

Release Notes

Document: Ultra Ethernet™ Specification

Version: 1.1

Release Date: 10/12/2026

Previous Version: 1.0.3 (Released 07/16/2026)

Overview

This release includes significant new functionality and normative requirements. It also includes a set of editorial corrections and clarifications to improve the readability and accuracy of the Ultra Ethernet™ Specification v1.0.3, published on July 16, 2026.

Summary of Changes

Section	Type	Description of Change
2.3	Enhancement	UE verbs interface mapping.
2.4	Enhancement	In-Network Collectives (INC).
3.3 thru 3.5, 3.7.11	Enhancement	The Unified Local Profile enhancements for scale-up networking to SES, PDS, and TSS, including the new reliable ordered delivery mode for local networks (RODL).
3.4.2.3 Figure 3-8	Enhancement	Adds an optional hardware feature allowing a FEP to allocate Memory Regions (MRs) scoped to a specific PIDonFEP instance.
3.4, 3.5.8.2 Table 3-1, Table 3-3, Table 3-20 thru Table 3-23, Table 3-68,	Enhancement	Adds a Sync Group mechanism to group write transactions and trigger a completion or atomic operation once all writes in the group have been posted.
3.6.18	Enhancement	Programmable congestion management (PCM)
3.6, 4.2, 5.3	Enhancement	Congestion Signaling (CSIG), enhancements to CMS to utilize CSIG and enhancements to LLDP negotiations for enabling CSIG.
5.4	Enhancement	Optimized headers and Packet Rate Improvement using the Unified Forwarding Header (UFH).
5.5	Enhancement	Ethernet idle reduction.
7	Enhancement	Overview of UE management and reference to standalone documentation.
Table 5-27	Correction	Correct the range and granularity of the CF_max_timers to be 16 KB with granularity between 1 byte and 16384 bytes.
2.1	Clarification	Clarify new software interfaces, module relationships and open source projects in the UE Software Overview.
Table 2-13	Clarification	Clarify bit location range of VENDOR_SPECIFIC field in the memory region key format.
3.5.8.2.1	Clarification	Clarify the process of PDC establishment with encryption.
3.5.5, 3.5.8, 3.5.10, 3.5.11	Clarification	PDS conformance checklist statement reference alignment.
Table 5-9	Clarification	Clarify minimum values of data_age_timer_max.
Various	Editorial	Correct minor punctuation, spelling, figure labeling and formatting errors.

Impact Statement

This revision defines new optional enhancement updates to protocol functionality and associated requirements while preserving full backward compatibility with previous versions. It introduces a new Unified Local profile with mandatory requirements. Clarifications and editorial updates to existing functionality are non-substantive and do not alter protocol behavior, compliance, or interoperability. Correction updates are normative and required for conforming implementations.

Document Version History

Version	Date	Description
1.0	06/11/2025	Initial version.
1.0.1	09/05/2025	Editorial clarifications and correction to the RCCC source algorithm.
1.0.2	01/21/2026	Correction to CMS congestion control algorithms and other editorial clarifications.
1.0.3	07/16/2026	A number of editorial clarifications, addition of 200 Gb/s per lane signaling, a new Negotiation CP type, corrections to UE PHY CtIOS corruption protection, UE Transport handling of retransmission when pds.flags.syn=1 on PDC close, specifying MP_Range less than 128 and corrections to UE Link Layer to resolve CBFC/LLR race conditions.
1.1	10/12/2026	Major release with new functionality.