

Electricity – Utility & Power Transmission (EnFuzion Case Study)

Overview

Axceleon, leaders in computational grid software, has been working with Utility companies to provide grid-computing solutions to accelerate, streamline and automate power system simulations such as load-flow analysis, contingency analysis, dynamic and transient stability tests and transmission and distribution scenarios.

Challenges for Utilities

Leading utility companies are required to constantly monitor power transfer limits throughout their networks. These studies and what-if scenarios are very labor intensive, at times requiring hundreds of man-hours to manually complete.

Operations engineers, planning engineers and IT managers are often required to manually subdivide simulation runs into separate batches, dispatch these to separate PCs and servers, monitor their progress, and then reassemble the results from each of these batch runs. These tasks are very tedious, time consuming, and susceptible to errors.

Solution for Utilities

Axceleon's EnFuzion is accelerating decision making in Power Systems Grid Operations and provides utility companies with the ability to streamline their overall operations. Utilities currently use EnFuzion to manage simulations, increase the number of simulations processed, and speed up calculations of power transfer limits throughout their networks. By deploying EnFuzion, these corporations are able to save a great deal of time and resources. EnFuzion is the key element in Dynamic Security Assessment applications and implementation.

EnFuzion's flexibility allows utility companies the ability to automate and accelerate results associated with performing power system simulations as part of the process for derivation of complex multi-term network limit equations. EnFuzion has allowed operations engineers, planning engineers and IT managers to automate manual batch runs and simulations. EnFuzion enables power systems simulations to be automated in a seamless way, eliminating the errors, and the manual labor associated with submitting the runs.

About Axceleon's EnFuzion

Axceleon's EnFuzion gives companies the ability to turn existing IT infrastructure into high-speed, fault-tolerant, highly available supercomputers. EnFuzion automates parametric studies, where the same application is executed several times with multiple sets of input parameters. Parametric studies are labor intensive and subject to errors. With EnFuzion, users are able to reduce time consuming manual tasks, eliminate errors and deliver results faster. EnFuzion works with Windows, Linux and Unix based operating systems, and utilizes all available computing hardware, including idle desktops, dedicated servers, rack mounted servers and blade servers.