

EMAC DIGITAL BACK OFFICE SUITE PRODUCT BRIEFING

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emac digital. l.l.c.

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INTRODUCTION

Success in the restaurant business is determined by how well an operator manages three key areas—money, materials, and people. Traditional back-of-house applications support processes associated with these three factors; however, their design contributes to a high total cost of ownership:

- Each store's data is located at the individual location and replicated in the enterprise's data warehouse, which leads to ongoing database administration and support issues
- Applications use vendor-specific proprietary data formats, which create difficulties in integrating the back office with other store and corporate systems
 - Back office suites are designed as tightly coupled elements that only work effectively with other applications from the same vendor, forcing the operator to buy a complete back office from a single source and—in a worse case scenario—repurchase functionality he already has in place

As an expert in Internet-based technologies and a strong supporter of industry XML (extensible mark-up language) standards, eMac Digital is ideally qualified to solve the problems inherent in existing back office designs.

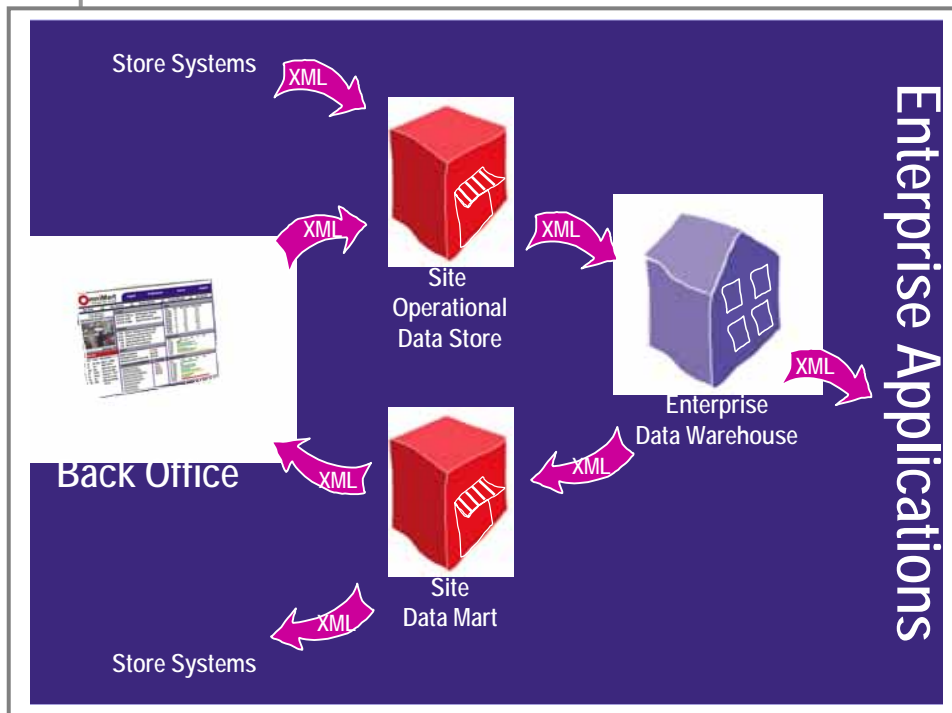
At this time, the following eMac Digital back office applications are under development:

MONEY	Cash Management
MATERIALS	Inventory
PEOPLE	Time & Attendance Labor Scheduling

eMac's Atlas middleware foundation is included with each back office application. Atlas is designed to enable data integration and movement in the store and across the enterprise

AN INNOVATIVE ARCHITECTURE BASED ON XML

The eMac back office suite is a loosely coupled design—all components run inside the same menuing, access, and security frameworks but are not dependent on one another for operation. Each back office component utilizes defined XML feeds to import required information to data marts and export generated or maintained data from an operational data store to a data warehouse. As a result, database replication issues are eliminated and a single database is maintained for the entire organization. Integration of eMac applications with legacy systems is streamlined due to the software's compliance with industry XML standards.



The back office suite's flexible design creates applications that can be centrally hosted or implemented at the site. In the centrally hosted version, all application access is via browser and no content resides at the individual store. Information is available in real time; however, a persistent communications connection is required for operation.

A second option locates the back office applications at the site without implementing a data warehouse at each location. Transactional data such as time punches, received goods, and sales are stored in a site-based operational data store. Because this data is maintained as XML transactions, no database is required. When the site is off-line, data builds up in the operational data store. When it is on-line, this data is transferred to a single off-site data warehouse that maintains all historical data for the enterprise. The enterprise data warehouse posts read-only data marts—limited sets of information used by the back office applications for specific tasks—to the site so that all applications can be run in off-line mode.

The operator also can choose a traditional implementation of eMac's back office where both applications and data warehouse reside at each site. In this model, database replication remains an issue.

In addition to offering options concerning application and data location, the eMac back office design provides flexibility in data formats. A drop-in module works with each back office application to manipulate defined XML, enabling adherence to a desired data schema. The back office is currently compliant with all emerging industry standards—in fact, eMac chairs the IXRetail committee data modeling committee. By separating data formatting from the individual application, eMac has ensured that providing integration options compliant with every major industry standards group will be feasible as standards evolve and potentially diverge.

MANAGING MONEY

The Business Issue

Managing cash and deposits is disruptive to store operations and potentially dangerous when done at the point-of-sale terminal.

The Solution: Cash Management

The Cash Management module delivers comprehensive current and historical information concerning money handling at each location, from store balances to cash deposits. Pulling information from the restaurant's existing point-of-sale terminal, Cash Management extends the functionality and data storage capabilities of POS systems while moving money handling activities to the back of the house. The combination of a more secure physical location and hardware used by a limited number of employees provides protection against both external and internal theft.

Key features of the Cash Management application include:

- Store, shift and cashier balancing
- Cashier opening
- Store balance report—day, week, month, or other defined interval
- Shift balance report—day, week, month, or other defined interval
- Cashier balance report—day, week, month or other interval
- Deposit history
- Safe balancing
- Change order generation by day of week
- XML-based integration with POS or direct data entry options
- XML-based integration with enterprise level accounting packages (Lawson is first interface)

Cashier opening and cashier balancing utilize the new XML standard created by eMac Digital in conjunction with YUM! Brands (formerly Tricon Global Restaurants).

MANAGING MATERIALS

The Business Issue

Tracking and controlling food costs is a key component of running a successful restaurant business.

The Solution: Inventory

The Inventory system from eMac Digital tracks materials received and used in a perpetual, closed system in order to provide operators with actual on-hand quantities of menu items. The application is built using a sophisticated, discrete recipe explosion subsystem that connects an item sold or wasted to a specific recipe, then uses that recipe's components in order to deplete raw materials. A unique feature of Inventory is the ability to schedule the recipe explosion engine to run once a day, at intervals throughout the day, or in real time for up-to-the-minute inventory information.

Key features of Inventory include:

- Recipe management
 - User-defined usage units
 - Multiple usage types for a given raw material (i.e., whole, sliced, and diced quantities associated with tomatoes)
 - Batches
 - References to other recipes
- Vendor management
 - Preferred vendor declaration
 - Order unit, pricing, and lead time by raw material for each vendor
- Raw materials management
 - On-hand counts of raw materials
 - Count interval scheduling by categories of goods
 - Aggregation of goods counted in multiple store locations (i.e., hamburger patties stored in freezer and walk-in)
 - Count by usage unit and order unit (i.e., cases, cans, etc.)
- Waste tracking
 - Entry of waste by recipe, batch, raw materials
- Ordering
 - Default to preferred vendor with secured overrides
 - On-hand raw materials parameters—minimum, maximum, and par

- Automated default purchase order generation for below par items
- XML-based integration with EDI-based ordering systems
- Receiving
 - Price difference between order and received goods
 - Unit difference between order and received goods
 - Return of items due to damage or other reasons
 - Transfer of inventory into store/out of store by usage unit level and order unit level
- Reporting
 - Theoretical and actual COGS (cost of goods sold)
 - Theoretical and actual raw materials usage
 - On-hand inventory by vendor
 - On-hand inventory by price of received goods
 - Waste
 - Outstanding orders
 - Received orders
 - Lists—recipes, vendors, raw materials

Inventory supports both LIFO and weighted cost average food costing models. The application recognizes fractions of units, enabling the highest degree of accuracy in tracking materials.

Looking Forward

Future enhancements will enable the recipe explosion subsystem to handle variable usage amounts by item—functionality required by pizza operators—as well as the parts tracking necessary for chicken inventory. In addition, upon completion of the back office's sales forecasting application, forecasted inventory needs based on sales projections will be incorporated into the inventory system.

MANAGING PEOPLE

The Business Issue

An accurate record of hours worked is essential for payroll preparation; however, mistakes in time and attendance data collection such as missed punches are common.

The Solution: Time & Attendance

Time & Attendance offers a flexible solution for collecting, editing, and reporting employee hours. Punches can be gathered via the Time & Attendance data entry screen or through integration with a third party time clock or point-of-sale system. An employee database can be created using the Time & Attendance application or imported from another source. In any configuration, the system provides a simple interface—and the convenience of a keyboard rather than a touch screen—for managing and editing employee hours at the site where the work occurs.

Key features of Time & Attendance include:

- Punch entry through the Time & Attendance application or imported from a third party
- Non-punch based time/dollars entry (for vacation, bonuses, comp time, etc.)
- Tip entry by employee by day, week, and pay period intervals
- Variable pay periods (day, week, ten days, etc.)
- Daily, weekly, and minor overtime rules
- Break rules, including variations by state
- Punch management
 - Editing of punches from Time & Attendance application or third party
 - Archive of original punches prior to editing
 - Multiple punch types—in, out, break in, break out, etc.
 - Automated force out and force in at end of 24-hour day
- Employee data
 - Name/address/phone
 - Date of birth
 - Accommodation of up to three separate employee identification numbers (e.g., corporate ID, store ID, and Social Security number)
 - Capacity for multiple certifications/licenses and their expiration dates
 - Job code definitions, including prerequisite job codes or licenses and default minimum/maximum wages
 - Association of multiple job codes with an employee

- Reports
 - Individual employee payroll information (hours worked, vacation, declared tips, etc.) by day, week, pay period, year
 - Total hours worked
 - Site total hours worked and theoretical vs. actual labor costs by daypart (down to 15 minute intervals), shift, day, week, pay period, year
 - Earned labor report based on sales and/or transaction
- XML-based integration with corporate payroll systems
- XML-based integration with labor scheduling systems

The Business Issue

Correct staffing is essential for smooth restaurant operations and customer satisfaction but employee scheduling can be complex and time consuming.

The Solution: Labor Scheduling

Labor Scheduling provides a simple, intuitive user interface that guides managers through the quick and easy creation of effective employee schedules. Developed by eMac Digital using a phased approach, the first release of the application will focus on manual schedule copying and modification as well as schedule creation. The second release will automate the job scheduling process based on anticipated sales plus the preparation time associated with the mix of goods sold; in this version, managers need only assign employees to the generated job schedule.

A unique feature of the application is the use of administrative plans for manager scheduling. These plans create an optimal administrative work schedule based on corporate requirements, individual store type, and number of managers staffing the store. Additional core functionality includes:

- Schedule creation
- Schedule copying/editing
- Variable schedule periods (i.e., weekly, bi-weekly)
- Automated shift creation based on
 - Sales (historical, mix of goods sold)
 - Job definitions
 - Minimum staffing levels
 - Daily, weekly, and minor overtime rules
 - Break rules, including variations by state
- Reports
 - Site daily, weekly, and pay period schedules
 - Individual employee schedules

Looking Forward

The third phase of Labor Scheduling will enable complete automation of employee scheduling through the creation of an employee availability database that accommodates multiple available periods per employee per day. Using this database, the application will overlay employee availability against the generated job schedule to completely automate the labor scheduling process.

In addition, once the back office suite's sales forecasting application is complete, forecasted sales will feed automatic shift generation.

FUTURE RELEASES

A number of additional back office applications are planned for future development as noted below.

Prep and Task Planning

A sales forecasting module is a pre-requisite for advanced inventory and labor scheduling functionality. In addition, it will be integrated with a Prep and Task Planning application that creates detailed day, shift, and daypart schedules of food and store preparation by work area/station (i.e., store opening tasks, lunch rush prep, etc.). The prep scheduling function will take into consideration a number of variables beyond forecast sales, including restaurant type, defined work stations and work areas, and work station constraints such as open/close times and water availability. In addition, Prep and Task Planning will categorize and prioritize raw material prep in accordance with HACCP guidelines concerning the safe handling of meats, vegetables, and fruits.

Human Resources Administration and Training

Designed for XML-based integration with enterprise employee databases and human resource systems such as Lawson or PeopleSoft, the Human Resources set of applications supports key personnel processes at the store, including employee actions, interviewing, and training.

- The HR Actions application collects new data and provides historical employee information associated with hiring, firing, reprimands, and rewards of site employees. Data is transferred to an enterprise human resources database in an XML format. An alert engine reminds managers of employee evaluation schedules and other personnel tasks.
- The Expert Interview application follows a computer-based questionnaire and scorecard format. It can be used as an applicant screening tool or as a guide during a live interview.
- The On-Line Training application delivers customer-created or third party-created course materials as text, HTML, and multimedia, while On-Line Testing provides a series of computer-based tests with automated scoring. Both On-Line Training and On-Line Testing track proficiencies and scores by employee.
- The On-Line Manuals application is a third party taxonomy engine integrated with the eMac back office user interface as well as its LDAP security and access framework.

ATLAS MIDDLEWARE

The Business Issue

Businesses are faced with the enormous challenge of maintaining integration across systems while acquiring or upgrading new technologies—both in the store and throughout the enterprise. Confronted with a lengthy and cumbersome integration process every time a single change is made to the existing infrastructure, operators would like to create a common standard and single point of integration for all store systems.

The Solution: Message-Oriented Middleware

A key component of every eMac Digital product and service, Atlas middleware is a real-time, vendor-neutral, enterprise-wide data switchboard and universal data translator that allows legacy systems to be tightly integrated with third party technology components. With Atlas, customers achieve the following benefits:

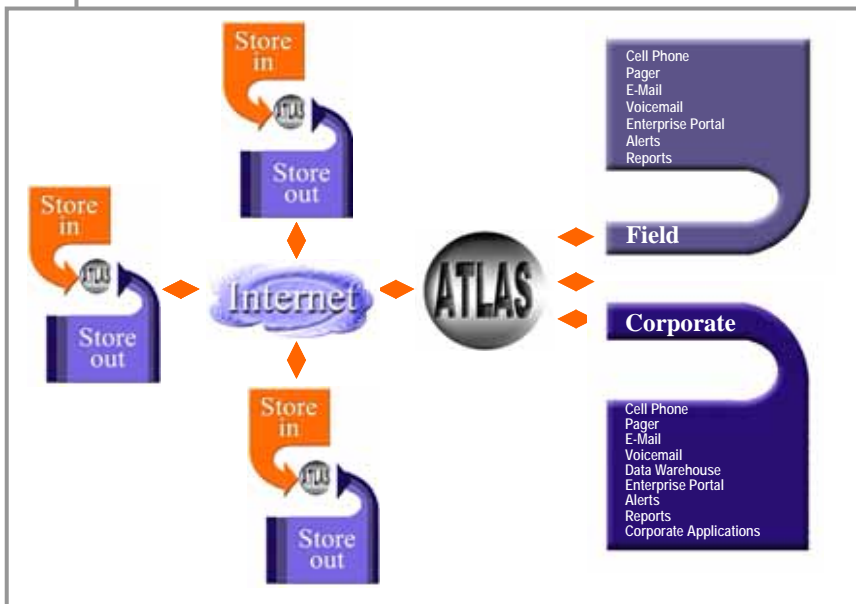


- Freedom to select best-of-breed applications that work seamlessly in a vendor-neutral environment
- Freedom to implement interim solutions using a common integration standard that simplifies both interim and long-range system rollouts
- Freedom to evaluate potential technologies using “drop in” testing due to the elimination of custom one-to-one interfaces
- Freedom to make changes to the IT infrastructure while protecting existing investments in legacy store systems

Acting as a universal data translator, Atlas’s off-the-shelf integration modules transform POS, timekeeping, inventory, and other data inputs into an XML (extensible mark-up language) data stream. The feed is transmitted to site systems over the store’s LAN and broadcast or multicast via an IP-based communications infrastructure for use by ZEOM.net’s Operational Data Store and enterprise applications.

Atlas eases integration of store and corporate systems.

In addition to one-point system integration, Atlas enables data movement throughout the enterprise for complete automation of business processes across a full range of legacy, custom, and packaged systems.



Atlas at work throughout the organization.

Key features of Atlas include:

- Scalable architecture
- A robust, security framework that guarantees data security using the public Internet
- User-defined data types and distribution hierarchies
- Data transmission to multiple sites
- Simultaneous transmission of multiple data streams from a single site
- A persistent store-and-forward data queuing mechanism that guarantees data delivery even when off-site recipients are unavailable for a period of time
- Data delivery status monitoring and problem notification
- Common data specifications regardless of vendor, model, or operating system

Atlas minimizes the time, effort, and expense commonly required to integrate legacy systems and protects the customer's investment in existing hardware and software. In addition, Atlas simplifies integration of new systems into the customer's IT infrastructure over time. Able to accommodate growth in systems, data, sites, and users, the foundation offers significant advantages over traditional data transfer technologies, which limit through-put and offer potentially cost-prohibitive barriers to scalability.

BUILT FOR EASY IMPLEMENTATION AND SUPPORT

The eMac Digital back office suite reduces total cost of system ownership with a design that greatly simplifies implementation and ongoing support. Unlike the average back office application, which builds on a store-by-store basis, the eMac architecture takes an enterprise view and a top-down approach. Because the back office uses a single database located at the enterprise level, recipes, vendors, jobs, and other database elements are maintained and changed once. In addition, store types and other profiles—maintenance plans, administrative task calendars, etc.—are defined a single time by the organization. Creation of a new site is accomplished primarily through the selection of a store type.

Making implementation and support even easier, eMac Digital offers a complete set of outsourcing options:

- Professional consulting and implementation services, including project management, business requirements analysis, and training.
- Ongoing customer support, including 24/7 help desk availability by phone, fax, e-mail, or web-based live chat.
- Store polling
- Application and data warehouse hosting at the company's data center, which features Sun boxes, Oracle databases, Cisco routers and a PIX firewall

CONCLUSION: BUILT BY OPERATORS FOR OPERATORS

The eMac Digital back office suite delivers the essential functionality that saves restaurants time and money while improving operations. Mixing innovation with common sense and a clear understanding of the restaurant environment, eMac has created a set of applications that deliver a rapid return on investment.