

Proposed Reform of the CA/Browser Forum

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PayPal believes that transforming the CA/Browser Forum into an open, transparent, multi-stakeholder organization can be an important part of maintaining and evolving the critical infrastructure of the CA-based global public trust model. The key feature of our proposal is a balanced organization, with equal rights for all stakeholders, but in which no single group can dominate the agenda nor block progress.

PayPal proposes a two-tier structure composed of Working Groups and a Board of Trustees. The Board of Trustees is composed of three constituency groups: Trust Store Operators, Certification Authorities, and Users, with voting rights structured to provide an equal voice for each group. Candidate Recommendations developed in Working Groups need to be ratified by a majority vote of 2 of the 3 Board constituency groups, but a single constituency can veto any proposed Recommendation by a unanimous vote. Full membership, with the right to vote for Board members and serve on the Board, would be by sliding-scale fee, with free participation to anyone willing to agree to an IPR commitment. All communications of the organization would be public with the exception of proprietary competitive or security-sensitive information, such as during incident response.

Topic	Proposal	Notes
Membership	Constituency-based membership model consisting of: 1) Certificate Authorities 2) Trust Store Operators (browsers and others) 3) Users (subscribers, relying parties, subject matter experts)	Each constituency is equal in status and power with regard to approval of proposed recommendations. Division into constituencies is intended to reflect the existing division of responsibilities, costs and externalities in the public PKIX ecosystem and for future recommendations.
Membership Requirements	Sliding-scale membership fees for voting rights. Users and Trust Store Operators to be assessed based on organization size, CAs based on revenue from certificate issuance. Low, fixed-fee membership for not-for-profit organizations and individuals.	All members must be legally incorporated entities, with the exception of a special sub-group in the User constituency. Fees for individual participants in this group are low, but they may only vote for the "At Large" reserved Board seat. There are no formal requirements for membership in the User constituency, only an implicit demonstration of

		economic interest by willingness to pay the membership fee.
Participation Requirements	The organization and individual work groups shall maintain public mailing lists. Anyone may read the proceedings of the organization, and anyone may contribute, providing they execute the Working Group’s IPR agreement and abide by a code of conduct.	Anyone may contribute, free-of-charge, as a non-voting participant. Fee-based membership conveys a vote at the Working Group level, a vote for the Board of Trustees, and eligibility to serve as a Trustee.
Governance Model	<p>Elected Board of Trustees handles organizational governance and approves proposed recommendations.</p> <p>The User constituency shall have 5 seats on the board, elected by the members, with one reserved for an “At Large” sub-constituency of individuals and subject matter experts paying reduced membership dues.</p> <p>The CA constituency shall have 9 seats, with allocation/voting procedures to be determined within that constituency.</p> <p>The Trust Store Operator constituency shall have 4 seats, elected from among the constituency.</p> <p>Operational decisions shall be made by a majority of a quorum, with the exception of recommendation approval and other special procedures such as bylaw changes or dissolution of the organization.</p>	<p>Members wishing to serve on the Board of Trustees must be willing to pay a higher fee structure to serve, with the exception of not-for-profit organizations and the reserved seat in the User constituency.</p> <p>An idea for structuring the CA constituency could be:</p> <p><i>Automatically allocate 6 of 9 seats for the CAs with the largest market share of issued certificates for public TLS trust, with the balance to be elected by the remaining members, perhaps with one seat at a reduced fee structure to represent small market share CAs.</i></p> <p>The CAs are better able to determine the appropriate balance of representation within their own constituency than PayPal.</p>
Work Model	Recommendations are developed in Working Groups and are approved by a vote of the Board. Board members rejecting a proposal may	This model allows IPR commitments to be compartmentalized on a Working Group-specific basis.

	<p>submit comments but may not change a proposed recommendation.</p> <p>Working Groups should prefer consensus, but a majority vote of full members is sufficient to propose to the Board a candidate recommendation.</p>	
Intellectual Property Regime	IPR commitments shall be made based on participation in a Working Group. The commitments shall be RAND-Z with a withdrawal period.	This model has proven successful in other organizations such as the W3C, OASIS and Kantara.
Work Product Scope	<p>The organization shall develop best practices guidance, audit standards and issue non-binding recommendations to be freely adopted.</p> <p>The organization shall not develop new technical standards, but may work to organize consensus, perform experiments and support the chartering of specific work in other forums such as the IETF and W3C.</p>	
Approval of Work Product	Proposed recommendations shall be subject to an electronic ballot, announced one week in advance and open for one week. Recommendations shall be approved if an absolute majority of the Board members of two out of three constituency groups, and at least one of the remaining constituency's Board members, approve.	Two out of three constituencies can advance a recommendation, but the third constituency can veto it by a unanimous rejection.
Organizational Model	Incorporated Not-For-Profit	An incorporated organization can hold and defend intellectual property, provide officers and directors insurance and a corporate shield against litigation.

OUTLINE OF PROPOSED BYLAWS AND OPERATING PROCEDURES

ORGANIZATIONAL STRUCTURE

The organization shall be composed of voting members, trustee members and participants. Voting members and trustee members pay a fee and sign an IPR agreement to join. Membership is organized into three stakeholder constituencies plus an at large constituency. Each voting member is assigned to either a stakeholder constituency group or the at large constituency. Non-Member Participants may participate in and contribute to working groups simply by signing an IPR agreement, and are not associated with a constituency.

Proposed Initial Membership Level Fee Structure*

	NP	LIC	L0	L1	L2	L3
Constituency Trustee	\$16,500	N/A	\$16,500	\$16,500	\$33,000	\$55,000
Constituency Member	\$1000	N/A	\$2000	\$5,500	\$11,000	\$16,500
At-Large Member / Trustee	\$100	\$100	\$500	\$1000	\$4000	\$8000

*All Membership Fees are Annual. All amounts are in US Dollars. Membership Levels are dependent on the size of the organization joining, defined as follows:

LIC = "Individual Contributor" = an individual. Individuals may only join as at large members; NP = "Non-Profit" = any non-governmental non-profit organization; L0 = "Level 0" = 1-100 employees; L1 = "Level 1" = 101-1000 employees; L2 = "Level 2" = 1001-25000 employees; L3 = "Level 3" = more than 25000 employees

The Certification Authority Constituency may set its own fee structure based on the size of members' certificate issuance operations.

Overall governance of the organization and its finances shall be the responsibility of a Board of Trustees, with officers elected by trustee members.

The work of developing recommendations, technical/policy documents, business/marketing efforts, and special interest or industry vertical discussion shall be conducted by Working Groups and overseen by the Board. The Board shall be elected by voting members of each constituency group. The Board shall charter Working Groups and proposed work products will be advanced by a vote of the Board.

THE BOARD OF TRUSTEES

Roles and responsibilities of the Board of Trustees include, but are not limited to:

- Review/approval of all budget requests
- Set the Member Fee Schedule
- Approve the chartering of Working Groups
- Advance Candidate Recommendations from Working Groups
- Establish and amend the Organization's Policies and Procedures including:
 - These Bylaws
 - Finance Policy
 - Document Policy
 - Intellectual Property Rights Policy
- Approval of contracts;
- Management of Organization contractors;
- Management of Organization assets;
- Marketing and Public Relations;
- Approval of the Operating Procedures;
- Establish and maintain an approved list of Standards Setting Organizations to which draft Recommendations may be proposed for adoption as standards;
- Prepare and publish an annual report; and
- Ensure that the Organization has adequate Directors and Officers liability insurance.

The Board of Trustees shall consist of four (4) members from the User constituency plus one (1) from the at large membership, four (4) members from the Browser / Trust Store Operator constituency, and nine (9) members from the Certification Authority constituency, for a total of eighteen (18) members. Each Board of Trustees Member shall designate one (1) person (Trustee) to represent it on the Board of Trustees, and may designate one (1) Alternate.

Each constituency group shall elect its trustees. Candidates may self-nominate based on their willingness to execute the responsibilities of a Trustee and pay Trustee fees. All current members of the Constituency Group will have only one (1) vote and the top four (4) vote getters will be elected. The term of the Trustees shall be two (2) calendar years, with one of the two Trustees terms' in each constituency group expiring at the end of each calendar year.

The Certification Authority constituency may determine its own procedures for allocating seats on the Board of Trustees.

At Large Trustee - One (1) member of the Trustees from the User constituency may be elected from the at large membership. The term of the At-Large Trustee will be for one (1) calendar year and will expire at the end of each calendar year. All current At Large members will have only one (1) vote and the top vote getter will be elected.

There is no limit as to the number of terms that these organizations and individuals may serve as Trustees. If any elected Trustee organization or individual should resign or vacate their position before the end of their term, the exiting Trustees may select a replacement member to fill the remaining time of the term(s).

Trustee positions may be vacant.

STAKEHOLDER CONSTITUENCIES

Board representatives shall be nominated and selected by a vote within each constituency group.

The constituency groups are as follows:

CERTIFICATION AUTHORITY

Members of this constituency must meet at least one of the following criteria:

1. **Issuing CA:** The member organization operates a certification authority that has a current and successful WebTrust for CAs audit, or ETSI 102042 or ETSI 101456 audit report prepared by a properly-qualified auditor, and that actively issues certificates to Web servers that are openly accessible from the Internet using any one of the mainstream browsers.
2. **Root CA:** The member organization operates a certification authority that has a current and successful WebTrust for CAs, or ETSI 102042 or ETSI 101456 audit report prepared by a properly-qualified auditor, and that actively issues certificates to subordinate CAs that, in turn, actively issue certificates to Web servers that are openly accessible from the Internet using any one of the mainstream browsers.

BROWSER / TRUST STORE OPERATOR

Members of this constituency must meet at least one of the following criteria:

1. **Browser Vendor:** Produce a software product intended for use by the general public for browsing the Web securely.
2. **Trust Store Operator:** Produce an operating system, application framework or software execution environment (such as a VM or programming language environment) for use by the general public that includes a trust store of certificates intended for establishing secure communication over the Internet.

USER

This constituency is open to all organizations that rely on purchasing and deploying certificates to protect communications and services deployed on the public Internet. In addition to website operators, membership in the Relying Party constituency from businesses and software vendors with non-browser use cases such as mobile apps, web services, chat, and the like is encouraged.

Eligibility for membership in the Relying Party constituency has the following exceptions:

1. An organization that derives a majority of its revenue from activities as a Certification Authority, which acts as a public Certification Authority and has a market share of greater than 1%, or which is controlled or acting on behalf of such organizations may not join as a Relying Party in lieu of joining as a Certification Authority.
2. An organization that qualifies for the Browser /Trust Store Operator Constituency may join the Relying Party constituency if they feel they have more substantial interests there, but they must decide and declare which constituency designation to have at the time of their membership application. All members that qualify for multiple constituencies may change

their designation once per membership term during a time duration set by the Trustees prior to each annual membership term renewal. .

A member felt to be participating as a Relying Party in violation of these exclusions may be moved to a more appropriate constituency by a simple majority vote of the Board.

AT LARGE MEMBERSHIP

In addition to the stakeholder constituency, the organization has an At Large membership with Board representation. The Board shall have not less than one and not more than one (1) representative from the at large membership.

The cost of joining the At Large constituency is less than the defined Stakeholder Constituencies. Interested participants who do not feel they fit in one of the defined Stakeholder Constituencies are encouraged to join as At Large members, including, but not limited to, public interest and non-profit groups and individual contributors from the privacy and security community.

Recommendations may advance in one of two ways in the Board, as described in the bylaws. The votes of the At Large Board members are counted towards general majority passage, but the At Large Board membership does not have full status for purposes of a *stakeholder constituency majority* as it is not assumed to represent an interest group, but rather the many voices of the Internet community.

VOTING PROCEDURES OF THE BOARD

The Board shall strive to reach decisions by consensus, but recognizes that consensus is not always possible. In order to prevent minority voices from impeding progress towards the public interest, decisions shall be made by a vote of the Board with two alternative success criteria: *stakeholder constituency majority* and *simple majority*.

A *stakeholder constituency majority* shall be reached when a properly called electronic ballot of the Board results in a “yes” vote by a margin of 50% +1 or more for at least two out of the three stakeholder constituencies, with at least one vote from the third constituency.

A *simple majority* shall be reached when a properly called meeting or electronic ballot of the Board achieves a quorum (greater than 50% participation) and results in a “yes” vote by a margin of 50% or more among the votes of all Board members, including the at large representative.

A simple majority shall satisfy for all issues except where otherwise indicated in these bylaws. When an electronic ballot is used, the percentage of “yes” votes required for general majority approval of a measure, shall be dependent on the type and phase of the issue, as set forth in the bylaws, and shall be noted on the ballot.

Amending these bylaws or disbanding the organization shall require an 80% majority vote of all members of the Board.

WORKING GROUPS

A Working Group may be established to cover work in areas including but not limited to technical, policy/guideline, business/marketing and special interests. Special interest Working Groups may form around vertical industry segments, geographical regions, or other common interest areas to address issues around adoption, roll-out, and use of specifications, policies, guidelines, and the like.

Any three (3) or more Participants (two of whom must be Members) may propose the creation of a Working Group to be chartered by the Board by submitting a proposed Working Group Charter. Approval for the formation of a Working Group shall be by a *stakeholder constituency majority* or *simple majority* vote of the Board.

A proposed Working Group Charter shall include:

- The name of the group;
- The members that initially desire to perform the work (no less than three members, of which at least one must be a Stakeholder Constituency Member);
- Specific area and scope to be the subject of the Working Group;
- Target SSOs for submission of any Technical Specifications to be produced by the WG;
- Tasks to be carried out by the Working Group;
- An indication of the time frame for the work (limited duration or ongoing);
- Intellectual Property Rights Policy; and
- Other information as may be required by the Operating Procedures.

The Working Group shall elect a chairperson from amongst its Participants to chair the Working Group. A Working Group may elect co-chairs.

Membership in a Working Group shall require consenting to the Intellectual Property Rights policy of the Working Group, both for Members and for Participants.

CONFIDENTIALITY AND LIMITED MEMBERSHIP

The proceedings of the Board and Working Groups shall generally be public and membership open to all. However, there may be limited circumstances where temporary secrecy is desirable. (e.g. for vulnerability disclosures, incident response, etc.) The Board may approve the creation of Working Groups that operate under a non-disclosure agreement and require invitation to participate by a majority of current members of the Working Group. Such groups shall produce a public summary of their topics of discussion on a quarterly basis, covering all concluded business.

INTELLECTUAL PROPERTY RIGHTS POLICY

Each Working Group shall use a Patent and Copyright RAND-Z IPR regime for the deliverables in its charter. IPR agreements shall be specific to participation in and the deliverables of each given Working Group and include a withdrawal clause for contributions made by other members.

COMPLIANCE WITH ANTI-TRUST LAWS

The Members will be combining unique experience and skills to foster community harmonization, interoperability, innovation and broad adoption through the development of open operational frameworks, education programs, deployment and usage best practices for privacy-respecting, secure access to online services.

This purpose is believed by the Members to be more difficult to achieve through the independent efforts of each company. The Members are committed to fostering open competition. The Members understand that in certain lines of business they are direct competitors and that it is imperative that they and their representatives act in a manner which does not violate any applicable antitrust or competition laws pertaining to monopolistic or anti-competitive practices. Thus, all Members shall comply with all applicable antitrust and competition laws of all relevant jurisdictions. In addition, with the advice of counsel, the Board of Trustees shall from time to time promulgate detailed Antitrust Compliance Guidelines for the consideration of the Members concerning their participation in the Organization. These Guidelines are not intended to replace or displace each Member's own antitrust policies, but shall operate to guide the Members' participation in the Organization.

Members are not required to develop or market any offerings, and are not precluded from engaging in any business activities whatsoever, even if they are competitive with the activities conducted under these Bylaws.