

How BPF CI works?

Components

Patchwork

Patchwork (when?)

- Everything starts here
- Patchwork is a free, web-based **patch tracking system** It is intended to **make the patch management process easier** for ... **maintainers** (from [Wikipedia](#)).
- All patches submitted to bpf@vger.kernel.org will appear on <https://patchwork.kernel.org/project/netdevbpf/list/>
- Patchwork shows the status for each patch that we tested
- Patchwork knows when individual patch is a part of patch series
- Patchwork can be enabled for any Linux kernel subsystem. In fact, many subsystems already have it enabled

Show patches with: State = Action Required | Archived = No | 118 patches

Patch	Series	A/R/T	S/W/F	▲ Date	Submitter	Delegate	State
[net,3/3] bnxt_en: Fix unnecessary dropping of RX packets	bnxt_en: Bug fixes	- 1 -	15 1	2022-05-03	Michael Chan	netdev	New
[net,2/3] bnxt_en: Initialize bp->ptp_lock first before using it	bnxt_en: Bug fixes	- 5 -	15 1	2022-05-03	Michael Chan	netdev	New
[net,1/3] bnxt_en: Fix possible bnxt_open() failure caused by wrong RFS flag	bnxt_en: Bug fixes	- - -	14 2	2022-05-03	Michael Chan	netdev	New
[net-next] netdev: reshuffle netif_napi_add() APIs to allow dropping weight	[net-next] netdev: reshuffle netif_napi_add() APIs to allow dropping weight	- - -	15 1	2022-05-02	Jakub Kicinski	netdev	New
[bpf-next,v2,1/5] bpf: move bpf_prog to bpf.h	sleepable uprobe support	- - -	17 2	2022-05-02	Delyan Kratunov	bpf	New
[bpf-next,v2,4/5] libbpf: add support for sleepable kprobe and uprobe programs	sleepable uprobe support	- - -	17 2	2022-05-02	Delyan Kratunov	bpf	New
[bpf-next,v2,2/5] bpf: implement sleepable uprobes by chaining tasks_trace and normal rcu	sleepable uprobe support	- - -	15 1 3	2022-05-02	Delyan Kratunov	bpf	New
[bpf-next,v2,5/5] selftests/bpf: add tests for sleepable kprobes and uprobes	sleepable uprobe support	- - -	15 1 3	2022-05-02	Delyan Kratunov	bpf	New
[bpf-next,v2,3/5] bpf: allow sleepable uprobe programs to attach	sleepable uprobe support	- - -	17 2	2022-05-02	Delyan Kratunov	bpf	New
[v2] net: sfp: Add tx-fault workaround for Huawei MA5671A SFP ONT	[v2] net: sfp: Add tx-fault workaround for Huawei MA5671A SFP ONT	- - -	15 1	2022-05-02	Matthew Hagan	netdev	New
[bpf-next,v4,2/2] selftests/bpf: handle batch operations for map-in-map bpf-maps	[bpf-next,v4,1/2] bpf: Extend batch operations for map-in-map bpf-maps	1 - -	14 2 3	2022-05-02	Takshak Chahande	bpf	New
[bpf-next,v4,1/2] bpf: Extend batch operations for map-in-map bpf-maps	[bpf-next,v4,1/2] bpf: Extend batch operations for map-in-map bpf-maps	1 - -	14 2 3	2022-05-02	Takshak Chahande	bpf	New
[bpf-next,v3,8/8] selftests: bpf: verify first of struct mptcp_sock	bpf: mptcp: Support for mptcp_sock and is_mptcp	1 - -	16 1 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,7/8] selftests: bpf: verify ca_name of struct mptcp_sock	bpf: mptcp: Support for mptcp_sock and is_mptcp	1 - -	16 1 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,6/8] selftests: bpf: verify token of struct mptcp_sock	bpf: mptcp: Support for mptcp_sock and is_mptcp	1 - -	16 1 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,5/8] selftests: bpf: test bpf_skc_to_mptcp_sock	bpf: mptcp: Support for mptcp_sock and is_mptcp	1 - -	15 2 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,4/8] selftests: bpf: add MPTCP test base	bpf: mptcp: Support for mptcp_sock and is_mptcp	1 - -	15 2 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,3/8] selftests: bpf: Enable CONFIG_IKCONFIG_PROC in config	bpf: mptcp: Support for mptcp_sock and is_mptcp	- - -	16 1 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,2/8] bpf: add bpf_skc_to_mptcp_sock_proto	bpf: mptcp: Support for mptcp_sock and is_mptcp	- - -	15 2 2	2022-05-02	Mat Martineau	bpf	New
[bpf-next,v3,1/8] bpf: expose is_mptcp flag to bpf_tcp_sock	bpf: mptcp: Support for mptcp_sock and is_mptcp	1 - -	16 1 2	2022-05-02	Mat Martineau	bpf	New
[net-next,7/7] mptcp: allow ADD_ADDR renaissance by userspace PMS	mptcp: Userspace path manager prerequisites	1 - -	15 1	2022-05-02	Mat Martineau	netdev	New
[net-next,6/7] mptcp: expose server_side attribute in MPTCP netlink events	mptcp: Userspace path manager prerequisites	1 - -	14 2	2022-05-02	Mat Martineau	netdev	New
[net-next,5/7] mptcp: establish subflows from either end of connection	mptcp: Userspace path manager prerequisites	1 - -	15 1	2022-05-02	Mat Martineau	netdev	New
[net-next,4/7] mptcp: reflect remote port (not 0) in ANNOUNCED events	mptcp: Userspace path manager prerequisites	1 - -	14 2	2022-05-02	Mat Martineau	netdev	New
[net-next,3/7] mptcp: store remote id from MP_JOIN SYN/ACK in local ctx	mptcp: Userspace path manager prerequisites	1 - -	15 1	2022-05-02	Mat Martineau	netdev	New
[net-next,2/7] selftests: mptcp: ADD_ADDR echo test with missing userspace daemon	mptcp: Userspace path manager prerequisites	- 1 -	15 1	2022-05-02	Mat Martineau	netdev	New
[net-next,1/7] mptcp: bypass in-kernel PM restrictions for non-kernel PMS	mptcp: Userspace path manager prerequisites	1 - -	14 2	2022-05-02	Mat Martineau	netdev	New
smc911x: allow using IRQ0	smc911x: allow using IRQ0	- - -	14 1 1	2022-05-02	Sergey Shilyov	netdev	New
[net,v3,2/2] ptp: ptp_clockmatrix: return -EBUSY if phase pull-in is in progress	[net,v3,1/2] ptp: ptp_clockmatrix: Add PTP_CLK_REQ_EXTTS support	1 - -	15 - 1	2022-05-02	Min Li	netdev	New
[net,v3,1/2] ptp: ptp_clockmatrix: Add PTP_CLK_REQ_EXTTS support	[net,v3,1/2] ptp: ptp_clockmatrix: Add PTP_CLK_REQ_EXTTS support	1 - -	14 1 1	2022-05-02	Min Li	netdev	New
[bpf-next,v2,4/4] skmsg: get rid of unnecessary memset()	sockman: some performance optimizations	- - -	18 1	2022-05-02	Gong Wang	bpf	New

[bpf-next,v3,1/8] bpf: expose is_mptcp flag to bpf_tcp_sock

12834739 diff mbox series

Message ID 20220502211235.142250-2-mathew.j.martineau@linux.intel.com ([mailing list archive](#))
State New
Delegated to: BPF
Headers [show](#)

Series [bpf: mptcp: Support for mptcp_sock and is_mptcp | collapse](#)
[\[bpf-next,v3,0/8\] bpf: mptcp: Support for mptcp_sock and is_mptcp](#)
[\[bpf-next,v3,1/8\] bpf: expose is_mptcp flag to bpf_tcp_sock](#)
[\[bpf-next,v3,2/8\] bpf: add bpf_skc_to_mptcp_sock_proto](#)
[\[bpf-next,v3,3/8\] selftests: bpf: Enable CONFIG_IKCONFIG_PROC in config](#)
[\[bpf-next,v3,4/8\] selftests: bpf: add MPTCP test base](#)
[\[bpf-next,v3,5/8\] selftests: bpf: test bpf_skc_to_mptcp_sock](#)
[\[bpf-next,v3,6/8\] selftests: bpf: verify token of struct mptcp_sock](#)
[\[bpf-next,v3,7/8\] selftests: bpf: verify ca_name of struct mptcp_sock](#)
[\[bpf-next,v3,8/8\] selftests: bpf: verify first of struct mptcp_sock](#)

Checks

Context	Check	Description
bpf/vmtest-bpf-next-VM_Test-2	fail	Logs for Kernel LATEST on z15 + selftests
bpf/vmtest-bpf-next-PR	fail	PR summary
bpf/vmtest-bpf-next-VM_Test-1	success	Logs for Kernel LATEST on ubuntu-latest + selftests

Netdev + BPF

[View patches](#)

OCFS2 Development

[View patches](#)

x86 platform driver layer

[View patches](#)

<http://vger.kernel.org/vger-lists.html#platform-driver-x86>

QEMU patches

[View patches](#)

<https://lists.nongnu.org/mailman/listinfo/qemu-devel>

SELinux Development list

[View patches](#)

Linux SPI core/device drivers discussion

[View patches](#)

SCSI target development list

[View patches](#)

TPM Device Driver list

[View patches](#)

<http://sourceforge.net/projects/tpmdd/>

V9FS (Plan 9) Filesystem Development Mailing List

[View patches](#)

XEN Development list

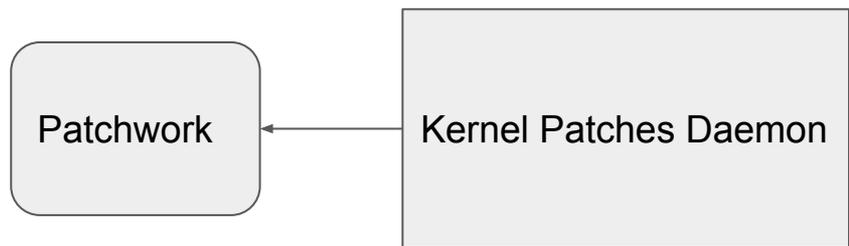
[View patches](#)

XFS devel

[View patches](#)

<https://www.spinics.net/lists/linux-xfs/>

Components



Kernel Patches Daemon (KPD, who?)

KPD:

- is a daemon that does all the magic to start tests
- is implemented in **python**
- is currently hosted on Meta infrastructure
- identifies new bpf patches in the Patchwork BPF section
- creates pull request (PR) to **kernel-patches/bpf** GitHub (GH) repo
- merges GH actions on top of tested patches from <https://github.com/kernel-patches/vmtest> GH repo. vmtest references some CI scripts from <https://github.com/libbpf/ci>
- fetches test results from GH and posts them to Patchwork, when tests are done

sockmap: some performance optimizations #2954

Edit Code

Open kernel-patches-... wants to merge 5 commits into bpf-next from series/630798=>bpf-next

Conversation 1 Commits 5 Checks 2 Files changed 21

+6,246 -80

Commits on May 2, 2022

- adding ci files**
Kernel Patches Daemon committed 9 hours ago [e1a0efd](#)
- tcp: introduce tcp_read_skb()** ...
Cong Wang authored and Kernel Patches Daemon committed 9 hours ago [f366f02](#)
- net: introduce a new proto_ops ->read_skb()** ...
Cong Wang authored and Kernel Patches Daemon committed 9 hours ago [74fd362](#)
- skmsg: get rid of skb_clone()** ...
Cong Wang authored and Kernel Patches Daemon committed 9 hours ago [8f42185](#)
- skmsg: get rid of unnecessary memset()** ...
Cong Wang authored and Kernel Patches Daemon committed 9 hours ago ✓ [d1352bf](#)



Search or jump to...

Pull requests Issues Marketplace Explore



kernel-patches / vmtest Public

Edit Pins Watch 4 Fork 7 Star 0

Code Issues Pull requests 2 Actions Security Insights Settings

master 4 branches 0 tags

Go to file Add file Code

About

- anakryiko** ci: blacklist tc_redirect/tc_redirect_dtime on s390x ... 64bc81d 4 days ago 128 commits
- .github** Add support for testing on s390x ibm setup 2 months ago
- travis-ci** ci: blacklist tc_redirect/tc_redirect_dtime on s390x 4 days ago
- README** Add empty README 16 months ago

No description, website, or topics provided.

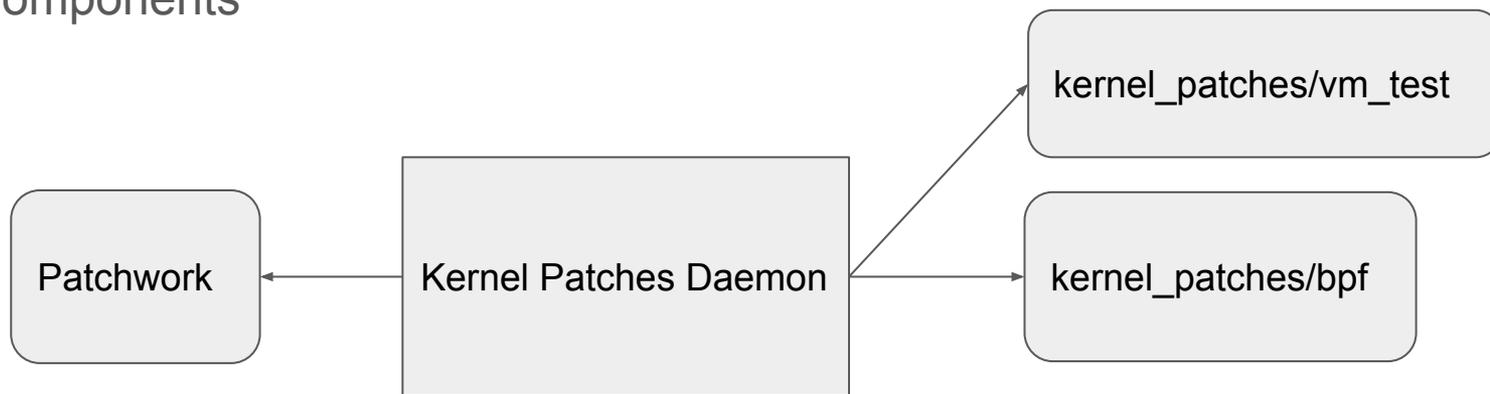
0 stars 4 watching 7 forks

Help people interested in this repository understand your project by adding a README. Add a README

Releases No releases published Create a new release

Packages

Components



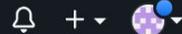
GitHub (GH) repo (where?)

- kernel-patches/bpf is a GH repo that mirrors bpf-next.git and bpf.git kernel.org repos.
- once PR is created, GH will execute testing actions defined in <https://github.com/kernel-patches/vmtest> repo using GH runners



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kernel-patches / bpf Public

Edit Pins Watch 4 Fork 2 Star 18

Code Pull requests 14 Actions Security Insights Settings

bpf-next 16 branches 0 tags

Go to file Add file Code

About



No description, website, or topics provided.

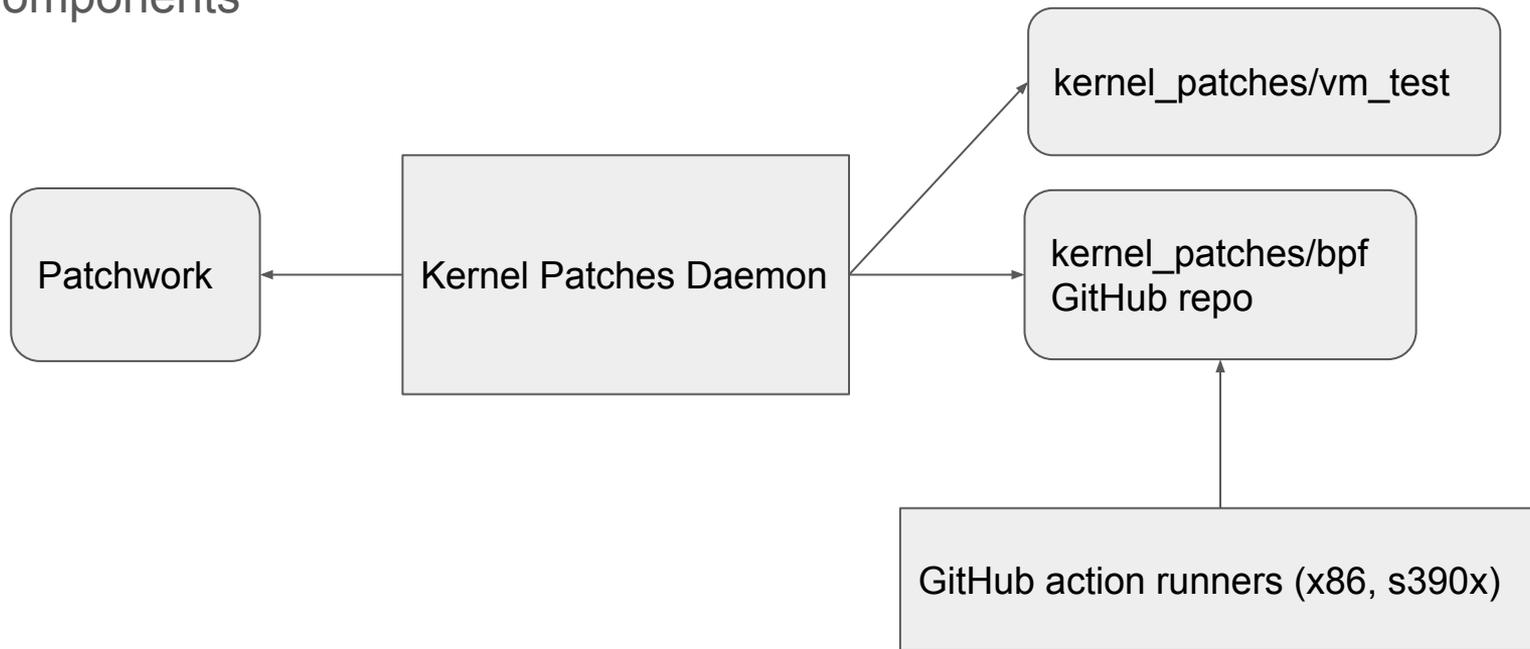
	mykola-lysenko and anakryiko selftests/bpf: Fix t...	20b87e7 4 days ago	🕒 1,090,149 commits
Documentation	bpf, docs: Fix typo "respetically" to "respectively"		5 days ago
LICENSES	LICENSES/LGPL-2.1: Add LGPL-2.1-or-later as valid ident...		5 months ago
arch	Merge https://git.kernel.org/pub/scm/linux/kernel/git/bpf/...		5 days ago
block	block: don't print I/O error warning for dead disks		18 days ago
certs	Merge tag 'kbuild-v5.18-v2' of git://git.kernel.org/pub/sc...		last month
crypto	Merge tag 'for-5.18/64bit-pi-2022-03-25' of git://git.ker...		last month
drivers	Merge https://git.kernel.org/pub/scm/linux/kernel/git/bpf/...		5 days ago
fs	Merge tag 'erofs-for-5.18-rc4-fixes' of git://git.kernel.or...		12 days ago

- 📖 Readme
- 📄 View license
- ☆ 18 stars
- 👁 4 watching
- 🍴 2 forks

Releases

No releases published
[Create a new release](#)

Components



GitHub (GH) runners (where?)

- We are using self-hosted GH runners to execute tests
- We currently have setup for x86 (AWS cloud) and s390x (IBM cloud) runners to test little-endian and big-endian respectively
- We can add more architectures, but having cross-compilation enabled in libbpf/bpftool will unblock running everything on x86 runners with using architecture specific qemu VMs
- GH runners poll for work from GH, build kernel and self-tests. Then, GH runners starts qemu with built kernel that executes self-tests

github.com/kernel-patches/bpf/settings/actions/runners

Facebook Kernel - Wiki Low Friction devs... amezin/vscode-lin... Get Help from the... L&D Catalog - Wiki Manager Behavior... Career Expectatio... Managing Inclusio... Crucial Conversati... Fast Feedback -...

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kernel-patches / bpf Public Edit Pins Watch 4 Fork 2 Star 18

Code Pull requests 14 Actions Security Insights Settings

Runners

Host your own runners and customize the environment used to run jobs in your GitHub Actions workflows. [Learn more about self-hosted runners.](#)

[New self-hosted runner](#)

Runners	Status
 5cafedff5a81 self-hosted Linux X64 z15	● Idle
 7dcd1a4e0e20 self-hosted Linux X64 z15	● Idle
 i-00029f75a6eb0fe2a self-hosted Linux X64 ubuntu-latest	● Idle
 i-008e46ed379fdc59 self-hosted Linux X64 ubuntu-latest	● Idle
 i-01248397cfa4778d2 self-hosted Linux X64 ubuntu-latest	● Idle

General

Access

Collaborators and teams

Moderation options

Code and automation

Branches

Tags

Actions

- General
- Runners
- Webhooks

BPF self-tests (what?)

- BPF self-tests are located in <https://github.com/torvalds/linux/tree/master/tools/testing/selftests/bpf>
- We are running test_progs, test_maps and test_verifier
- Successful test run:
 - <https://github.com/kernel-patches/bpf/actions/runs/2259714629>
- Failed test run:
 - https://github.com/kernel-patches/bpf/runs/6264834580?check_suite_focus=true

Kernel LATEST on ubuntu-latest + selftests

succeeded 8 hours ago in 31m 55s



```

600 ▶ copy_files - Copying files...
601 ▶ Run libbpf/ci/run-qemu@master
612 ▶ Run ARCH="x86_64" ${GITHUB_ACTION_PATH}/run.sh
623 ▶ vm_init - Starting virtual machine...
953 ▶ kernel_config - Kconfig
4231 ▶ test_progs - Testing test_progs
5823 ▶ test_progs-no_alu32 - Testing test_progs-no_alu32
7404 ▶ test_maps - Testing test_maps
7428 ▶ test_verifier - Testing test_verifier
9455 ▶ collect_status - Collect status
9456 ▶ shutdown - Shutdown
9476 Test Results:
9477 Tests exit status: 0
9478         bpftool: PASS
9479         test_progs: PASS
9480 test_progs-no_alu32: PASS
9481         test_maps: PASS
9482         test_verifier: PASS
9483         shutdown: CLEAN

```

> Post Run actions/checkout@v2 0s

> Complete job 0s

Kernel LATEST on ubuntu-latest + selftests

failed 5 hours ago in 32m 23s

Search logs



```
7430 batch_op(LOOKUP) is successful with batch_size(5)
7431 batch_op(LOOKUP) is successful with batch_size(10)
7432 test_map_in_map_batch_ops_array:PASS with inner HASH map
7433 batch_op(LOOKUP) is successful with batch_size(5)
7434 batch_op(LOOKUP) is successful with batch_size(10)
7435 batch_op(LOOKUP_AND_DELETE) is successful with batch_size(10)
7436 test_map_in_map_batch_ops_hash:PASS with inner ARRAY map
7437 batch_op(LOOKUP) is successful with batch_size(5)
7438 batch_op(LOOKUP) is successful with batch_size(10)
7439 batch_op(LOOKUP_AND_DELETE) is successful with batch_size(10)
7440 test_map_in_map_batch_ops_hash:PASS with inner HASH map
7441 socket(): errno:24
7442 threads#2: err:-24
7443 test_sk_storage_map_stress_free(430):FAIL:test_sk_storage_map_stress_free err:-24
7444 ▶test_verifier - Testing test_verifier
9471 ▶collect_status - Collect status
9472 ▶shutdown - Shutdown
9493 Test Results:
9494     bpftool: PASS
9495     test_progs: PASS
9496     test_progs-no_alu32: PASS
9497     test_maps: FAIL (returned 255)
9498     test_verifier: PASS
9499     shutdown: CLEAN
9500 Error: Process completed with exit code 1.
```

What is next?

- Add support for user-space sanitizers (<https://en.wikipedia.org/wiki/AddressSanitizer>)
- Add support for kernel-space sanitizers (<https://github.com/google/kernel-sanitizers>)
- Add support to test kernel built with **clang**. Currently Yonghong fixes LLVM issues manually
- Add support for arm64 - current path forward is to use Graviton 2 AWS instances
- Extend BPF CI to work with other Linux subsystems. For example, Btrfs with xfs tests or RCU with RCU torture tests
- Continue adding new BPF self-tests and iterating on BPF test_progs infra
- Make CI executable from local machine

How to contribute?

Depending on what part of CI you are changing, you can create a pull request to

- <https://github.com/kernel-patches/vmtest/>
- <https://github.com/libbpf/ci>
- <https://github.com/torvalds/linux/tree/master/tools/testing/selftests/bpf>

Maintainers will be happy to review and merge your change in :-)

What is cool, we also run tests for CI code changes, so you will be able to see how test execution changed with your patch

ci: add printing current kernel config before running the tests #78

Edit

<> Code ▾



anakryiko merged 1 commit into `kernel-patches:master` from `mykola-lysenko:kernel_config` 5 days ago

Conversation 0

Commits 1

Checks 2

Files changed 1

+6 -0



ci: print current kernel config 3e96775 ▾

Re-run all jobs

bpf-ci

on: pull_request

Kernel LATEST on ubuntu-latest + selftests

succeeded 5 days ago in 43m 40s

Search logs



Kernel LATEST on ubuntu-lates...

Kernel LATEST on z15 + selftests

Run `./github/actions/vmtest`

43m 18s

```
1540 ▶ Run export REPO_ROOT="/home/runner/work/vmtest/vmtest"
1554 ▶ env - Setup env
1563 ▶ adduser_to_kvm - Add user runner
1567 ▶ vmlinux_setup - Preparing Linux image
1603 ▶ bpftool_checks - Running bpftool checks...
1606 ▶ copy_files - Copying files...
1607 ▶ Run libbpf/ci/run-qemu@master
1618 ▶ Run ARCH="x86_64" ${GITHUB_ACTION_PATH}/run.sh
1629 ▶ vm_init - Starting virtual machine...
1957 ▶ kernel_config - Kconfig
5230 ▶ test_progs - Testing test_progs
5613 ▶ test_progs-no_alu32 - Testing test_progs-no_alu32
```

Questions?