



Open Technology Alliance

The TinyOS community has grown to include several thousand developers and users in dozens of countries, plus hundreds of companies, universities, and government institutions. It has built a broad technology base for wireless embedded networks in an open, informal collaboration largely rooted at the University of California, Berkeley. With the growing commercial and technological impact of the community and the de facto standards represented by TinyOS technology, we are creating an organizational structure to support the worldwide academic and industrial TinyOS community and advance the open embedded network ecosystem. This document provides a brief overview of the Alliance; TinyOS Alliance TEP 120 provides greater detail.

Mission

The mission of the TinyOS Alliance is to provide a forum to facilitate:

- continued growth of a healthy TinyOS community, which drives both technical excellence through innovation and stability through consolidation around accepted practices,
- development and maintenance of a stable, technically-sound TinyOS technology base through standard interfaces and protocols, vetted extensions, open reference implementations, tools, technical documents, testing and verification suites, and educational materials,
- contribution of innovative technology from a world-wide research community and the maturation and dissemination of these contributions, and
- promotion of the technology, the community, and the impact of networked embedded systems.

Participation

The Alliance continues the TinyOS tradition of promoting broad membership. It seeks to keep barriers to entry low in all respects: legal, financial, and organizational. It is organized to encourage, promote, and credit member contributions. It provides an organizational structure to reinforce important, broadly adopted designs, build consensus, and establish key interfaces.

An individual is the basic unit of membership; individuals create work products, serve on working groups and committees, and vote. There is no individual membership fee, but members will be responsible for nominal registration fees at Alliance meetings. *Members* are individuals who join the Alliance and participate at a basic level, typically as consumers of technology, while *Contributing Members* are individuals who participate in working groups, attend meetings, or contribute code or other assets to the Alliance. Contributing members may be elected to various posts and have voting rights.

In addition to individual membership, the Alliance has institutional memberships. An *Institutional Member* is a corporation or organization that joins the Alliance, agrees to appear on the Alliance web site and in materials, and pays a nominal administrative fee (min. annual \$500 for small companies and non-profits, \$1000 for larger). A *Contributing Institutional Member* is a corporation or organization that additionally provides financial support, resources, facilities, technical contributions, intellectual property, marketing support, or other meaningful contributions to the Alliance. Such institutions are featured prominently in the Alliance and have the opportunity to appoint individuals as contributing members (min. annual \$2000 for small companies and non-profits, \$5000 for larger, or in-kind contributions of other forms)

Intellectual Property and Licensing

The Alliance addresses intellectual property rights in an open manner. Meetings, discussions, presentations, and technical documents are non-confidential. Membership does not require or provide an IP pool, nor should it require conducting a comprehensive IP inventory. Members have an on-going responsibility to disclose IP of relevance, whether it is their property or not, so that Alliance members can make informed decisions and trade-offs. Working groups seek to develop approaches, interfaces, and protocols that can reasonably be implemented without the use of proprietary technology, although companies may well develop their own proprietary versions. Where members choose to donate IP, it will be treated along with other forms of contribution in establishing membership status.

The source licensing policy seeks to promote "rough consensus AND running code". In particular, it encourages the creation of quality reference implementations of standardized interfaces, while permitting proprietary development beyond the reference, and crediting the authors of code and other work products for their efforts. The current TinyOS code base on SourceForge carries a small set of variants of the BSD license in which the copyright is held by the author's institution. The Alliance will authorize a small set of templates for use in code that it distributes. Alliance rules stipulate that use of the code or other work products for commercial products, research reports, or social good should give credit to the authors and tools will be provided to facilitate such credit.

Organizational Structure

Working Groups (WGs) form the core of the Alliance organization. Each has a chair, membership, and charter. Working Groups may be longstanding or short-term and may be chartered by the SC or formed from grass roots efforts. Overseeing the working groups is a Steering committee (SC), composed of WG chairs and members elected at large. The SC establishes WG policy, manages WG creation, termination, and arbitration, and supervises activities to resolve conflicting directions and move the process towards overall architectural consistency and technical excellence. The SC is responsible for recognizing individuals and institutions as Contributing Members. As a non-profit, the Alliance has a director, a board, and modest administrative support. Almost all positions in the Alliance will be on a volunteer basis.

Alliance Working Group

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