

TETRA INTELLIGENT OPTIMISATION SERVICE

DOES YOUR NETWORK PERFORM AT OPTIMUM LEVELS?

Improve network performance, reduce operating costs and enhance user experience with Motorola's TETRA Intelligent Optimisation Service (IOS). As more demands are placed on the network from areas such as video streaming to heavyweight applications, network performance can be hampered. Adding more bandwidth may not be the answer. We optimise your network so it's used more intelligently.

As a network operator, you have uniquely demanding network requirements, with multiple agencies depending on the quality of service you provide. Enabling the provision of instant, mobile voice and data communication isn't just an advantage – it's mission-critical. Your system must be consistently reliable and available.

Motorola's TETRA IOS enables you to work with Motorola experts to collect and evaluate data on your network's performance, then take actions to improve the network quality and performance.

AUTOMATING OPTIMISATION

Traditionally, network quality is measured by painstakingly gathering a selection of drive-test samples, then piecing them together to suggest a representative view of the network's performance.

Motorola's process does not just rely on drive testing. Instead, our innovative solution builds a detailed picture of your network's performance over time by automatically capturing network performance data from actual user devices on your network. As users go about their day-to-day mission critical activities, received signal strength measurements and corresponding locations are automatically recorded - providing a real world view of your network's performance. Motorola experts then analyse the data and your network architecture, and propose recommendations to optimise network performance. Once "tuned", the network will operate more efficiently - providing significant, tangible operational benefits that could include: less control channel congestion; more effective handovers between base stations; and a decrease in the number of dropped and busy calls ensuring essential calls get through first time, every time.

"Motorola's IOS service delivered focused recommendations for performance improvement. I was impressed by both the speed with which the results were obtained and the accuracy of the data."

Robert Williamson
Technical Director
Isle of Man
Department of Home Affairs
Communications Division

INNOVATIVE ANALYSIS METHODS

Motorola offers a range of unique reports and analytics to drive further intelligence from the data collected. Examples of the key outputs obtained from IOS:

Identification of Hardware Faults at the Base Station – Leveraging our rich optimisation experience in GSM, UMTS, iDEN and other technologies, Motorola has developed new algorithms to identify potentially faulty hardware within the network. The data is then reported in a tabular format that a network operator can easily interpret and act upon in a timely manner to avert loss of communications at critical times.

Defective Radio (ISSI) Identification – Motorola has created an innovative methodology to capture and report on subscriber units that consistently exhibit degraded RF performance. It evaluates the subscriber unit’s performance in the network over time – highlighting consistently poor results and enabling operators to compile lists of subscriber units for review and replacement.

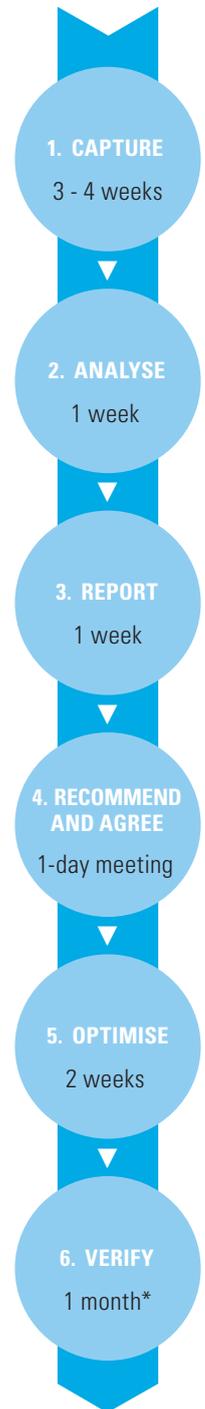
Neighbour List Optimisation – Motorola has developed a technique to produce optimised neighbour lists based on data collected from end user terminals that reflect the actual way that the system is being utilised. The network-wide neighbour activity is analysed to identify missing and extraneous neighbour relations to ensure peak system performance and handover activity that is efficient, minimises signalling and improves user experience in the field.

THE MOTOROLA DIFFERENCE

As the market leader in TETRA solutions and mission-critical services, we understand the challenges you face in today’s rapidly evolving communications environment. We offer a range of services across the solutions lifecycle – from initial concept design and implementation to ongoing management and support of your TETRA solution – including network performance and optimisation services, end-to-end networks, applications integration and much more. From technical support to fully managed services, our experienced teams can help define and deploy the ideal solution for your organisation.

MOTOROLA’S 6-STEP INTELLIGENT OPTIMISATION PROCESS

- 1. Capture** network data and statistics automatically from each base station via a specially designed Motorola application installed on the system. Supplement with drive test data as required.
- 2. Analyse** the data and create reports – Once collected Motorola experts rigorously analyse the data and create reports. Examples include: - Actual coverage compared to predicted coverage; - Interference analysis ; - Statistical and graphical representation of all results including key performance indicators
- 3. Report** – A list of conclusions and recommended actions will be produced based on the analysis and reports
- 4. Recommend and Agree** – In-depth discussion will take place to review the findings and agree on actions for improvement
- 5. Optimise** the network by implementing agreed recommendations
- 6. Verify** – Re-run data collection & analysis processes then produce report(s) to verify improvements
*(capture data 3 weeks, 1 week for analysis / report / meeting)



For further information on TETRA IOS or any of Motorola’s Services, please contact your Motorola sales representative or visit www.motorolasolutions.com/TETRA