ISO/IEC JTC 1/SC 29 "Coding of audio, picture, multimedia and hypermedia information"
Secretariat: **JISC**
Committee manager: **Koike Mayumi Ms.**

Liaison statement from SC 29/WG 4 to 3GPP SA 4 on Compression of neural networks (NNC) [SC 29/WG 4 N 230]

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In accordance with Recommendation 5.1.1 at the 8th WG 4 Meeting, 2022-07-18/22, Online, the SC 29 Secretariat sends this liaison statement to 3GPP SA 4. [Requested action: For SC 29's information]

ISO/IEC JTC 1/SC 29/WG 04

MPEG Video Coding

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We would like to inform you that the Final Draft International Standard (FDIS) of ISO/IEC 15938-17 "Compression of neural networks for multimedia content description and analysis" has been approved, and is thus soon to be published. This specification defines a set of tools for the compressed representation of neural networks for more efficient transmission and inference. We believe that the standard is useful for applications in the context of mobile networks, such as distributing trained neural networks to edge nodes.

SC29 WG04 is also already working on a second edition of ISO/IEC 15938-17, of which a Draft International Standard (DIS) has been completed. The second edition adds the functionality to compress incremental updates of neural networks, which can e.g. be applied to sending updates of neural networks or to federated learning scenarios.

We welcome your feedback and are open for discussion about synergies between this effort and the work in 3GPP.

Reference documents
- SC29 WG4 N0080 ISO/IEC FDIS 15938-17
- SC29 WG4 N0238 ISO/IEC DIS 15938-17 ed2