



mmVu[®] IMS

mmVu[®] Integrity Monitoring System



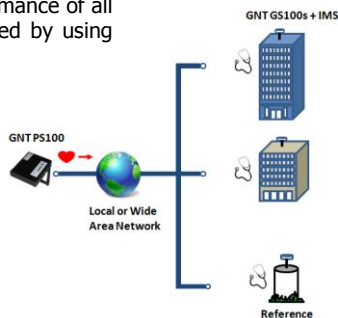
mmVu[®] Integrity Monitoring System (IMS) is a useful tool to maximize uptime of GNT's mmVu[®] system. The mmVu[®] IMS consists of a combination of hardware and software components that oversee the performance of mmVu[®] system. It minimizes costly site visits and reduces the risk of performance uncertainty. In effect, the mmVu[®] IMS is "a monitoring system for monitoring systems." When uptime is crucial, let GNT's IMS technology do the work.

Features

- Continuous hardware uptime monitoring
- Efficient diagnosis of potential performance issues
- Quick remedial measures when necessary
- Remote troubleshooting of GNSS station devices and the PS100
- Autonomous diagnosis of GNSS receivers
- Automatic rebooting of locked up devices
- Watchdog on the Ethernet communications and streaming data packet errors
- Routine check-up on the status of the mmVu[®] Engines failures
- Thresholds set-up to alert the failures of mmVu[®] Software
- Automatic e-mail service (AES) for registered e-mail recipients
- Short Message Service (SMS) for registered mobile recipients
- Automatic registration of the mmVu[®] Software network to bypass system authorization

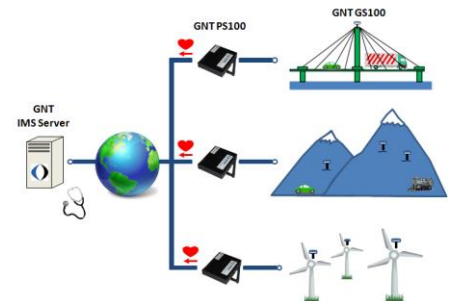
mmVu[®] IMS Local: Project Level IMS Components

At the project site, the performance of all field devices can be monitored by using the IMS module in mmVu[®]. Each field device is like a body part receiving pulses from the heart. If a field device doesn't hear from the heart for a set period of time, the device is resuscitated locally. All device activity is logged on the IMS module in mmVu[®].



mmVu[®] IMS Global: Server Level IMS Components

There may be the possibility that mmVu[®] monitoring system itself may fail to be responsive by any reason. To detect such a case, GNT utilizes its mmVu[®] IMS Server technology to monitor its mmVu[®] monitoring systems scattered across the sites nationwide, or even worldwide. The mmVu[®] IMS Global is for integrated overseeing of mmVu[®] Systems scattered globally. Here, mmVu[®] IMS Server listens for pulses of mmVu[®] monitoring systems from each project site, and if an mmVu[®] monitoring system is not responsive, the mmVu[®] IMS Server will attempt to resuscitate it. As a last line of defence, notifications from mmVu[®] IMS Server are sent to appropriate authorities to make sure expedient action is taken in time.



Implementation

Implementation of the mmVu[®] IMS involves installing the necessary IMS components to facilitate GNSS station devices and the PS100 Local Server computer monitoring. By subscribing to one or multiple mmVu[®] IMS Plans, activate mmVu[®] IMS software to begin monitoring.