

Remote Terminal Manager

BGAN (M2M) and IsatData Pro terminals are attractive solutions for the communication needs of media organisations and Machine-to-machine (M2M) services. They are reliable and cost effective. Up until recently though, one aspect worried system integrators: how do we manage these terminals once they are deployed. How do we roll out a firmware upgrade? How do we detect that the satellite signal reception degrades, and what can we do about it?

Galaxy 1 has been involved in media and M2M satellite projects for a long time, and faced many situations like these. This is why the engineers of Galaxy1, Hughes, Skywave, Inmarsat and Pragmalogic united forces to design a solution that will make the overall solution even more reliable, and easier to manage. The result: Remote Terminal Manager (RTM).

RTM is a web based platform that knows about the status of your terminals and monitors their health. When needed, RTM can raise an alarm to your support staff, or take corrective measures on its own. RTM can reboot a terminal, change its configuration, load new firmware, start/stop data sessions and track its location. And what's more: it can even do this if the terminal is in harsh conditions and unable to establish normal network connectivity.

RTMs capabilities are based upon several state of the art components. First of all, special facilities have been made in the firmware of the BGAN (M2M) terminals to enable remote monitoring and control. This is where the terminal manufacturers played an important role. Then, there is the communication bit. Remotely accessing a terminal that is incommunicado is almost a contradiction in terminis. The solution was found by using SMS messages that are transmitted over different transponders on the I4 satellites than regular data traffic. Combined with a direct interconnection with the Inmarsat SMS infrastructure, this results in a reliable channel to the terminal even when it is no longer capable of regular (IP) communications.

Another key aspect is the integration with the terrestrial networks. A lot of diagnostic information about the terminal is taken from the network infrastructure of Inmarsat or its distribution partners. This gives real time insight in data transfers to/from the terminal.

Finally, the components need to be united into one solution and this is the area where Pragmalogic plays a role, with its experience in satcom IT solutions.

All parties involved are proud of the result. RTM is now setting the standard for remote terminal management. Several other hardware manufacturers and distribution partners want their hardware and networks integrated, too. Inmarsat has included RTM in its product portfolio. System Integrators are interested to provide RTM in combination with the IBIS billing platform as an all-in-one solution for their customers. All infrastructure is in place to handle large number of terminals completely automated and seamlessly.

Galaxy1 / Pragmalogic