FiRa | The **Power** to Be **Precise**

Introduction to the FiRa Consortium

November 2, 2022

Our Vision

Our **vision** is to transform the way we interact with our environment by enabling **precise location awareness** for people and devices.

Our Members are Industry Leaders

Over 115 industry leaders with a commitment to supporting UWB have already joined FiRa!

Current Sponsor Members

See list of members at **www.firaconsortium.org/about/members**

FiRa Consortium Goals

Foster a framework to facilitate broad adoption of UWB and its fine ranging and positioning capabilities

Spur Innovation

- Support the development of compelling use cases across broad business domains
- Provide a unique opportunity to explore and define transformative uses for UWB technology

Ease Adoption

- Enable member companies to work together to deliver the building blocks, tools and technologies needed to integrate UWB quickly and seamlessly
- Foster a robust UWB ecosystem to enable rapid technology deployment

Support Interoperability

- Define and drive specifications intended to support interoperability between UWB-enabled products

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UWB Positively Impacts User Experiences

Transforming the connectivity experience

https://www.firaconsortium.org/discover/use-cases

FiRa's Commitment to Collaboration

To create a stronger ecosystem for UWB technology as a whole

- FiRa liaises with other consortia and industry stakeholders to strengthen UWB use

- As a member of ETSI, FiRa is involved in drafting the Harmonized Standards and the right to participate in other regulatory bodies in Europe

- By collaborating across disciplines, welcoming the contributions of key stakeholders, and leveraging industry standards where applicable, FiRa creates a stronger, open ecosystem for UWB technology as a whole

- FiRa is committed to cooperation with all technologies that complement UWB such as NFC, Wi-Fi and Bluetooth®

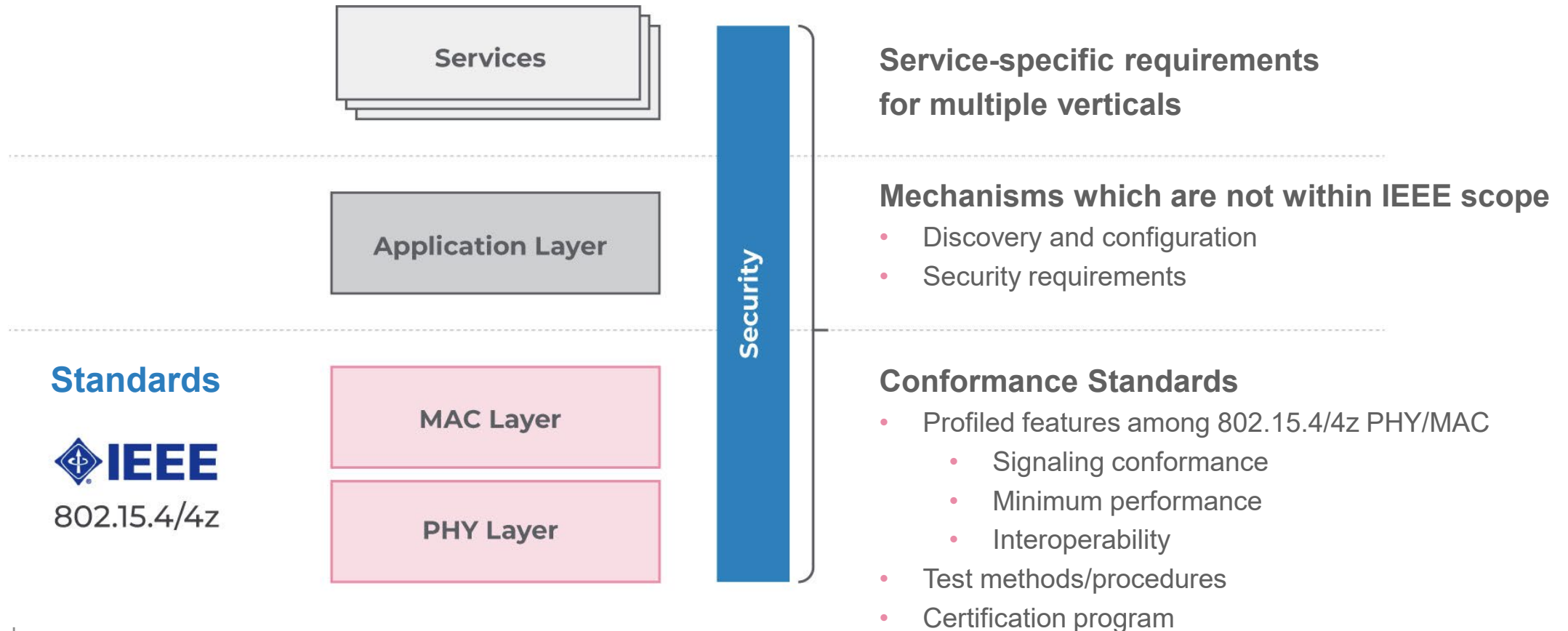Collaboration

FiRa Works to Grow the UWB Market
To build widespread adoption of UWB technology

- **FiRa drives market adoption of UWB by**:

  - Creating compelling use cases across multiple markets and applications

  - Evangelizing the capability of UWB technology

    - Through FiRa Presents video sessions, webinars, podcasts, social media and other digital assets

  - Advocating for UWB with government and regulatory bodies to drive fair spectrum rulings for UWB deployments

  - Fostering an interoperable UWB ecosystem across chipset, device and service infrastructure through standards and certifications

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FiRa's Scope of Certification

Builds on the foundation of the IEEE 802.15.4/4z standard

FiRa Consortium

Services

Service-specific requirements for multiple verticals

Application Layer

Security

Mechanisms which are not within IEEE scope
- Discovery and configuration
- Security requirements

Standards

◆IEEE
802.15.4/4z

MAC Layer

PHY Layer

Conformance Standards
- Profiled features among 802.15.4/4z PHY/MAC
  - Signaling conformance
  - Minimum performance
  - Interoperability
- Test methods/procedures
- Certification program

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FiRa Certification Program

Aimed at driving UWB interoperability among UWB devices

- Offers defined processes for verifying that candidate devices conform to FiRa requirements and test specifications

- For Base Certification, the device must meet the FiRa-specified MAC/PHY Conformance and Interoperability Test Specifications, including static STS parameters

- The FiRa Certified logo can be used by FiRa members who have devices that fulfill the criteria of the Certification Program

Learn more about the
FiRa Certification Program at
https://www.firaconsortium.org/certifications
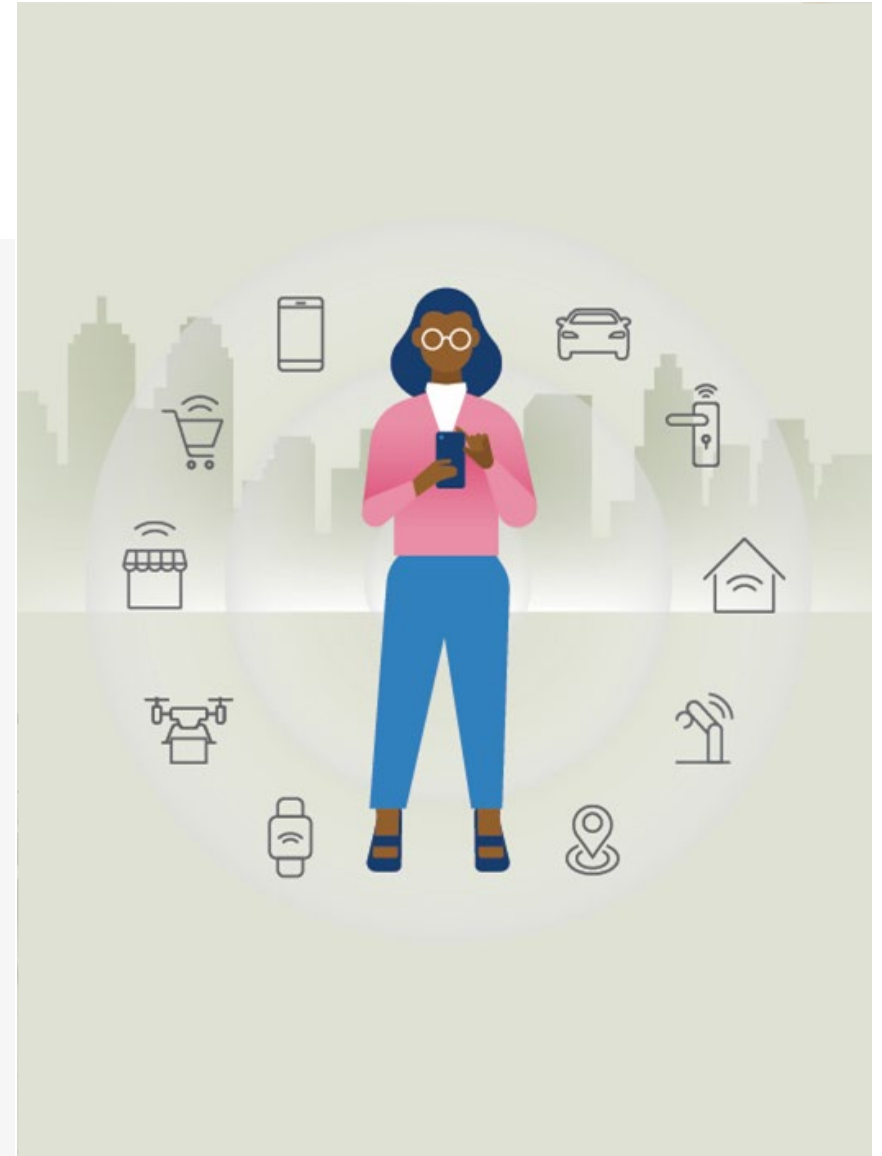
FiRa Working Groups and Task Groups

Defining the UWB ecosystem

- Working Groups (WGs) and Task Groups (TGs) are member driven and collaborate to address the various needs of the Consortium
- Working Groups include:

Requirements WG
- New Use Cases and Scenarios
- Functional Requirements

Technical WG
- Overall Tech Discussion/Decision
- Specification Development

Compliance & Certification WG
- Test Specialists
- Certification Policy/ Process
- Test Labs (ATLs) Management

Marketing WG
- Brand and Logo
- MarCom/PR/ Website
- Events

Regulatory WG
- Coexistence
- Spectrum and Regulatory Advice

Security WG
- Security Requirements Roadmap
- Security Recommendations for Specificaitons
- Methodology to Address Security Certification Process

Localization Task Group
- Use Case Analysis
- Specification Development

Device-to-Device Task Group
- Use Case Analysis
- Specification Development

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The Benefits of Joining FiRa

Maximize the benefits of UWB for your brand

- The FiRa Consortium provides a way for a wide range of product and solution companies to create a broad UWB ecosystem for combined future success

As a FiRa Consortium member, your company will be able to:

- Collaborate with UWB market leaders in semiconductors, devices, and systems
- Build a network of connections in the UWB ecosystem
- Explore and ensure interoperability of your UWB products
- Get your products certified.
    - **The FiRa certification program requires FiRa membership**

Apply Today

Joining FiRa

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Contact Us

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Appendix

LEARN MORE
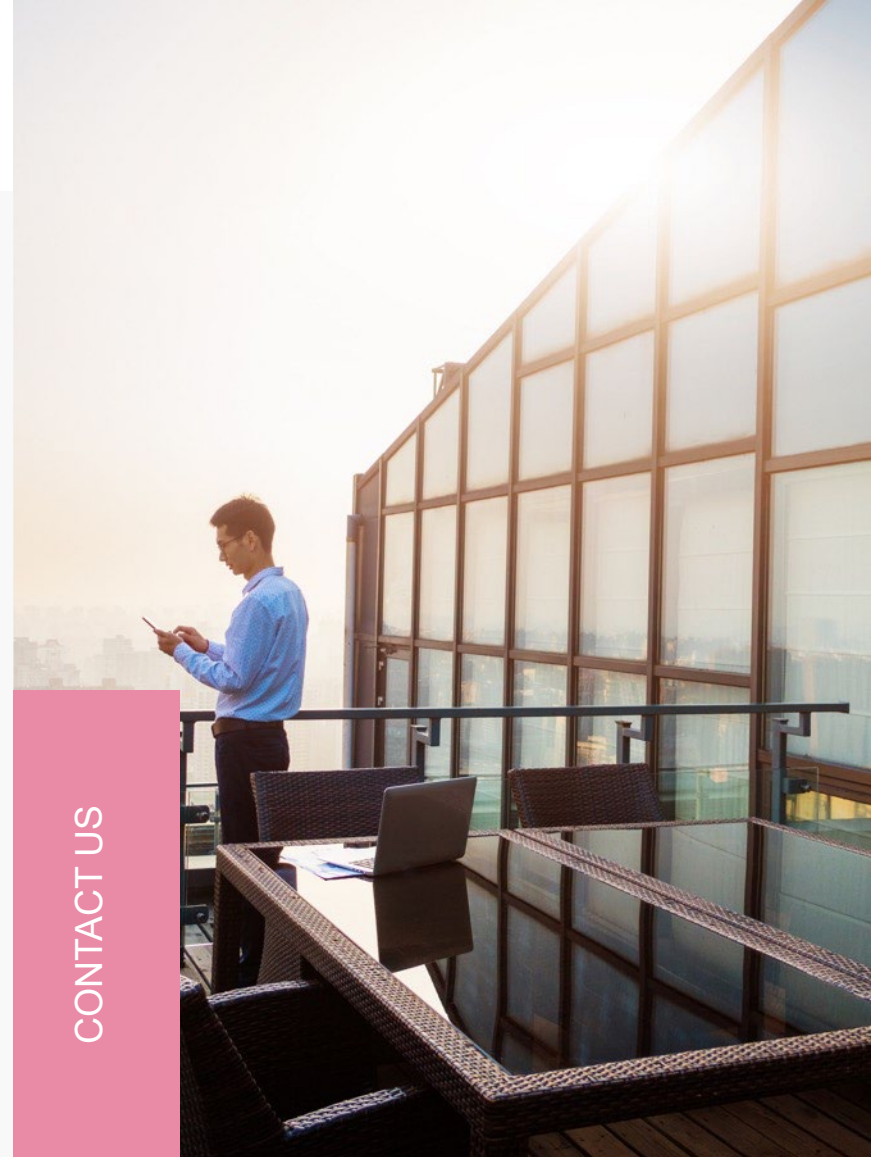
01.

Membership

Learn about membership

in the FiRa Consortium

02.

FiRa IPR Policy

High level overview of

FiRa Consortium IPR Policy

03.

FiRa Bylaws

High level overview of

FiRa Consortium Bylaws

04.

Stakeholders

High level overview of the industries

our stakeholders participate in

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01. Membership

	Sponsor[1]	Contributor	Associate	Adopter	Test Lab	Academic and Educational	Affiliate[2]
Board of Directors	✓						
Working Group Steering Committee Participation	✓	✓					
Working Group Leadership	✓	✓					
Working Group Voting Rights	✓	✓					
Working Group Participation	✓	✓	✓		Compliance & Certification WG only	✓	✓
Access to Final Specifications	✓	✓	✓	✓	✓	✓	✓
Certify Products	✓	✓	✓	✓			✓
Apply for Authorized Test Lab					✓		
Annual Membership Fee (USD)	$80K	$50K	$30K	$15K (if revenue ≥ $50M) or $5K (if revenue < $50M)	$5K	$2.5K (one time only)	No charge

[1]As part of the Sponsor Member application review and approval process, a presentation to the FiRa Consortium Board of Directors ("Board") may be requested, and the Board may, on a reasonable and non-discriminatory basis, take into account the impact that the admission of an applicant may have on the balance of representation on the Board (e.g., with reference to industry segments and geography).
[2]Affiliate Membership is limited to companies related by majority ownership to a current Sponsor or Contributor Member of FiRa Consortium.

02. Overview of FiRa IPR Policy

- Applicable to all Members and Member Representatives, and others bound by separate written agreement

- Governs the ownership, licensing, and treatment of intellectual property that is contributed to, generated by, or necessary for the implementation of standards developed as part of the FiRa Consortium activities

- Subject to the specific terms of the IPR Policy, in general:

  - Members (and their Related Parties) participating in FiRa Consortium Working Groups commit to license Necessary Claims on RAND (Reasonable and Non-Discriminatory) or RAND-Z (RAND with Zero royalty) terms, and may withhold Necessary Claims, by submitting a timely written declaration form

  - Members that did not participate in the applicable development group may (but are not obligated to) make RAND or RAND-Z commitments, or withhold licenses to Necessary Claims by submitting a written declaration form

  - New incoming members are not obligated to make license commitments with respect to Standards approved prior to the start of membership

- Patent calls before technical meetings

- No obligation to conduct patent searches for Necessary Claims

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03. Overview of FiRa Bylaws

- The Bylaws establish the rules governing the operations of the organization, including the rights of members, rules for meetings and corporate actions, voting and quorum requirements, and other matters

- Delaware non-profit corporation with 6 classes of membership
    - Sponsor, Contributor, Associate, Adopter, Test Lab and Academic & Educational

- **Directors:** Sponsor members each designate 1 Director and up to 2 alternates

- **Officers:** 2-year term, elected by Board of Directors, compensation possible

- Board of Directors establishes Member Committees, Working Groups, Task Groups, sub-committees, special interest groups, etc.

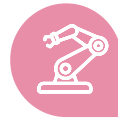- Indemnification and insurance possible for Directors, Officers, employees and agents

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04. Key Stakeholders Represented in the FiRa Consortium
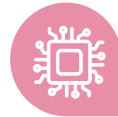
Chip Manufacturers

Device Manufacturers

System Integrators

Service Providers

Technology Providers

Test Tool Developers

Test Labs

Academic and Educational Providers