

Operating Policies and Procedures – Engineering a Process for Standards Setting Success

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Standards setting organizations (SSOs) structure themselves with widely varying degrees of openness and formality. Striking the proper balance between formality and informality, openness and exclusivity requires a thorough examination of a given organization's mission, global objectives, regulatory requirements and the cultural profile of the target participants. An SSO's structure, operations and culture are defined by its bylaws, its IPR policy and its operating policies and procedures. Among this troika of documents, the policies and procedures largely define the consortium culture and govern its operations. Yet this document gets the least attention. This article describes a method for evaluating existing organizational structure and for designing policies and procedures that create the proper foundation for standards setting success for a new or existing standards consortium.

Introduction

Since the late 1980's when most technology standards were created by the formal standards developing organizations (SDOs) such as ANSI, IEEE, and ISO, several new classes of standards setting organizations (SSOs) have emerged. They range from small working groups representing a few market-leading companies cooperating to develop a specification to highly inclusive, process-oriented consortia that resemble the formal SDOs. Their aims include developing voluntary standards that get to market quickly and provide the basis for interoperability among products in emerging technology markets.

Consortia typically form with a small number of founding companies as members, no physical office location, and no network infrastructure. At the outset, a consortium may be no more than the sum of its corporate documents, the aspirations of the founding members, and perhaps some contributed intellectual property. To be successful in attracting a critical mass of members and delivering on its standards setting promises, the consortium must quickly evolve into a structured, highly functional on line and off line community with operations governed by an appropriately crafted set of policies and procedures.

Structuring for Success

To potential members, standards consortia represent both an opportunity and a risk. On the plus side, they see an opportunity to help develop or accelerate an entire industry and maximize their ability to capitalize on it. However, participation has its risks and costs including:

- Consumption of key resources
- Potential loss of control over IP or trade secrets
- Implementation issues with evolving specifications
- Possible antitrust liabilities

To overcome the prospective members' concerns, consortia must present more than just an attractive market opportunity and business case for the standard. They need to show prospects that they have a structure in place that encourages participation and productivity while minimizing the risks and costs. Meeting this challenge requires organizational discipline, strong governance, and a supporting infrastructure that encodes and helps enforce the consortium's bylaws, IPR policies and operating policies and procedures.

Consortia practices are coming under increasingly intense scrutiny by prospective members' legal counsel due to some high profile court cases and because of the profound potential for loss of IP rights. Today, companies are much more likely to refuse to join organizations where IP disclosure requirements appear too broad, infrastructure is weak or unsecured, or where policies are vague or loosely enforced.

Policies and Procedures 101

Consortia founders apply most of their energy to the creation and negotiation of consortium bylaws and IPR policies. However, the process by which the SSO intends to actually produce a standard often gets short shrift. Without well-considered and consistently applied policies and procedures, a consortium has only a small chance of successfully developing a specification or achieving the creation of a globally accepted standard.

The American National Standards Institute (ANSI) in its proposed *National Standards Strategy for the United States* defines successful standards processes by their results. According to ANSI, a good process will yield:

Standards that are relevant, meeting agreed criteria and satisfying real needs by providing added value

Standards that are responsive to the real world, they use available, current technology and do not unnecessarily invalidate existing products or processes

Standards that are performance-based, specifying essential characteristics rather than detailed designs.

Results that are relevant, responsive, performance-based and *timely* come about only when groups of members volunteer their time and work in teams dedicated to a set of common goals. Consortia policies and procedures define the roles, privileges and responsibilities of team members, spell out rules and guidelines that govern how they will work together, and establish an appeal process to cover cases where members feel that decisions have been reached unfairly. If you're wondering why groups of dedicated professionals would need to have detailed policies and procedures that govern standards work, the answer is simply that they are human and humans in groups have a

Within the context of a standards consortium, the types of behavior that tend to work against successful standards setting include:

- Scope creep – a tendency to broaden the focus of standardization efforts beyond the original intent
- Game playing – gaming the system or manipulating the process to benefit a single company rather than the entire industry³
- Stacking – larger companies sometimes skew a ballot their way by flooding a meeting or working group with participants, effectively stuffing the ballot box
- Goofing – unintentional violations of antitrust law or consortium IPR policy through ignorance or lack of discipline

Clay Shirky summed it up very well in his essay “A Group is its Own Worst Enemy”:

“...group structure is necessary to defend the group from itself. Group structure exists to keep a group on target, on track, on message, on charter, whatever. To keep a group focused on its own sophisticated goals and to keep a group from sliding into these basic patterns. Group structure defends the group from the action of its own members.”⁴

A Definition

Before we talk about how to create policies and procedures, we need a working definition. What exactly are we talking about when we refer to a standards organization's policies and procedures? For the purpose of discussion in this article, we'll use the following definition:

A standards consortium's policies and procedures articulates the rules and guidelines under which a specification will be drafted, reviewed, commented upon, and ratified by the organization. It also defines the organization's committee structure, the roles of the committee chair and officers, the election and removal of those officers, and the appeal process available to anyone who feels that the policies have been poorly implemented or ignored. Overall, the operating policies and procedures define the consortium culture, social structure, and behavioral guidelines.

The document chapters will include a lot of detail concerning:

- The process for forming and dissolving committees and subcommittees
- The rules around sharing of information between and among committees
- The rights and responsibilities of chairs, contributors, and observers
- Process for building consensus and breaking deadlocks within committees
- The specific balloting procedures including voter qualification, time period between opening and closing of ballots, quorum definition, voting model (1 vote per company, e.g.) ballot structure, and rules for sharing of results
- The overall work flow process for drafting, revising and publishing specifications

The policies and procedures document is subordinate to, and must not conflict with, other consortia documents that take precedent over it - including the corporate bylaws and the IPR policy. In fact, the more truly aligned these documents become, the easier it will be to govern and manage the operations of the organization.

So how does a consortium develop and adopt a set of policies and procedures will help it achieve its goals?

Getting the Big Picture

A good place to start is to survey existing SSOs and SDOs on the basis of their relative formality and openness. The chart below is a very useful tool for understanding approximately where existing standards organizations fit along the dual axes - formal vs. informal and exclusive vs. inclusive.

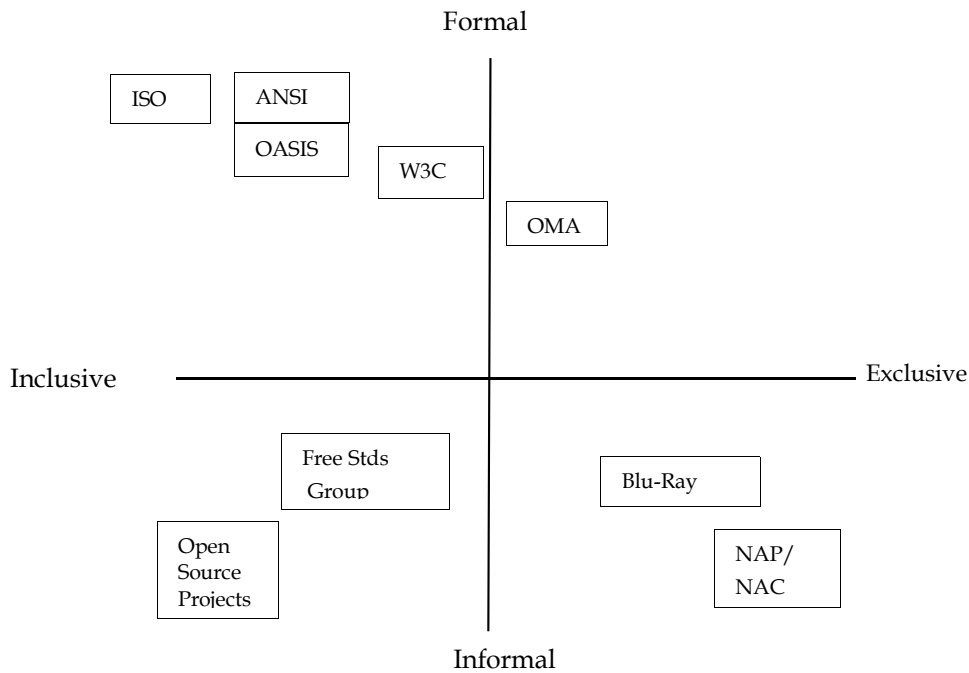


Figure 1. SSO formality/exclusivity grid

Formal - operates under strict, detailed, well-documented policies and procedures

Informal - operates loosely without explicitly policies or guidelines

Exclusive - Limits participation either explicitly (by invitation only) or implicitly (e.g. high membership fees)

Inclusive - operates transparently with membership or participation open to all. Seeks global input.

Where Does Your Organization Fit?

The next step in engineering a process is to determine which of the four quadrants is the best choice for a specific standards setting organization. Getting the right answer requires some analysis of external factors:

Industry structure – Is the power to set a standard concentrated among a few dominant vendors? Or does broad adoption require the consensus and support of a host of first and second tier supporters? Similarly, what constitutes broad adoption? Can adoption by a few market leaders carry the rest of the adopters along with them? Or must you compete with other emerging standards for the hearts and minds of a global multitude of adopters? Generally speaking, when power is concentrated either among a few vendors or adopters, then openness isn't essential. Conversely, decentralized markets or industries are much more likely to embrace a standard if it has been developed in an open process with plenty of opportunity for large and small companies to contribute to its final form.

IP ownership – How broadly is the ownership of essential IP distributed around the industry? Are the owners likely to demand royalties from adopters? Are there potential workarounds to avoid excessive royalty payments. As a rule, you want to create an organization inclusive enough to attract the owners of essential IP into your membership and thereby minimize the risk of “submarine patents” surfacing once adoption begins to take hold.

*Desire for Formal Accreditation*¹– If your goal is to create a standard that is accredited by a national or global SDO, then your process must meet their accreditation standards for openness and due process. You'll need to research the specific accreditation criteria of the organization from whom you seek approval. If you're seeking ANSI accreditation, you'll find their criteria [here](#). ISO and ITU have their own sets of requirements that stipulate, among other things, that the process must be open such that anyone, member or non-member, must have an opportunity to review draft specifications and post comments on the particulars. The process for the disposition or resolution of these comments must also be open and well documented.

Government Procurement – Under the US National Technology Transfer and Advancement Act (NTTAA) of 1996, government agencies are encouraged to purchase goods and services that meet voluntary standards created under practices deemed acceptable by the act.² The NTTAA is written in such a way that as long as a consortium standard is available under either a royalty-free or reasonable and nondiscriminatory (RAND) license, and the process by which it was produced was sufficiently open, the technology will likely be approved for purchase by US government agencies.

National Security - Other government regulations may apply and sometimes have a profound effect on the way in which a consortium operates. If, for example, the work product or standard has US military application or is otherwise considered to be a matter of national security, then the organization could be required to conform to export control restrictions that limit participation in the technical work and restrict access to documents to those defined to be US Persons under the

U.S. International Traffic in Arms Regulations (ITAR) and/or controlled by the U.S. Export Administration Regulations (EAR). The consortium therefore, must ensure compliance with the appropriate U.S. laws and gather citizenship and company affiliation information as items of record. Those records are established and maintained through the mandatory submission of certification forms by each member company and individual participant. Continued compliance requires a set of formal and strictly enforced policies and procedures for handling sensitive documents and information.

Corporate Governance Requirements – While an organization's bylaws generally bring the consortium's structure into conformance with the laws of the country or state in which they incorporate, continuing conformance could require formal operating policies and procedures. For example, many standards consortia incorporate under the laws of the US State of Delaware. Delaware law spells out requirements that govern formal organizational balloting that allow for on line voting, yet require paper copies of ballot results be kept on file.

Let's take a closer look at each of the four quadrants and the organizations that fit within each of them.

Formal and Inclusive

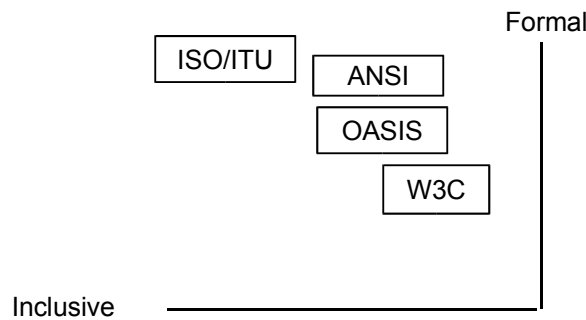


Figure 2. Formal and Inclusive

In the upper left-hand quadrant, you'll find SDOs with a global standards mission and a few global consortia. Organizations in this sector may be open standards consortia that seek global acceptance of their specifications and may seek certification of their standards by a treaty-based SDO such as ISO or ITU. Operating in this quadrant implies an open process. More openness requires more formality. It takes time to process comments and input from a global set of stakeholders. The lengthy time required to complete a standards setting project in an open environment is one of the factors that led to the formation of consortia with streamlined processes and faster time to market. OASIS is both open and formal using a set of policies and procedures influenced by SDOs such as ANSI. Yet it has demonstrated the ability to rapidly develop open specifications for interoperability using standardized XML formats and maintains a liaison relationship with ISO.

You should operate here if:

The industry is complex with a wide diversity of vendors and end-users

You seek global acceptance from a large number of adopters and end customers

You plan to submit your specification to a formal or treaty-based SDO such as the ITU, ISO or ANSI

You're willing to tolerate a slower process for drafting, reviewing and ratifying the proposed standard

Informal and Inclusive

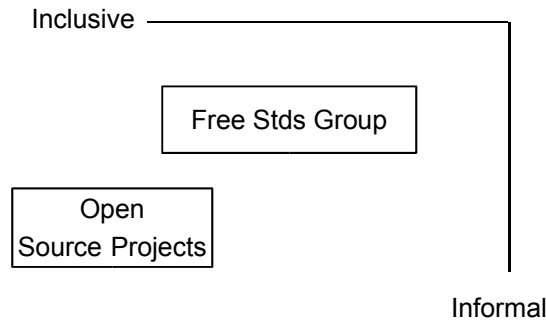


Figure 3. Informal and Inclusive

Here you'll find open source projects and free standards organizations who invite anyone interested in contributing to share their input. While open to all-comers, an individual contributor's status and ability to influence a particular specification is usually based upon merit and an on-going commitment. The final arbiter of changes may be an appointed expert or "code captain" as is the case with Linus Torvalds and the Linux core.

You can operate here if:

- You need very broad participation in developing a standard
- Potential adopters demand an open, royalty-free standard
- Formal accreditation isn't required

Formal and Exclusive

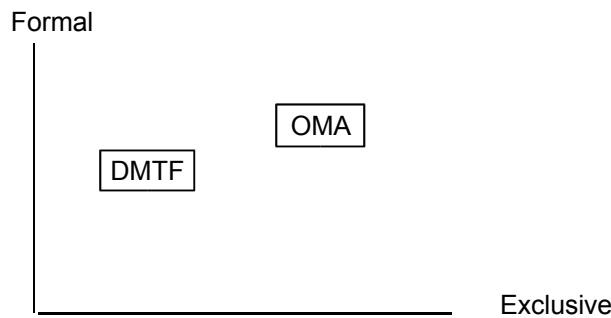


Figure 4. Formal and Exclusive

Many standards consortia operate in this quadrant. Their exclusivity may result from high membership fees – i.e. pay to play. A given company's influence within a consortium may depend on their level of membership. A board seat at the Open Mobile Alliance, for example, currently costs \$140,000 US per year. An associate membership can be had for \$7,500 per year. However associate members are not allowed to speak or vote at meetings and are thereby relegated to the status of observer. Membership may be by invitation only, especially early in the consortium's life cycle where a small inner-circle of companies may unite to create a specification based upon pooled intellectual property. The DMTF has lower financial barriers to participation and includes free membership to students and for liaisons from other standards bodies.

Despite their exclusivity, organizations in this sector often have well-documented policies and procedures driven by the need to encode their own bylaws and IPR policies, structure the communication within the organization, maintain compliance with antitrust laws, and ensure compliance with the laws of the state in which they have incorporated.

You can operate here if:

- You can attract members that constitute a majority market share for the target market
- You may, at some future date, want to submit the specification to for formal adoption by a global SDO (ITU, ISO, etc.)
- You want to encourage adoption and consumption of compliant products by government agencies

Informal and Exclusive

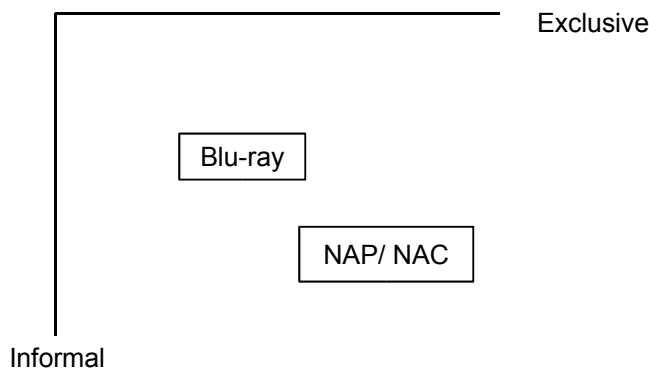


Figure 5. Informal and Exclusive

A very exclusive SSO may decide against developing and enforcing formal policies and procedures and limit the scope of their activities to the generation of specifications that they intend to present to SDOs or other SSOs for adoption as a standard. The actual work product of an organization in this sector may be produced by a small team of technologists. With only a few active contributors, the need for strict and explicit policies diminishes. But it doesn't go away. Any collaboration between companies in a given industry is still subject to the regulation by the state or nation in

which it operates and must abide by relevant antitrust law. Even though an organization may begin life as an exclusive club, it may need to open up its membership upon publication of a specification to enlist supporters and adopters and to attend to compliance and certification issues forcing it upward and to the left on the grid. Examples of consortia that operate here include the Sony-led Blu-ray consortium in the HD-DVD space, Microsoft's Network Access Protection (NAP), and Cisco's Network Access Control (NAC) efforts.

You can operate in this quadrant if:

- You have power to create a de facto standard on your own or through the combined market power of a few dominant vendors
- Target customers have little leverage to apply in defining the standard

Getting Down to Details

Once you've determined the quadrant that *feels* like the right one in which to operate (formal and inclusive, for example), examine the policies of well-run organizations that operate in the same quadrant. You can usually find an organization's policies and procedures documents (if they have them) available for download on the public pages of their Web sites.

However, don't expect to be able to simply change the headers and footers and adopt someone else's policies and procedures as your own. You need to understand *why* they made the decisions they did. Why, for example, would OASIS impose strict policies for developing consensus within a technical committee while the W3C gives chairs a significant amount of discretion about how consensus can be achieved?

Getting to the "whys" of policy development involves a look inward. You must go through a process of understanding factors that have more to do with cultural or internal factors - your organization's mission, values, objectives, resources and the cultural attributes of the people you hope to rally to your cause.

Internal factors

An organization's policies, procedures, and guidelines must:

- Reflect the community value set
- Project the appropriate level of professionalism
- Support the working group operational objectives
- Create a structure that is easy to administer by chairs and staff
- Be accepted by members

Organizational Values Reflect Community Values

Organizational values refer to the principles or beliefs that will guide the organization's decision making process. An organization must fundamentally be aligned with its participating members in such areas as degree of openness, transparency, accountability, and other factors:

Openness: Who may contribute to the standards work of the organization? Will it be open to any stakeholder or will it be restricted to members or certain levels of membership? If the community expects open participation for all, then approaches that limit contribution by membership type may be viewed with suspicion. Conversely, due to IP and other corporate restrictions, some participants may not be comfortable discussing any work-in-progress in an open forum that anyone can join.

Transparency: To what degree will the work of the committees be viewable by other committees, other members, or the general public? An organization can often achieve its openness goals through process transparency. OASIS Open uses transparency to great effect by requiring committees to hold their discussions on publicly viewable mailing lists, publish all meeting minutes and ballot results, and provide public URLs for released documents.

Accountability: To what degree will the specification development process create and present an audit trail? Accountability most often affects the organization's formality of process by requiring formal voting procedures, meeting attendance requirements, and meeting attendance records, and email archives. Most organizations with corporate contributors will need accountability mechanisms for IP tracking purposes if nothing else.

Democracy or Oligarchy: Will decisions be made by consensus with all members on an equal footing? Or will voting rights be restricted to certain types of members (e.g., promoters vs. adopters)? Will there be one vote per committee member or one vote per company representative? What will the requirements be for voting eligibility? This discussion often goes to the heart of the community's values, with some organizations making a very direct statement that decision-by-consensus is an explicit operational goal, leaving voting rules to the individual committees. More formal organizations leave nothing to chance, specifying very detailed rules about the voting model, eligibility rules, and ballot rules (what actions *must* be voted upon, how long *must* the ballot open, who *may* open ballots, who *may* vote on official ballots, and so on).

Flexibility: Will the organization offer multiple entry and exit points, as well as flexibility in deliverables? Not everyone who joins an organization wishes to contribute to the development of the organization's documents or specifications, and those who do contribute may not be interested in creating a formal result. Organizations can be more inclusive by offering the ability for certain members to *observe* without contributing directly to the end result. Organizations may also produce both formal and informal results, with different approval rules and timetables for the publication of different classes of output.

Time to Market vs. Procedural Discipline: Often this comes down to the question about what is more important to organization members: the result or the process used to achieve the result? It may not always hold that a faster result comes from less discipline, but it may, and for some organizations that may be all that matters. True procedural discipline may mean that review periods and their respective audiences (e.g., organization members, general public) have been codified in the committee policies, and those review processes have been properly observed and documented.

Global or Limited Participation: Does the organization want to see its work adopted globally?

Will it actively seek members representing or serving Asian, European, North American, and developing markets?

Appropriate Level of Professionalism

Key contributors, especially those corporate contributors with significant IP at risk, have begun stringently evaluating organizations before allowing their employees to participate. These corporate contributors are balancing their desire to participate in standards activity against the risks to their intellectual property. If corporate contributors are an important part of the community, then process formality will play a more important part in the policy definitions.

Understanding the Mission – The first thing the discerning company will want to understand is the organization's mission; should they even be participating? This means that the mission statement, goals, and objectives must be clearly expressed and available for review. A prospective member company will want to know what technology is being addressed by the SSO, how that technology may impact the company's IP, what policies are in place to ensure the company's protection, what types of output the organization is going to produce, and what criteria will signify completion of the intended objectives. This is where the organization's IP model, licensing requirements, accountability mechanisms, output flexibility, and voting policies come into effect. Missing or weak policies in these areas may raise warning flags in the company's legal department.

Effective Participation – Once a company joins an organization it will expect its participating employees to review all draft specifications and documents, retain records of meeting minutes, critical email correspondence, and any other information deemed important to the historical record of the company's participation. Thus, the corporate community will tend to drive the organization higher on the formality scale, toward greater transparency and procedural discipline. One directive to employees from a company actively participating in dozens of SSOs:

“If the SSO's rules are non-standard, work with your attorney to determine the appropriate response.”

Clearly, companies are paying attention to organizational policies and procedures, and are viewing the need for formal rules through a legal lens.

Workable Operational Structure

The ongoing management of complex policies and procedures may not be easily supported by all organizations. With more rules comes more need to monitor and enforce those rules. Depending on the organization's structure, the burden of following the rules and documenting adherence may be more than the organization can bear. If too much administrative burden is placed on already-overworked committee chairs, for example, the policies and procedures may be overlooked or ignored.

It is important, therefore, to understand how the organization's operations are going to be managed, and by whom. Operationally, consortia fall into four general types:

Small, low-budget operations – those organizations which have low dues and depend entirely

on the efforts of member employees. These tend to have less ambitious goals, although there are spectacular exceptions, particularly in the open source arena.

“Hosted” consortia – this type of organization may have most or all of their supporting services provided by an outside service provider, or a “secretariat” function supplied by a member company with a strong interest in the success of the consortium. This generally enables the consortium to achieve its goals in a more deliberate, efficient, and coordinated fashion.

Staffed consortia – some organizations have a payroll of anywhere from one to dozens of employees (and in rare cases, even more). Organizations with paid staff may provide working committees with dedicated staff members to assist the chairs in their daily operation of the committee.

Hybrid consortia – organizations in this category may include a paid Executive Director, but look to a service entity for most administrative, meeting, financial, and other needs.

Regardless of the organizational type, the administrative burden for active organizations with formal operating policies can be lessened with the appropriate technical support. Committee chairs may be required to track meeting attendance, for example, but determination of quorum, voting eligibility, and other participation-based rules may be automated. An important part of having a workable operational structure is finding the right balance between the necessary policies, the people required to enforce those policies, and the technical infrastructure to support both.

Member Acceptance

The policies and procedures that govern the organization must ultimately be accepted and embraced by the very people who drive the organization's success. The best way to ensure this acceptance is to involve key individuals in the policy-setting process.

How experienced are your key contributors? Do you have something that already works?
Are you starting from scratch or have you already developed the core specification concepts?
What is the preferred working style of your core constituents?

Experienced committee chairs, especially those already active in the organization, usually have a very clear understanding about what works and what doesn't. The chairs are normally tasked with managing the daily work-flow and output of their committee, and as such are inclined to value those policies that clarify roles and responsibilities in the organization. Committee participants tend to value a level playing field (i.e., transparency) and easy access to information (i.e., openness).

Drafting the Policies and Procedures Document

Now that you understand the implications of the external and internal factors for your policies and procedures, you can begin drafting, borrowing and redrafting. The fact that you have done the groundwork before developing the draft will help you get board approval, build consensus around your recommendations and incent members to embrace and abide by them. If your organization is typical, then there are a few core members whose opinion really matters. Involve them in the

process early and often and enlist their active support in the implementation phase.

Legal Review

The proposed policies and procedures must pass a thorough legal review that takes into account the degree to which they conflict with or support the superordinate consortia documents (bylaws, IPR policies, etc.). There are only a few attorneys nationally who specialize in standards law. We recommend that you engage one of them to help insure that all of your documents align with best practices for IP sharing, anti trust compliance, and corporate governance. You can find a list of attorneys with standards practices at <http://www.kavi.com/standards/>.

Conclusion

Developing, adopting and enforcing an appropriate set of operating policies and procedures is essential for achieving a standards setting success. Coming to an understanding of what constitutes the most appropriate policies and procedures for a given organization requires some thorough analysis of internal and external factors taking into account the structure of the industry sector you hope to influence, cultural and sociological characteristics of key contributors, and the needs of all stakeholders – founders, members, adopters and consumers.

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John Keith has more than 20 years' experience in the computer industry. He has held a variety of technical and management positions associated with computer systems engineering, industry standards development, and delivery of Internet services to standards organizations. Prior to founding Kavi, he worked for Intel Corporation, where he contributed to the definition of industry standards for systems, network, and application management.

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Endnotes

If your article needs them, please use endnotes rather than footnotes.¹

¹Notes

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