WG Leadership Tutorial

IETF 92: Dallas, TX
March 22, 2015
Margaret Wasserman
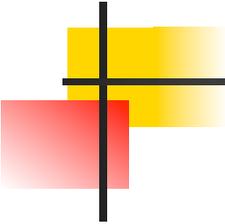mrw@painless-security.com
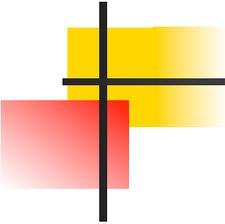
Agenda

Goals

- Learn to be a more effective WG chair
- Find out what WG members expect from you
- Learn how WG chairs, editors and the IESG can work together to make the process go smoothly

- This class is for current or aspiring WG Chairs, Document Editors and WG Secretaries
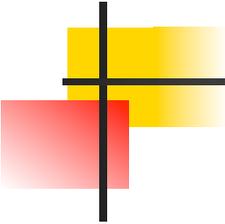
Qualifications for a WG chair

- You have to balance progress and fairness
- How willing are you to work through others?
  - Volunteers
  - Competitors
- Conflict resolution skills
- Planning/running meetings, managing technical work
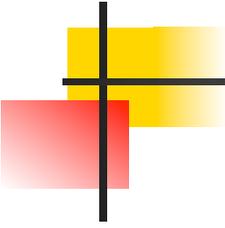
Qualifications for a document editor

- Written organization skills are important even on the shortest of documents
  - Can you organize a protocol as well as you can organize your code?
- Protocols live and die on document clarity
  - RFCs are written in English, but are often read by English-as-Second-Language readers
- Fairness and working well with others are just as important for editors as they are for chairs
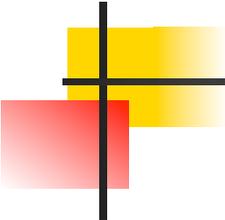
Which will it be: WG chair or editor?

- ADs may prefer not to have authors/editors or technology proponents as chairs
  - So, you may have to choose
- Some skills and motivations overlap
- Editing documents takes more work at peak times, but often less total time than being a WG chair
- WG Chairs lead the effort and influence overall direction; Editors have more direct influence on technical content of specific document(s), are listed as RFC authors.
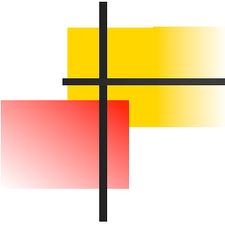
WG secretaries

- Secretaries can be lifesavers for groups with lots of documents and/or lots of open issues
    - Mentioned but not officially defined in references
    - May take minutes, may track issues …
    - Good minutes surprisingly important to getting consensus
    - Surprising how few WGs have secretaries
- Secretaries are appointed by WG chairs
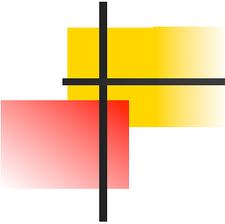
Becoming a leader

- You are more likely to be appointed to a leadership position for an activity if you have been participating in the IETF for some time and are well known in the area
    - Review documents, send mail to mailing lists, speak at the mic, volunteer to take minutes
    - Contribute to documents, volunteer to write documents that need to be written
- Read RFC 4144 "How to Gain Prominence and Influence in Standards Organizations"
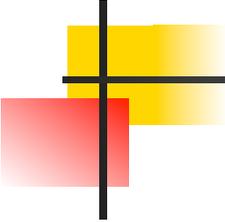
WG Chair responsibilities

- Determine WG consensus at many steps
    - Taking in new work
    - Disagreements in the proposals
    - Determining when a document is done
- Negotiate charter and charter updates with ADs
    - Keep milestones up-to-date (with AD approval)
- Select and manage the editors and the WG to produce high quality, relevant output
- Schedule and run meetings
- Provide initial agendas, make sure minutes are kept
- Shepherd WG document during approval process
    - See PROTO process (RFC 4858) for details
- Keep the process open, fair, moving forward
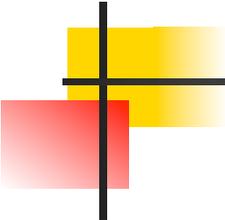
# Critical references for WG leaders

- RFC 2026: Internet standards process
  - This is the must-read document for everyone, see updates
- RFC 2418: WG guidelines and procedures
  - This is a must-read document for chairs and editors
- RFC 3834: Mailing lists update
- RFC 4858: Document Shepherding from Working Group Last Call to Publication
  - Describes role of WG chairs in document review and approval
- RFC 2119: Key words for use in Internet Standards
- RFC 3552: Writing security considerations sections
- RFC 5226: Writing IANA considerations sections
- RFC 6410: Reducing the Standards Track to Two Maturity Levels
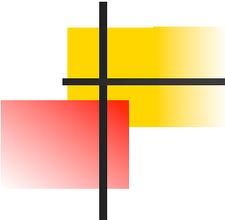
Agenda
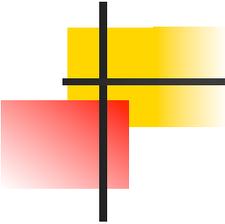
Pre-WG Steps

- Before chartering, WGs should have:
    - Well-understood problem
    - Clearly-defined goals
    - Community support (producers and consumers)
    - Involvement of experts from all affected areas
    - Active mailing list
- WGs may or may not start with a BoF
    - Not required, but most WGs do start with BoFs
        - Meet once or twice
        - IETF.ORG hosting BoF mailing lists
    - BoF proposals have to be approved by ADs
    - See RFC 5434: How to run a successful BoF
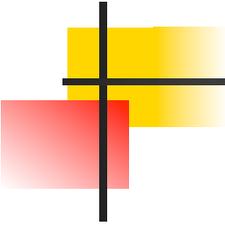
WG charter contents

- Administrative information
    - Chair and AD e-mail addresses
    - WG e-mail info
- WG purpose, direction and objectives
- Description of work items
- Specific WG milestones
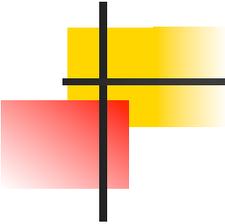
WG charter approval

- Contract between the WG and the IETF
  - Regarding scope of WG
  - Identifying specific work to be delivered
  - Initially negotiated by WG organizers/chairs and ADs
    - Sent to the IETF community and IAB for comment
    - Approved by the IESG
    - Different ADs have varying views of whether or not new WGs are a good idea
  - Re-charter as needed
    - Minor changes (milestones, nits) approved by AD
      - Keep your milestones up-to-date & realistic
    - Substantive changes require IESG approval
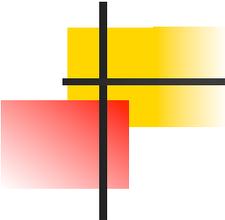
Agenda
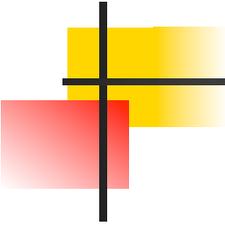
Making WGs work for everyone

- Consensus
  - "We reject kings, presidents and voting. We believe in rough consensus and running code."
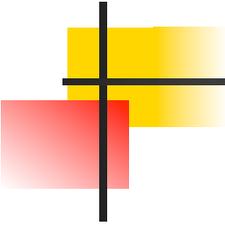- Openness and accessibility
- Getting a quality specification published
- Getting a timely specification published

Consensus

- Clearly dominant agreement
- Does not have to be unanimous
- Judging consensus can be hard without voting
  - show of hands (sort of like voting but ...)
  - hum
- Even harder on a mailing list
  - ask for opinions and provide list/summary at the end?
- May discard parts to get consensus on the rest
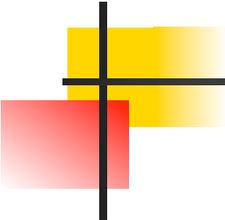
Consensus (cont.)

- Other processes have been defined but not widely used
    - RFC 3929: Alternative Decision Making Processes for Consensus-Blocked Decisions in the IETF
- Consensus rulings can be appealed
    - Sometimes this is better than arguing about how to determine consensus
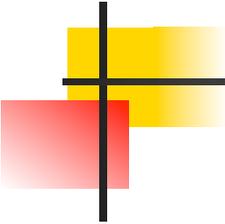
Appeal process

- Process and/or technical appeal to WG chair
- Process and/or technical appeal to AD
- Process and/or technical appeal to IESG
  - via email to IESG list
- Process and/or technical appeal to IAB
  - via email to IAB list
- Standards process appeal to ISOC BoT
  - via email to ISOC president
  - But ONLY for appeals of process violation
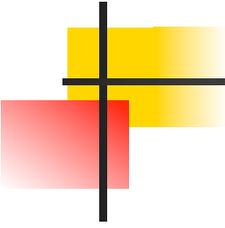
If someone appeals a decision

- They need to do this in writing
- They make clear, concise statement of problem
  - With separate backup documentation
  - They make it clear that this is an appeal
  - They make specific suggestions for remedy
  - They do not try to jump the steps in the process
  - Wait for specific response for each step
  - Avoid personal attacks (in either direction!)
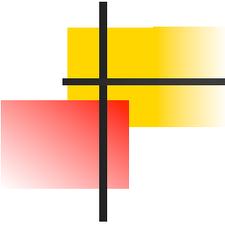
AD & WG chair authority

- Chair can replace document editors
  - Editor replacement is painful but may be required
  - Should have the backing of AD
- AD can recommend document editor replacement
  - If the editor is getting in the way of process or progress
  - AD can strongly recommend …
- AD can replace chair
  - Happens rarely but this option is used
- AD can close the WG
  - Happens rarely but this option is used
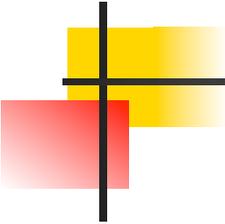
Openness and accessibility

- WG should be open to any participant
 - In person or via mailing list only
  - You can give preference to the opinions of those who have read the drafts but not to those who attend meetings, those you know, or those you happen to agree with.
  - **Can't make final decisions in face-to-face meetings**
  - Can be good for reaching/judging consensus on complex issues, but…
  - Consensus must be confirmed on the mailing list
- Not all people participate the same way
  - Be aware of cultural differences, language issues
  - Quiet doesn't always mean "no opinion", and loud doesn't always mean "I care a lot"
- You are responsible for openness and fairness
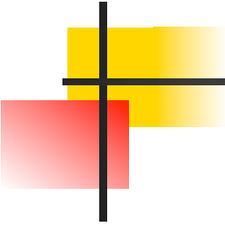
Structured discussion slides

- Recommend use of slides for structured discussion and consensus calls
    - Written consensus questions result in higher quality and more credible responses
    - Get all the alternatives out, then take the hums on each
    - "Openness"includes accessibility to non-native English speakers, hearing-impaired people, etc.
    - If your minute-taker isn't sure what the question was, "consensus"will be problematic!
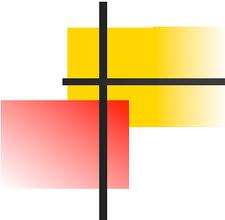
Agenda

1. Introduction
2. Getting a WG started
3. Making WGs work for everyone
4. Steps in the WG process
5. Complex Situations
6. Conclusion

IETF Document Lifecycle

WG documents
go through the
WG process...

IETF Submission

Working group doc, or
individual standards track doc

Submit

Concerns

IESG

RFC Editor

"Last Call"

Comments,
suggestions

Published RFC

IETF Community
Review

I E T F
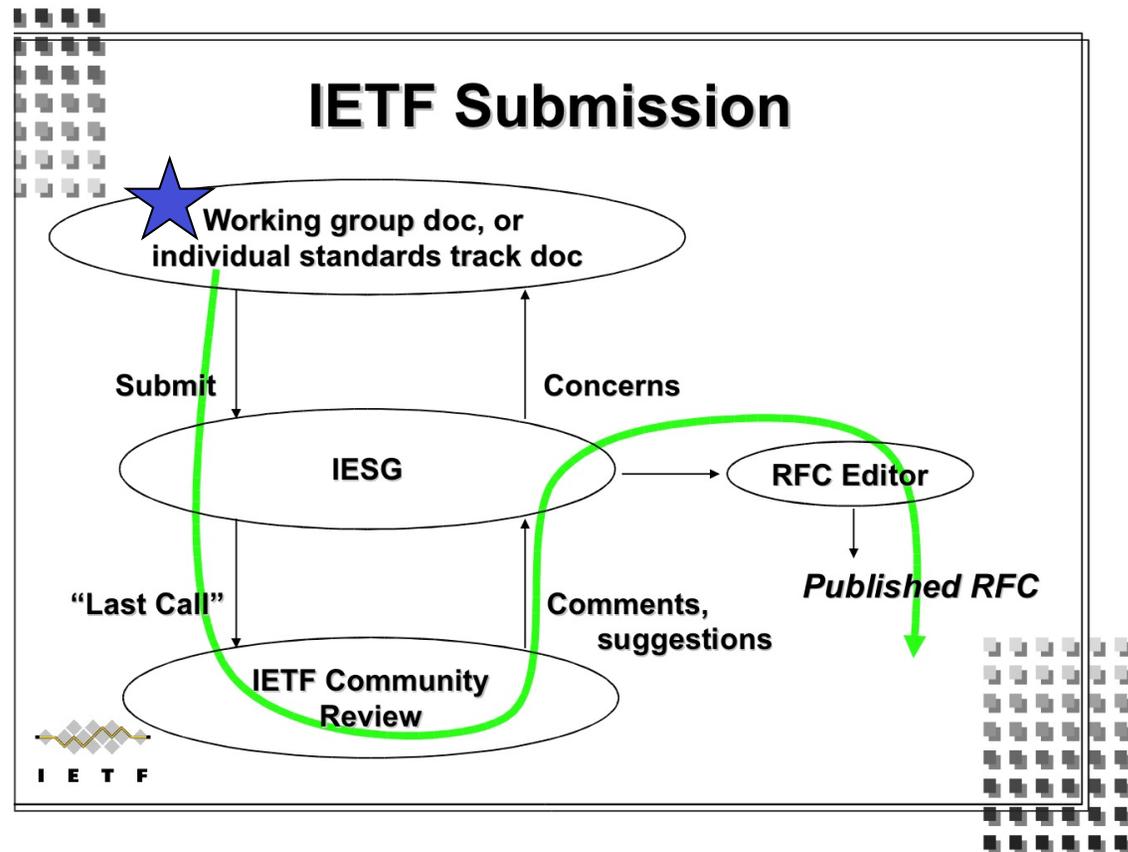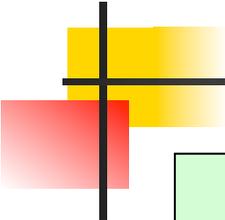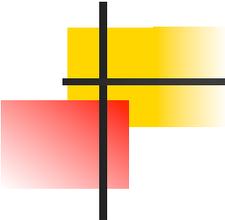
Diagram taken from Scott Bradner's Newcomer's Tutorial

Steps in the WG process

- Initial Submission
- Author Refinement
- WG Acceptance

- Editor Selection
- WG Refinement
- WG Last Call
- WG Request to Publish

Steps in the WG process

- Initial Submission
  - Original idea or issue is submitted to the WG
    - May be done via mailing list or at a meeting
    - Should become an Internet-Draft (or part of one)
  - Chairs will reject submissions that don't fit within the WG charter, in chair's judgment
    - May refer submission to more appropriate groups or areas
  - Chairs should reject submissions that aren't relevant or don't meet minimal quality requirements
    - There is no admission control on IETF Internet-Drafts
  - Rejections can be appealed
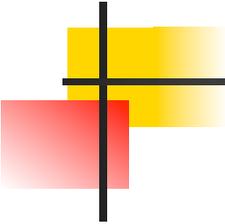
Steps in the WG process

- Author Refinement
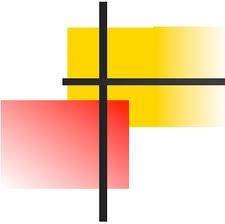 - Idea is more fully documented or refined based on feedback
    - May be done by the person who originally submitted the idea/issue, or by others
    - May be done by individual, ad hoc group or more formal design team
  - Change control lies with author(s) during this phase

Steps in the WG process

- WG Acceptance
  - For a document to become a WG work item, it must:
    - Fit within the WG charter (in the opinion of the chairs)
    - Have significant support from the working group, including:
      - People with expertise in all applicable areas who are willing to invest time to review the document, provide feedback, etc.
      - Current or probable implementers, if applicable
    - Be accepted as a work item by a rough consensus of the WG
      - Should reflect WG belief that the document is taking the correct approach and would be a good starting place for a WG product
    - Have corresponding goals/milestones in the charter
      - Goals/milestones approved by the Area Directors
   - Adopting a specific draft is not approved by Area Directors
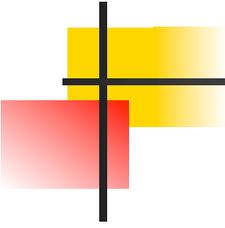
Steps in the WG process

- Editor Selection
  - Editor(s) will be selected by the WG chairs
    - Usually one or more of the original authors – but not always
    - Must be willing to set aside personal technical agendas and change the document based solely on WG consensus
    - Must have the time and interest to drive the work to completion in a timely manner
  - Make this decision explicitly, not by default!
    - Some people are concept people, some are detail people
    - Some people start strong, some people finish strong
   - Some people have changes in life circumstances
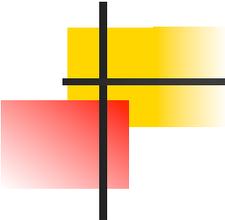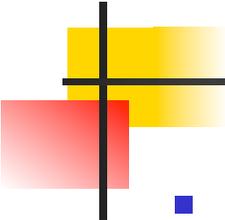
Steps in the WG process

- ## WG Refinement
  - ### Document updated by the Document Editor(s) based on WG consensus
    - All technical issues and proposed changes MUST be openly discussed on the list and/or in meetings
    - All changes must be proposed to the mailing list
      - Complex changes should be proposed in separate IDs
    - The WG has change control during this phase
      - Changes are only made based on WG consensus
      - During this phase, silence will often indicate consent
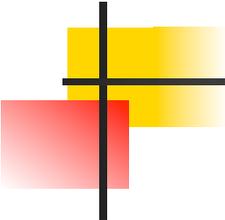
Steps in the WG process

- ## WG Last Call
  - Generally the final check that the WG has rough consensus to advance the document to the IESG
    - The WG believes that this document is technically sound
    - The WG believes that this document is useful
    - The WG believes that this document is ready to go to the IESG
 - A disturbingly large number of people wait until WGLC to read drafts!

Steps in the WG process

- ## WG Last Call
  - The document must be reviewed and actively supported by a significant number of people, including experts in all applicable areas
    - … or it should not be sent to the IESG
  - Silence does NOT indicate consent during this phase
  - Why would we want to waste IESG time on a document that we can't be bothered to review ourselves?
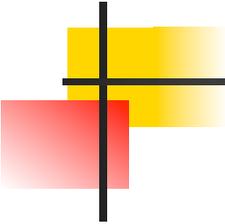
Has anyone else read the draft?

- Standards Track documents reflect IETF views
  - Not just a working group's view
- Standards Track protocols run on the Internet
- Avoid the group-think trap
  - Ask "Who else should be reading this draft?"
  - Your ADs are good sources of potential reviewers
- Don't wait until the last minute to share
  - Prevent the "last-minute surprise"
- Some "last-minute surprise" examples
  - Discovering that no one plans to implement the new spec
  - Discovering that the security mechanism does not meet current requirements
  - Learning that work overlaps or conflicts with work in other WGs

IETF Document Lifecycle

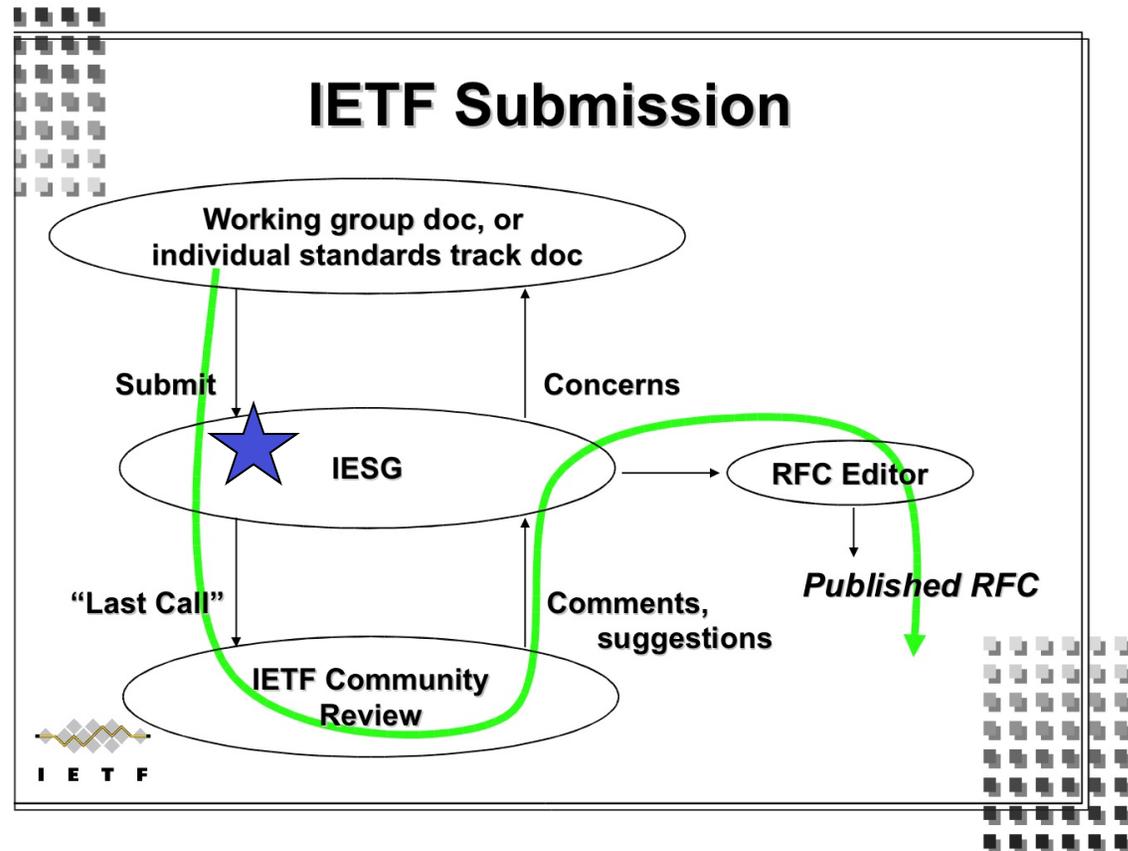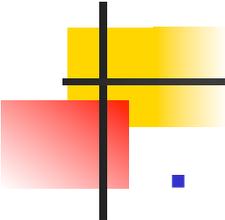When ready, documents are submitted to the IESG for approval…

Diagram taken from Scott Bradner's Newcomer's Tutorial

Document Shepherding

- Must be one Shepherd for every draft to be published
  - Usually a WG chair for a WG document
- Provide the PROTO write-up as the request to your AD for publication
  - RFC 4858: Document Shepherding from Working Group Last Call to Publication
- During AD evaluation, manage discussion between editors, WG, and AD
- During IETF Last Call, follow up on feedback and comments
- During IETF Last Call, follow up on all IESG feedback
- Follow up on all IANA and RFC Editor requests
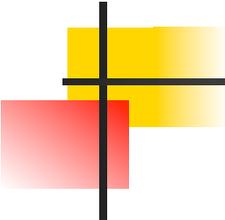
IESG review, early steps

- Document Shepherd sends a Publication Request to the IESG, including a PROTO write-up

- After Publication Request, status of the document can be found in the Internet-Draft Tracker
  - https://datatracker.ietf.org/doc/

- Before moving to next steps, your AD must approve the document
  - May include review by area directorate(s) or other experts
  - Sometimes the AD asks for a revision to clear his/her own objections before advancing

IETF Document Lifecycle

AD sends
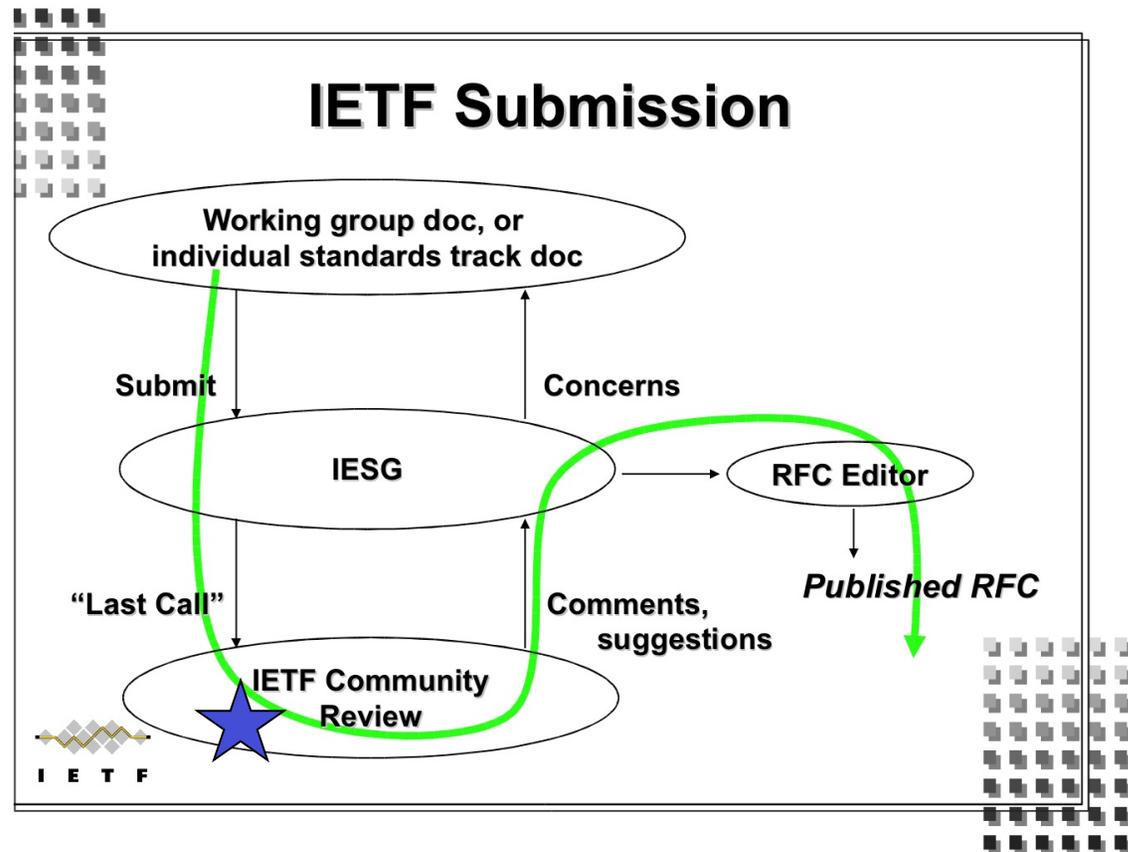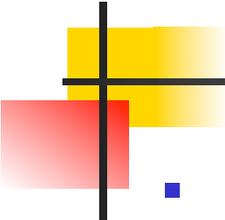Standards Track
or individual
documents for
full IETF
Review…

Diagram taken from Scott Bradner's Newcomer's Tutorial

IETF Last Call

- After the AD approves the document, he/she may send the document for a final IETF review called "IETF Last Call" (IETF LC)
- Length of the IETF LC depends on document type and history
  - All Standards Track and BCP documents go to IETF LC
    - AD-sponsored individual submissions have a 4-week IETF LC
    - WG documents have a 2-week IETF LC
  - AD may choose to send informational or experimental documents for an IETF LC
    - Key architecture or framework documents
- During IETF LC, individuals, cross-area review teams and directorates will review the document
  - All comments must be addressed before the document advances

IETF Document Lifecycle
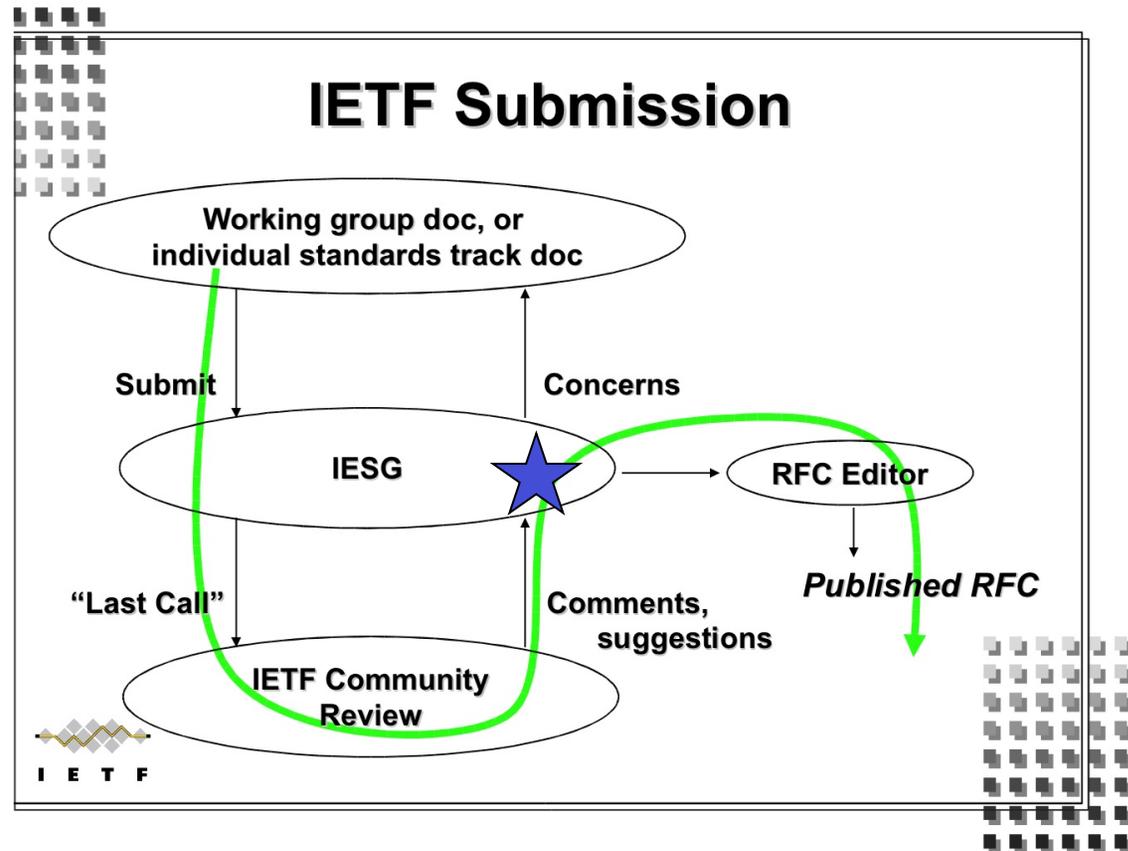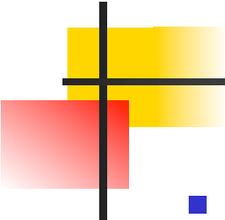
Document is reviewed and approved by the full IESG…

IETF Submission

Working group doc, or individual standards track doc

Submit   Concerns

IESG   RFC Editor

"Last Call"   Comments, suggestions

Published RFC

IETF Community Review

I E T F

Diagram taken from Scott Bradner's Newcomer's Tutorial

IESG review, later steps

- Directorate Reviews
  - Many ADs/Areas have directorates that they use to review documents before approval
    - MIB Doctors, Security Directorate, Gen ART, etc.
  - If these reviews were not completed during IETF LC, they may be done now
- Official IANA Review
  - Looks at IANA Considerations to figure out the namespaces that will need to be IANA managed and/or additional entries in existing namespaces
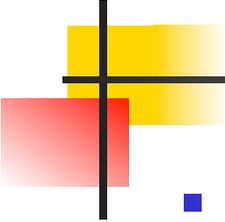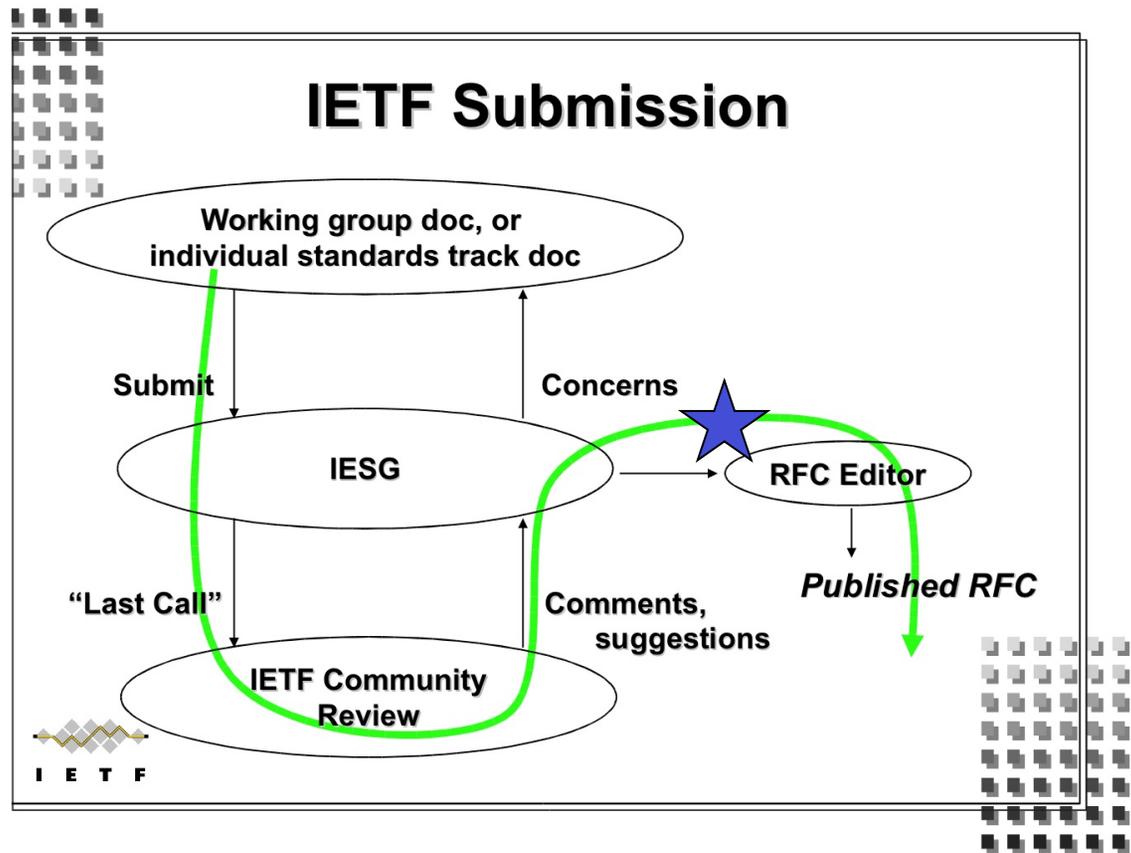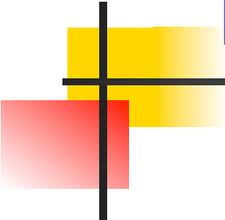
IESG cross-discipline review

- Takes IETF Last Call comments into account
- Can decide to pass document on for publication
- Makes final decision on document track/status
- Can send document back to WG with comments and "DISCUSS" issues that must be resolved before the document proceeds to RFC
  - http://www.ietf.org/u/ietfchair/discuss-criteria.html
- If you negotiate significant changes with the IESG, please show them to your WG before RFC publication!

IETF Document Lifecycle

After your document has been approved by the IESG...

IETF Submission

Working group doc, or individual standards track doc

Submit

Concerns

IESG

RFC Editor

"Last Call"

Comments, suggestions

Published RFC

IETF Community Review

I E T F

RFC Editor Publication Process

> IESG approval -> your document is added to the queue

- Step 1: Send your source file.

> questions from the RFC Editor

- Step 2: Answer questions.

> AUTH48 notification with a pointer to the edited version

- Step 3: Review your document carefully and
  send changes / approvals for publication.
- Step 4: See your document progress.
- Step 5: Publication!
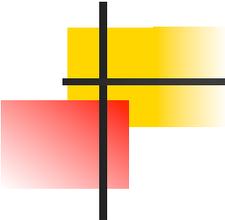
Agenda

1. Introduction
2. Getting a WG started
3. Making WGs work for everyone
4. Steps in the WG process
5. Complex Situations
6. Conclusion
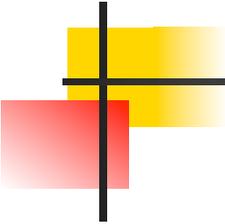
Complex Situations

- Multiple Competing Proposals
- Change of Consensus
- Intellectual Property Rights (IPR)
- Interaction with Other Standards Bodies
  - Including Liaisons & Liaison Statements
- IANA Considerations
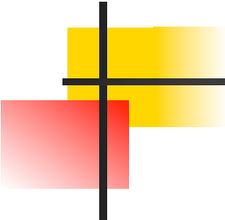
Multiple Competing Proposals

- Groups sometimes have multiple proposals to solve the same problem
    - Entirely different technical approaches
    - Similar approaches with different details
- Behind-the-scenes issues can be difficult to discover and understand
    - Sometimes a matter of technical taste/perspective
    - Sometimes corporate or personal interests are involved
- Various ways to lead the group to consensus
    - Find a presumed winner, if possible
    - Try to reach agreement that making a decision is more important than which choice is made
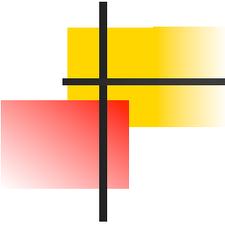
Change of Consensus

- Submitting documents for publication requires WG consensus AT THAT TIME.

- What do you do if you find, during WGLC that you don't have consensus?

  - Can be an emotional issue for editors, participants. Try to keep focus on issues.

  - Can be a good time to institute issue tracking.

  - Appropriate time to raise technical issues with the document, not to re-charter the WG.
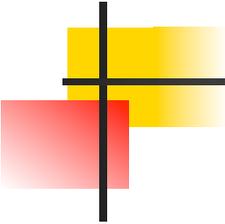
Intellectual Property Rights

- IETF has a detailed IPR policy
  - Requires IPR disclosure by authors/editors
  - Encourages IPR disclosure by third parties
- IETF IPR policy does not
  - Set required licensing terms for IPR in IETF RFCs
  - Restrict publication of documents that contain IPR
- WG Chair should make sure that the WG is aware of IPR on WG documents
  - Can be a factor in deciding between solutions and/or deciding whether to publish
- RFC 3669: Guidelines for WGs on IPR issues
- RFC 3979: IPR in IETF Technology
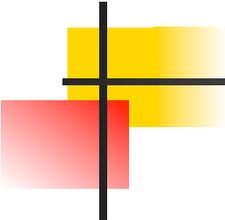
Interaction with Other SDOs

- New working groups are reviewed by other SDOs
  - new-work@ietf.org
  - May raise issues about potential or direct conflict
- Individual work items may involve other SDOs
  - Seek out liaisons and/or seek outside review
- May receive official liaison statements for other SDOs that require response
  - See RFC 4053: Procedures for Handling Liaison Statements
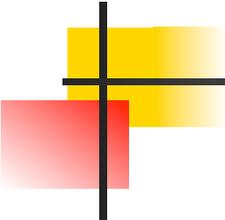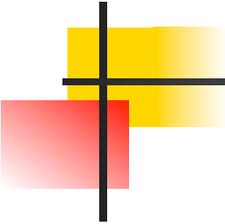
IANA Considerations

- Usually IANA Considerations are simple and handled by document authors
  - WG Chairs need to confirm that this is done
- Complex IANA Considerations may require considerable chair involvement
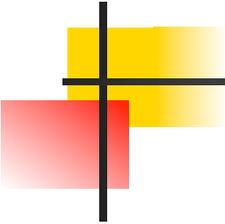 - Expert review criteria
  - Suggesting IANA Experts
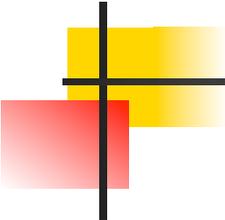
Agenda

1. Introduction
2. Getting a WG started
3. Making WGs work for everyone
4. Steps in the WG process
5. Complex Situations
6. **Conclusion**

Almost done: Helpful Web pages

- WG Chairs web page
  - http://www.ietf.org/IESG/wgchairs.html
- IESG web page
  - http://www.ietf.org/iesg.html
- ID-Tracker
  - https://datatracker.ietf.org/public/pidtracker.cgi
- RFC Editors web page
  - http://www.rfc-editor.org/
- Many important process mailing addresses
  - http://www.ietf.org/secretariat.html

Credits for These Slides

- This tutorial is based on previous presentations or other materials by:
  - Paul Hoffman
  - Dave Crocker
  - Jeff Schiller
  - Steve Coya
  - Scott Bradner
  - Spencer Dawkins
  - Alice Hagens
  - Donald Eastlake
  - Margaret Wasserman
  - & Many Others
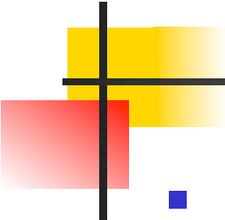
Thank you

- Questions? Comments?

- Feedback to the EDU Team
  - edu-team@ietf.org