



Crimson Times

First Edition

August 2013

LISTEN TO WHAT OUR CUSTOMERS SAY ABOUT US

IN THIS ISSUE

Crimson Times Newsletter

by Angelo Kalpakis (akalpakis@crimsontt.com)

Welcome to our first edition of The Crimson Times Newsletter. Many of our customers, if not all, are always wondering what the Crimson TT group is up to within the Canadian borders. These newsletters will hopefully share some insight into our thinking patterns and company direction.

What better way to show how the company is moving than informing every one of the innovations, ideas and growth of a 15 year old software development company. We sure have come a long way from our original roots in working from our homes to moving into office space.

Every decision and step we make we expand our operation to better suite our customers' needs. We are no longer a company supporting customers from a Y2K compliancy. We have evolved to a robust and forward thinking company ready to meet the challenges presented to us.

Are we afraid of competition? No. We accept the challenge.

Are we afraid of growth? No. The growth shows that we are here to stay for a very long time.

This newsletter will be one of many sharing things like industry news, new trends and innovations, what Crimson has on the boiler plate for the future. Also this gives you, the reader, an insight as far as to who we really are and who are the people within this company trying to make a difference?

If there is a topic you would like to see in the future, please let us know.

If there is something you disagree with or would like a more in-depth explanation, please let us know.

If you simply want to call us and tell us that we are doing a great job, please call.

We are here to listen and take action from constructive comments and criticisms. Our old slogan was "Always Running, Always Listening, and Always Fast". Welcome to the New Crimson: "Listen to what our customers say about us".



New Website

We have spent countless hours in revamping the old website. Come and see what it looks like and let us know what you think. Page 2

User Portal Access

To better service our existing customers and future customers, Crimson needed a more robust way to communicate with the user community. Page 3

Release 1.23.xx

This version of the software release is a biggie. See some of the highlights as far as what to expect. Page 4

P2PE Explained

See if this solution can help you pass your PCI audits from Pin Pads to Data Encryption. Let us help you understand. Page 5

Crimson in the Clouds

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Introductions

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New Website

by Angelo Kalpakis (akalpakis@crimsontt.com)

Since late 2009, the Crimson Transaction Technologies website has been standing and at the time was innovative and informative. Over the years, however, technologies have changed as well as company innovations. The site no longer reflects the company's overall success and diversity.

Everything from the colours to the technology has been revamped within the new site. As with any technology, using HTML, CSS and jQuery are simple tasks for the development team of the company. The challenge was to show, through words and pictures, the vast knowledge and diversity of the company to not only showcase existing customer achievements but to also attract new customers. Understanding what we can deliver from products to services is always a difficult task for new customers to understand, but we believe the new website expresses this message in a very informative and aggressive manner.

The main landing page was designed to inform prospective customers of our many capabilities from P2PE technologies to customer testimonials that make a difference in the day to day operations of our existing customers.

The all new Solutions by Industry shows how flexible and configurable our software offering is. Below are a couple of facts about the software solution that you may not know:

- 1) Written in C/C++ with the primary database backbone being Microsoft SQL Server.
- 2) Currently running with Microsoft SQL Server 2012
- 3) 50% of our customers are running the full Scoria Retail Suite, the other 50% are only running the ITB Credit Switch
- 4) ITB Retail Suite also contains a Kiosk software portion for bill pay and customer self-serve.
- 5) All customers are running the same core software solution. Configuration and parameters dictate how the software will function and interact for each customer.



The website also takes into account the browser being used to display the information. The new website has been tested with Microsoft's Internet Explorer, Google's Chrome and Mozilla's Firefox.

One area of interest, located at the top-right of all pages, is the User Portal access. This portal can be used to access the companies support line and current system development status. This system is used to track incidents and upcoming software release enhancements as they become available. The portal is used as a central repository for everything Crimson, and allows our users to keep up to date on company processes. Additionally, if an email is distributed to HelpDesk@crimsontt.com, it is automatically assigned an incident number within the User Portal and the incident is cataloged and categorized according to which customer submitted the request. The Crimson staff member assigned to the customer's account is then notified. If that staff member is not immediately available, the incident is escalated to the secondary staff member to deal with any issues. More details about the portal are available in this newsletter.

Additionally, within the new website you can see what trade shows we will be attending and events we will be involved with. Our big show of the year is of course the NRF show in New York City. This year the show will be on January 13th and 14th, 2014. Crimson TT has been away from the show for a few years because of the economic struggle experienced by many retailers. The shows, up until now have had very poor attendee showings, but the January 2013 show had surprised not only us but the NRF organization as well. So come see us at the booth to say hi.

If you have any comments, suggestions or even praises for the new website, please let us know. Your feedback is greatly appreciated and allows us to better our representation of ourselves.

Visit the site: www.crimsonTT.com

User Portal Access

by Vic Mehta (info@crimsontt.com)

The one thing we hear most often from our valued customers is that when they need help with our systems, our response is fast and competent. The credit goes to our knowledgeable and tight-knit technical services team. Each one of us can handle a broad range of support requests. When the situation calls for it, a colleague with specialized knowledge in a particular situation is readily available . . . well . . . usually readily available.

We needed a way to improve the specialized knowledge transfer from our resident experts to the whole team. We needed some way to "Google" their brain, if you will. Enter, the HelpDesk.

Even while planning the myriad of exciting developments that are now underway, we knew we had to develop a scalable solution to ensure that the quality of the support we provide did not suffer in any way. This would become even more important once our customer base grows with the diverse platform and multi-discipline functionality choices being incorporated into our design.

A service management system would have been sufficient to meet those primary internal objectives. However, your needs are the same as our needs in this one regard . . . to quickly find the information needed to resolve an issue and move on with the task at hand. Enter the "HelpDesk User Access Portal".

We have selected a feature-rich system for our HelpDesk. Watch this column in each issue for information on how you can get the most benefit out of our investment in this system. Feel free to get in touch if certain terms we use are unfamiliar. The feedback will help us improve our content. So let's get started with the basics.

Overview

Most requests for support come to us in the form of an email. This is the preferred way going forward as well. Our HelpDesk system will intercept the email, issue a 'Service Record #' (SR#) and distribute the email to the technical services team. (I had requested an executive assistant to help with this task, but they got me this software instead.)

You can continue using our support services the same way as you have been, through email. There are only a few minor changes you will notice at first:

1. HelpDesk will be listed as one of the recipients of the email.
2. The subject line may contain a '[REF: #1234]' at the beginning. If it does, please do not alter it or add anything before it. That reference is the SR#

used by the system to group related items.

3. When replying to emails containing an SR# in the subject line, please use the 'Reply All' button to ensure the HelpDesk system receives your response as well. It will file the response accordingly (almost as efficiently as a live executive assistant could have done).

Occasionally we receive requests for support by phone. It is best to initiate your request for support by email. If the person you call is not available at the time of the call, our voicemail system does not distribute the voicemail to other technical services team members. (An executive assistant would have asked you to please kindly hold while an available team member is located.) A HelpDesk SR is created manually for requests

Once an issue is resolved, a knowledgebase article can be created that identifies the issues, steps to verify the problem and the solution. There are often multiple ways to solve a problem. An article can be created for each method. The ability to query this knowledgebase is our first step towards 'Googling' the brains of the experts.

Some articles are technical and may contain Intellectual Property or security related information. The knowledgebase access to individual articles can be restricted to just internal users, to users from one particular customer organization or freely accessible by all users granted access to the HelpDesk User Access Portal.

User Access Control

While on the subject of security, access to the HelpDesk User Access Portal is over an HTTP SSL connection to ensure that the communication between the portal and your browser is encrypted.



for support that come in by phone.

The HelpDesk system keeps track of all correspondence regarding an SR. Automatic routing and escalation rules can be created to ensure that if an SR is not attended to in a timely manner, someone is alerted to this fact. (You know who else could have done that). While the task of responding to an SR may be handled by more than one team member, all the information regarding that issue is in one place. This makes the task of knowledge transfer very efficient.

Since access to the portal is through a browser, there is no special software to download and install (except maybe a different browser, if you prefer).

Individual users from each organization can be granted access to the portal to view a history of all SRs from their organization, their department within their organization or only SRs submitted by that one user. Similar access and restrictions can be set for access to Knowledgebase articles.

There is much more to tell. However, for now, I am tired of typing 'HelpDesk User Access Portal'. Do you any suggestions for an alternate name for my new Executive Assistant?

Release 1.23.xx

by Angelo Kalpakis (akalpakis@crimsontt.com)

To say “the Crimson Staff are busy people”, is an understatement. Not only have we set the stage to expand our operation and better service our customers both with a User Portal and a new website, but we’ve also managed to develop and release a newer version of our Scoria Retail Suite software offering.

Version 1.23.xx has recently been deployed to a handful of customers and we are hoping to release it out to all our customers once QA has been completed.

Not all enhancements affect every one of our customers, but publishing release notes allows our customers to understand what has been developed and what they may start to utilize from the additional functionality.

Like all releases, and this is no exception, this release also contains maintenance enhancements to issues that customers have unfortunately had the pleasure of stumbling upon throughout the years. To get a full breakdown of enhancements and fixes, email our support@crimsontt.com desk and we will gladly distribute a copy of our release notes.

Below is a brief description of some of the new features that will be available within the 1.23.xx release.

Rain Checks

Rain checks have been added to the system to support the purchasing of out of stock products at a later date at the price posted at the time of intended purchase. The configuration aspect of the rain checks include rain check expiry dates, maximum allowable units for purchase, if the item needs to be a sale item, if the customer must redeem the rain check with full purchase units only, and more. Rain checks are setup at the POS register as a menu option and tracked through the ITB Manager.

Product Inventory

Product Inventory has been enhanced to track unlimited unit buckets based on

user needs. Product inventory can be tracked via On Hand, On Order, Damaged, Back-Ordered, etc. as required by the customer. The main classifications of inventory are as follows: Stock, Consignment, Return to Vendor, and User Definable. This is achieved by applying an Inventory Reason Code to a process that modifies inventory amounts. The Inventory Reason Codes will determine which unit totals will be increased and which ones will be decreased based on process. For example, when selling products that track inventory, selling an item will decrease units on hand using the Sale Inventory Movement Reason Code found within the Store Information record. Inventory updates that are performed as user adjustments (inventory adjustments, receiving, purchasing, etc.) also use the Reason Code logic to increase or decrease inventory levels. Some inventory updates are automatically assigned a reason code based on the process (eg. Automatic re-orders on min/max inventory levels). A number of dialogs and tables have been changed and added to account for this change.

New Tax Service

A new tax lookup service has been added to ITB Credit. The new service is Avalara and is being used by Loehmann’s to replace Vertex. The tax service is used to determine the tax owing from a customer’s transactions for products purchased for out-of-state deliveries.

GL Accounts

Throughout the system, new Revenue GL Account definitions have been added along with additional details within the GL Account Details section. These additional GL account fields can be used when interfacing into accounting systems.



ERP Functionality

Enterprise Resource Planning functionality has been added to the Scoria Retail Suite. This sub-system is an integrated internal and external management of information across an entire organization embracing finance/accounting, manufacturing, sales and service, customer relations management, etc. The ERP functionality facilitates information flow between all business functions inside the organization and manages connections to outside stakeholders.

User Password Changes

Users are now allowed to change their password directly from the ITB Manager menu without having to go into their employee record. The password change only adjusts the ITB Manager password or the HQ password. The Point-of-Sale also has a Change Password feature that can be accessed once the menu option has been added via the ITB Menu Editor. If the user connects to the Manager using the SUPER USER username/password, this change password functionality is not available.

New Reportizer

A new version of the Reportizer reporting tool has been implemented into this release. The 4.0.6 release contains mainly bug fixes.

P2PE Explained

by Dave Mears (dmears@crimsontt.com)

The Challenge

Every retailer and company that accepts credit and debit card payments today runs the risk of being targeted by cybercriminals for the purpose of stealing customer's payment card data. In addition to robbing companies of their customers' trust, every compromised record can expose these businesses to fines from bank regulators and the card associations. Even companies that have recently been certified as being PCI compliant are still being breached at an alarming rate. The challenge is finding an easy to implement solution that improves security at every transactional stage and remains cost-effective for the business.

The Solution

Point-to-point encryption (P2PE), also referred to as end-to-end encryption (E2EE), ensures sensitive credit card data is protected while in transit from first card swipe (or other point of interaction) to the point of decryption at the payment processing host. Vulnerable data is protected by state-of-the-art tokenization that removes the need to store card data and replaces it with a randomly generated number called a token. The token can be used for many business processes such as returns, chargebacks, recurring payments, sales reports, analytics or marketing programs, but cannot be used to conduct a fraudulent transaction outside your systems.

PCI audit companies have determined that a well-architected, properly deployed P2PE solution can virtually eliminate the current risk of credit card data compromise for a retail environment and provide a clear and dramatic reduction of PCI compliance scope that will, in turn, reduce the cost of PCI compliance assessment and validation.



PCI Compliancy and Scope Reduction

The Payment Card Industry has developed the PCI Data Security Standard (PCI DSS) to mitigate the risk of compromise to customers' payment card data. The standard is applicable only to the system components that are "within scope" of PCI. The PCI DSS is based on industry security best practices, but is not focused on the overall information security. To reduce PCI DSS compliance scope, merchants must reduce the potential security risk and access to payment card data.

The PCI Security Standards Council has incorporated scope reduction guidance within the PCI DSS framework and through guidance on specific technologies or architecture. Compliance scope reduction has commonly been addressed through the implementation of network segmentation where systems and environments that process, store, or transmit card data are "isolated" from other non-payment environments. Most of the DSS controls are designed to manage card data risk from specific threats. Therefore, it is possible to reduce the control scope by securing the card data in the merchant environment so that those threats are no longer a viable risk. By strongly encrypting card data at the point of interaction in a secure and restricted device, where the ability to decrypt the card data is removed, and by adhering to specific deployment scenarios, a large portion of

the environment can be treated as "out-of-scope" similar to network segmentation.

The reduction of PCI compliance scope eliminates the cost of PCI control deployment for the purpose of compliance. It also reduces the cost and effort to validate PCI compliance of the merchant environment.

Summary

If you need to secure your customers' sensitive data from theft and help protect your business from financial penalties, damage to your reputation and customer loyalty, then you should seriously consider implementing P2PE into your payment system. Not only does P2PE give your business one of the most secure PCI-DSS solutions on the market today but it will also reduce PCI cost by reducing your business' scope for PCI compliancy.

Crimson in the Clouds

by Gerry Metzger (GMetzger@crimsontt.com)

Although cloud computing has been discussed for many years, not until the prolific use of smart phones has this technology made overwhelming sense. Two dominant factors have driven retailers to look closely at adopting this sooner than later. One is the fierce competition from on-line retailers which have re-defined the traditional industry, and the other is the customer's demand for a seamless shopping experience.

To give the modern, digitally connected, customers this satisfaction, retailers need to create and maintain specific consumer profiles from multiple sources. This requirement is key to the enhancement of the shopping experience.

Great product and inventory no longer defines the merchant. As customers demand the same products and pricing in-store and on-line, the convergence of cloud, mobile and social media now make this multi-channel approach possible. Customers want to be connected to, and appreciated by, the merchants they frequent.

On-line retailers have been leading the field of cloud based retailing but brick and mortar retailers are changing their models quickly, and in the process, providing additional benefits to their clientele. This provides a strategic advantage, particularly at the point of sale, where the customer is face to face with the merchant. Crimson has long excelled in all manner of customer touch points. To extend this expertise across multiple platforms is a natural progression. In this age of hybrid, cloud computing, applications are distributed across many platforms, partners and



stakeholders, thus providing the tools necessary to satisfy the customer.

Cloud computing solution will facilitate a multi-channel operation for the retailer. It will provide more insight into their customer's wishes and needs. Efficiencies in the supply chain can be exploited to enhance sales, profitability and service. Each individual customer must be satisfied. The smartphone is a key vehicle to drive this unique relationship.

To accomplish this, the retailer must use a seamless platform that can function at many levels of detail. Customers are looking for solutions, not just products. Providing these solutions will point to new markets, more loyalty and increased sales. Only the cloud can address this broad, seamless spectrum of applications.

With many software vendors adapting to new technology, Crimson too will be engaging in the development and eventual deployment of a cloud based solution. The database, to some degree will remain as is with obvious changes to account for the new technologies. Design and development has already been started.

We here at Crimson are very excited about this direction and we will continue to support and enhance the Client/Server based system with all our existing customers.

Introductions

Over the years, we have been building up the company at a steady pace. The more sales we make, the more staff we hire to compensate the growth. Below is a list of the key personnel that contribute countless hours to ensure you, the customer, are satisfied with our services and software offering.

Angelo Kalpakis

Angelo has over 25 years' experience in POS, Retail Technology and Systems Development. A successful entrepreneur, he is co-founder and a partner in Crimson Transaction Technologies. Crimson has grown over the past 15 years, initially offering legacy system software support, into a focused Retail Systems provider offering the Scoria Retail Suite of products. As Director, System's Architecture he is responsible primarily for the system's database integrity and management. His background includes extensive experience in systems analysis and development with a variety of companies including retail, banking, medical, process control, accounting and warehouse management.

At REF Retail Systems, a major Canadian POS developer, Angelo was involved in supporting a variety of client systems, primarily in the specialty retail market. His involvement with both small and large companies has given him the experience and perspective necessary to understand their operational environments.

Working with his business partner, Dave Mears, he co-manages the ongoing support and enhancement of Crimson's retail suite of software. His technical background is extensive, encompassing a wide variety of technologies. He has worked with a number of development environments and languages including C, C++, assembler, Visual Basic, FORTRAN, Pascal, COBOL and PL1. Operating systems experience extends to all Windows operating systems from DOS to Windows XP/7/8, UNIX, Digital VAX, PDP-11, and OS/2.

An experienced systems professional, Angelo is dedicated to the success of Crimson TT, it's suite of software products and the client partners who utilize them.

Dave Mears

David has over 25 years in the computer industry with approximately 20 years spent specifically dealing with Retail Systems and technology. He is a co-founder and a partner in Crimson Transaction Technologies.

David did his post-secondary education at the University of Waterloo from 1980 to 1984. He majored in mathematics with a minor in computer science.

Dave's focus is POS application development including the management of system testing and implementation. A specialist in payment processing systems, his expertise in designing, developing and certifying Crimson's integrated Credit Switch family of products has been key in creating an innovative, cost effective product. His knowledge of project management, people management, and customer relations makes him an invaluable resource for Crimson. He is also familiar with our industry standards and acts as the go-to guy for all compliance issues.

Mike De Winter

Mike is our resident geek. He has been programming since he was 8 years old. He is a specialist in OPOS drivers and has been known to write these from scratch where none existed. Mike has written utility programs to satisfy some very unique customer requirements. He is intimately familiar with all standard and some not so standard POS peripherals.

At Crimson, Mike is responsible for configuring the hardware and the software to ensure that they operate in unison. His strength is the matching of hardware and software to meet the customer's exact requirements.

Working closely with IT and end users during the rollout process, Mike manages the creation, automation and deployment of the hardware and software for each customer.

Vic Mehta

Vic's breadth and depth of formal education and practical experience in a diverse set of business and technology environments positions him ideally to provide exceptional project management services for our valued clients as well as internal projects. His projects have included being the logistics project manager for the largest educational technology deployment in Atlantic Canada

and Business Process Re-engineering for Defense, Environmental Engineering, Finance, Automotive, Government and Healthcare organizations.

Vic credits his systems architecture, development and deployment experience on heterogeneous platforms with Manufacturing, Distribution and Retail operations for his ability to apply cross-discipline solutions. His educational seminars are well attended by technical and non-technical participants alike.

Gerry Metzger

Gerry is a retailer with 30 years of technology experience. With a good understanding of the entire retail enterprise, he is an expert in POS hardware and store level software applications. As a veteran of the retail technology industry, Gerry has held the position of Retail Marketing Manager at Digital Equipment, and the position of Vice President Sales at Wincor-Nixdorf, Ultimate Technology, DigiPos North America and Pippard Inc.

Gerry has an outstanding ability to translate retailers' business requirements into cost effective technology solutions. He is a frequent speaker and author and has been consulted by hundreds of North American retailers on issues related to the flow of their critical business information.

His current interests are focused on store level efficiencies. Working with alliance partners and end users, Gerry is leveraging the capabilities of our company into an improved bottom line for many of our customers.

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