

jBilling

The Enterprise Open Source Billing System

Release Notes

Version: 2.2.0

Date: 2010-08-24

Date	Change type	Description
2010-08-18	Enhancement	Updated javadoc, moved ACH obfuscation logic into AchBL
2010-08-13	Bug fix	Start up of scheduling plug-ins: Exception handled correctly so as not to exit processing others.
2010-08-12	New feature	Removed the call to the Billing Process from Trigger.java Billing Process is now a scheduled job, executed by the BillingProcessTask. Removed a false entry into the pluggable_task_type table.
2010-08-11	Bug fix	Fixed an old defect in during Save event; Possibility of failed updates to the Customer Payment Profile in case the previous Payment Profile ID got delete during delete operation.
2010-08-10	New feature	Added "gateway_key" column to jbilling-schema.xml.
2010-08-09	Enhancement	Added an index to contact.user_id
2010-08-07	New feature	Two new events created as a part of fix for ACH Support for AuthorizeNet.
2010-08-07	New feature	Ach Support for AuthorizeNet. This code will enable storing User's ACH profile information externally and would also support transactions using ACH method via AuthorizeNet.
2010-08-02	New feature	Added pluggable class BillingProcessTask which executes a schedulable Billing Process task. Added JVM Lock to the BillingProcessSessionBean to avoid running more than one processes simultaneously. Added a test case for the same in BillingProcessTest class. Also removed duplicate code from the sub-classes of AbstractSimpleScheduledTask by creating a parent class AbstractBackwardSimpleScheduledTask, which extends the AbstractSimpleScheduledTask.
2010-07-29	New feature	Makes CCFs available to the velocity templates. Warning: it only does so for one contact type, the first one it finds (todo: fix this). The velocity variable is the same as the name of the property. For this to work the property should not be named with dots (.) in the name.
2010-07-23	Bug fix	Fixed issue returning the current order * Check for active status of cached order was using identity comparison instead of .equals() * OrderDAS.findOneTimersByDate() was comparing date to sql timestamp instead date-to-date
2010-07-20	Bug fix	Bug Fix - Mediation process hung, due to recycling. Moved mediation_process record creation and update methods into separate transactions.
2010-07-16	Bug fix	BigDecimal updates for simple_invoice_telco design
2010-07-13	New feature	API support to retrieve PDF invoice
2010-07-13	Enhancement	Added a mutex lock to MediationProcessTask * Prevents the scheduler from starting more than one mediation process per JVM.

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		Duplicate mediation records in database
2010-07-12	Enhancement	* added additional duplicate process checks and ensured that a process start is recorded as early as possible.
2010-07-07	Build process	added billing process status tests
2010-07-02	Bug fix	Fixes bug where the status of an unpaid invoice would be changes to 'carried over' by a review process.
		Fixed ScpUploadTest, renamed dependency jars
2010-06-30	Bug fix	* jsch version 0.1.42 * SecureChannelFacade 0.1 SNAPSHOT
2010-06-28	New feature	Added createInvoiceFromOrder(orderId, invoiceId) API method
2010-06-28	build process	Added 'reformat-text' to cleanup EOL characters
2010-06-28	build process	Fixed test case, added testing method
		ScpUploadTask to upload generated files
2010-06-28	New feature	* Scans a path for files matching a given pattern and uploads them to a remote host.
2010-06-24	New feature	Invoicing Job Monitoring and Alerts: - added tests for comparing processed users quantity; - reference database dump updated.
2010-06-23	Enhancement	MediationConfiguration param added to mediation error handlers
		Added PluggableTask#getParameter() convenience methods
2010-06-23	Enhancement	* Moved often repeated getParameter() functions to the base PluggableTask class. Allows easy access to plug-in parameters with error handling & default value support. * May require existing plug-ins to be updated, as the method signature of these methods is "public" and may be less restrictive than overriding method access (plug-ins often implement these methods as "protected").
2010-06-23	Enhancement	Added MediationRecordLineDAS#findbyInvoice(...);
		InvoicesGeneratedEvent and billing process cleanup
2010-06-23	Enhancement	* Event is emitted whenever an invoice is generated, either by a batch process or invoice generating API calls.
2010-06-22	New feature	New generateRules API method and plug-in. XML formatted data is passed in to generate and compile rules from a Velocity template. For 'ant test-ws' to pass, set 'rules_scanner_interval=5' in jbilling.properties.
2010-06-17	Enhancement	FakePaymentProcessor updates for ACH
2010-06-16	New feature	API support to get/set user's ACH parameters
2010-06-10	New feature	Encrypt ACH details and obscure in GUI
2010-06-09	Enhancement	JBRULES-2253 - Changed MVEL optimizer to "reflective"
2010-06-09	Enhancement	Mediation process: Updated exception handling to catch Throwable exceptions, which should catch ALL possible exceptions.

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2010-06-04	Bug fix	Fixed MediationRecordDAS#findNewestByKey() * Incorrect order, was returning oldest record first instead of the newest record
2010-06-02	Enhancement	Mediation trigger and exception handling updates * MediationSessionBean#trigger() now requires an entityId as a method param - mediation is triggered per entity by the scheduled MediationProcessTask plug-in. * Updated trigger exception handling, exceptions thrown from the rules engine are logged instead of throwing a SessionInternalException which allows additional mediation configurations to run if one errors. Ensures that mediation_process_end_date is still set even if an exception is encountered.
2010-05-31	Enhancement	Switched to the activemq connection factory for JMS (from the one from Spring)commons-pool.jar: Version 1.5.4. Needed for the active mq pool of jms connections.
2010-05-26	Bug fix	activemq-pool.jar: Version 5.3.2. Needed for the pooled jms connection factory. Fixed bug where some tables were left inconsistent after creating a new company
2010-05-26	Enhancement	MySQL schema change for mediation process check * Mysql schema is slightly different than the postgresql/oracle schema - the end_datetime does not default to null, which breaks the duplicate mediation process check.
2010-05-26	New feature	Added router based on payment instrument (credit card or ACH).
2010-05-25	New feature	Standalone mediation process scheduled plug-in * Moved the mediation process out of the "Trigger" schedule into it's own scheduled plug-in. Allows finer grained control over the mediation process and it can be on a different schedule from the other billing batch processes. * MediationSessionBean#trigger() can now only spawn one mediation process at a time. Running mediation processes must finish before another process can be triggered.
2010-05-20	Bug fix	Authorize.Net CIM, update customer profile * Customer and contact updates to trigger an update Of the Authorize.Net CIM profile. * Removed a condition preventing NewContactEvent credit cards from being processed by the external store if was already saved and obscured (we should leave it to the Payment task to decide if it will be processed or not).
2010-05-18	New feature	processPayment() without PaymentWS methodId * Allow payments to auto-discover method id based on the payment instrument used. It is no longer necessary to set the payment method id when making a payment.
2010-05-13	Enhancement	Added one-time order queries
2010-05-07	Bug fix	changed datatype to numeric for remaining 3 tables
2010-05-07	Build process	Refactored testFloatConversion to better reproduce precision loss

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2010-05-06	Bug fix	eliminate unnecessary BigDecimal object creations
2010-05-06	Bug fix	added test for float conversion
2010-05-06	Bug fix	Remove remaining usage of float/double
2010-05-03	New feature	Paypal external storage task
2010-04-27	Enhancement	<p>Added options for handling external store failures</p> <ul style="list-style-type: none"> * param 'removeOnFail' if true, credit card will be marked as deleted and removed from the user_credit_card_map if the external store returns null * param 'obscureOnFail' if true, credit card will still be obscured if the external store returns null. Use if credit cards should never be stored in plain-text * Updated the PaymentFakeExternalStore task to allow testing values to be returned from the fake external store. 'return_null' will return null if true, 'return_value' explicitly sets the return value.
2010-04-16	Enhancement	The api logging now handles array returns, plus a minor comment for a hibernate query.
2010-04-15	Bug fix	<p>New credit card events should be triggered only by user credit cards</p> <p>It was triggering new events even for credit cards that are linked to payments. It was a bug to relate to a user a credit card that is saved only because of a payment.</p>
2010-04-13	New feature	Authorize.net integration. This plug-in now sends the credit card information for storage in authorize.net. The plug-in does not use CCF any more. Instead, it uses 2-1 external storage callbacks.
2010-04-09	Bug fix	Fix: the log should be updated before the dynamic balance changes. It was creating the event logger row with the new balance.
2010-04-09	Bug fix	Contact changed events should be triggered only for user contacts. It was doing it for all contacts, so a new invoice would generate an event
2010-04-09	Enhancement	Events of an order having been modified are now triggered after the order is saved. This allows for changes to the order from a plug-in that subscribes to NewQuantityEvent
2010-04-08	Enhancement	<p>InternalEventProcessor Catch All & new IDGenerator</p> <ul style="list-style-type: none"> * Allow for InternalEventsTask plug-ins to subscribe to "all" events by specifying the "CatchAllEvent". * HibernateIdGenerator class to allow the generation of a unique id from the jbilling_seqs table - using the same mechanism that hibernate uses when persisting new entities.
2010-04-05	New feature	Add ability to create Item Types via API
2010-03-31	Bug fix	Fixed an NPE in edit order when price is null
2010-03-29	Enhancement	Round simple prices to BIGDECIMAL_ROUND
2010-03-23	New feature	Payment processing plug-in for integration with PayPal.
2010-03-19	Bug fix	Fixed bug where there would be a NPE when a one-time order for the needed date was present with a 'finished' status.

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2010-03-18	Bug fix	Fixed a bug to allow re-reading of errored events * Fixed an NPE when the SaveToJDBCMediationErrorHandler encountered a null timestamp. * Added code to the SaveToJDBCMediationErrorHandler to remove error columns (should_retry, error_message, timestamp) to allow for records read from the error table to error out again. * Added a unique ID to MEDIATION_RECORD to allow previously failed records to be re-processed by the mediation reader. ID_KEY is no longer the primary key!
2010-03-15	New feature	Simple tool to generate rules dml from a CSV. Generates rules dml files from a given velocity template and a CSV data file

Version: 2.1.1
Date: 2010-05-24

Date	Change type	Description
2010-05-26	Bug fix	Fixed bug where some tables were left inconsistent after creating a new company
2010-04-30	Bug fix	Updated MediationTest pricing from master. JDBCReader batching fixes * Updated batching with JdbcTemplate, reader now increments LAST_ID correctly when reading. * Added support for BOOLEAN data types. JdbcTemplate does not allow BIT and TINYINT types to be treated as Integers without conversion - Boolean data type solves this and adds a spiffy new feature. Conflicts: classes/com/sapienter/jbilling/server/mediation/task/JDBCReader.java Test/leonid/com/sapienter/jbilling/server/mediation/LeonidMediationTest.java Bug #245 - Exception with currency conversion
2010-04-30	Bug fix	
2010-04-29	Bug fix	Fixed ArithmeticException with division of currency rates.
2010-04-20	Bug fix	LIE exception when adding order to invoice.
2010-04-20	Bug fix	Merge branch '2-1' of git://jbilling.git.sourceforge.net/gitroot/jbilling/jbilling into 2-1.
2010-04-20	Bug fix	The general test target should reload the application after the DB was loaded.
2010-04-20	Bug fix	Fixed payment processing with stored gateway keys. Authorize.net CIM payment task was
2010-04-16	Bug fix	*updated to use the external credit card storage gateway and *obscures all one-time payment credit cards. SaveCreditCardExternally - only save user CC's * Updated to always emit a NewCreditCardEvent - required for other plug-ins that may depend on this event to signal persistence of a credit card * Updated SaveCreditCardExternally task to only save process NewCreditCardEvent's where the credit card has an associated user
2010-04-16	Bug fix	Bugfixes for the SaveCreditCardExternallyTask.
2010-04-16	Bug fix	

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2010-04-15	Bug fix	New credit card events should be triggered only by user credit cards. It was triggering new events even for credit cards that are linked to payments. It was a bug to relate to a user a credit card that is saved only because of a payment. Company creation does not fail due to virtual tables.
2010-03-24	Bug fix	Tables that exists only in jbilling_table but do not have a real DB table would cause the company creation to fail. The latest was balance_type.
2010-03-24	Bug fix	Added missing invoice.status_id column.
2010-03-24	Bug fix	Removed old comment. Changed detection of masked CC numbers.
2010-03-18	Bug fix	*Should be more flexible, this will allow clients to change the masked credit card number format without breaking existing functionality. Removed DB lock from summary table for the billing and payment processing. The billing process, when running, would update some statistics in process_run_* tables. Same for the MDB that process payments. They don't do this anymore, these tables are updated only at the end of the process run. For queries of them while the process runs (GUI), normal SQL queries are used.
2010-03-12	Bug fix	
2010-02-16	Bug fix	Bugfixes for the SaveCreditCardExternallyTask

Version: 2.1.0
Date: 2010-03-11

Date	Change type	Description
2010-03-11	Enhancement	The billing process and the payment processing do not lock rows. This was degrading performance on Oracle.
2010-03-08	Bug fix	Bug fix: crypto classes are not thread safe. Replacing singleton with standard class instance.
2010-03-05	Enhancement	Changed default batch size value from 1000 to 100
2010-02-01	New feature	Added a JDBC mediation error handler
2010-01-29	New feature	Completed support for plans and subscriptions for the mediation and rating process.
2010-01-21	Bug fix	Order notes are trimmed if they are longer than 200 characters.
2010-01-21	Bug fix	Bug fix: api create invoice call would not generate an invoice when parent has an order but there is a child without applicable orders.
2010-01-19	Bug fix	Fixed loading rules assets, replaced custom cache with Drools agent.
2010-01-13	Bug fix	Increased PLUGGABLE_TASK_PARAMETER.STR_VALUE to 500 characters to allow for multiple rules package url's
2010-01-13	Bug fix	Fixed memory usage of mediation process: no need to keep all records associated to the process.
2010-01-08	Build process	Changed remote session beans to use Spring's HTTP Invoker
2010-01-07	Build process	Updated tests to reflect recent mediation rule changes
2010-01-06	New feature	Mediated records now hold a status reflecting the outcome of the mediation
2009-12-23	Build process	Added a 10,000 event mediation test
2009-12-23	New feature	Selection of users to include in the billing process is now in a plug-in (new category). Some helper fields for Payment.
2009-12-23	Bug fix	Now using digester version 1.8.1 - Solves issues with mediation module under Windows

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2009-12-22	Bug fix	Fixed bug where the batch size was not respected when processing multiple files for the mediation process. Also added a guarantee that the files are processed in order with oldest first.
2009-12-17	Build process	Simplified the "first 1000 included" rules
2009-12-16	Enhancement	Added a SubscriptionRequest object to allow for batching of subscription based rules
2009-12-09	Bug fix	NPE in NotificationBL for lines with null "is percentage" values Updated jasper report for BigDecimal
2009-12-07	Bug fix	Owing balance should consider all invoices (paid and not paid). It was excluding paid invoices with negative balances.
2009-12-04	Bug fix	Fixed an NPE when changing user password
2009-12-04	Bug fix	Fixed bug where orders starting on the last day of the month and with pro-rating would use wrong periods. Fixed several issues with previous commit as well.
2009-12-02	Enhancement	Added support for DST in pro-rating calculations
2009-12-02	Build process	Added an example rate card for mediation pricing.
2009-12-01	New feature	The mediation process takes a batch of records for rules processing, instead of one at a time. Also added a cache for fetching the current order.
2009-11-30	Enhancement	Replaced all floats/doubles with BigDecimal
2009-11-25	Enhancement	Minor improvements to PricingField (size & speed). Restored triggering of NewQuantityEvents by mediation process and updateCurrentOrder API method.
2009-11-24	Bug fix	Minor fix to updateCurrentOrder API method: order lines created by the mediation process use the event date passed by the client, instead of using 'now'.
2009-11-22	Bug fix	
2009-11-19	New feature	Applied payments (cheques) can also be automatically linked to invoices.
2009-11-17	Bug fix	Minor fix to credit cards
2009-11-16	Enhancement	Added method name to the error message from API exceptions
2009-11-13	Enhancement	PricingField is backed by a single String.
2009-11-09	Bug fix	Fixed currency handling of getItem API method
2009-11-09	Bug fix	Fix to invoice report
2009-11-07	Enhancement	Moved logging and exception handling for the API to AOP. Cleaned up some old NamingExceptions.
2009-11-06	New feature	Added rateOrders API method
2009-11-06	Enhancement	Changes all Vectors to List/ArrayList
2009-11-05	New feature	validatePurchase API methods return a 'success' value of 'false' if the mediation rules throw an exception.
2009-11-03	New feature	The mediation plug-in takes an array of results as parameter, to allow callers to specify known fields such as the user id or the date.
2009-11-02	New feature	Auto-recharge feature: when the prepaid balance goes below a threshold, it triggers an automatic payment.
2009-11-02	Bug fix	Fixed bug that prevented setting the default currency of a customer
2009-11-01	New feature	Dynamic balance now takes into account pro-rating when orders are added to an invoice.
2009-10-29	New feature	WorldPay plug-ins for both standard and external credit card processing.
2009-10-28	Bug fix	Fixed connection leak: GUI customer screen
2009-10-28	Bug fix	Fix to items screen, problem introduced in recent float to bigdecimal conversion
2009-10-24	New feature	High performance mediation process.
2009-10-24	Build process	Upgrade of dependencies jars.
2009-10-23	Enhancement	Added paymentId to the PaymentAuthorizationDTO returned by the API.

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2009-10-23	Bug fix	Fix to processPayment API method: PaymentAuthorizationDTO id is now returned correctly.
2009-10-21	New feature	New API method getUserInvoicesByDate: returns invoice ids for the user for the given date range.
2009-10-20	Enhancement	FileInvoiceExportTask can now take a relative filename from the 'jbilling/resources' directory.
2009-10-20	Build process	export' ant task now includes JasperServer webapp. Dump JasperServer database to 'jbilling/src/reports.sql' before running.
2009-10-19	New feature	High performance rules processing: pricing
2009-10-19	Enhancement	Conversions from Float to BigDecimal
2009-10-16	New feature	API method processPayment does not require a credit card. If it is not present, it will fetch the one on file for the customer.
2009-10-15	Bug fix	Fix for creating orders through the API: The language of the customer of the order is now used for order line item descriptions.
2009-10-14	New feature	Support for storing credit card information externally.
2009-10-13	Bug fix	The filter processor (black list) should not trigger 'unavailable' events.
2009-10-12	Build process	Configuration change for RMI to prevent errors when the application is restarted.
2009-10-12	Bug fix	Cascades the locks to the order lines. Needed to avoid optimistic locks errors when the provisioning module is active.
2009-10-09	Bug fix	Fixed minor bug in findIdsByUserAndItemTypeLatestFirst query
2009-10-09	Bug fix	Fix to mediation SeparatorFileReader: prevent trailing empty fields from being discarded.
2009-10-07	New feature	New API methods: get items by category and get all categories.
2009-10-06	New feature	Penalty task now part of the ageing process. Added GUI support to the new invoice status.
2009-10-01	New feature	Changes to preserve the balance of carried over balance. Includes a new status for invoices: 'carried over'.
2009-09-24	New feature	New payment processor plug-in: Payments Gateway / ACH Payments
2009-09-23	Bug fix	Fixed bug where languageld wasn't being saved to the database for users created through the API.
2009-09-23	New feature	New validateMultiPurchase API method. Allows multiple items and/or groups of pricing fields to be validated in one call.
2009-09-17	New feature	Dynamic balance validation and modification now work with customer hierarchies.
2009-09-16	New feature	The user affected by an event is now saved by the event logger. Customer related event logs are now exposed to the GUI.
2009-09-11	Build process	Addition to jbilling jars to image and export targets
2009-09-09	Enhancement	Updated validatePurchase rules to run when no previous item has been ordered. UserBalanceValidatePurchaseTask can handle items priced at zero gracefully.
2009-09-07	New feature	validatePurchase API method now runs pluggable tasks. New RulesValidatePurchaseTask. Fixed bug in security checks for updateCurrentOrder and getCurrentOrder API methods.
2009-08-31	Build process	New 'export' ant task that packages jBilling ready to be unzipped into fresh Tomcat installations. Dump the current database to 'jbilling/src/data.sql' before running.
2009-08-27	New feature	The main order is passed with UserWS in the API and it is also updated if it is passed when calling updateUser
2009-08-25	Build process	Changes in build to package for tomcat (2.0.0 release)
2009-08-25	Enhancement	Made pricing rules helper object more accessible (needed for drools guvnor embedded decision tables).
2009-08-25	New feature	WorldPay payment processor plug-in
2009-08-23	Enhancement	API: updateCurrentOrder and validatePurchase methods now run the mediation rules if not itemId is passed. Rules executed by RulesPricingTask now have access to Subscription info.
2009-08-17	Bug fix	Fixes to web services when using CXF. New XML to force SSL connections in webxml

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2009-08-16	Bug fix	Fixed DB connections leak in the order expiration notification process.
2009-08-12	New feature	Payments processed without an invoice can now search for unpaid invoice and pay them (if the billing process configuration has auto-payment set).

Version: 2.0.1
Date: 2009-11-11
Revisions included: from 673 to 738 (support branch only)

Revision	Change type	Description
731,738	Bug fix	Fixed bug that prevented setting the default currency of a customer
723	Bug fix	Fixed connection leak: GUI customer screen.
699	Bug fix	Fix for creating orders through the API: The language of the customer of the order is now used for order line item descriptions
696	Bug fix	The filter processor (black list) should not trigger 'unavailable' events.
689	Bug fix	Fixed minor bug in findIdsByUserAndItemTypeLatestFirst query
678	Bug fix	Fixed bug where languageId wasn't being saved to the database for users created through the API

Version: 2.0.0
Date: 2009-08-07
Revisions included: from 532 to 657

Revision	Change type	Description
657	Bug fix	Fixed manual credit card partner payouts.
656	Enhancement	Pre-compilation of JSP pages. Switch from JBoss to neutral (all in the war file).
652	New feature	New API method: 'PaymentAuthorizationDTOEx processPayment(PaymentWS payment)'. Allows payments from arbitrary credit cards to be processed.
651	Enhancement	New telco invoice design that lists events in an appendix. Invoice designs can now optionally get an SQL connection to query the database directly for data.
649,650	New feature	PaperInvoiceNotificationTask can now select an invoice design based on the customer's language.
647	Build process	Entity creation: Can refresh the tables even if one fails.
641,642	Enhancement	Connection pooling with c3po version 0.9.1.2
635,637,644	New feature	Added API method validatePurchase. It checks the dynamic balance against the price of the given item.
632	New feature	Two new api methods: isUserSubscribedTo and getUserItemsByCategory
630	New feature	Account hierarchy can be N levels deep (instead of only 2). A customer then can be both parent and child at the same time.
626,645	New feature	Two new API methods related to mediation: 'OrderWS getCurrentOrder(Integer userId, Date date)' and 'OrderWS updateCurrentOrder(Integer userId, OrderLineWS[] lines, PricingField[] fields, Date date)'. Allows the mediation current one-time order to be returned/updated.
625,627,628,629,631,633,		
634	New feature	Dynamic balances support: pre-paid balances and credit limits.
624	New feature	Added a real-time calculated 'owing balance' to the user information
623	Enhancement	Removed user pricing code and added an item price cache.

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622	New feature	New events-to-rules plug-in. Allows rules to be run when events it subscribes to (configured in Spring) are triggered.
621	New feature	New API method: Integer[] createInvoice(Integer userId, boolean onlyRecurring). Generates invoices for orders not yet invoiced for this user. Optionally only allow recurring orders to generate invoices. Returns the ids of the invoices generated.
620	Bug fix	Fixes to various reports
619	Bug fix	Invoice balance was not considering negative balances.
614	Bug fix	Fixes to partners module.
609	New feature	New invoice filter that only allows invoices with a negative balance to be carried over.
608,638	Enhancement	FileInvoiceExportTask 'totdue' column now includes the balances from previous invoices.
591	Bug fix	Reports: Order lines fix
564	Build process	Build converted for Tomcat. jBilling and required jars will package into a single WAR file, excluding some configuration files (which must be on the runtime classpath) and the resources directory.
560	Enhancement	MMSC external provisioning plug-in can now communicate with the real web service.
554	Enhancement	Removed remaining unnecessary javax.ejb.* exceptions.
548, 557	New feature	New event on invoice creation and plug-in to save a new invoice to a text file.
543	Enhancement	JMS code converted to use Spring and ActiveMQ. jBilling is no longer dependent on JBoss for any services.
532	Enhancement	Web services converted to use Spring and CXF. Four remoting protocols supported by jBilling API: SOAP, Hessian, Burlap and RMI.

Version: 1.1.4

Date: 2009-07-23

Revisions included: from 532 to 643 (support branch only)

Revision	Change type	Description
643	Enhancement	Switch to c3po as database connection pool
640	Bug fix	Fixed bug where review invoices would be getting real invoices delegated.
618	Bug fix	Fixed bug where deleting an item type would fail.
616	Bug fix	Fixed bug where delegated/included invoices weren't linked to the new invoice correctly
613	Bug fix	Fixed mediation configuration GUI screen NullPointerException when submitting a new configuration
605	Bug fix	Fixed bug where the list won't update in the batch process.
599	Bug fix	Fixed bug where only the last invoice was considered to transition a customer from pending unsubscription to unsubscribed.
598,603	Bug fix	Fixed potential locks between process and payment in retries.
596	Bug fix	Fix for order creation from rules.
592	Bug fix	Fixed two bugs: optimistic lock when an invoice with paper notification is paid in the billing process, and storage of notifications archive lines.
558	Bug fix	Needs to lock invoices that generate pdf files.
555	Bug fix	Fixes to list stats process and entity creation.
552, 606	Bug fix	Fixed bug where the billing process would not generate the paper invoice batch file.
550	Bug fix	Fixed bug where emails would be sent only to the last in the list.
547	Bug fix	Fixed bug where the billing process would not be able to update the next run date.

Version: 1.1.3

Date: 2009-05-19

Revisions included: from 411 to 531

Revision	Change type	Description
528	Enhancement	Remote beans should initialize lazily, so only those needed by the client have to get their dependencies satisfied.
527	Bug fix	Fixed bug for paypal payments
518	Enhancement	Confirmation page for user delete - validation of user name up to 50 char. - User deletion verifies that there aren't children accounts.
517	New feature	Added 4 new getters to the API
516	Bug fix	New detach method for AbstractDAS. Order optlock no longer incremented when GUI reads an order.
513	Enhancement	JDBCReader no longer needs 'last id' preference to be initially set by user. Added id generator to PreferenceDTO.
512	Bug fix	JDBC reader: Added one space so it doesn't fail where there's not extra 'where'
511,514,515	Enhancement	Switch to local transactions / data source.
508	New feature	New MMSC external provisioning plug-in.
507	Enhancement	Partial conversion of WebServicesSessionBean to Spring. Transactions handled by a new Spring managed bean, WebServicesSessionSpringBean, but original WebServicesSessionBean EJB still handles web services.
505,506	Enhancement	Now you can delete orders from rules.
504	Enhancement	Conversion of ProvisioningProcessSessionBean to Spring.
503	Enhancement	Conversion of BillingProcessSessionBean to Spring. Some session beans are also now accessible remotely via RMI for tests.
502	New feature	Added barcode support for PDF invoices
501	Bug fix	Struts needs an Integer, not an int to work. Fixed problem with Plug-ins GUI.
500	Enhancement	Conversion of ReportSessionBean to Spring.
499	Enhancement	Conversion of MediationSessionBean to Spring.
498	Enhancement	Conversion of PaymentSessionBean to Spring.
497	Enhancement	Conversion of PluggableTaskSessionBean to Spring.
495	Enhancement	Conversion of OrderSessionBean to Spring.
494	Enhancement	Conversion of InvoiceSessionBean to Spring.
493	New feature	Added SSL authentication support for emails in BasicEmailNotificationTask.
492	Enhancement	Conversion of UserSessionBean to Spring.
491	Enhancement	Conversion of ListSessionBean to Spring.
490	Enhancement	Conversion of CustomerSessionBean to Spring.
487	New feature	PaymentRouterTask is now PaymentRouterCCFTask. New PaymentRouterCurrencyTask that routes payments according to currency. Both these classes inherit from a new AbstractPaymentRouterTask class.
486	New feature	TLS security support for emails.
485	Enhancement	Obsoleted promotions, in favour of rule based promotions.
483	Bug fix	Fixed bug where the currency would be ignored when creating a user from the API
482	Enhancement	Mediation performance improvement.
481	New feature	Added the 'autoID' parameter for file readers, and made all fields optional.
480	Enhancement	Added removal of quotes for CDRs in files.
477,478,479	Enhancement	Migration of remaining entity beans to JPA.
476	New feature	API: New getChildIds() method for UserWS. Returns the ids of sub-accounts in an Integer[].

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		New provisioning status column for order lines in GUI. Status tables consolidated into a single table 'generic_status', discriminated by ids in 'generic_status_type'. Status DTO classes now inherit from a new AbstractGenericStatus class. Their DAS classes inherit from a new AbstractGenericStatusDAS class.
474	New feature	
469	Build process	Switch to postgres for build.
467	New feature	Added velocity tools to all notifications
466	New feature	New CAI external provisioning plug-in. Builds final command string and communicates with the CAI system via Telnet.
464	Bug fix	Notification ageing message gets the latest overdue invoice, rather than just the latest invoice.
456	Enhancement	Avoids submitting payment requests for invoices with 0 balance
455	Build process	Added rules compilation target to test target
454	Enhancement	Conversion of Menu Option to JPA
450	Enhancement	In RulesItemManager, added OrderDTO to the rules memory context.
447	Enhancement	Usage of a plug-in for subscription status transitions is now optional
444	Enhancement	RulesItemManager.OrderManager has new percentageOnOrderLine helper method - can add a percentage item with its amount calculated using another order line's amount.
442	Enhancement	Moved the definition of the number of sections for a notification to the plug-ins. Then changed the notification plug-in to use 3 sections and send HTML with text alternatives (if a parameter is present).
440,441	New feature	Replaced custom template engine by Velocity for notifications.
439	Enhancement	Conversion of Notification session bean to Spring.
438,446	Enhancement	Migration of Reports to JPA.
437	New feature	commands module and sends them to plug-ins which communicate with external provisioning systems.
436	Bug fix	Orders from the GUI need to have the currency of the customer.
435	New feature	Subscription status changes to 'active' only if an invoice related to a specific item type is being paid.
433,434		Conversion of ItemSession to Spring
432	New feature	Emails can be in HTML format
431,448	Enhancement	Migration of Notification to JPA.
430	Enhancement	Removed NewOrderSessionBean. It was the only stateful session bean in jBilling.
427	New feature	New provisioning commands module. It allows external systems to be notified and respond to events that occur in the billing system.
426,428	Enhancement	Migration of List to JPA
425	New feature	Allow item management rules to create new orders.
422	Enhancement	PricingField modified to allow null values.
421,423	New feature	Recording of every event that affects an order line, with a new screen in the GUI to list them.
420,424	New feature	New JDBC and MySQL mediation reader plug-ins. Fixed a mediation process bug related to Hibernate.
419	Enhancement	Cache defaults for the ItemDTO group of tables.
418	Bug fix	moved the mediation process above the billing process
417	Bug fix	Fixed PaymentFilterTask plug-in parameter name bug: 'enable_filter_cc_number' was accidentally 'enable_filter_test'
416	Enhancement	Migrated all Item related entity beans to JPA.

Version: 1.1.2
Date: 2008-11-20

Revisions included: from 345 to 410

Revision	Change type	Description
410	Enhancement	Fixed the rules 'file' plug-in parameter to work with multiple files again, whether the path/s are absolute or relative from 'jbilling/resources/rules'.
409	New feature	Invoices with credit balances can have their credit payments delayed until the next invoice.
408	Bug fix	Fixed bug where calling 'payInvoice' would create a payment without a date.
407	Bug fix	Fixed bug where the customer 'exclude from ageing' can not be unchecked.
406	Bug fix	Fixed RefundOnCancelTask to correctly calculate percentage item order line amounts for refunds.
405	Enhancement	Exclude suspended users from the billing process.
404	Bug fix	Fixed bug where additional contact types could not be created for a customer.
400-403	Bug fix	Avoids loading all the customers of a company for the billing process.
399	Bug fix	Fixed bug where the servlet up check was not working, it did not have a transaction context.
396/397	Enhancement	New API methods to manipulate items and rate orders.
395	Bug fix	Payments not attempted due to lack of a payment instrument (expired cc), should still increase the attempts on the invoice.
391	Enhancement	Queries related to contract fulfillment work now on invoices (paid and not paid).
389	Bug fix	Fixed currency symbol/code mixup.
386	Bug fix	Several fixes to post-paid contract support
385	Enhancement	New internal event for invoice generation
383/384	Bug fix	Fixed bug related to custom fields in PDF invoices.
381	Bug fix	Fixed bug where the item number was ignored when creating a new item.
380	Bug fix	Changing an credit card should invalidate pre-authorizations.
379	Enhancement	Makes the client API thread safe
378	Enhancement	Conversion of Contact entity beans to JPA.
372	Enhancement	Conversion of Permission and Preference to JPA
370	Enhancement	Added an 'integer' version of getQuantity, to simplify rule writing
361/363/364/ 365/366/367/ 368/369/375	Enhancement	Migration of User, Entity to JPA
360/373/376/ 377/382/387/ 390/393	New feature	Blacklist: Fails payments for users that are present in a list of known bad credit cards.
359/362	Enhancement	Added custom contact fields as simple objects in the memory context for pricing rules.
358	Build process	Fixed mediation junit test
357	Bug fix	Fixed bug where the cancellation of only a few items only calculated 1 period for cancellations fees.
356	Enhancement	Added default value for order.cycle_starts
355	New feature	Added processing of credits and cancellation fees for changes in an order (add/delete/update a line).
353/354	Bug fix	Fix to exception when getting list of orders as a customer.
352	Enhancement	Primary contact should show up first in the drop down box.
351	Bug fix	Fixed bug that stopped the ageing process when notification lines where retrieved in the wrong order.
350	Enhancement	Added timeout to Axis API and entry/exit logs to API.
349	New feature	Payment processor plug-in for Authorize.net CIM.

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348	New feature	Automatic penalties for early plan cancellation
347	Bug fix	Fix bug where the cancellation fails due to the order in the event being detached from the db session.

Version: 1.1.1
Date: 2008-07-01
Revisions included: from 311 to 344

Revision	Change type	Description
344	New feature	Quantities of items in the order lines can have decimals.
343	New feature	New plug-in category to process internal events, and first implementation to handle credits for early subscription cancellations.
339	New feature	New payment processor for integration with Intrannuity gateway.
333, 340, 341	New feature	Added order support for Pro-Rating
325, 327, 332	New feature	New payment processor for integration with Bean Stream gateway.
323, 324, 328, 329, 330, 331, 337, 338	Enhancement	Migrated all Order related entity beans to JPA
322	New feature	New payment processor for integration with Sage Payments gateway.
320	Bug fix	Fixed bug where one line too many was added on the one-time order in the mediation process. Also, eliminates memory leak by clearing the drools session.
319	Bug fix	Fixed bug where the 'processor unavailable' event would not trigger transitions to the subscription status.
318	New feature	Support for PayPal subscriptions: accepts IPN payment without an invoice id
317	Bug fix	There was a wrong foreign-key in the database initialization for a mediation table.
315	Enhancement	Special consideration for monthly orders that start on the 31 st of a month, so they keep being invoiced on the last day of every month.
314	Build process	Rules packages are first removed before unit testing.
313	Build process	Pre-compilation of JSP pages can now be done on Linux
312	Bug fix	Fixed database initialization, a column had the wrong data type.

Version: 1.1.0 final
Date: 2008-03-12
Revisions included: from 276 to 310

Revision	Change type	Description
310	Enhancement	Returns a Calendar object as a convenience method for pricing objects.
307	Bug fix	Fixed bug where NULL objects could make it to the rule's working memory
306	New feature	New plug-in that does return credit cards without validation (for using expired credit cards).
305	Bug fix	Fixed bug where the lack of a credit card did not update the subscriber status. Also added additional event logging.
304	Bug fix	Various fixes to mediation rules code.
303	New feature	Added duplicate record validation for the mediation process.
302	Bug fix	The review process should not update the subscription status to 'unsubscribed'.
299,300	Bug fix	Removed the public schema from DDL annotations

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297,298	Enhancement	Switched the 'getUserId' API call to JPA.
296	Enhancement	The flag for pre-authorizations is now shown for payments in reports and the payment info box.
294,295,301,308,309	Enhancement	When updating the next day to invoice of an order, the latest invoice period is also updated accordingly.
292,293	Enhancement	Sames as 291, also enabled full JTA for JPA and use of the JBoss datasource.
291	Enhancement	Ported the 'event_log' table from entity bean to JPA.
290	New feature	Added ability to process mediation events from different billing periods, with multiple one-time orders participating.
289	Enhancement	Improved API method getLastOrders. It does not return deleted orders any longer.
287	Bug fix	Fixed object update procedure for rule-based plug-ins
284	Bug fix	Fixed bug related to removal of lock in revision 271

Version: 1.1.0 RC1

Date: 2007-11-27

Revisions included: from 243 to 275

Revision	Change type	Description
274,275	New feature	Mediation module
273	Enhancement	Cached the tables IDs to improve performance and avoid locks/deadlocks.
271,272	Bug fix	Another fix to locking issues. This time when looking for the entity id of a user.
270	Build process	Added unit tests for the rule based pricing plug-in
269	New feature	Extended functionality for item associations and new rules based plug-in for item pricing.
268	Enhancement	API:Not having a valid credit card does not throw an exception any longer, it returns null.
263-267	Bug fix	Replaced binary conversion from base64 to hex after finding some cases with incorrect conversion
262	New feature	Added a new plug-in type with an implementation to allow complex item relationships using Drools.
261	Bug fix	The validation of dates was done with the current date, rather than the order's creation date.
260	Bug fix	The API method getUserByStatus misused the parameters
259	Enhancement	Allow the cc number to be null for calls to updateCreditCard. In this case, the number is left unchanged.
258	New feature	New API method to get all subscriber status transitions after an ID
257	New feature	Search a customer by the last four digits of the credit card
256	Build process	Changes to billing process unit test to complete the 1000 invoices test.
255	Enhancement	API: getOrder should be able to return a deleted order.
254	Bug fix	JMS uses in-memory communication (JVMIL)
254	Bug fix	queries for list of users to the API run on direct JDBC connections
254	Enhancement	user creation from the API assumes credit card is used for automatic payment processing, if a cc is present.
254	Enhancement	New fake email notification task to facilitate testing
254	Build process	test database now has 1000+ users for better unit testing
253	Enhancement	Keep the open files at a minimum when compiling PDF invoices into a single file.
252	Bug fix	Make sure the temporary invoice files are closed after they are compiled in one single PDF.
251	Enhancement	Downloading the invoices for a billing process only includes those customers that have PDF invoice delivery method
250	Bug fix	Migrated the four entity beans related to pluggable tasks tables to JPA. This solved the locking problem for the payment notifications of the billing process.

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249	Bug fix	Subscription status 'expired' can only be reached from status 'pending expiration'.
245	Enhancement	Child customers that can receive invoices should be included in the standard customer list.

Version: 1.0.9 Date: 2007-08-23 Revisions included: from 211 to 242		
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Revision	Change type	Description
242	Bug fix	Fixed bug where entering commission ranges for a newly created partner fails.
241	Bug fix	Fixed bug where the subscriber status would not be initialized in the user edit screen.
240	Bug fix	Fixed bug, where a null pointer exception would be thrown if there are no companies at the order notifications.
237,238	Bug fix	API updateUser: Should not validate the password if it is not to be changed It now makes sure a transaction id generated by the test processor does not exceed 20 character.
236	Bug fix	
235	Enhancement	Improved a confusing error message for the API factory.
234	New feature	Added deleteInvoice API method Allows credit card and contact to be null when calling 'updateUser'. If they are, they are not updated.
233	Enhancement	
232	Bug fix	Bug fix: Closes stream used for the invoice design files.
231	Enhancement	Added the thread information to the logging on jbilling.log
230	Bug fix	Data initialization fix: The description of the task type category has to be shorter Fixed bug where the subscription status would change from pending unsubscription to unsubscribed before the end of the subscription.
229	Bug fix	
228	Bug fix	Fixed minor bug on the subscription transitions report.
227	Enhancement	Only includes active or overdue customers to the credit card about to expire notification. Removed lock when using a pluggable task: billing process could fail when sending payment notifications.
225,226	Bug fix	Added the 'discontinued' subscriber status, to be set only manually. It is linked to the suspended ageing status.
224	New feature	Added the JBILLING_PROPERTIES_FILE JVM property with the name of the properties file to use by the jbilling client api. It defaults to its original value.
222	Enhancement	
221	Bug fix	Avoid deadlock on billing process when looking for a run to update. Fixed bug where the process retries would not update the totals. Also added the retries to the automated unit tests.
220	Bug fix	
219	Bug fix	Fixed bug where the order's active since/until would not be changed after the order was edited.
214, 215	Bug fix	Fixed bug related to the fake payment processor for company creation.

Version: 1.0.8 Date: 2007-07-03 Revisions included: from 153 to 210		
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Revision	Change type	Description
210	Bug fix	This fixes a bug where partners could not be paid. Payment processing for the batch billing process is now asynchronous. Also added unit test cases for the billing process.
209	New feature	
208	New feature	Added a server up check servlet to allow monitoring tools to ping jbilling.

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207	Enhancement	Added validator to avoid web services calls with invalid contact type when calling 'updateUserContact'.
206	Enhancement	The order next billable day field does not need the time, just the date is enough.
204	Enhancement	Do not allow new orders to have 'next invoice date' set. Also, improved validation of this field when editing.
203	Build process	Added version, revision, etc to the manifest of the jar files produced.
202	Bug fix	Fixed bug where the retrieval of the latest invoice would not filter out deleted users.
200	Enhancement	Changes to allow multiple order lines with the same item to be added from the web services API.
199	New feature	Added an API method to explicitly create an order and an invoice, reverting 'createOrder' to its old behavior, which is to only create an order.
198	New feature	A sub-account can choose to receive its own invoices, instead of delegating them to the parent account.
197	Bug fix	Fixed bug where sub account list was cached wrongly
193	Enhancement	Supports sending a parent id when creating a user through the API.
191	Enhancement	Allows to go to status unsubscribed from any status when an order changes to finished.
187	New feature	Added feature to lock out a user if too many login attempts.
186, 195	New feature	New method for the web services API: user authentication.
184, 185	New feature	Added new password validators: can not be repeated for the last two years, and can not have contact information.
183	New feature	A user password can expire now after a period of time, forcing the user to change it.
180	Enhancement	Removed hard coded paypal URL callback (IPN). This URL has to be setup on the paypal account.
168	Enhancement	Childer accounts inherit the parent's contact when created.
166	Enhancement	Custom contact fields are now displayed in the standard contact info box.
165, 181, 205	New feature	New payment processor for integration with ACH Commerce gateway.
163	Enhancement	Added a new validator to be used with passwords: string has to have both numbers and letters.
157-162, 167, 170-179, 196, 201	Enhancement	Internal code improvements to facilitate module maintenance. The class GenericMaintainAction was replaced.
156,164,169, 188, 192	New feature	The jbilling client API. This is a new jar file to access jbilling with a layer of abstraction over web services or EJB remote calls.

Version: 1.0.7

Date: 2007-04-12

Revisions included: from 91 to 152

Revision	Change type	Description
142	Enhancement	Web services methods that process a payment through a payment gateway now return the response from the gateway. This affects 'create' and 'payInvoice'.
137/138	Bug fix	The script to create a new company now works with Postgres 8.1.x
136,146	Enhancement	Added an explicit response message field to the payment authorization record
130,132,133, 135,144,152	New feature	Event processing support and addition of subscriber status to the user
129	New feature	Added the web services method 'payInvoice', and the method 'createOrder' now also creates and invoice for the order if 'active since' is not null.
128	New feature	New web services method to retrieve all the items in a single call.

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127	New feature	New web service method to retrieve the list of users whose subscriber status has changed.
126144	Enhancement	The field 'next invoice date' of orders is now editable from both the web services API and GUI
124	New feature	Added entity preference that removes the credit card numbers from logs and audit. The number is masked when displayed or return by web services
123	New feature	New web services method to allow the update of a credit card only.
121,122,140,141	New feature	Four new report types: transactions, subscription transitions, user status transitions
117/118	New feature	New payment processor plug-in, that routes the processing to another (real) processor depending on a custom contact field.
116	Enhancement	New fake payment processor to enable easy testing of transactions.
115,119,134	New feature	The payment processing captures a pre-authorization if one is present, instead of doing a new charge in all occasions
114	New feature	Credit card numbers are masked for customers when submmmiting a payment.
111/112	New feature	Encryption of credit card information (number and name).
111,112,139	New feature	Encryption of user passwords (one-way method)
105,106,108	New feature	New web service method to pre-authorize credit card payments
99-102,143	New feature	Alarm feature to notify via email if a payment processor is not responding.
98	Enhancement	Restore auditing to the database, rather than only log files.
97	New feature	The graphic file used for the logo of the paper invoice can now be uploaded from the GUI
96	Enhancement	Improved accuracy of decimal calculations to 10 decimal digits.
94	Enhancement	Translation to Portuguese
92	Enhancement	Added the Australian Dollar to the list of default currencies

Version: 1.0.6

Date: 2007-01-25

Revisions included: from 77 to 90

Revision	Change type	Description
89	Build process	Fixed some duplication of files in the source package, and added the junit.jar to allow the test-ws target to run
88	Build process	Added JUnit web services tests for payment, and improved the setting up of the test database.
86	Build process	Added JUnit web services tests for users.
84	Bug fix	When creating a new company, leaving the phone area code empty would result in an error.
82	Bug fix	Some reports would fail with a null pointer exception, related to supporting Oracle's proprietary data types.
80	Build process	The JUnit tests of the orders web services have been updated and put in line with the development database.
80,81	Enhancement	Creation and update of purchase orders through the web services API now calls th e pluggable tasks that calculate the total for each order line.
79	Bug fix	Deleting an invoice linked to a payment would cause an error

Version: 1.0.5

Date: 2006-11-21

Revisions included: from 65 to 76

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Revision	Change type	Description
76	Bug fix	An empty credit card number in credit card edition page results in an error.
75	Bug fix	A soft deleted user would remain with a status other than 'deleted'.
74	Bug fix	Changed the data base schema to accommodate Oracle's requirements. A sanity test now runs well on OracleXE
73	Bug fix	The password fields were always required when updating a user record.
72	Enhancement	Make possible to change the status of a user regardless of the configuration of the ageing process.
69,70	Bug fix	Added validation to prevent fractions of periods in orders.
65,68	Build process	Aligned the build script to match the new location of jbilling that makes it the default application at start-up.

Version: 1.0.4

Date: 2006-10-12

Revisions included: from 55 to 64

Revision	Change type	Description
64	Enhancement	Load of currency information at the system level is now done once at startup
63	New feature	The jbilling process is now triggered by its own mechanism configured in the jbilling.properties file. This replaces the need to setup a CRON or AT configuration from the operating system.
61	New feature	Business rules plug-ins can now be fully configured from the GUI. There is a new menu option for administrators where they can delete, create and modify any plug-ins and its parameters.
59	Enhancement	Invoice lines now are stored with a flag indicating if the line is percentage or not. This helps displaying the invoice correctly, since a percentage should not be included in the 'price' column of an invoice.
59	Enhancement	Any tax item will be calculated after all the previous items are calculated, including percentage items.
58	Bug fix	Fixed bug that would lead to inaccurate decimal calculations.
55-57	New feature	A payment now holds the exact amount that of each invoice that is paying, as well as the date the payment was applied to an invoice. It is now possible, from the GUI, to 'undo' a payment to an invoice. An existing payment with balance can also be linked to an arbitrary invoice.

Version: 1.0.3

Date: 2006-08-09

Revisions included: from 46 to 54

Revision	Change type	Description
53	New feature	Invoices can be downloaded as a single PDF file following 5 different filters
52	Enhancement	The list of invoices in the process review it's now sorted by the organization name. This makes the review easier to do when the list is extensive.
51	New feature	Invoices now have their own contact information, instead of using the one from the customer. Therefore, their contact information is historical.
50	New feature	A company can decide if it wants to allow its customers to edit their own contact information. This is done with a new preference.

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47	Enhancement	The list of items when creating a new order was not sorted. It is now by the item's description.
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Version: 1.0.2 Date: 2006-07-06 Revisions included: from 25 to 45		
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Revision	Change type	Description
45	Enhancement	The installation process doesn't need the database connection information to be present in jbilling.properties any more.
39	New feature	Include initialization scripts for multiple database engines and change the default in the binary distribution to an already initialized Hypersonic database
37	New feature	Payments can now be deleted if they are not linked to any invoice having a one-time order with a value in 'anticipated months' would throw an exception during the billing process.
36	Bug fix	The build process now pre-compiles the JSP files and includes the resulting classes in the binary distribution to avoid requiring the Java SDK for users.
35	Build process	The action related to users should not validate the form bean. The symptom was that clicking on a user link on the invoice details page would result on a exception.
33,34	Bug fix	This was introduced recently as a bug, it had be working well until them.

Version: 1.0.1 Date: 2006-05-03 Revisions included: from 2 to 24		
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Revision	Change type	Description
2	Bug fix	Fixed bug that would prevent edition of certain orders.
3	Minor improvement	remove trailing spaces from the user name and password during login.
9, 10, 11	New feature	Allow edition of login names (the actual change was to validate the new login name. Without this, changing login names was impractical)
14	Bug fix	Password length validation is consistent between the login page and the user edition page.
15, 20	New feature	Clarify payment's list by adding the result column and excluding failed attempts from the customer's list
18, 19	New feature	Payments: Make them editable when not linked to invoices and have been manually entered.
21	New feature	Allows for recovery of a lost password in the login page