1 Overview

The IETF desires to improve the IPR component of the datatracker to simplify code and data maintenance, allow submitters to update more than one disclosure at a time, and better support the IETF Secretariat's administrative actions.

2 Deliverables / Tasks

2.1 Provide existing functionality using revised models (except where the functionality is being changed by the remaining deliverables)

2.2 Migrate existing data to new models

2.3 Provide full admin interface support for the new models, with reasonable configurations for list_display, search_field, ordering, etc.

2.4 Improve the Secretariat’s navigation between IPR document views/search results and the administrative pages to edit IPR documents.

2.5 Add the ability for a disclosure submission to indicate it is updating more than one existing disclosure.

2.6 Improve the Secretariat’s management interface for the waiting for approval queue, including adding the ability to park disclosures that are waiting for approval.

2.7 Add a Secretariat management interface for rejected and removed disclosures.

2.8 Implement simplified forms for Secretariat updates to a disclosure

2.9 Add the ability to manage email communication necessary for processing a submission.
3 Detailed Description

3.1 Definitions

3.1.1 The Queue

The queue is the set of disclosures in the state "Waiting for approval". These are disclosures that have been submitted, but have not yet been posted, withdrawn, or rejected.

3.2 Process background

This component of the datatracker must support the processes described in RFC 3979 (as updated by RFC 4879). Be aware that there is work in progress to update RFC 3979 (see http://datatracker.ietf.org/doc/draft-bradner-rfc3979bis/), but this project does not include implementing its proposed changes to the process.

The current implementation is derived from the template described in RFC 3905, but the information collected has evolved beyond what’s listed in that RFC.

In addition to the policies documented in the RFCs, the following practices are relevant to this project:

When the secretariat receives an update to an IPR disclosure from a party other than the original discloser, the secretariat gives the original discloser an opportunity to object to the update. Currently, this is done with an email query to the original discloser. If the secretariat receives no reply within 7 days, the update is posted. There is a proposal being discussed to require a positive response from the original submitter, and to change the time allowed for a response. The system resulting from this project must be flexible enough to allow either policy.

The secretariat occasionally gets poorly formed submissions by new submitters, and email queries are used to clarify the submissions before posting. In some cases, multiple submissions are combined into one. This project will not add explicit support for merging disclosure submissions – the secretariat will edit one of them, and reject the others.

3.3 General Expectations

The access controls to views of the disclosures will remain as current:

- Anyone can submit a new disclosure without requiring a datatracker login.
- Anyone can view the list of posted IPR disclosures, search the posted disclosures, and view the search results. (In the current code and data, the posted disclosures are those with a status of 1).
• Only the secretariat may view a disclosure in any other status, including any new status types added by this project.
• Only the secretariat may make changes to a disclosure once it has been submitted.

3.4 Changes to Disclosure Submission

The current submission forms only allow a submission to update one other submission. The current data model allows a submission to update multiple prior submissions, but the view code to use it is incomplete or non-functional. This project will change the submission forms to allow updates to update multiple prior submissions. Generally, the data collected by the form will remain the same, and the look and feel of the submission forms is expected to not change significantly. Note, however, that some of the current form fields will be combined into a single field as described by the new models.

See [https://datatracker.ietf.org/ipr/2185/](https://datatracker.ietf.org/ipr/2185/) for an example of an IPR disclosure that updates more than one other disclosure. A manual data-patch was required to put the appropriate updates relationships in place for this disclosure.

When a disclosure is submitted, the system will send an email to the secretariat's RT system informing them.

3.5 Changes to search for all users

The current search form restricts the search for characters in the patent information to a string that must contain at least three characters, at least one of which must be a digit, and at least one of which must be a punctuation mark. This restriction will be removed. The value provided here will compared against the patent_info TextField in the relevant classes in models defined here.

3.6 Changes to the IPR disclosure list and Search Results for non-Secretariat users.

The IPR disclosure list and search result pages are expected to remain the same for non-secretariat users except for two things:

• Providing a version of the search forms currently at /ipr/search at the top of the result page, similar to how the search form for documents appears at the top of the document search results page.
• Adding the ability to sort the results by each column.

3.7 Changes to the IPR disclosure list and Search Results for the Secretariat

This project will add navigation between the IPR disclosure list /search result pages and the administrative forms for editing IPR disclosures when viewing those pages as the secretariat, optimizing for a minimal number of navigation actions (clicks).
When viewed by a secretariat user, searching will allow filtering disclosures by state (allowing the user to retrieve all disclosures, only those that are posted, only those that are posted or in the queue, or any other subset of states). The results will be grouped by state.

3.8 Changes to the view of a disclosure by non-Secretariat users

The view of a single posted disclosure will be augmented to provide a history of the disclosure’s processing.

The presentation of this history should look similar to the history for a document. See, for example, <http://datatracker.ietf.org/doc/rfc6410/history/>

This history will show

- When the disclosure was submitted
- When the disclosure was posted
- Any comment added by the secretariat that is marked as public
- A copy of the email message sent for each query issued, including the Subject, Date, To, From, and CC header fields.
  - Those messages that have not received a response by the deadline date will be visually distinct.
- A copy of each email response to those queries, again including the same header fields.

Each history row will initially show a prefix of long content, and reuse the document history’s motif of “turn the arrow” to allow displaying the full content.

3.9 Changes to the view of a disclosure by Secretariat users

A Secretariat user will be able to view a disclosure in any state. In addition to the information described in section 3.8, when a disclosure is viewed by the secretariat, the history will include

- Any comment added by the secretariat that is marked as private
- Any comment added when parked, rejected, or removed.

3.10 Secretariat administration changes

3.10.1 Managing disclosure queue

This project will replace the administrative view of the queue at /secr/ipradmin/admin/ with a set of new views and forms, to be designed as part of this project. The new display of the queue will:

- Remove the list of active disclosures. The main list and search pages, improved as described in section 3.6 will replace that functionality.
- Remove the lists of removed or rejected disclosures. This functionality will be replaced with a new view as described in section 3.10.3.  
  *With these removals, the resulting form will only show those disclosures that are in the queue.*

- Make Updates (disclosures that update other disclosures) visually distinct from those that are not updates.  
  *One suggested solution is to present the queue as two lists, one for initial disclosures and one for update disclosures. This will allow presenting different columns in the two lists.*

- Show the submitted date in each queue list
- For any disclosure, show the date that a query was sent to the submitter, and the date by which a response is expected.
- For Updates, show the date a query was sent to the *original* submitter, and the date by which a response is expected.
- Make any disclosures for which a response is overdue visually distinct.
- For Updates, show which disclosures are being updated (and make it easy to navigate to them).

### 3.10.2 Adding the concept of “Parked” disclosures and managing them

The secretariat sometimes has a disclosure in the queue that requires further action from the submitter, and that action is never taken. Currently, these are left sitting in the queue indefinitely, making finding items where action can be taken more difficult. This project will add the ability to mark such elements in the queue as “parked” and add the ability to show/hide them as needed (or display them separately). When parking a disclosure (more generally, when making any state change to a disclosure), the secretariat will be able to attach a comment.

### 3.10.3 Managing Rejected and Removed disclosures

Currently, removed or rejected IPR disclosures are shown as separate sections of the list on the Secretariat’s administrative page at `/secr/ipradmin/admin`.

This project will move displaying rejected and removed disclosures to a separate administrative view, allowing navigation to a view that is similar to how posted disclosures are viewed (including history as added by this project), and allowing the state of each to be edited.

### 3.10.4 Removing an active disclosure

There are multiple apparent ways to take an ipr disclosure out of the Active state in the current system, using the form at `/secr/ipradmin/admin/update`. The form has a control where the state can be chosen from a dropdown menu. There are buttons at the bottom of the form for “Remove by Admin” and “Remove by Request”. The top section of the edit form includes a control that indicates listed IPR disclosure(s)
being updated should be removed. This is confusing, and the multiple paths may not produce the same results.

This project will remove those options, and provide a single, clear way to take a disclosure out of the Active set, making it obvious what state the disclosure is entering, and that nothing is being deleted.

3.10.5 Managing email communication with the submitters

The secretariat sometimes needs to query submitters for additional information. They also may need to query the original submitter when an updated is submitted affecting a disclosure. Currently these queries are sent via email using individual email clients.

This project will allow these email messages to be sent from the tracker, providing an editing form. When sending a query, the secretariat will be able to set a time at which a response is due, or capture that no response is expected.

Any message sent should be kept in the disclosure's history and displayed as described in sections 3.8 and 3.9. Messages should be sent in such a way that replies are automatically attached to the disclosure history. When a reply is received by the system, an email message will be sent to the secretariat’s RT system notifying them of the receipt. The Secretariat must have a way to submit a raw email message (including headers) in case they receive a reply that the tracker could not have received.
Note that the current codebase and data contains an earlier notion of tracking notifications. The IprNotification model has 1977 objects. The earliest has a sent_date of Jan 11, 2005. The most recent has a sent date of May 24, 2011. The codepath that creates new IprNotification objects (at ietf.secr.ipradmin.views.admin_notify) currently errors when called. These older objects will need to be migrated into the new models.

Note also that the contents of the communication will be stored as cleartext within the Message objects.

3.10.6 Modifying disclosures

This project will replace the disclosure edit form currently at /secr/ipradmin/admin/update with a simpler version:

- The Old IPR Url, Text and URL for Update Link, Additional Old Title and URL 2 fields will be removed. Management of legacy information will be handled elsewhere (see Section 3.11.2)
- The form will support updating multiple other disclosures
- The concept of “removing” a declaration will be replaced as described in section 3.10.4.
Figure 2: The current disclosure editing form
The current form uses the phrase “3rd party notification” to describe 3rd party disclosures. This has caused confusion with the process of notifying the original submitters of disclosures being updated. The forms created by this project will avoid this confusion by consistently using the term disclosure.

All changes made to the content of a disclosure will be captured as a private comment (IprEvent) which will be displayed in the disclosure's history when viewed by a secretariat user.

### 3.11 Implementation Details

#### 3.11.1 New Models


The contractor will work with the IAOC designated Project Manager to revise the IPR application to use the models given here, refining the models as necessary. One possible revision is using Django >1.3’s generic relations to allow moving the duplicated fields in the disclosure classes to a common abstract parent. Since changes to the models may have a significant impact on the implementation for this project, and may have ramifications beyond the Ipr subsection of the datatracker, any changes must be coordinated with the Project Manager before code is developed based on those changes. The Project Manager will coordinate the deployment of the revised schema into the production system.

```python
from django.db import models
from ietf.doc.models import Document, DocAlias
from ietf.name.models import DocRelationshipName
from ietf.person.models import Person
from ietf.name.models import NameModel
from ietf.message.models import Message

class IprDisclosureState(NameModel):
    "Pending, Parked, Posted, Rejected, Removed, Unknown"
    # emulate ietf.doc.State
    pass

class IprLicenseInfo(NameModel):
    "choices a-f from the current form made admin maintainable"
    pass

class IprEventTypeName(NameModel):
    "Disclosure, MsgOut, MsgIn, ..."
    pass

class IprDisclosureBase(models.Model):
    time                = models.DateTimeField(auto_now_add=True)
    by                   = models.ForeignKey(Person) # who was logged in, or System if nobody was logged in
    holder_legal_name    = models.CharField(max_length=255)
    state               = models.ForeignKey(IprDisclosureState)
    rel                 = models.ManyToManyField(IprDisclosureBase, through='RelatedIpr')
```
3.11.2 Migrate legacy data to new models

There are currently slightly more than 2100 disclosures to migrate. Roughly 1800 are approved and posted, roughly 200 have been rejected by the administrator, roughly 20 are pending, and roughly 40 have been removed at the submitter’s request (note that “removed” means “not displayed” but not deleted.).
There are a few special considerations for this migration.

The notion of legacy URLs and titles is removed from the models. There are 180 records with a non-empty legacy_url_0. These point to URLs like http://www.ietf.org/ietf-ftp/IPR/cisco-ipr-rfc-3036.txt. The migration will, where possible, place the content of the documents at those URLs into the fields defined in the new models. The original information must not be lost. The migration should add a complete copy of the content at the URLs as a public comment (see IprDocEvent). The information in legacy_url_1, legacy_url_2, legacy_title_1, and legacy_title_2 will be handled similarly.

The IETF documents which a disclosure points to are sometimes listed in freeform text fields. The migration should parse these into IprDocRel.document as much as possible. The original freeform text should be preserved as a public comment.

The contact information currently stored in the separate fields (title, department, address1, address2, telephone, fax) will be concatenated into the submitter_contact TextField by the migration.

3.11.3 Code and Test Structure

Much of the existing code under /ipr and /secr/ipradmin was informed by earlier implementations (some is a minimal port from earlier perl programs), and was historically maintained by different teams. This project will combine the implementation under /ipr, removing the code under /secr/ipradmin and replacing its functionality as described in this document. While the existing implementation will inform the resulting code, many of the artifacts of the earlier implementation should be removed.

This project will update existing tests to reflect the new code and models, and will extend the tests to cover the functionality described in this document.

4 Expected Development Processes and Practices

The contractor will adhere to the requirements at http://trac.tools.ietf.org/tools/ietfdb/wiki/ContractorInstructions?version=11