

NDC in the Cloud: Example of performing seismic processing in the cloud

The capabilities of National Data Centers (NDC) vary greatly based upon national resources and infrastructure but the capacity-building vision is to have all NDCs capable of obtaining IDC data and performing calculations and analysis to come to the same result regardless of their infrastructure. Cloud computing resources may provide a path for performing these analyses using a scalable infrastructure located regionally allowing even the most resource-poor NDCs to fully participate in the CTBT and advise their National Authority concerning events. For another study, scientists at LANL utilized Amazon Web Services (AWS) to download a year's worth of U.S. transportable array seismic data (1690 arrays) from IRIS and processed the data in the cloud. The results of the data analysis and the sorted data were downloaded to a local PC. This can be viewed as a case study for what can be done in remote or smaller NDCs. The cloud services were utilized for a short time and the calculation power was right-sized to the computing power and cost.

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Track Classification: Theme 4. Performance Optimization