OPTIMIZED BILLING & PROVISIONING FOR TERRESTRIAL TRUNKED RADIO NETWORKS

MiBAS
MOTOROLA INTEGRATED BILLING & ADMINISTRATION SYSTEM

TETRA technology expands the possibilities for sophisticated networking. But it also intensifies the challenges of management, administration, control, and data integrity. To tame the complexity of TETRA networking with a single solution, Motorola offers you **MiBAS**: the Motorola integrated Billing & Administration System.

MiBAS is Motorola's provisioning and billing system for small to large-scale wireless networks. Introduced in 1994 to answer the specific needs of Public Safety and commercial Push-To-Talk operators, MiBAS has been running successfully at installations all over the world. Standing behind MiBAS are Motorola's proven expertise and years of experience in dispatch/PTT, telephony, short data and packet data.

MiBAS is a scalable and adaptable system designed to fit the complete range of Motorola TETRA networks. It supports dispatch, telephone interconnect and data applications for both private and shared networks ranging from regional to nationwide systems. MiBAS's modular, open architecture can be configured and integrated with Oracle Applications, SAP, and many other external applications and packages – as well as with future Motorola TETRA elements.

Motorola is committed to MiBAS upgradability, aligned with the evolution of the Motorola TETRA offering.

The MiBAS solution covers all the necessary provisioning and billing activities for TETRA:

• Customer care and self care
• Provisioning subscriber units
• Activation
• Rate plans management (Product Catalog)
• Billing mediation
• Usage rating
• Bill calculation and invoicing
• Billing control
• Inquiries
• Traffic analysis
• Real time performance management

Customer Care and Self Care

MiBAS has multi-lingual browser-based capabilities, designed for accessing the MiBAS server over the Internet or an intranet; it enables secure complete agency administration, provides a full view of all agency information and supports (via secure access) self care capabilities for activation and other provisioning transactions, allowing remote agencies and radios to control their fleets. It also offers a range of inquiries on usage, charges, subscriber service configurations, and more.

The solution incorporates a complete set of APIs and Agency tickets, alerts, notes and other CRM features.

PROVISIONING

MiBAS is a powerful automated tool for configuring radio units according to each radio's allocated services. Its browser-based man-machine interfaces make it easy to manage radio profiles. For example, an operator can use MiBAS profiles to apply a full set of predefined properties to a new radio all at once. And rather than provisioning radios on an individual basis, you can reconfigure and assign services by selecting and acting on multiple radios simultaneously.

MiBAS then automatically reaches out to consistently update each radio's data in the MiBAS database, network elements and handset files, without extra effort from the operator.

MiBAS gives the TETRA operator multiple provisioning capabilities:

• Create and manage agencies with radios
• Activate radio (and verify proper radio configuration)
• Create Talkgroups, Multigroups and ScanLists, and associate them to radios
• Suspend / Reconnect subscription
• Add / Omit features
• Assign numbers (IP addresses, ISSIs, GSSIs, etc.)
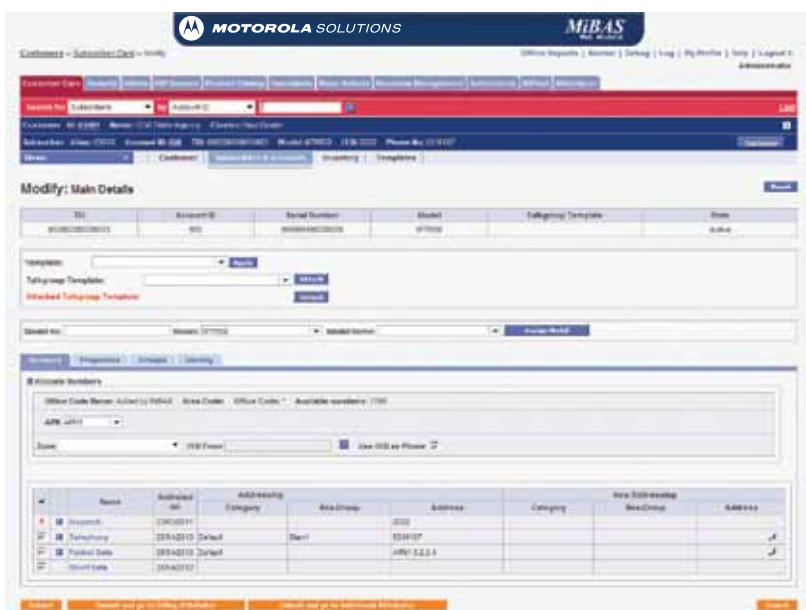• Replace handsets

Motorola TETRA networks can benefit from end-to-end automatic MiBAS provisioning by using the Dimetra IP Provisioning API.

Radio Programming Interface

Once radio information is entered into MiBAS, an input file is generated and inserted into the ITM to ease, shorten and simplify the radio programming process.

BILLING

In a private network, inefficient use of resources is always a concern. MiBAS billing answers this concern by giving operators the tools to track and influence the usage patterns of TETRA radios.

In cases where the operator charges external agencies for the use of the system, MiBAS can produce invoices to bill the agencies.

The system distinguishes between different types of service, so you can identify and bill particular users or business units accurately. In a TETRA network run for profit, the same billing technology can be a way to steer users toward greater use of premium services. In both cases, MiBAS leads to cost-effective usage of your network capacity.

Building on its extensive deployment for private and shared digital radio networks, the MiBAS system has been enhanced with unique billing features that perfectly meet the needs of the TETRA operator. The MiBAS rating and billing solution is flexible, rich in features, and user-friendly.

MiBAS gives the TETRA operator versatile rating capabilities, among them:

- Recurrent or one time fixed charges
- Optional fixed charges
- Usage fee for telephony airtime
- Usage fee for dispatch airtime
- Usage fee for short data service
- Usage fee for packet data
- Free usage packages
- Discount packages
- Cost sharing contracts between agency (corporate) and handset-holder

The billing mediation module - **MiBAS Collector,** collects network events and prepares them for rating, billing and traffic analysis. The MiBAS Collector module collects the ATIA, short data and data events, converts them and creates call detail record (CDR) files for further processing and analysis. The MiBAS Collector module is a PC-based application deployed with each zone controller.

MiANALYZER

MiAnalyzer, the MiBAS Traffic Analysis product, is specifically designed to collect, integrate, analyze and present subscriber events and service consumption over time.
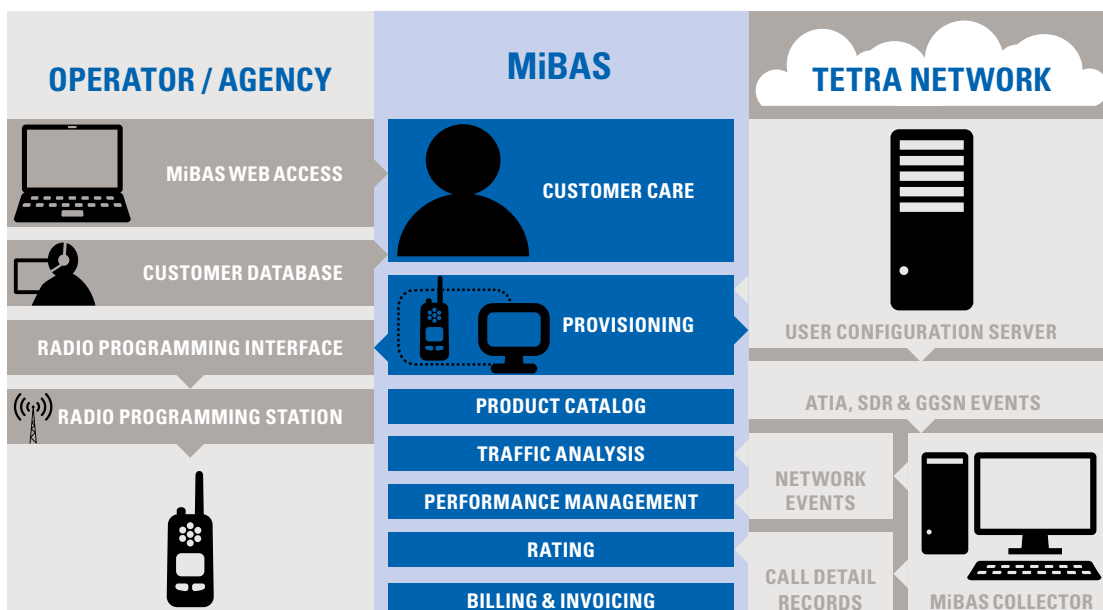
It allows Motorola TETRA network operators to analyze network performance and user behavior for voice, short data and data.

MiMONITOR

MiMonitor, the MiBAS Performance Management module is a Network Live Monitor. It is designed to provide real time information on the current traffic across the network elements.

The live view includes user customized (per user profile), summarized and detailed views of the network sites and channels, including a dashboard view of selected gauges/meters.

OPERATOR / AGENCY

- MiBAS WEB ACCESS
- CUSTOMER DATABASE
- RADIO PROGRAMMING INTERFACE
- RADIO PROGRAMMING STATION

MiBAS

- CUSTOMER CARE
- PROVISIONING
- PRODUCT CATALOG
- TRAFFIC ANALYSIS
- PERFORMANCE MANAGEMENT
- RATING
- BILLING & INVOICING

TETRA NETWORK

- USER CONFIGURATION SERVER
- ATIA, SDR & GGSN EVENTS
- NETWORK EVENTS
- CALL DETAIL RECORDS
- MiBAS COLLECTOR

MOTOROLA MiBAS
BILLING, PROVISIONING AND ADMINISTRATION FOR TETRA NETWORKS

ADVANTAGES

Multiple networks

A single centralized MiBAS system can manage a cluster of TETRA networks, simplifying network operation and reducing costs.

Self care

Enterprises, police forces, or other remote administrators can add their own subscribers and perform various other provisioning and billing inquiry tasks with an easy browser-based application. Operators improve their control, flexibility, and efficiency while activation becomes quicker, cheaper and more customer-friendly.

Unique billing features

Charging for Push-To-Talk/dispatch calls, charging for packet data usage, split billing, pooling of free usage, and other special MiBAS features, are unique administrative aids for integrated dispatch, telephony, and packet data networks.
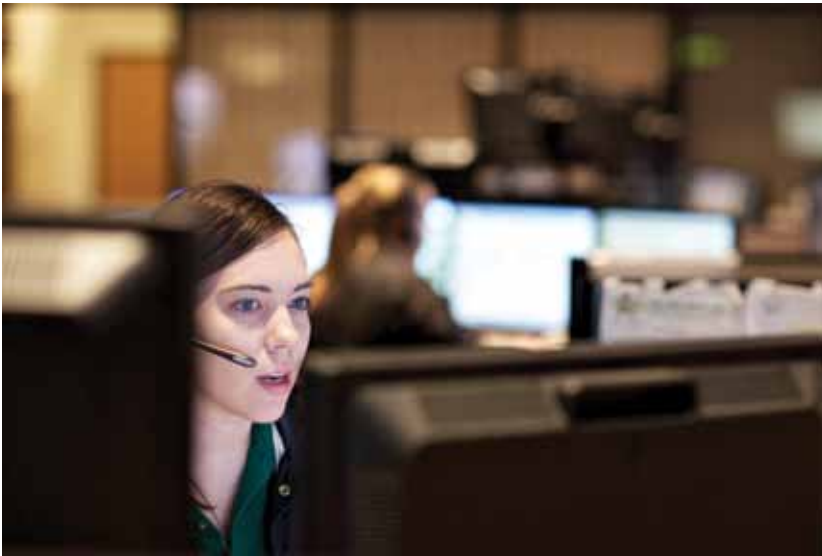
Data integrity

MiBAS accesses the network elements directly and generates the proper file formats for the radio programming process (iTM). In this way, inconsistency is avoided and data integrity is assured.

Consolidated database

MiBAS manages all relevant agency (structure and hierarchy) and radio information in a single database, integrated with the network and handset information. The result – reliability and smooth operation.

- Provides a web-based multi-lingual application for remote customer care, provisioning and billing transactions and inquiries
- Enables mass provisioning actions as opposed to the one-by-one practice
- Facilitates radio provisioning
- Supports current network features and is committed to support future functionality
- Supports radio programming

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MOTOROLA SOLUTIONS