Optimizing SCADA/RTU Control System Alarms for Gas Wells

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Abstract : SCADA System Alarms Optimization Process has been introduced recently and applied accordingly in different implemented stages. First, MODBUS communication protocols between RTU/SCADA were improved at the level of I/O points scanning intervals. Then, some of the technical issues related to manufacturing limitations were resolved. Afterward, another approach was followed to take a decision on the configured alarms database. So, a couple of meetings and workshops were held among all system stakeholders, which resulted in an agreement of disabling unnecessary (Diagnostic) alarms. Moreover, a leap forward step was taken to segregate the SCADA Operator Graphics in a way to show only process-related alarms while some other graphics will ensure the availability of field alarms related to maintenance and engineering purposes. This overall system management and optimization have resulted in a huge effective impact on all operations, maintenance, and engineering. It has reduced unneeded open tickets for maintenance crews which led to reduce the driven mileages accordingly. Also, this practice has shown a good impression on the operation reactions and response to the emergency situations as the SCADA operators can be staying much vigilant on the real alarms rather than gets distracted by noisy ones. SCADA System Alarms Optimization process has been executed utilizing all applicable in-house resources among engineering, maintenance, and operations crews. The methodology of the entire enhanced scopes is performed through various stages.