Making the Internet work better

Trac Wiki Migration to Wiki.js

A Request for Proposals issued on 2021-05-03

IETF Executive Director
exec-director@ietf.org

Overview

The IETF maintains a number of Trac instances used for IETF Working Groups, Areas, Teams, Directorates and specific tools, and wishes to migrate approximately 170 of these away from Trac, with some data migrating to a new IETF wiki and some to GitHub. The migration is split into two separate projects, with this RFP only addressing the migration to a new IETF wiki..

The IETF has chosen Wiki.js[1] as its new wiki tool, and seeks a contractor to build and configure a new IETF wiki using Wiki.js, develop a custom plugin for Wiki.js, design a page structure to receive the migrated data, implement a permissions system that integrates to our existing authentication services and migrate the existing data from the multiple Trac instances.

In addition the contractor must provide instructions for building private wikis for use by the IETF NomComs and a sample private wiki to demonstrate this.

Timeline

03 May 2021	RFP Issued
17 May 2021	Questions and Inquiries deadline
24 May 2021	Answers to questions issued and RFP updated if required
31 May 2021	**Bids due**
14 June 2021	Preferred bidder selected and negotiations begin
28 June 2021	Contract execution and work begins

RFP Process

The process for the RFP is as follows:

1. The RFP is publicly issued, posted to our website[2] and announced to the RFP Announcement mailing list[3], which anyone can subscribe to.

2. Potential bidders have until 17 May 2021 to submit any questions by email to ietf-rfps@ietf.org. Questions will be treated as anonymous but not private, as

[1] https://js.wiki
[2] https://www.ietf.org/about/administration/rfps-and-contracts/
[3] https://www.ietf.org/mailman/listinfo/rfp-announce

explained below. If you do not receive confirmation that your questions have been received within 24 hours then resend until you do.

3. A written response to all questions is provided on or before 24 May 2021, direct to those parties that sent questions, by email to the RFP Announcement Mailing List and posted on our website[4]. The response will include the questions asked and the answers, but will not identify the company asking the question. If required, the RFP may be updated to correct or clarify any issues identified.

4. Bids are due by **31 May 2021** by email to ietf-rfps@ietf.org. If you do not receive confirmation that your bid has been received within 24 hours then please resend until you do. The bid should include the following information:

    a. Executive summary

    b. Project approach including any assumptions.

    c. Project plan and schedule including when the work will begin and end, and any other milestones, as well as any dependencies that may delay delivery.

    d. Fee and payment schedule. Fixed priced bids are preferred but if that is not possible then a maximum fee must be specified.

    e. Warranty including a proposal for fee reduction/refund due to late- or non-delivery

5. The IETF Administration LLC and designated contractors and volunteers will select a preferred bid and notify the bidder by 14 June 2021. The selection process may include questions by email and/or conference call.

6. The IETF Administration LLC then enters into contract negotiation with the preferred bidder, based on its standard contract and using the relevant sections of the Statement of Work below. If contract negotiation fails then a different preferred bidder may be chosen.

7. Contract negotiation is anticipated to complete by 28 June 2021 and result in the award of the contract. All RFP contract awards are posted on our website and announced to the RFP Announcement mailing list. The terms of the contract are later posted publicly on our website, with the fee information and signatures (where possible) redacted. In addition any Conflict of Interest declarations required of the preferred bidder are also posted publicly on our website. This transparency is non-negotiable.

[4] https://www.ietf.org/about/administration/rfps-and-contracts/

8. Work generally begins immediately after award of the contract, unless specified otherwise in the Statement of Work or negotiated contract.

Jay Daley
IETF Executive Director
IETF Administration LLC

Statement of Work:
Trac Wiki Migration to Wiki.js

Deliverables

1. A fully operating and configured production instance of Wiki.js (the “IETF Wiki”), with the content migrated from our existing public Trac instances, that acts as a full replacement for the wiki component of our existing trac instances.
2. A test instance of Wiki.js that can be used to test all aspects of production, with documentation on how to rebuild the development instance from production.
3. A set of pages in the IETF wiki that contain the details of historic Trac tickets from the existing Trac instances.
4. Full documentation, including:
    a. All configuration and changes applied
    b. All access restrictions and permissions applied
    c. All page redirects required to ensure that external references to the existing Trac wikis are still functional.
    d. List of every page migrated and its new target
    e. List of every page not migrated and why it was not moved.
5. Custom Wiki.js plugin to implement IETF specific text expansion features
6. Documentation describing how to create private NomCom Wiki.js instances for high risk content.
7. A sample private NomCom wiki built using the supplied documentation.

Requirements

IETF Wiki

1. Two separate Wiki.js instances must be provided, fully built and configured, one for production (the “IETF wiki”) and one for testing.
2. All existing Trac wiki pages from the Trac instances specified below must be migrated to the IETF wiki with the exception of the template pages that are automatically generated when a new Trac instance is created.
3. The wiki pages must be migrated into a page structure on the IETF wiki such that each of the existing Trac wikis is seen as a ‘branch’ of pages on the IETF wiki.
4. A single private page must be created, accessible only by the IESG, with the content of the current private IESG page migrated to that.
5. The details of all issues must be migrated to the IETF wiki, with all the issues from a single Trac instance combined into a single page in the relevant branch on the IETF wiki.
6. All page links that exist in the Trac instances, including between Trac instances, must be migrated to the IETF wiki and must point to the correct new pages in the IETF Wiki.
7. Any links to existing Trac instances that appear in the RFC series, the Internet Draft database or the IETF website, must be identified and documented. The documentation must include where the target of each link has moved to. The documentation must be provided, in a format that can easily be used to generate a list of server redirections.

Custom Plugin

8. A plugin to Wiki.js must be developed that implements the following custom features found in our Trac installation:
    - Adding an RFC number to a wiki document, such as ‘RFC 2026’ or ‘RFC2026’ automatically generates a link to that RFC at https://datatracker.ietf.org/doc/rfc2026/.

    - Adding the name of an Internet Draft to a wiki document, such as ‘draft-ietf-taps-impl’ automatically generates a link to that I-D at https://datatracker.ietf.org/doc/draft-ietf-taps-impl/.

9. Development of the plugin must use a public github repository under the IETF Tools Organisation[5].

10. Source code for the plugin must be provided, with ownership assigned to the IETF Trust and licensed under the IETF Trust specified open source license[6].

11. A CI/CD build process for the plugin implemented in GitHub.

Authentication and Permissions

12. The wiki instances must be configured to use the OIDC authentication service provided by the Datatracker, with permissions to the IETF Wiki restricted to Datatracker roles. A permissions system has been suggested below and it is expected that some changes will be needed to settle on the final design.

Additional Features

13. The IETF Wiki must be configured to synchronise its content with a new IETF GitHub repository.

14. The IETF Wiki must be configured to integrate with the existing IETF Matomo service

15. Documentation must be provided of all configuration, changes, access restrictions and permissions applied to a clean Wiki.js installation.

Private NomCom wikis

16. Documentation must be provided on how to create a private NomCom wiki with the same features as the IETF wiki, except GitHub storage and Matomo integration, and with access strictly restricted to NomCom personnel as authenticated by the Datatracker.

17. A sample private NomCom wiki instance must be provided that has been built using the supplied documentation.

[5] https://github.com/ietf-tools/
[6] https://trustee.ietf.org/assets/licenses/non-profit-osl-3/

System Configuration

18. All instances must be delivered as Docker containers.
19. All instances must be configured to run on PostrgreSQL and the database instances supplied alongside the Wiki.js instances as separate Docker containers.
20. All instances must be configured to use the “DB - PostgreSQL”[7] search engine module.
21. Wherever possible, Wiki.js must be configured to support migration to Wiki.js v3 when that is released.

Additional Details

Choice of Wiki,js

Wiki,js[8] has been chosen from an evaluation of a small number of wiki products, against the following requirements. Not all of these requirements feature in this RFP.

Strategic

- Must be available at reasonable cost (to the IETF LLC) for possibly thousands of users.
- Must be widely used, well documented, actively developed and actively supported to ensure that we do not end up with a dead-end product. This includes any required plugins.
- Must be a specific wiki product and not a larger product that includes a wiki as one part of its functionality, to prevent complications and overlaps with other tools.
- Must be scalable to support tens of thousands of users to support the full IETF community and reasonable future growth.

Content

- Must support a text based input language.
- Must support code snippets, maths expressions and diagrams to enable the full representation of the same kind of content as found in I-Ds and RFCs.
- Must provide an excellent mobile experience.

[7] https://docs.requarks.io/en/search/postgres
[8] https://js.wiki

- Must provide content backup, change visibility, and the ability to revert changes
- Should support Markdown by default for page content.
- Should support git for content backup and change visibility.
- Should provide a WYSIWYG editor for Markdown that can be used interchangeably with direct Markdown editing.
- Should have a themable interface to enable the wiki to be given a look and feel consistent with www.ietf.org.

Integration

- Must support OIDC for authentication and role permissions.
- Must support custom module development.
- Should support Matomo for web analytics so that these can be integrated with our website statistics.

Local management (if self-hosted)

- Must support either MySql/MariaDB or PostgreSQL as those are the database products supported by the IT operations team.
- Must run on Linux and should run in a Docker container to fit with the management processes of the IT operations team.

Datatracker

The IETF has developed a public facing document and workflow management tool called the Datatracker[9]. This provides user accounts for IETF participants with details of any official roles they hold. The Datatracker provides and OIDC service for authorised third party apps to authenticate participants and check their roles

Trac instances

The number of Trac instances included in this RFP is approximately 171. While every effort has been made to ensure that these numbers and lists are accurate, additional instances may be added or removed after the contract has been signed and that should have no impact on cost or completion dates.

Most of these trac instances are at https://trac.ietf.org/trac/<NAME>. The exceptions are at https://trac.tools.ietf.org.

Instances with issues and wiki pages (2 in total)	Instances with issues (39 in total)	Instances with wiki pages (130 in total)
tools (trac.tools.ietf.org)	6lowpan	6lo
bof (trac.tools.ietf.org)	abfab	6man

[9] https://datatracker.ietf.org/

	avtcore	6tisch
	bliss	ace
	conex	alto
	dane	anima
	decade	app
	dice	appsawg
	dkim	art
	dmm	atoca
	dna	behave
	emailcore	bess
	emu	bfd
	ftpext2	bier
	hip	calsify
	hokey	ccamp
	httpstate	ccg
	isms	clue
	jcardcal	codec
	lager	core
	ltru	dbound
	manet	dhc
	martini	dime
	mmusic	dinrg
	mtgvenue	dispatch
	netext	dmarc
	payload	dnsext
	radext	dnsop
	salud	dnssd
	scim	dots
	sfc	dprive
	softwire	drinks
	speermint	dtn
	spfbis	e2md
	tcpm	eai
	tram	ecrit
	websec	edu
	weirds	eman
	xmpp	gaia
		gen
		geopriv
		homenet
		httpauth
		httpbis
		hybi
		i2nsf
		i2rs
		iab

		idnabis
		idr
		iesg
		ietf/meeting
		imapmove
		int
		intarea
		ippm
		ipsecme
		iri
		irtf
		its
		jose
		json
		l3sm
		lime
		lisp
		lpwan
		lwig
		mediactrl
		mext
		mif
		mile
		mip4
		mpls
		mptcp
		multimob
		nea
		netconf
		netlmm
		netmod
		nmrg
		ntp
		nvo3
		oauth
		ops
		opsec
		ospf
		pce
		pcp
		pim
		pmol
		ppsp
		precis
		rai
		regext

		repute
		rift
		rmcat
		roll
		rtcweb
		rtg
		rtgwg
		sacm
		sec
		secdispatch
		sidr
		sieve
		sipclf
		sipcore
		siprec
		slim
		soc
		spring
		stir
		stox
		suit
		sunset4
		teas
		tictoc
		tls
		trans
		tsv
		tsvwg
		tzdist
		urnbis
		uta
		vwrap
		wgchairs
		wpkops
		xml2rfc
		yam

Excluded Trac instances

The following Trac instances are excluded from this RFP:

- nomcom2017 Private instance
- nomcom2018 Private instance
- nomcom2019 Private instance
- nomcom2020 Private instance
- iaoc Private instance

- ietfdb Due to move to GitHub
- xml2rfc Due to move to GitHub

Templated pages to exclude

The following standard wiki pages are added when a new Trac instance is created and can be excluded from the transfer:

- CamelCase
- IetfSpecificFeatures
- InterMapTxt
- InterTrac
- InterWiki
- PageTemplates
- RecentChanges
- SandBox
- SvnTracHooks
- ThisTracInstallation
- TicketQuery
- TitleIndex
- TracAccessibility
- TracAdmin
- TracBackup
- TracBatchModify
- TracBrowser
- TracCgi
- TracChangeLog
- TracChangeset
- TracEnvironment
- TracFastCgi
- TracFineGrainedPermissions
- TracGuide
- TracImport
- TracIni
- TracInstall
- TracInterfaceCustomization
- TracLinks
- TracLogging
- TracModPython
- TracModWSGI
- TracNavigation
- TracNotification
- TracPermissions
- TracPlugins

- TracQuery
- TracReports
- TracRepositoryAdmin
- TracRevisionLog
- TracRoadmap
- TracRss
- TracSearch
- TracStandalone
- TracSupport
- TracSyntaxColoring
- TracTickets
- TracTicketsCustomFields
- TracTimeline
- TracUnicode
- TracUpgrade
- TracWiki
- TracWorkflow
- WikiDeletePage
- WikiFormatting
- WikiHtml
- WikiMacros
- WikiNewPage
- WikiPageNames
- WikiProcessors
- WikiRestructuredText
- WikiRestructuredTextLinks

The following standard wiki pages are also added and can be excluded from the transfer if they have not been modified since creation:

- TrainingMaterials
- WikiStart (home page)

IETF NomComs

Each year the IETF creates a Nominating Committee (NomCom) with a specified membership and each NomCom has a private wiki created, which is used to hold sensitive personal data. The NomCom personnel are identified in the Datatracker with assigned roles.

Suggested permissions system

This suggested permissions system is based around the following groups, which in turn rely on roles known by Datatracker that are available via OIDC:

Group	Included roles
Editors	Secretariat (specified members) WG Chairs ADs LLC (specified members)
Administrators	Secretariat (specified members) ADs LLC (specified members)
Owners	Secretariat (specified members) LLC (specified members)
IESG	ADs Secretariat (specified members) IETF Executive Director [Liaisons ?]
NomCom 20XX	NomCom 20XX Chair NomCom 20XX Member NomCom 20XX Liaison Member

The permissions for wikis are as follows:

Wiki / Area	Permission	Granted to
IETF Wiki	Page/Asset view	Public
	Page/Asset creation	Any authenticated user
	Page/Asset modification	Any authenticated user
	Page/Asset deletion	Editors
	Page/Asset locking	Editors
	Page/Asset permissions	Administrators
	All other permissions	Owners
IESG Private	Page/Asset view	IESG

	Page/Asset creation	IESG
	Page/Asset modification	IESG
	Page/Asset deletion	IESG
	Page/Asset locking	IESG
	Page/Asset permissions	IESG
	All other permissions	IETF Chair
NomCom 20XX	Page/Asset view	NomCom 20XX
	Page/Asset creation	NomCom 20XX
	Page/Asset modification	NomCom 20XX
	Page/Asset deletion	NomCom 20XX Chair
	Page/Asset locking	NomCom 20XX Chair
	Page/Asset permissions	NomCom 20XX Chair
	All other permissions	NomCom 20XX Chair

ENDS