newer frameworks targeting the IoT