

How the ASF works

by Stefano Mazzocchi <stefano@apache.org>

Part I

General Concepts

What is the ASF?

- ASF stands for Apache Software Foundation
- It's a no-profit organization incorporated in the state of Delaware, USA

Why the ASF? (I)

- provide a foundation for open, collaborative software development projects by supplying hardware, communication and business infrastructure;

Why the ASF? (2)

- create an independent legal entity to which companies and individuals can donate resources and be assured that those resources will be used for the public benefit

Why the ASF? (3)

- provide a means for individual volunteers to be sheltered from legal suits directed at the Foundation's projects;

Why the ASF? (4)

- protect the 'Apache' brand, as applied to its software products, from being abused by other organizations.

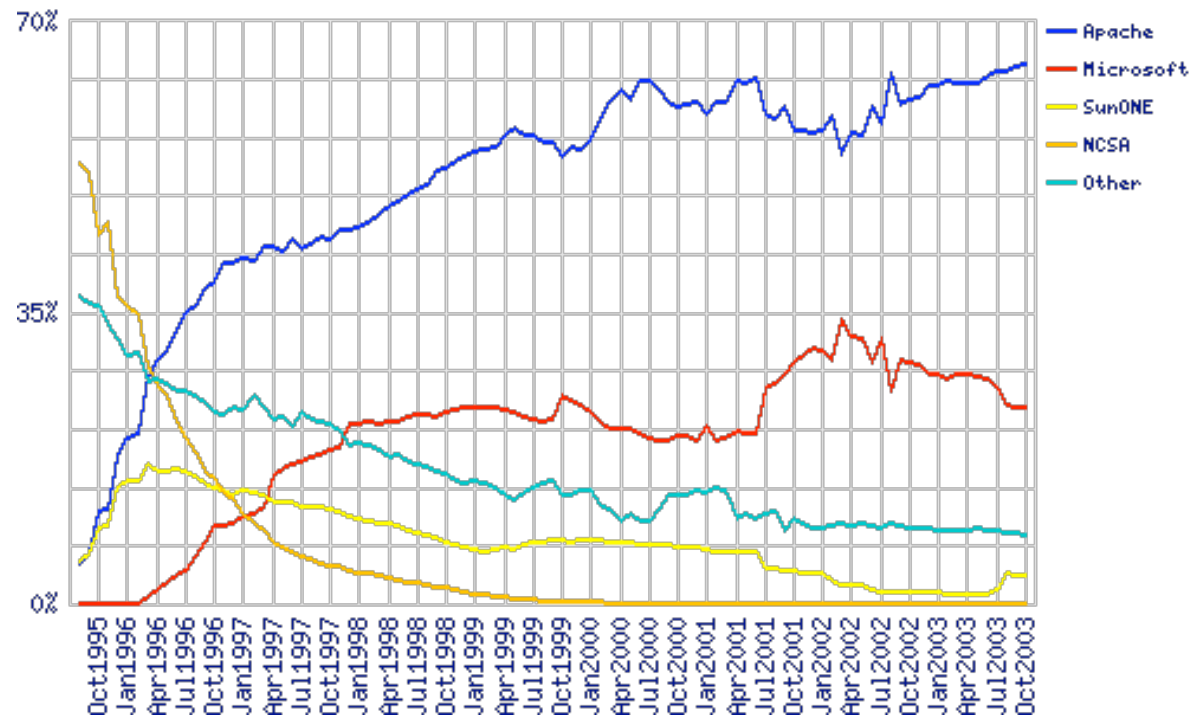
Before the ASF (I)

- In 1995 a group of people got together to exchange software “patches” for the NCSA HTTPD web server
- They started to call themselves the “Apache Group” (legend says after “a-patchy server”)

Before the ASF (2)

- Later that year they released their own web server: the Apache HTTP Web Server
- In less than 6 months (April 1996) they surpassed the NCSA HTTPD server adoption (according to the netcraft survey)

The netcraft survey



Before the ASF (3)

- With more adoption and being leader of the market, the Apache Group started to fear abuse and lack of legal protection
- Thanks to its modular design, sister projects for web server modules came to gravitate around the Apache Group

Before the ASF (4)

- All those forces lead to the creation of the Apache Software Foundation in 1999

The ASF Philosophy

- technological lock-in is bad
- two heads are smarter than one
- software follows evolutionary behaviors
- sharing for common benefit is a feasible business practice

Main Concepts

- openness
- diversity
- software darwinism
- meritocracy

Openness

- everybody can join
- everybody can disagree
- everybody can propose changes

Diversity

- diversity increases openness
- diversity increases the ability to adapt
- respecting diversity reduces balkanization

Software Darwinism

- software as a living entity, survives when fits the environmental needs
- user-driven development beats marketing-driven development:
 - faster evolution cycles
 - better interoperability
 - better platform stability

Meritocracy

- govern of merit
- the more merit you have, the more power you get
- no old-men club because of openness

Part 2

The ASF Structure

The Chain of Merit



User

- anybody who uses the software
 - passive: does not contribute directly to the project (aka “lurker”)
 - active: contributes directly to the project (aka “contributor”), either with code patches, feature requests, bug reports, answering questions on mail list, etc...

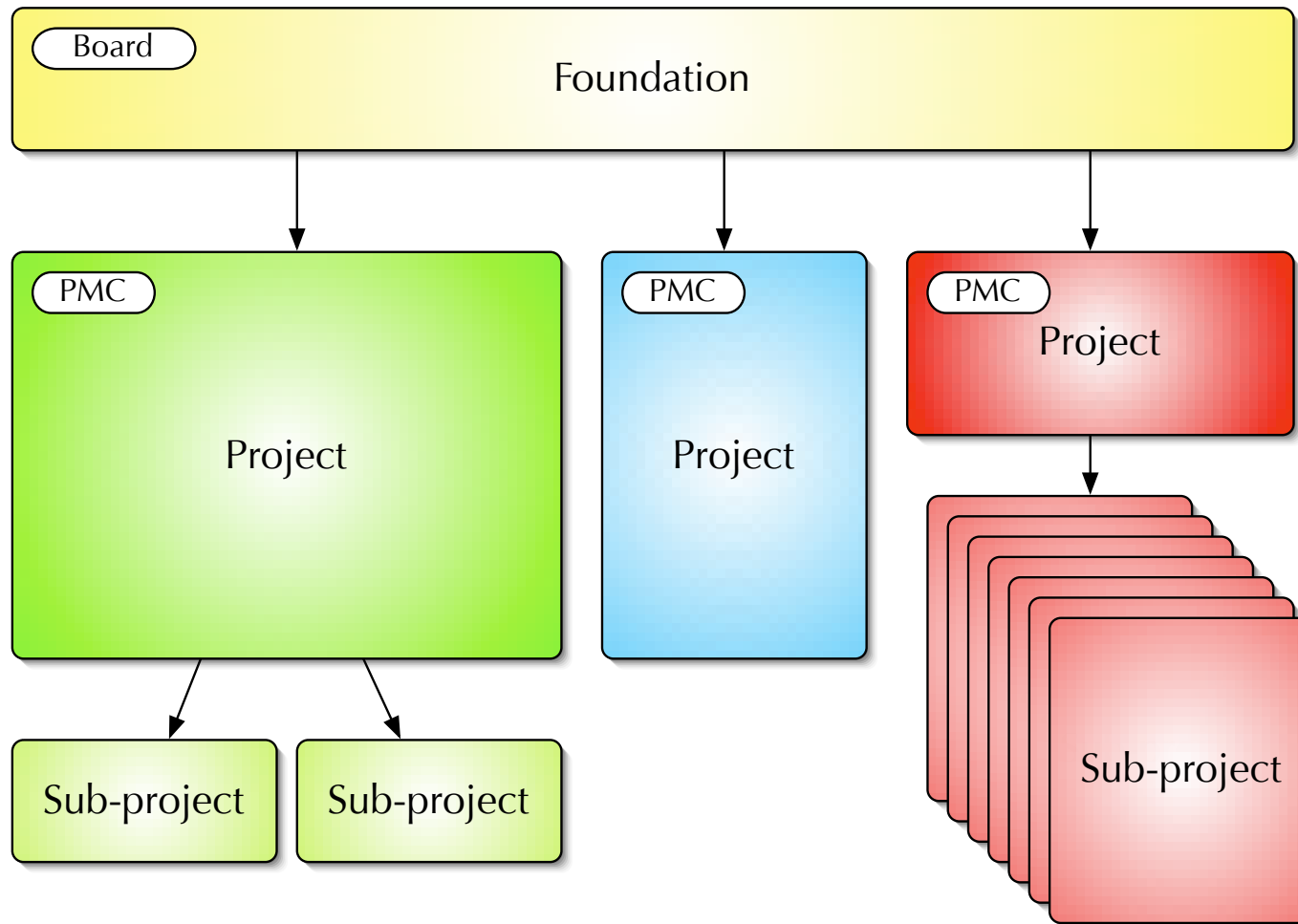
Committer

- an active user that was elected for merit and, for this, receives:
 - an @apache.org mail address (and relative SSH account)
 - write access to the project repositories
 - the ability to vote
 - the ability to propose other people for committership

Member

- a committer that was elected for merit in the evolution of the foundation
- shareholder of the foundation
- can propose committers for membership
- can elect the board
- can be a candidate for the board election
- can propose a new project for incubation

The Foundation Structure



The Board of Directors

- Manages and oversights corporate assets (funds, intellectual property, trademarks and support equipment)
- Allocates corporate resources to the various projects
- 9 members elected every year
- Makes no technical decisions!

The Project Management Committee (PMC)

- Manages a project (and its eventual sub-projects) subject to the direction of the board
- Each PMC has the faculty of establishing its own set of rules and procedures for day-to-day project management ...
- ... but many share the same

Common Management Procedures

- Communication
- Decision Making
- Operation
- Philosophy

Communication

- Communication is done mainly over asynchronous media (mostly mail lists)
- All communication is kept archived, so that others can join or have a reference
- This allows geographic distribution

Decision Making

- Lazy consensus
- Voting rules:
 - +1 yes
 - 0 abstain
 - -1 no

Operation

- All work is volunteer (nobody gets paid directly by the foundation)

Philosophy

- collaborative software development
- commercial-friendly license
- high quality software
- respectful, honest, technical-based interaction
- faithful implementation of standards
- security as a mandatory feature

Project Types

- Software-oriented
 - their main purpose is to create, maintain and distribute software
- Auxiliary
 - they do not distribute software, but help the foundation in specific domains

Software-oriented Projects

- Ant, APR, Avalon, Cocoon, Commons, DB, HTTP Server, JAMES, Jakarta, PHP, Perl-Apache, TCL, Web Services, XML

Auxiliary Projects

- Apache Infrastructure
- Apache Incubator
- Apache Conference Planning
- Java Community Process

The ASF

Infrastructure (I)

- the ASF is a virtual organization: no offices or building
- only physical existence is the technical infrastructure that runs its services

The ASF

Infrastructure (2)

- the web serving environment (web sites and wikis)
- the code repositories
- the mail management environment
- the issue/bug tracking environment
- the distribution mirroring system

The Infrastructure Team

- manages the ASF infrastructure 24/7
- people close to the location of the servers (SF area) get paged if machines go down
- has the faculty to veto a service if performance or security doesn't match the required quality standards

The ASF Incubator (I)

- receives and filters proposals for the creation of new development efforts
- helps coordinating the bootstrap of the technological infrastructure for new efforts
- supervises and mentors the incubated communities for legal and community issues
- evaluates the maturity of incubated efforts, either promoting them or shutting them down

The ASF Incubator (2)

- Does ***NOT*** judge technical merits
- All judgment is performed on the chance of the effort to fit into the spirit of the foundation

Incubation Requirements

- a working codebase
- the intention to donate copyright and all IP rights to the foundation
- a sponsoring member or officer

Incubation Goal

- create healthy and diverse communities around a software development effort

Why incubation?

- Darwinistic sandbox to test the behavior of a software and its community
- Protecting the Apache brand by avoiding community failures
- Prevent the “sourceforge effect”
- Allow mentoring of the foundation’s principles

Warning!

- The incubator is rather new
- Rules are still work in progress

The Apache Conference Planning project

- organizes ApacheCON and similar events

The Java Community Process project

- represents the ASF in the Java Community Process, responsible for the maintenance and evolution of the Java Platform

Other Foundation Entities (I)

- the *licensing committee* is responsible for the legal issues associated with software licensing and license compatibilities and for maintaining the Apache Software License
- the *press committee* is responsible for dealing with the press

Other Foundation Entities (2)

- the *fund raising committee* deals with fund raising for the foundation
- the *security committee* deals with serious security issues and coordinates efforts between projects

Foundation-wide Mailing Lists

- announcement@apache.org (public read, moderated write)
- community@apache.org (public read, committers only write)
- members@apache.org (members only read/write)
- board@apache.org (members only read, directors write)

Some ASF Numbers (I)

- 9 Directors
- 19 Officers
- 113 Members
- 736 Committers

Some ASF Numbers (2)

- 33 requests/sec on the web infrastructure
- 6.5 mbps of transfer rate
- 180 mirrors in 50 countries
- receives an email message every 2 seconds

Thanks!

Q&A