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## IGWN: VIRGO Computing Towards O4 and low latency computing for GW science

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The three large Gravitational-Wave collaborations (Virgo in Europe, LIGO in the US and KAGRA in Japan) are joining their offline computing infrastructures in the International Gravitational-Wave observatories Network. At the same time, the low-latency alert generation infrastructure is being updated: event candidate alerts and their timely distribution are crucial assets for multimessenger astronomy. Several technological updates are being adopted in view of the fourth observation period, scheduled to start in 2022. The growing rate in detected signals, with the ongoing upgrades of existing interferometers and the third-generation facilities being proposed, will pose challenges for the future, in particular for the low-latency infrastructure.

We describe the requirements for O4, the planned architecture and the status of the ongoing activities, with also an outlook towards 3G observatories and their challenges.

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