ENTERPRISE CAPACITY MANAGER™ (ECM™)

INTEGRATED SATELLITE CAPACITY MANAGEMENT FOR SATELLITE OPERATORS, VSAT SERVICE PROVIDERS & SATELLITE NETWORK OPERATORS

Optimal Satcom®

ENTERPRISE CAPACITY MANAGER™ (ECM™)

AN INTEGRATED APPROACH TO SATELLITE CAPACITY MANAGEMENT

NTERPRISE CAPACITY MANAGER™ (ECM™) is a software system designed for use by satellite operators and satellite service providers that integrates all functions related to the management of satellite capacity and planning and operation of satellite networks into a single system.

ECM provides an unprecedented level of integration between all the different functions that satellite operators, satellite service providers, and satellite network managers need to perform in the day-to-day operations of their business, bringing together marketing, sales, engineering, operations, procurement, contracts, finance, and executive management into a single system that allows these different departments within the organization to exchange information efficiently and effectively in a structured and controlled manner.

For most satellite operators and service providers, interaction with customers forms an extremely important and large part of the functions of an organization, and required such diverse functions as providing financial quotations, technical link budgets, issuing transmission plans, carrier line-up, tear-down, and re-configuration notices and entering and renewing contracts, invoicing, and performance monitoring and trouble-shooting. With ECM, all these functions are integrated into a single system and a unified database. The high level of document automation and integration with Microsoft Office supported by ECM means that many of the reports and forms that are a necessary part of this process can be generated automatically in Microsoft Excel or Word, considerably increasing efficiency.

Of equal importance to a business are management and executive oversight functions that allow the top-level management of a company to quickly gauge important metrics of the system, such as fill rates, future capacity bookings, and forecasting of capacity usage. Where staff would have spent a considerable amount of time preparing management reports, ECM can now automate them, providing effortless, near-instant system oversight functions to management.

ECM is designed to be used by a large number of users within an organization to manage large amounts of data. To facilitate this ECM includes enterprise features such as auto-updates, multi-site and multi-database synchronization, cross-site multi-user coordination, integrated document and contact management, task automation services, email integration and web-based functions. (Support for SMS/text-messaging is being developed.)

Software updates are managed by ECM's Update Server to ensure each user has the latest software and features. When organizations span continents, network delays have the potential to degrade system performance. ECM's design includes a database replication scheme: A system of local databases at each site help improve response time and automatic replication mechanisms keep the databases synchronized and provide for conflict resolution in the event of network disruptions. As multiple users simultaneously manage and change data, built-in synchronization mechanisms update the databases and each user with changes from other users, all in near-real-time. Highly granular privilege management allows configuration of the right permissions for each user's job functions, and automated logging ensures accountability and traceability of all changes within the system.

Transition from legacy systems is considerably eased through ECM's comprehensive bulk-load features, which allow almost all of the ECM data to be loaded from spreadsheets. A typical deployment also includes dual operational and training systems to make it easy for new users to learn ECM "off-line" using a non-production system. Established, well-documented interfaces, as well as the flexibility to create new ones makes it easy for ECM to be integrated in any production environment.

With every system deployment, Optimal Satcom provides a customized training catering to the special needs of the customer, preferably using their data and satellites, and carriers, leases, terminals, networks, and services representative of the customer's business. Also included is a full year of technical support, software upgrades, and maintenance, under which Optimal Satcom can also perform a significant amount of system customization, and data analysis.

With its breadth of features, a modern, fresh graphical user interface, use of cutting-edge software technologies, and Optimal Satcom support service and training, ECM is easy to deploy, easy to learn, easy to manage, and a pleasure to use.

CAPACITY FORECASTING

ECM supports tracking of future capacity needs and helps predict capacity short-falls. Forecasting can be done either at a high level based on aggregate bandwidth and power or in detail to include ramp-up plans with specifications of the networks and carriers to be implemented, ramp-up schedules and comprehensive power and bandwidth forecasts over time.

RESOURCE DEFINITION AND CAPACITY MANAGEMENT

Satellite operators can define their satellites and transponders and associated technical parameters, frequency plans and coverages. VARs and VSAT operators can define the contracts under which they lease capacity from multiple satellite operators or other VARs, the individual leases, and the costs associated with each contract or lease. ECM's timeline planning tracks past, present, and future capacity usage, and phase-out of old capacity as satellites are retired or contracts end, and transitioning to new satellites and contracts over time.
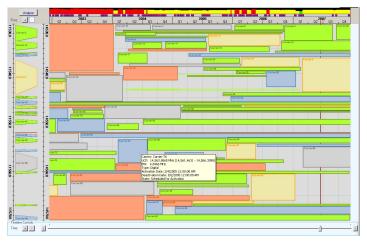
ECM's interactive resource allocation screen shows carrier and lease bandwidth allocations as a function of time, and filtering functions help identify when and where capacity is available. Time scales adjust from fractions of hours to years to allow allocations of both short-term capacity (e.g., occasional-use traffic) and long-term capacity contracts in a unified system. Users can browse current, historical, and future allocations simply by scrolling.

ECM'S INTERACTIVE RESOURCE SCHEDULING SCREEN

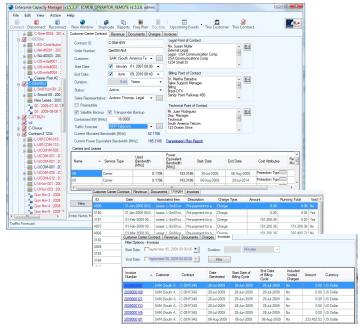## CUSTOMER-RELATIONSHIP MANAGEMENT (CRM)

ECM's customer relationship management (CRM) functions include definition and management of customers, their contact information, contracts, leases, earth stations, and carriers, and consolidated visualization of all their information. Contact information is automatically filled into generated reports and emails to be sent to customers.

LEASE AND CARRIER MANAGEMENT

One of ECM's primary functions is the definition and management of leases and carriers. Technical aspects of lease and carrier management include definition of the lease resources, carrier transmit and receive terminals' technical parameters, computation of comprehensive link budgets, and determination of power and bandwidth requirements for the carrier.

Operational aspects of lease and carrier management include definition of customers and associated leases and contracts, start and end dates, operations and cost centers, and rate cards for revenue computations. Activity documents such as line-up documents, and activation and deactivation notices can be generated automatically based on user-customizable templates, and operator logging for activations and deactivations is included.
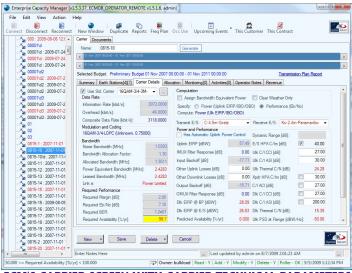

ECM'S DYNAMIC FREQUENCY PLAN VIEWER SHOWS CURRENT SATELLITE LOADING IN REAL-TIME AS WELL AS PAST, AND FUTURE CAPACITY ALLOCATIONS

TRACKING COSTS, REVENUES AND INVOICING

ECM allows the definition of rate cards as a flexible way to compute costs and revenues. Rate cards track both recurring and non-recurring costs for satellite bandwidth and other expenses such as collocation fees, equipment rental and one-time charges. Reports displaying costs or revenues as a function of time can be generated and used for invoicing. ECM includes a full-featured invoicing module that automatically generates invoices for each contract: Line item charges for leases, carriers, earth station landing fee, and other recurring and nonrecurring charges can all be included. These computed charges can also be exported to an external accounting system if desired.

ECM'S CUSTOMER CARRIER CONTRACT MANAGEMENT SCREEN WITH LEASES AND CARRIERS, CHARGES, AND INVOICES
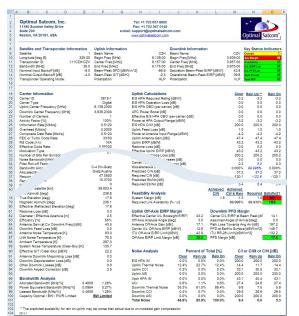
OCCASIONAL USE SERVICES

For those satellite operators that offer occasional use (OU) services (typically fast-reaction, sort-term capacity leasing for SNG), ECM includes a full-featured occasional use module that includes assignment and management of occasional use capacity and rate cards, customer approval for OU, web and phone-based customer requests, automated, semi-automated, and manual assignment of slots, customer notification via email or text messages, automated reporting and invoicing, and a dynamic OU schedule view that shows ongoing occasional use bookings updated in real-time.

INTEGRATION WITH COMPLAN AND CARRIER MONITORING SYSTEMS

For more sophisticated technical analysis than is possible at the link-budget level, ECM provides integration with Complan, Optimal Satcom's powerful transmission engineering and capacity optimization tool. ECM can generate a Complan plan and export it to Complan for further analysis and optimization. Plans that have been analyzed and optimized in Complan can be exported back into ECM. When integration of ECM with a carrier monitoring system (CSM system) is required, Complan also performs the necessary computations to predict the power and performance of carriers towards monitoring sites, and exchanges plan and measured data with the CSM. ECM and COMPLAN are integrated with industry-leading third-party CSM systems for automated transfer of plans and predicted performance from ECM/COMPLAN to the CSM, and measurements back from the CSM to ECM and COMPLAN allowing closed-loop integrated planning, operations, and trouble-shooting.

ECM'S CARRIER SCREEN WITH CARRIER TECHNICAL PARAMETERS

CARRIER LINK BUDGET REPORT IN USER CUSTOMIZABLE EXCEL FORMAT

TRANSPONDER TECHNICAL PARAMETERS IN ECM

Enterprise Capacity Manager™ and ECM™ are trademarks of Optimal Satcom, Inc.
COMPLAN® is a registered trademark, used under license from COMSAT Corporation and Lockheed Martin by Optimal Satcom, Inc.
All other trademarks and registered trademarks are the property of their respective owners.

Optimal Satcom, Inc.
11180 Sunrise Valley Drive
Suite 200
Reston, VA 20191-5491 USA
Tel: +1 703 657 8800
Fax: +1 703 547 0145
Email: products@optimalsatcom.com
www.optimalsatcom.com