Centre for High Performance Computing 2021 National Conference



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CSIR CHPC support during the National Department of Health Community Health Worker Covid-19 Household Screening Campaign

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During the start of the Covid-19 pandemic last year, the National Department of Health launched a number of initiatives to combat the spread of the virus. One such initiative was to conduct household screenings during Lockdown Level 5. This entailed using Community Health Workers to conduct Household Screenings. A basic questionnaire was defined and deployed using the Cmore platform. The latter is a collaboration and shared situation awareness platform developed by the CSIR. It has web and mobile applications. The latter was configured to collect screening data entered by approximately 25,000 Community Health Workers, which overloaded the existing Cmore production infrastructure hosted in the CSIR ICT Data Centre (on dedicated hardware). Since the health workers were deployed across all 9 provinces, the decision was made to split the deployment into 10 servers, thus 9 provinces plus a spare for national. The CSIR CHPC team got onboard, and configured 10 servers, each with 164GB RAM, 32 vCPUs, and approx. 100GB disk space. This was done in less than two weeks. However, the difficult part was to get an operational copy of the Cmore platform with all its configured data onto the 10 servers. This required some innovative approaches, but the servers were deployed, and more than 3m household screening records collected. 4 of the 10 servers remain active, now for other Covid-19 related deployments in support of Western Cape Government Health, Gauteng Province Department Roads & Transport and the National Institute for Occupational Health.

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