HOW TO CONTRIBUTE TO OpenSSL

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Please visit our [Getting Started][gs] page for other ideas about how to contribute.

[gs]: https://www.openssl.org/community/getting-started.html

Development is done on GitHub in the [openssl/openssl][gh] repository.

[gh]: https://github.com/openssl/openssl

To request new features or report bugs, please open an issue on GitHub

To submit a patch, please open a pull request on GitHub. If you are thinking

of making a large contribution, open an issue for it before starting work,

to get comments from the community. Someone may be already working on

the same thing or there may be reasons why that feature isn't implemented.

To make it easier to review and accept your pull request, please follow these

guidelines:

1. Anything other than a trivial contribution requires a [Contributor

License Agreement][CLA] (CLA), giving us permission to use your code.

If your contribution is too small to require a CLA (e.g. fixing a spelling

mistake), place the text "`CLA: trivial`" on a line by itself separated by

an empty line from the rest of the commit message. It is not sufficient to

only place the text in the GitHub pull request description.

[CLA]: https://www.openssl.org/policies/cla.html

To amend a missing "`CLA: trivial`" line after submission, do the following:

```

git commit --amend

[add the line, save and quit the editor]

git push -f

```

2. All source files should start with the following text (with

appropriate comment characters at the start of each line and the

year(s) updated):

```

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Licensed under the Apache License 2.0 (the "License"). You may not use

this file except in compliance with the License. You can obtain a copy

in the file LICENSE in the source distribution or at

https://www.openssl.org/source/license.html

```

3. Patches should be as current as possible; expect to have to rebase

often. We do not accept merge commits, you will have to remove them

(usually by rebasing) before it will be acceptable.

4. Patches should follow our [coding style][] and compile without warnings.

Where `gcc` or `clang` is available you should use the

`--strict-warnings` `Configure` option. OpenSSL compiles on many varied

platforms: try to ensure you only use portable features. Clean builds

via Travis and AppVeyor are required, and they are started automatically

whenever a PR is created or updated.

[coding style]: https://www.openssl.org/policies/codingstyle.html

5. When at all possible, patches should include tests. These can

either be added to an existing test, or completely new. Please see

[test/README.md](test/README.md) for information on the test framework.

6. New features or changed functionality must include

documentation. Please look at the "pod" files in doc/man[1357] for

examples of our style. Run "make doc-nits" to make sure that your

documentation changes are clean.

7. For user visible changes (API changes, behaviour changes, ...),

consider adding a note in [CHANGES.md](CHANGES.md).

This could be a summarising description of the change, and could

explain the grander details.

Have a look through existing entries for inspiration.

Please note that this is NOT simply a copy of git-log one-liners.

Also note that security fixes get an entry in [CHANGES.md](CHANGES.md).

This file helps users get more in depth information of what comes

with a specific release without having to sift through the higher

noise ratio in git-log.

8. For larger or more important user visible changes, as well as

security fixes, please add a line in [NEWS.md](NEWS.md).

On exception, it might be worth adding a multi-line entry (such as

the entry that announces all the types that became opaque with

OpenSSL 1.1.0).

This file helps users get a very quick summary of what comes with a

specific release, to see if an upgrade is worth the effort.

9. Guidelines how to integrate error output of new crypto library modules

can be found in [crypto/err/README.md](crypto/err/README.md).