

## Considerations for Having a Successful Birds-of-a-Feather (BOF) Session

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### Abstract

This document discusses tactics and strategy for hosting a successful IETF Birds-of-a-Feather (BOF) session, especially one oriented at the formation of an IETF Working Group. It is based on the experiences of having participated in numerous BOFs, both successful and unsuccessful.

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## 1. Introduction

This document provides suggestions on how to host a successful BOF at an IETF meeting. It is hoped that by documenting the methodologies that have proven successful, as well as listing some pitfalls, BOF organizers will improve their chances of hosting a BOF with a positive outcome.

There are many reasons for hosting a BOF. Some BOFs are not intended to result in the formation of a Working Group (WG). For example, a BOF might be a one-shot presentation on a particular issue, in order to provide information to the IETF Community. Another example might be to host an open meeting to discuss specific open issues with a document that is not associated with an active WG, but for which face-to-face interaction is needed to resolve issues. In many cases, however, the intent is to form a WG. In those cases, the goal of the BOF is to demonstrate that the community has agreement that:

- there is a problem that needs solving, and the IETF is the right group to attempt solving it.
- there is a critical mass of participants willing to work on the problem (e.g., write drafts, review drafts, etc.).
- the scope of the problem is well defined and understood, that is, people generally understand what the WG will work on (and what it won't) and what its actual deliverables will be.
- there is agreement that the specific deliverables (i.e., proposed documents) are the right set.
- it is believed that the WG has a reasonable probability of having success (i.e., in completing the deliverables in its charter in a timely fashion).

Additional details on WGs and BOFs can be found in [RFC2418].

## 2. Recommended Steps

The following steps present a sort of "ideal" sequence for hosting a BOF where the goal is the formation of a working group. The important observation to make here is that most of these steps involve planning for and engaging in significant public discussion, and allowing for sufficient time for iteration and broad participation, so that much of the work of the BOF can be done on a public mailing list in advance of -- rather than during -- the BOF itself.

It is also important to recognize the timing constraints. As described in detail below, the deadline for scheduling BOFs is approximately six weeks prior to an IETF meeting. Working backwards from that date, taking into consideration the time required to write drafts, have public discussion, allow the ADs to evaluate the proposed BOF, etc., the right time to start preparing for a BOF is almost certainly the meeting prior to the one in which the BOF is desired. By implication, starting the work aimed at leading to a BOF only 2 months prior to an IETF meeting is, in most cases, waiting too long, and will likely result in the BOF being delayed until the following IETF meeting.

The recommended steps for a BOF are as follows:

- 1) A small group of individuals gets together privately, discusses a possible problem statement, and identifies the work to be done. The group acts as a sort of "design team" to formulate a problem statement, identify possible work items, and propose an agenda for a BOF.

Possible sub-steps:

- a) Consider whether the work might already fall within the scope of an existing Working Group, in which case a BOF might not even be necessary. Individual Working Group charters can be found at <http://www.ietf.org/html.charters/wg-dir.html> and indicate what a group is scoped to work on.
- b) Select the area or areas in which the work most naturally fits by identifying WGs that most closely relate to the proposed work. Note that it is not uncommon to find that a work item could easily fit into two (or more) different areas and that no one area is the obvious home.
- c) Consult with specific WGs to see whether there is interest or whether the work is in scope. This can be done by posting messages directly to WG mailing lists, contacting the WG chairs, or contacting individuals known to participate in a particular WG (e.g., from their postings or from documents they have authored).
- d) Consult with an area-specific mailing list about possible interest. (Most areas have their own area-specific mailing lists. Follow the links under each area at <http://www.ietf.org/html.charters/wg-dir.html> to find details.)

- e) Produce one or more Internet Drafts, describing the problem and/or related work. It cannot be emphasized enough that, for the BOF, drafts relating to understanding the problem space are much more valuable than drafts proposing specific solutions.

Timeline: This step can easily take 1-2 months; hence, begin 3-4 months before an IETF meeting.

- 2) The group may (or may not) approach an Area Director (or other recognized or experienced leader) to informally float the BOF and get feedback on the proposed work, scope of the charter, specific steps that need to be taken before submitting a formal BOF request, etc. By "leader", we mean persons with significant IETF experience who can provide helpful advice; individuals who have successfully hosted BOFs before, current or former WG chairs, and IESG or IAB members would be good candidates.

The dividing line between steps 1) and 2) is not exact. At some point, one will need to approach one or more Area Directors (ADs) with a specific proposal that can be commented on. Step 1) helps shape an idea into something concrete enough that an AD can understand the purpose and provide concrete feedback. On the other hand, one shouldn't spend too much time on step 1) if the answer at step 2) would turn out to be "oh, we had a BOF on that once before; have you reviewed the archives?". Thus, there may be some iteration involving going back and forth between steps 1) and 2). Also, a quick conversation with an AD might lead them to suggest some specific individuals or WGs you should consult with.

It may turn out that it is unclear in which area the proposed work best fits. In such cases, when approaching multiple ADs, it is best to approach the ADs approximately simultaneously, state that you are unsure in which area the work fits, and ask for advice (e.g., by stating "I'm not sure which area this work best fits under, but it looks like it might be Internet or Security or both"). When contacting multiple ADs, it is strongly advised that you inform them of which other ADs you are conversing with. In particular, it is usually counterproductive and not advisable to go "AD shopping", where if one AD gives you an answer you don't like, you go to another, without telling him/her what the first AD said, in the hopes of getting a more favorable answer.

To summarize, steps 1) and 2) involve a lot of "socializing an idea", that is, having discussions with a number of different people to attempt gaining agreement on the problem and the need for and appropriateness of having a BOF. How much such discussion is needed is very subjective, but it is critical in terms of getting agreement that a BOF is appropriate. One way to tell if

you are close to getting it right: when talking to someone about your idea for the first time, they quickly agree that a BOF seems in order and don't have any major concerns.

Timeline: Steps 1-2) can easily take 1-2 months; hence, begin 3-4 months before an IETF meeting.

- 3) Create a public mailing list and post a "call for participation" for the proposed BOF topic on various mailing lists (e.g., the IETF list). The call for participation advertises that a "community of interest" is being formed to gauge whether there is sufficient interest to host a BOF. The goal is to draw in other interested potential participants, to allow them to help shape the BOF (e.g., by giving them time to write a draft, ask for agenda time, help scope the work of the proposed work, argue that a BOF is (or is not) needed, etc.).

Timeline: This step can easily take 1 month or longer; it also needs to be started well before the Internet-Drafts cutoff (to allow participants to submit drafts); hence, begin 2.5-3.5 months before the IETF meeting.

- 4) Have substantive mailing list discussion. It is not enough for a handful of people to assert that they want a BOF; there needs to be broader community interest. A public mailing list allows ADs (and others) to gauge how much interest there really is on a topic area, as well as gauge how well the problem statement has been scoped, etc. At this phase of the BOF preparation, the emphasis should be on getting agreement on the problem statement; discussions about specific solutions tend to be distracting and unhelpful.

Timeline: this step can easily take 1 month or longer; hence, begin 2.5 months before the IETF meeting.

- 5) Submit a formal request to have a BOF. Instructions for submitting a formal request can be found at <http://www.ietf.org/instructions/MTG-SLOTS.html> and <http://www.ietf.org/ietf/lbof-procedures.txt>. Note that as part of making a formal request, the organizers must identify the area in which the BOF will be held (the Area Directors of that area will be required to approve the BOF), include a proposed BOF agenda, estimate the attendance, list conflicts with other sessions that should be avoided, etc.

If the previous steps have been followed, the Area Directors (ADs) should be in a good position to gauge whether there is sufficient interest to justify approval of a BOF.

Note: it almost goes without saying that without one or more Internet Drafts at this point, it is generally pointless to ask an AD to approve a BOF.

Timeline: The Secretariat publishes an "important meeting dates" calendar along with meeting information. There is a firm deadline (about six weeks prior to the meeting) for submitting a formal BOF scheduling request. Note that at the time of the deadline, an AD will need to have sufficient information about the BOF to approve or reject the request, so all of the previous steps will need to have completed.

- 6) During the 2-4 weeks before an IETF (assuming a BOF has been approved and scheduled), the focus (on the mailing list) should be on identifying areas of agreement and areas of disagreement. Since disagreement, or "lack of consensus", tends to be the main reason for not forming a WG, focusing on those specific areas where "lack of consensus" exists is critically important. In general, only after those disagreements have been resolved will a WG be formed; thus, the main goal should be to find consensus and work through the areas of disagreement. Alternatively, a specific case should be made about why the charter, as it is written, is the best one, in spite of the stated opposition.
- 7) Prior to the BOF, it is critical to produce a proposed charter and iterate on it on the mailing list to attempt to get a consensus charter. Ultimately, the most important question to ask during a BOF is: "should a WG with the following charter be formed?". It goes without saying that a charter with shortcomings (no matter how seemingly trivial to fix) will not achieve consensus if folk still have issues with the specific wording.
- 8) Decide what questions will be asked during the BOF itself. Since the exact wording of the questions is critical (and hard to do on the fly), it is strongly recommended that those questions be floated on the mailing list and to the ADs prior to the BOF. This will enable people to understand what they will be asked to approve and will allow the questions to be modified (prior to the BOF) to remove ambiguities, etc. Likewise, discussing these questions in advance may lead to refinement of the charter so that the questions can be answered affirmatively.
- 9) At the meeting, but before the BOF takes place, plan a meeting with all of the presenters to have them meet each other, review the agenda, and make sure everyone understands what is expected of them (e.g., what time constraints they will be under when

presenting). Use this time to also work through any disagreements that still remain. Do the same "in the hallway" with other interested parties!

- 10) Consult the tutorial schedule and consider attending relevant tutorial sessions ("Working Group Chair Training", "Working Group Leadership Training", etc.). This is especially the case if you are considering being the chair of a proposed WG. Since the role of the WG chair and BOF chair have a number of parallels, a number of the topics covered in the tutorial apply to hosting a BOF and developing a charter.

### 3. The Importance of Understanding the Real Problem

Throughout the process of chartering new work in the IETF, a key issue is understanding (and finding consensus) on what the real, underlying problem is that the customer, operator, or deployer of a technology has and that the WG needs to address. When a WG finishes an effort, the WG's output will only be useful if it actually solves a real, compelling problem faced by the actual user of the technology (i.e., the customer or operator). Unfortunately, there have been more than a few IETF WGs whose output was not adopted, and in some of those cases the cause was a lack of understanding of the real problem the operator had. In the end, the WG's output simply didn't address the right problem.

Another issue that can happen is discussions about specific (or competing) solution approaches effectively stalemating the WG (or BOF), making it unable to make progress. In some of those cases, the arguments about the appropriateness of specific technologies are actually proxies for the question of whether a proposed approach adequately addresses the problem. If there is a lack of clarity about the actual underlying problem to be solved, there may well be unresolvable arguments about the suitability of a particular technical approach, depending on one's view of the actual problem and the constraints associated with it. Hence, it is critical for all work to be guided by a clear and shared understanding of the underlying problem.

The best description and understanding of an actual problem usually comes from the customer, operator, or deployer of a technology. They are the ones that most clearly understand the difficulties they have (that need addressing) and they are the ones who will have to deploy any proposed solution. Thus, it is critical to hear their voice when formulating the details of the problem statement. Moreover, when evaluating the relative merits of differing solution approaches, it is often helpful to go back to the underlying problem statement for guidance in selecting the more appropriate approach.

#### 4. The BOF Itself

For the BOF itself, it is critically important to focus on the bottom line:

What is it that one is attempting to achieve during the BOF?

Or, stated differently, after the BOF is over, by what criteria will you decide whether or not the BOF was successful?

A good BOF organizer keeps a firm focus on the purpose of the BOF and crafts an agenda in support of that goal. Just as important, presentations that do not directly support the goal should be excluded, as they often become distractions, sow confusion, and otherwise take focus away from the purpose of the BOF. If the goal is to form a WG, everything should lead to an (obvious) answer to the following question:

Does the room agree that the IETF should form a WG with the following (specific) charter?

One of the best ways to ensure a "yes" answer to the above, is by performing adequate preparation before the BOF to ensure that the community as a whole already agrees that the answer is "yes". How does one do that? One good way seems to be:

- 1) Have a public discussion with sufficient time to allow iteration and discussion. (Hence, start a minimum of 3 months prior to the IETF meeting.)
- 2) Work with the community to iterate on the charter and be sure to address the significant concerns that are being raised. (One can address the concerns in advance -- and get advance agreement -- or one can have those concerns be raised (again) during the BOF -- in which case it is likely that the proposed charter will not be good enough to get agreement during the actual BOF).
- 3) During the BOF, keep the agenda tightly focused on supporting the need for the WG and otherwise making the case that the group has identified a clearly-scoped charter and has agreement on what the set of deliverables should be.

Another important reason for holding a BOF is to establish an understanding of how the attendees (and the larger community) feel about the proposed work. Do they understand and agree on the problem that needs solving? Do they agree the problem is solvable, or that new protocol work is needed? To better understand the degree of agreement, it is useful to ask the audience questions.



Whenever asking questions, it is important to ask the right ones -- questions that show where there is agreement and questions that probe the details around where agreement is lacking. Good questions typically focus on aspects of the problem in a piecewise fashion, establishing areas of consensus and identifying areas where additional work is needed. Poor questions do not serve to focus future discussion where it is needed. The following are examples of questions that are often useful to ask.

- 1) Is there support to form a WG with the following charter? (That is, the charter itself is ready, as shown by community support.)
- 2) Does the community think that the problem statement is clear, well-scoped, solvable, and useful to solve?
- 3) Can I see a show of hands of folk willing to review documents (or comment on the mailing list)?
- 4) Who would be willing to serve as an editor for the following document(s)? (BOF chairs should take note of individuals who raise their hands, but it is also a useful gauge to see if there is a critical mass of editors to work on all the documents that are to be produced.)
- 5) Does the community think that given the charter revisions discussed during the BOF (subject to review and finalization on the mailing list), a WG should be formed?
- 6) How many people feel that a WG should not be formed? (If the number of no responses is significant, it would help to ask those saying no why they are opposed.)
- 7) Before asking a particular question, it is sometimes very appropriate to ask: Do people feel like they have sufficient information to answer the following question or is it premature to even ask the question?

Unfortunately, it is also easy to ask the wrong questions. Some examples are given in a later section.

## 5. Post-BOF Follow-Up

After the BOF has taken place, it is advisable to take assessment of how well things went and what the next steps are. The ADs should be included in this assessment. Some things to consider:

- 1) Did the BOF go well enough that the logical next step is to focus on refining the charter and becoming a WG before the next IETF meeting? If so, there will almost certainly be additional discussion on the mailing list to refine the charter and work out a few remaining items.

Note that it can be difficult to determine in some cases whether a WG is a feasible next step. Much will depend on details of how the BOF went and/or whether the contentious items can either be resolved on the mailing list or simply be excluded from the charter and dealt with later (if at all). Much will also depend on the relevant AD's assessment of whether the proposed work is ready to move forward. Sometimes even a seemingly contentious BOF can result in a WG being formed quickly -- provided the charter is scoped appropriately.

If the next step is to attempt to form a WG, the charter needs to be finalized on the BOF-specific mailing list. Once done, the IESG can be asked to formally consider the charter. The IESG then (usually) posts the proposed charter to the IETF list for community feedback and makes a decision based in part on the feedback it receives.

- 2) It may be the case that enough additional work still needs to take place that aiming for a second (and final) BOF makes more sense. In that case, many of the steps outlined earlier in this document would be repeated, though at a faster pace.

The expectations for a second BOF are generally higher than those for an initial BOF. In addition to the work done up through the first BOF, the first BOF will have highlighted the key areas where additional work is needed. The time leading up to the second BOF will need to be spent working through those outstanding issues. Second BOFs should not be a repeat of the first BOF, with the same issues being raised and the same (unsatisfactory) responses provided. The second BOF needs to show that all previously identified issues have been resolved and that formation of a WG is now in order.

## 6. Pitfalls

Over the years, a number of pitfalls have been (repeatedly) observed:

- 1) Waiting too long before getting started. It is very difficult to prepare for a BOF on short notice. Moreover, ADs are placed in a no-win situation when asked to approve a BOF for which the community has not had a chance to participate. Steps 1-4 in Section 2 above are designed to show the ADs that there is

community support for a particular effort. Short-circuiting those steps forces an AD to make a judgment call with (usually) too little information. Moreover, because the community has not been involved, it is much more likely that significant (and valid) objections will be raised. Often, those objections could have been dealt with in advance -- had there been sufficient time to work through them in advance.

- 2) Too much discussion/focus on solutions, rather than showing that support exists for the problem statement itself, and that the problem is well-understood and scoped. The purpose of the BOF is almost never to show that there are already proposed solutions, but to demonstrate that there is a real problem that needs solving, a solution would be beneficial to the community, it is believed that a solution is achievable, and there is a critical mass of community support to actually put in the real work of developing a solution.
- 3) Asking the wrong question during the BOF. Often, BOF organizers feel like they need a "show of hands" on specific questions. But, unless a question is clear, well scoped, focused enough to establish where there is agreement (and where not), etc., asking such a question serves little purpose. Even worse, asking poor questions can frustrate the BOF participants and lead to additional questions at the microphone, derailing the focus of the BOF.

Examples of unreasonable questions to ask:

- Asking folk to approve or review a charter that is put on screen but has not been posted to the mailing list sufficiently in advance. (You cannot ask folk to approve something they have not seen.)
  - Asking multi-part questions in which it is not clear (in advance) what all of the exact questions will be and which choices a participant needs to choose from.
- 4) Poorly advertised in advance, thus, the BOF itself does not include the "right" participants. This can happen for a number of reasons, including:
    - giving the BOF a "cute" but unintuitive name (or acronym), preventing people from realizing that it would be of interest to them.

- failing to advertise the BOF in advance to the community of people that might be interested. At a minimum, the existence of a proposed BOF should be advertised on the IETF list as well as on specific WG lists that are somewhat related.

5) Providing agenda time for the "wrong" presentations. There is an (unfortunate) tendency to give anyone who requests agenda time an opportunity to speak. This is often a mistake. Presentations should be limited to those that address the purpose of the BOF. More important, presentations should not distract from the BOF's purpose, or open up ratholes that are a distraction to the more basic purpose of the BOF. An example of problematic presentations:

- presentations on specific solutions, when the purpose of the BOF is to get agreement on the problem statement and the need for a WG. Solutions at this point are too-often "half-baked" and allow discussion to rathole on aspects of the solutions. Instead, the focus should be on getting agreement on whether to form a WG.

6) Poor time management, leading to insufficient time for discussion of the key issues (this is often closely related to 5). When presentations run over their allotted time, the end result is either squeezing someone else's presentation or having insufficient discussion time. Neither is acceptable nor helpful. BOF chairs need to give presenters just enough time to make key points -- and no more. It may well be helpful to go over a presenter's slides in advance, to ensure they are on-topic and will fit within the time slot.

## 7. Miscellaneous

### 7.1. Chairing

BOF organizers often assume that they will be chairing a BOF (and the eventual WG). Neither assumption is always true. ADs need to ensure that a BOF runs smoothly and is productive. For some topics, it is a given that the BOF will be contentious. In such cases, ADs may want to have a more experienced person chairing or co-chairing the BOF. Also, those interested in organizing the BOF often are the most interested in driving a particular technology (and may have strongly held views about what direction an effort should take). Working Groups are often more effective when passionately involved parties are allowed to focus on the technical work, rather than on managing the WG itself. Thus, do not be surprised (or offended!) if the AD wants to pick one or more co-chairs for either the BOF or a follow-on WG.

## 7.2. On the Need for a BOF

This document highlights the need for allowing for and actively engaging in a broad public discussion on the merits of forming a WG. It might surprise some, but there is no actual process requirement to have a BOF prior to forming a WG. The actual process requirement is simply that the IESG (together with the AD(s) sponsoring the work) approve a formal charter as described in [RFC2418]. In practice, BOFs are used to engage the broader community on proposed work and to help produce an acceptable charter.

There are two observations that can be made here. First, BOFs are often held not because they are (strictly speaking) required, but because it is assumed they are needed or because ADs feel that a BOF would be beneficial in terms of getting additional public participation. Hence, those interested in forming a WG should give serious consideration to using the steps outlined above not just for the purposes of creating a BOF, but to convince the IESG and the broader community that a BOF is not even needed, as there is already demonstrated, strong consensus that a WG should be formed. Second, the IESG should not forget that BOFs are simply a tool, and may not even be the best tool in every situation.

## 8. Security Considerations

This document has no known security implications.

## 9. Acknowledgments

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## 10. Informative Reference

[RFC2418] Bradner, S., "IETF Working Group Guidelines and Procedures", BCP 25, RFC 2418, September 1998.

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