Abstract

Data assimilation refers to any use of observational information to improve a model. To solve any problem like weather forecasting, traffic management, water management, agricultural management, urban planning modeling of that particular problem is important. For developing the perfect model real time observational information is necessary. To get the correct solution and forecasting incorporating the observational data in the model will definitely improve the results and the perfect model has been build. Data assimilation techniques like statistical interpolation, Kalman Filter, 4d-Var, Ensemble Kalman filter, Optimal Interpolation, Nudging, Analysis Correction and Successive correction can be used to improve the model. But the question is how to get the real time data and improve the model, since to develop any model and to incorporate the huge amount of real time data into the model huge amount of computing resources is necessary. Cloud Computing provide the resources as required in agile way with its characteristics like elasticity, broad network access and resource pooling. The integration of cloud computing and data assimilation will help to build new applications to solve the above problems and get the instant access to those applications on the internet so any common man
or any researcher can use it.

References


Index Terms

Computer Science

Distributed Systems

Keywords

Model as a Service, Cloud Computing, Data Assimilation.