Not all tokenization solutions are created equal

Tokenization is About More Than PCI Compliance – It's a Strategic Business Decision

Heightened merchant concerns over securing sensitive cardholder information, as well as new Payment Card Industry (PCI) security mandates, have driven demand for integrated card data protection solutions. These concerns are well justified.

In a 2010 study conducted by the Ponemon Institute, the average cost of a data security breach for U.S. merchants is in excess of $6.7 million; the most expensive data breach event reported a cost of almost $31 million to resolve.[1]

Tokenization, the process of replacing cardholder data with alternative identifiers (or tokens), is receiving significant industry attention. As this attention has grown, a number of new solutions have appeared on the market to fill the expanding demand. Chase Paymentech is a veteran provider of tokenization, having anticipated merchant's need for secure tokens. Through the Customer Profile Management module of our Orbital® Gateway, we have been successfully generating tokens for more than six years.

[1] Ponemon Institute, Five Countries: Cost of Data Breach, Ponemon LLC, April 19, 2010

Tokenization is emerging as a leading option because it addresses critical merchant requirements by eliminating the need to store card account data within your business environment. This can result in a significant reduction in the burden of PCI compliance.

If you are evaluating tokenization solutions, it is important to understand how the various solutions work and what they do. The business decision to implement tokenization can impact multiple customer interaction and payment processes; therefore, it is essential to evaluate products carefully to determine the best fit for your business and payments models.

In card-not-present (CNP) scenarios, the application of tokenization is particularly appropriate as the solution can protect information across a range of usage scenarios unique to e-commerce and billing environments. For example, CNP merchants often store customer profiles in order to speed the checkout process for returning customers. Or, automatic account updating may be implemented for recurring payments. A fully-featured tokenization solution should include both single-use and persistent tokens that can support one-time purchases, returning customer profiles and recurring bill payments. Tokens should provide a range of

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options, including the ability to protect not only the card number, but all other card data attributes.

When evaluating a tokenization solution, you should match specific capabilities against your company's existing business processes and implement the options that provide maximum utility with minimal payments flow disruption. In some cases, it may be desirable to change your business logic to fit a particular solution, though minimizing these changes will ease integration and reduce the impact to other systems. Overall, you should find a tokenization provider that meets your needs, not one that requires you to re-engineer your business model in order to adopt their technology.

Things to Consider When Choosing a Tokenization Solution

When adding tokenization or converting to a new tokenization vendor, Chase Paymentech recommends you perform a company-wide review of these changes – considering the cost, effort, complexity and long-term impacts of removing customer account data from your systems and procedures. Some areas to review before making your decision are indicated below.

Business Model – Determine whether the tokens can fit into your current processes through the storage of membership numbers, customer telephone numbers, policy numbers, product line indicators or other internal customer reference data. How does the availability – or lack thereof – of these data fields impact your current processes? Can the solution tokenize any payment method account data or just credit/debit cards? Will it work in all the countries where you conduct business today or plan to expand into?

Business Operations – Can the service enhance or replace your existing automated billing functions? Will it expand or reduce the amount of support personnel required to perform billing, customer service and other key operational functions?

System Architecture – In the best circumstances, the impact of adding tokenization to your payments process should be minimal. What is the level of development effort? Is the tokenization solution based on a programming language that is compatible with all your disparate affected systems? Does the vendor offer Software Development Kits (SDKs) to simplify integration?

Technical Parameters – What are the specific token features? Is there a one-to-one relationship between the Primary Account Number (PAN) and the token? Is it alphanumeric or numeric only? Does the data-field length support non-account number values? Does the token include the first six or last four digits of the PAN? Is the token generated for one-time use or can it be re-used for recurring or card-on-file transactions? Can you store additional data in the token beyond customer account numbers? Does your vendor offer different types of tokenization to support your business or only a single technology? How long is the token retained?

Sales – At what point in the transaction cycle does the tokenization occur and how does it impact your customer purchase experience? Does it require a customer redirect from your payment page that may deter some shoppers? Is your Web site optimization provider integrated into your tokenization solution? Does token generation lengthen authorization times, causing customers to cancel the transaction? If using a hosted payment page for tokenization, how flexible are your branding options? Does the token provider support all your customer-preferred payment methods or just credit/debit cards?

What's in a Token?

Token content can vary greatly by tokenization solution, either limiting or expanding the functionality of your tokens. The tokens within the Chase Paymentech gateway were designed to support all your business needs and can include any or all of the following data:

- Customer Name
- Address
- City
- State
- ZIP/Postal Code
- Customer E-mail Address
- Telephone Number
- Address Verification Service (AVS) Country Code
- Amount
- Order Description
- Order ID

Payment Information

Credit or Debit Card (Signature and PINless)
- Credit/Debit Card Number
- Expiration Date
- Biller Reference Number (PINless)

Electronic Check
- DDA Account Number
- Bank Routing Number
- Account Type
- Payment Delivery Method

Customer Service – Tokenization should not hinder the quality or speed of your customer service. With the payment account data masked, how can you track the transactions within your customer service environment? Is the profile systemically generated or can you create your own based on other customer data such as membership or policy number? How do the tokens support or hinder exception processing?

Account Data Maintenance – Is it easy to modify the customer account data stored within the token? Is Account Updater incorporated to provide automatic updates when card data changes? If so, does the solution generate a new token for the modified data or update the existing token? Can you determine the frequency of Account Updater requests or perform one-off requests on a single customer?

Fraud Scoring – If you manage your own internal negative lists, what is the impact of tokenization on these lists? Can you identify other customer data that can be used instead of account number? How will the token integrate with your fraud service vendor? Can you tokenize the existing customer data within your internal fraud management system?

Chargeback Management – Reliance on card account data is inherent in many merchants' chargeback processes. How will adding tokenization impact this company function? What process changes need to be implemented? Is there token content that can be used as an alternative to account data?

Budget – What is the cost to integrate the solution? Does it include ongoing per-transaction or monthly fees? What costs does it eliminate, such as data storage hardware/maintenance and PCI compliance assessments?

Future Growth – How does the solution support your future growth? Who owns your customer tokens if you choose to move to another vendor? How easy is it to deliver those tokens to a new vendor? Is there a cost to obtain your tokens?

Chase Paymentech tokens are more than a security tool – they provide a complete customer profile that you can reference for repeat transactions, customer service actions, research and refunds. In addition to providing advanced security, the tokens within our Orbital payment gateway also reduce manual key entry errors for repeat customer purchases. Plus, they can be used in our Managed Billing Service, which provides you a simple, convenient way to collect payments automatically and on a regular schedule.

Since business environments and system architectures vary greatly, Chase Paymentech's Orbital Gateway now offers five different tokenization methods, fully integrated into your gateway processing. Orbital's Customer Profile Management module is flexible enough to meet your technical and business needs – all your payment methods, programming languages, business processes and compliance requirements, through a simple, easy interface. Tokenization offers the promise to increase security and lower compliance costs. Choosing the right tokenization solution for your business needs can ensure smooth implementation and maximize return on investment.

What's Not in a Token

The range of data options makes it easy to optimize your business processes while still maintaining customer account security. Just as important, there are some things that should not be stored within a token. These include:

- Card Verification Numbers (Visa® CVV2, MasterCard® CVC2, American Express® and Discover® CID)
- MasterCard SecureCode™ and Verified by Visa data

For more information on Chase Paymentech's Tokenization Solution, call 800.788.6010 or contact your Account Executive.