

Retiring the IETF FTP Service

March 2021

Summary

The IETF FTP service (ftp.ietf.org, ops.ietf.org, ietf.org) will be retired. Access to the same information has been made available through other means (Appendix A) and these mechanisms have been embraced by the community (Introduction).

Introduction

The IETF provides access to its information assets over a number of protocols. The usage of these protocols is periodically evaluated. In 2015, the IETF Administrative Director [requested community input](#) on discontinuing the FTP service. Robust discussion ensued with [an outcome](#) of the community not supporting this direction. Two repeated themes in the feedback were the quantification of the usage and the stability of references and identifiers.

In revisiting support for FTP in 2020, usage and dependencies were examined. While there is continued use of FTP, it appears to serve a very small community and HTTP has become the access mechanism of choice. The dependency on FTP is limited to a countable number of older documents.

Given this usage, the IETF FTP service (ftp.ietf.org, ops.ietf.org, ietf.org) will be retired. The operational complexity of running this service outweighs the very limited community served. Additionally, no access to information will be lost as it will continue to be available through other means outlined in Appendix A¹. This decision was reached via [community consultation](#) in late 2020 via rough consensus.

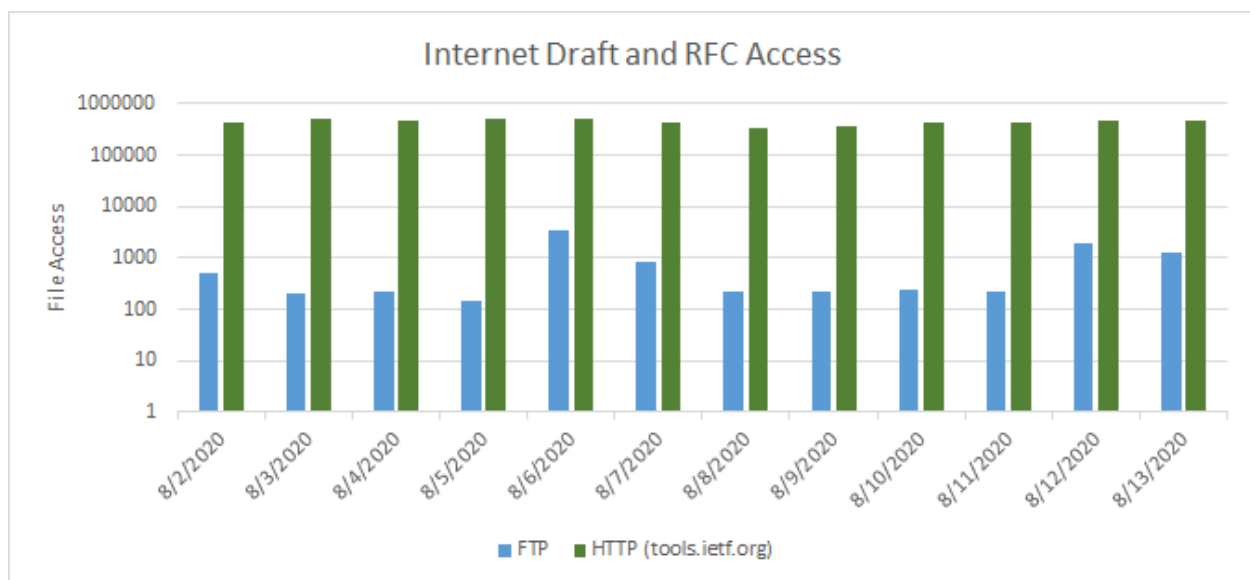
¹ This decision is unique to the IETF and should not be taken as a position on FTP services in general.

Limited Usage

FTP usage was examined² and also compared to another comparable access mechanism (HTTP) and the following high-level trends were identified (over a twelve day period):

- A limited number of hosts use FTP (~125 unique hosts)
- The majority of FTP traffic comes from a few hosts (>67% of all FTP requests came from 5 hosts, where one was a large US-based tech company, one was a Japanese lab, and the rest were dynamic addresses in a European ISP)
- Much of the FTP traffic is likely scripted activity to mirror content or track updates (while ~15000 unique files were downloaded; ~20% of all requests, and the most downloaded files, were 19 summary files such as lid-abstracts.txt, all_id2.txt, all_id.txt)
- Users overwhelmingly prefer using HTTP to access I-D and RFC files (See Figure 1; two orders of magnitude preference for HTTP over FTP; this data is undercounting HTTP access as only tools.ietf.org was considered)

Figure 1. Internet Draft and RFC Access (using log scale)



[Additional metrics of usage](#) were produced in response to discussions during the 2020 community consultation.

² Logging of all services and their access mechanisms is imperfect. Detailed FTP logging needed to be explicitly enabled for this collection. For HTTP, content is served from a CDN, datatracker and tools.ietf.org. Logs are only available from tools.ietf.org. Therefore, HTTP numbers are undercounted. Two usage periods: June-25-2020 - July-06-2020 and August-02-2020 to August-13-2020 were examined. Both exhibited similar usage patterns. The August period was used to produce Figure 1 for convenience.

FTP Dependencies

All RFCs were assessed for their dependence on the FTP service — 30 RFCs were found across all document streams. See Appendix B for a list of these documents and the methodology used to identify them. These dependencies fall into two classes — references and process.

Document Reference Dependencies

25 RFCs reference an item by an FTP URI (ftp://). Per the “reference type” column of Table 4 of Appendix B, they make references in the following way:

- *Reference-ID* = a reference to the generic Internet-Draft repository served over FTP (e.g., ftp://[ftp.ietf.org/internet-drafts/](ftp://ftp.ietf.org/internet-drafts/)) (1 RFC)
- *Reference-ML* = a reference to a mailing list archive or message served over FTP (e.g., ftp://ftp.ietf.org/ietf-mail-archive/secsh/2002-02.mail) (4 RFCs)
- *Reference-ML-MIB* = a reference to a WG mailing list archive served over FTP in a MIB (e.g., <ftp://ftp.ietf.org/ietf-mail-archive/ipcdn>) (17 RFCs)
- *Reference-but-Obsolete* = a reference is made to the FTP service, but the document has been obsoleted by a new one that does not reference FTP (3 RFCs)

Notification Reference Dependencies

A review of the text for automatically generated email notifications found the following contain a reference to an FTP location:

- An email “I-D Action: <draft name>” sent to the [I-D-Announce List](#) includes the text “Internet-Drafts are also available by anonymous FTP at: ftp://ftp.ietf.org/internet-drafts/”

Website Reference Dependencies

A review of the text on IETF’s public website found the following references to using FTP:

- www.ietf.org
 - <https://www.ietf.org/chairs/>
 - <https://www.ietf.org/standards/ids/>
 - <https://www.ietf.org/standards/ids/internet-draft-mirror-sites/>
 - <https://www.ietf.org/how/lists/discussion/>
- datatracker.ietf.org
 - Various fixes needed

Document Process Dependencies

5 RFCs include an FTP location as part of a process. Per the “reference type” column of Table 4 of Appendix B, they make references in the following way:

- *Process* = references a process that uses FTP service URI (3 RFCs)
- *Process-but-Obsolete* = references a process that uses FTP, but the document has been obsoleted by a new one (that does not reference FTP) (2 RFCs)

Reviewed Materials found not to have Dependencies

The following content was reviewed and found not to have dependencies on FTP

- No references were found on datatracker.ietf.org
- No references were found on tools.ietf.org
- No references were found on mailarchive.ietf.org

Actions

In support of the retirement of the FTP service, Table 2 outlines a series of considerations and actions that will be taken.

Table 2: Considerations and actions

Consideration	Action
HTTPS mirror of FTP directories https://www.ietf.org/ietf-ftp/	None
Document Reference Dependencies	Lead: IESG Per the RFCs described as having a reference type="Reference-*" per Table 4, publish a new RFC ("[UPDATE-RFC]") which describes the FTP service changes, updates these documents, and provides per-RFC "OLD vs. NEW" style text.
Notification Reference Dependencies	Lead: IESG Replace the reference to the FTP archive in notifications sent to the I-D-Announce List with a reference to the rsync repository
Website Reference Dependencies	Lead: IESG Remove references to FTP from www.ietf.org
Document Process Dependencies (Active)	Per the RFCs described as having a reference type="Process" per Table 4:

	<p>RFC2648: A URN Namespace for IETF Documents</p> <ul style="list-style-type: none"> • Lead: IESG • Include this document in the “[UPDATE-FTP]” (code in Appendix A will not be updated) <p>RFC6756: IETF and ITU Standardization Sector Collaboration Guidelines</p> <ul style="list-style-type: none"> • Lead: ITU-T liaison/IAB • Include this document in the “[UPDATE-FTP]”, confirm “[UPDATE-FTP]” with IAB and notify ITU-T <p>RFC7241: The IEEE 802/IETF Relationship</p> <ul style="list-style-type: none"> • Lead: IEEE-SA liaison/IAB • Include this document in the “[UPDATE-FTP]”, confirm “[UPDATE-FTP]” with IAB, and notify IEEE
Document Process Dependencies (Obsolete)	Per the RFCs described as having a reference type=“Process-but-Obsolete” per Table 4, no action
Outside references to IETF FTP	None

Next Steps

After the completion of all of the actions described in the Action section, an explicit 4 month migration period will be announced (on ietf@ietf.org and ietf-announce@ietf.org) to allow for the porting of scripts and associated workflows. At the conclusion of this migration period the IETF FTP service (ftp.ietf.org, ops.ietf.org, ietf.org) will be retired. This retired state will consist of serving a single “README-like” file which will explain how the resources previously served can be accessed via alternative means (i.e., pointers to the alternative access mechanisms described in Appendix A).

Appendix A: Access to IETF Information

Table 3 describes how information currently accessible over FTP can be accessed through other protocols.

Table 3: FTP directory to alternative service mapping

FTP Data Directory	Web FTP mirror	Web	RSYNC	IMAP	FTP at rfc-editor
charter	X	X	X		
concluded-wg-ietf-mail-archive	X	X	X	X	
conflict-reviews	X		X		
iana-timezone	X	X	X		
iana	X		X		
ietf-mail-archive	X		X	X	
ietf-online-proceedings	X		X		
ietf	X		X		
internet-drafts	X	X	X		X
review	X		X		
rfc	X	X	X		X
slides	X		X		
status-changes	X		X		
yang	X		X		

FTP = ftp://ftp.ietf.org, ftp://ops.ietf.org, ftp://ietf.org

Web FTP mirror = <https://www.ietf.org/ietf-ftp/>

Web = <https://www.ietf.org>, <https://tools.ietf.org>, <http://datatracker.ietf.org>, <https://mailarchive.ietf.org/>

RSYNC = rsync://rsync.tools.ietf.org

IMAP = imap://imap.ietf.org

FTP at rfc-editor = ftp://ftp.rfc-editor.org

Appendix B: Affected RFCs

Table 4 enumerates the 30 RFCs that make references to the IETF FTP service. These RFCs were identified using the methodology described in Figure 2.

Table 4: RFCs referencing FTP

	RFC	Date	Stream	Type	Obsoleted by	Reference Type*
1	RFC2077	Jan-97	IETF	PS		Reference-ID
2	RFC2418	Jan-98	IETF	BCP		Reference-ML
3	RFC2436	Oct-98	IETF	Info	RFC3356,6756	Process-but-Obsolete
4	RFC2648	Aug-99	IETF	Info		Process (Section 2)
5	RFC2954	Oct-00	IETF	PS		Reference-ML-MIB
6	RFC2955	Oct-00	IETF	PS		Reference-ML-MIB
7	RFC3020	Dec-00	IETF	PS		Reference-ML-MIB
8	RFC3083	Jan-01	IETF	Info		Reference-ML-MIB
9	RFC3160	Aug-01	IETF	Info	RFC4677	Reference-but-Obsolete
10	RFC3201	Jan-02	IETF	PS		Reference-ML-MIB
11	RFC3202	Jan-02	IETF	PS		Reference-ML-MIB
12	RFC3285	May-02	IETF	Info	RFC5385	Reference-but-Obsolete
13	RFC3295	Jun-02	IETF	PS		Reference-ML-MIB
14	RFC3356	Aug-02	IETF	Info	RFC6756	Process-but-Obsolete
15	RFC3684	Feb-04	IETF	Exp		Reference-ML
16	RFC3962	Feb-05	IETF	PS		Reference-ML
17	RFC3970	Jan05	IETF	PS		Reference-ML-MIB
18	RFC4036	Apr-05	IETF	PS		Reference-ML-MIB
19	RFC4131	Sep-05	IETF	PS		Reference-ML-MIB
20	RFC4251	Jan-06	IETF	PS		Reference-ML
21	RFC4323	Jan-06	IETF	PS		Reference-ML-MIB
22	RFC4546	Jun-06	IETF	PS		Reference-ML-MIB
23	RFC4547	Jun-06	IETF	PS		Reference-ML-MIB
24	RFC4639	Dec-06	IETF	PS		Reference-ML-MIB
25	RFC4677	Sep-06	IETF	Info	RFC6722	Reference-but-Obsolete
26	RFC4682	Dec-06	IETF	PS		Reference-ML-MIB

27	RFC5098	Feb-08	IETF	PS		Reference-ML-MIB
28	RFC5428	Apr-09	IETF	PS		Reference-ML-MIB
29	RFC6756	Sep-12	IAB	Info		Process (Section 2.8.1)
30	RFC7241	Jul-14	IAB	Info		Process (Section B.2)

Figure 2: Methodology to identify RFCs using IETF FTP

```

rsync all RFCs
1  $ rsync -avz --delete ftp.rfc-editor.org::rfcs ./rfcs

count the number of documents that reference "{ops., ftp.}ietf.org"
2  $ grep -E -i -l "ftp://ietf\.org|ftp://ops\.ietf.org|ftp\.ietf\.org" *.txt
   | wc -l
30

list the documents that reference the FTP service
3  $ grep -E -i -l "ftp://ietf\.org|ftp://ops\.ietf.org|ftp\.ietf\.org" *.txt

<see Table 1 for formatted output>

```