

MPEG-G is a format for the future interconnected world of genomic data, delivering maximum security in a customizable way where it is needed.

What makes MPEG-G secure?

MPEG-G's hierarchical structure provides user-specific protection of genomic data on different levels. Each level can be individually protected by the specification of protection elements providing encryption and authentication strategies. That makes protection possible through a customized syntax, providing flexibility on what to protect and applicable to the individual need.

What is MPEG-G?

MPEG-G (ISO/IEC 23092) is a ISO international standard for the representation of genome sequencing data and associated metadata.

The standard MPEG-G aims to provide a framework for developing interoperable applications towards genuinely efficient and economical handling of genomic information.

Use-Case: Security Benefit

After sequencing a whole exome and its analysis, the raw and analysis data are stored in the MPEG-G format on a typical smartphone. This data, stored in the new ISO standard, can now be used by the owner and, thanks to MPEG-G, also finally by the possessor via the smartphone, for example, to share certain genomic information via role segregation.

Scenario A: An individual may want to share during cancer screening a particular gene sequence of *BRCA1* with his or her physician for analysis.

Scenario B: The same individual wants to participate in a genomic research project where certain medical background information and the genotype of chromosome 8 are relevant.

All this can be done individually and exclusively with the owner's consent using the smartphone and using MPEG-G.

