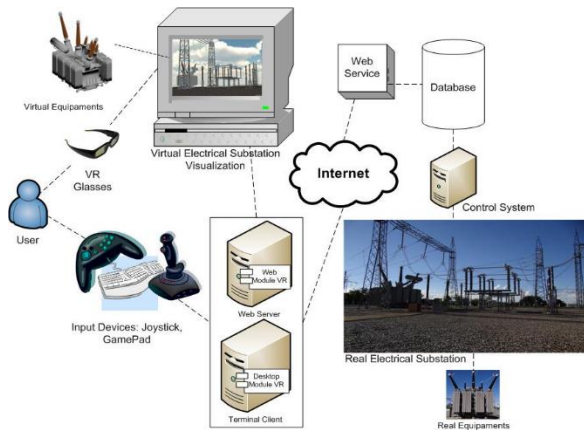




without the need for leaving the virtual environment. Indeed, in order to support online reading of supervisory data, a Webservice interface has been implemented. This service supports communication between the virtual environment and the control center database information. When navigating in a virtual substation, the user can, by proximity rules, read all parameters of a specific electric component, in real time. Thus, he can identify what phase/electric component is presenting difficulties or disorders during system operation. Figure 2 presents a layout of the proposed solution.



**Figure 2:** RVCEMIG – Component diagram.

We have conducted experiments with the electric company operators as shown in Figure 1d. First results demonstrate the feasibility of the proposed solution. Mental efforts to understand the reality of the field have been reduced, according to Cemig's employees. They also claim that a unique environment with all data integrated is very important for taking engineering decisions.

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