Scalability and virtualisation

Scalability, number of servers

The components mentioned above can all be located on one (powerful) server or each on an individual machine, with all possible configurations in between. It is however common practice to separate the Forecasting Shell Server from the Master Controller Server. When using multiple machines it is essential that all machines have matching clocks. This can be achieved by making use of one and the same NTP server.

A typical configuration is:

- Database Server
- Master Controller server running Master Controller(s), Apache Tomcat for Admin Interface
- Forecasting Shell Server(s)
- Open Archive Server

Typically in a dual Master Controller setup every Master Controller has its own machine so that maintenance can take place without offline time.

Virtualization

It is very well possible to deploy the Delft-FEWS components in virtualized environments. The Deltares ICT team has most experience with Delft-FEWS on VMWare VSphere with in-depth knowledge but Delft-FEWS is also known to run on Microsoft Hyper-V. Virtualization of the Delft-FEWS back-end services can generally be done without problems. The Forecast modelling software determine requirements or limitations with respect to virtualization of the Forecasting Shell Servers.