Document number	N4712
Date	2017-11-27
Project	Programming Language C++, Library Working Group
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Networking TS - Editor's Report

History

N4711 is the sixth working draft for the Networking TS, revising N4656. This draft has the same content as the final document sent to ISO for publication with the addition of the resolution of [LWG 2779](#).

Since the previous working draft there were a large number of editorial changes as well as the changes made in response to NB ballot comments (as approved in Toronto). The record of response to the ballot comments is in N4708.

Ballot comment resolutions

- [socket.algo.connect] Fix function signatures

    - Fixes NB US-14 (PDTS).

- [references] Add references an un-note "herein" paragraph. [namespaces] Update LFTS namespace to fundamentals_v2.

    - Fixes NB US-8 (PDTS).

- [buffer.reqmts.size] Add subclause for `buffer_size` customization point

    - Fixes NB GB-9 (PDTS)

- [async.reqmts.proto.allocator] Remove "constructor"

    - Fixes NB GB-2 (PDTS)

- [async.reqmts.executor] Introduce type `Func`

    - Fixes NB GB-5 (PDTS)

- [async.reqmts.service] Remove "user-defined"

    - Fixes NB US-12 (PDTS)

- [buffer.synop], [buffer.seq.access] Add "noexcept". [buffer.reqmts.mutablebuffersequence]

Require buffer ops to be non-throwing

- Fixes NB GB-11 (PDTS)

- [socket.dgram], [socket.stream] Add same type requirements. [socket.reqmts.native] Define how specification uses `native_handle_type`

  - Fixes NB GB-13 (PDTS)

- [socket.acceptor.cons] Add postcondition for `native_handle()`

  - Fixes NB GB-17 (PDTS)

- [socket.streambuf.cons] Add constructor postconditions for `error()`

  Fixes NB GB-18 (PDTS)

- [socket.streambuf.cons] State move assignment effects on `rhs`

  - Fixes NB GB-19 (PDTS)

- [internet.synop] Rename `host_not_found_try_again` enumerator

  - Fixes NB GB-20 (PDTS)

- [async.reqmts.executor] Move `defer` requirements to new row

  - Fixes NB US-10 (PDTS)

- [socket.basic], [socket.acceptor] Add `release` member functions

  - Fixes NB GB-15 (PDTS)

- [async.reqmts.executor] add reentrancy statement for `dispatch`

  - Fixes NB GB-3 (PDTS)

- [async.exec.ctx] Add reentrancy statements about services

  - Fixes NB GB-6 (PDTS)

- [io_constext.io_context] Add reentrancy statement for run functions

  - Fixes NB GB-8 (PDTS)

Issue resolutions

- [buffer.reqmts.mutablebuffersequence], [buffer.reqmts.constbuffersequence] relax
  - LWG 2779

Editorial changes:

- Lots of hyphenation hints, and editorial rephrasing and reformatting, to avoid text overflowing into the right margin.

- [internet.tcp], [internet.udp] Change "POSIX header file `<...>`" to "POSIX `<...>` header"

- [socket.dgram.op] replace "\effects Returns" with "\returns"

- [socket.streambuf.virtual] Replace \effects Returns with \returns

- [internet.reqmts.opt.mcast] Change variable names in table

- [internet.*] Don't qualify `std::addressof`

- [buffer.read], [buffer.async.read], [buffer.write], [buffer.async.write] Use variable templates

- [socket.streambuf.virtual] Clarify return values

- Improvements to the index of implementation-defined behaviour.

- Cross-references added from synopses to the relevant wording.

- [async.system.exec.ops], [async.strand] use "is `false`" instead of "`== false`"

- [async.system.exec.ops] add parentheses to "calls `f1`"

- [async.strand.ops], [internet.network.v4.members], [internet.network.v6.members] use "is `true`" instead of "`== true`"

- [buffer.mutable] fix grammar and add hyphenation hints

- [internet.address.v6.comparisons] Use `std::tie` to simplify expression

- [socket.streambuf.virtual] -> [socket.streambuf.virt] rename

- [async.use.future.result] improve formatting in `async_result` semantics table

- [err.report.async] add parentheses around cross-reference

- Change Terms & Definitions to match ISO drafting directives. Move definition of "orderly shutdown" to [buffer.stream]. Change POSIX reference to ISO/IEC 9945:2009 and correct byte order section numbers, as per http://www.iso.org/obp

- [async.reqmts.async.token], [async.reqmts.async.lifetime], [buffer.creation], [buffer.async.write] change "must" to "shall"