



Evaluation of Preproduction Hardware Components for IMS Station Upgrades to Reduce Manufacturers Development Time

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Since the Comprehensive Nuclear-Test-Ban Treaty was opened for signature in 1996, nearly 80% of the network has been certified as operational, and those stations are sending data to the International Data Centre (IDC) in Vienna. Several International Monitoring System (IMS) monitoring facilities have been in operation for close to 15 years, and several certified stations are facing equipment obsolescence issues. The search for engineering solutions to replace obsolete hardware components is guided by two primary goals: 1) be compliant with IMS minimum technical requirements and 2) be able to be integrated with the existing system. To reduce the development and verification time necessary to address obsolescence in equipment, the PTS has requested the preproduction testing of the recently revised Guralp CMG-DM24AM digitizer. Performing preproduction testing has helped in identifying issues, which Guralp Systems has resolved. In our poster, we will review the reasons for the digitizer updates, present results of the preproduction testing of the Guralp digitizer, and comment on the value this process has provided to the IMS operation.