

Workshop 1 - Hyperconnectivity for European HPC Supercomputers Stakeholder Identification & User Journeys Workshop

30 October 2023, 14:00 - 16:00 CET

Online

Workshop summary report

The main objective of the [first virtual EuroHyPerCon event](#) was, on one hand, to identify relevant to the study stakeholders, and on the other hand, to get input on the HPC user scenarios and workflows (“User Journeys”) from the community using online tools. The event was mainly targeted towards the national HPC Competence Centres (NCCs) and Centres of Excellence (CoEs), but also included a list of other stakeholders, including HPC Users (especially large-scale users such as Destination Earth and ECMWF), HPC Providers, including EuroHPC JU sites and national Network Providers (such as NRENs). The event was successful with broad participation (85 registered participants on short notice and 70 simultaneous participants). 22 countries represented in EuroCC participated in the workshop. Excellent feedback was received via the “ConceptBoard” polls on [Stakeholder Identification](#) and [User Journeys](#) (see picture) and the related online tables prepared by HLRS. A collection of points received is summarised below, clustered as follows:

Overall Solution

- “Hyperconnectivity has to be integrated with storage, federation/authentication and security”; “Consider user communities, their data sources and capabilities; “Rely on existing knowledge and solutions such as NREN/GÉANT, CERN/LCG, ESFRI federations and knowledge at HPC centres.”
- “NRENs and GÉANT are perfectly capable of delivering the connectivity that EuroHPC needs.”
- “Currently, apart from academia, how SMEs connect to academic networks will vary according to country regulations. We need to discuss this.”
- “The real focus on this should be on services on top of the network. The network speed will only take you so long. There is a need to be using the network smarter. The study should keep up with moving data in a smart way.”

Data Services

- “For public shared data (a prominent example being AI models), a Content Delivery Network (CDN) service to speed up access across the EU would be beneficial.”
- “Leveraging Cloud and ensuring that data-related fees (ingress, egress, storage) are considered/addressed in any model that includes Cloud.”
- “Data staging services across EuroHPC site: Passive services that stage data transfer are critical for users who must transition workloads between EuroHPC sites.”
- “Connectivity and coordination (federation) with large repositories and data providers (EOSC, but also national institutions, ESA for earth observation data and similar) both for data gathering as well as storing processed data from HPC.”

User communities and novel technologies

- “Discuss with the AI community the needs and availability of large data sets on HPC.”
- “Consider novel technologies such as Quantum Communication infrastructure projects, e.g., the work done by HellasQCI”



Furthermore, several contact persons were received both via the ConceptBoard but also via the [online stakeholder form](#). The feedback received will be used as input for the next workshops in November, as well as in the upcoming questionnaires that will be published in December. The workshop feedback showed that the participants were broadly very satisfied with the workshop's content.