

FEDERAL RESERVE BANK *of* CHICAGO

September 26, 2011



CARDINAL[®]
COMMERCE

moving transactions from any place to the right place... **THE RIGHT WAY**

www.cardinalcommerce.com

Private and Confidential

Agenda

- Thank you
- Introduction
- Authentication
- Demo
 - 3D Secure
 - PIN Debit
- Thank you

Introduction

- Authentication
 - Eliminates / reduces fraud & repudiation
 - PCI effect
 - Chip card impact – migration to CNP
- Most authenticated transactions?
- The infrastructure for authentication exists!
- Every transaction could be authenticated
- Alternative payment brands use it
- Secure Remote Payment Council - launch

3D Secure – What is it?

- Authentication protocol – technology neutral
- Centers responsibility – issuers
- Benefits
 - Lower fraud & repudiation
 - Issuers – KYC / authenticate Customers / protect their brand / Durbin – revenue source
 - Consumers - confidence / safer transactions
 - Merchants
 - Fraud liability shift – chargeback protection
 - Lower interchange \approx 20 bps
- How many brands license the protocol?

3D Secure Brands

Verified by
VISA

MasterCard.
SecureCode.



AMERICAN EXPRESS
SafeKeySM



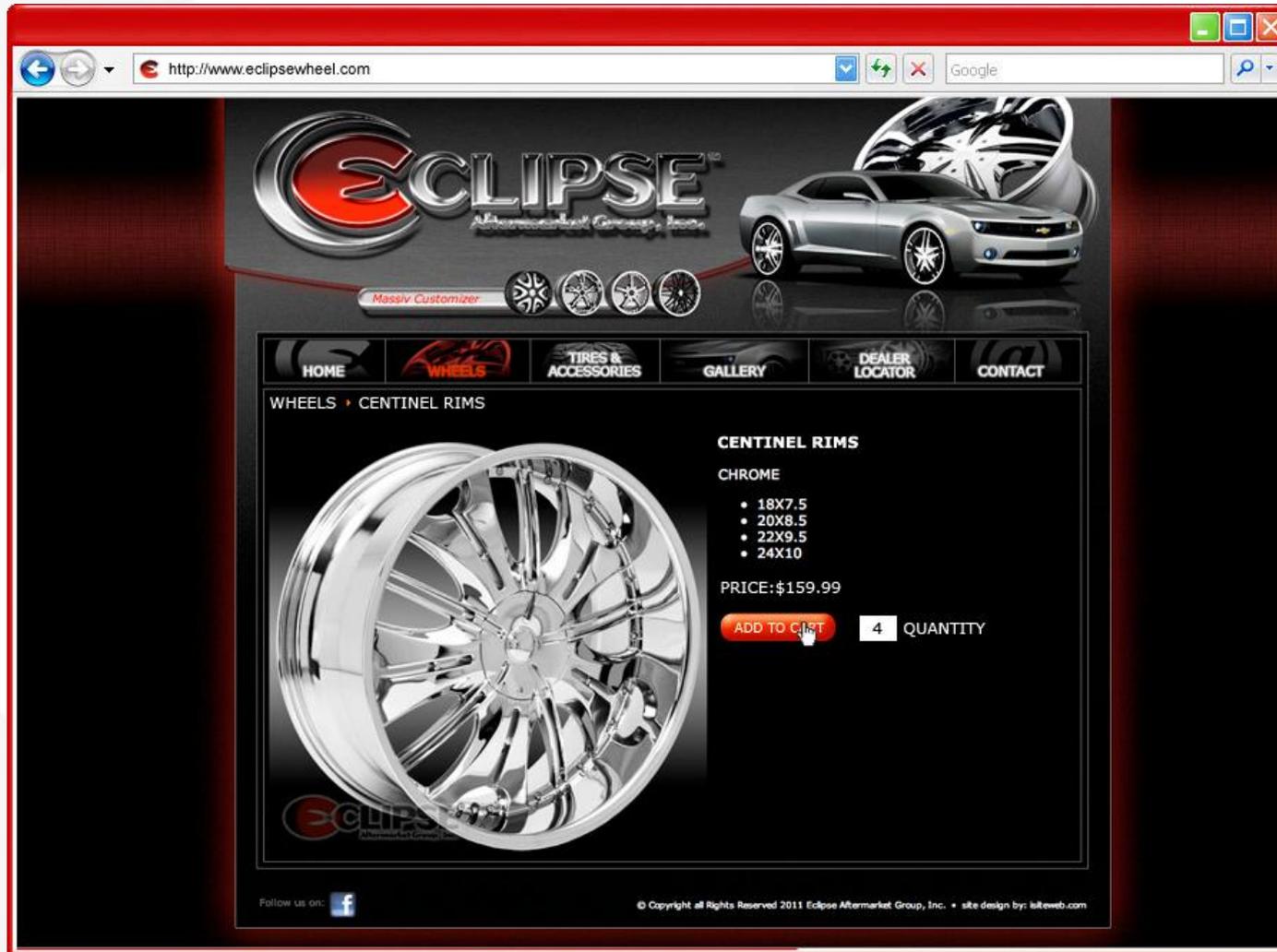
New Technology Challenges

- Issuer systems
- Centralized directory servers
- Merchant integrations – complex
- Consumer education
- User interface – rough
 - Pop-up windows
 - Limited messaging
 - Inflexible presentation

Progress

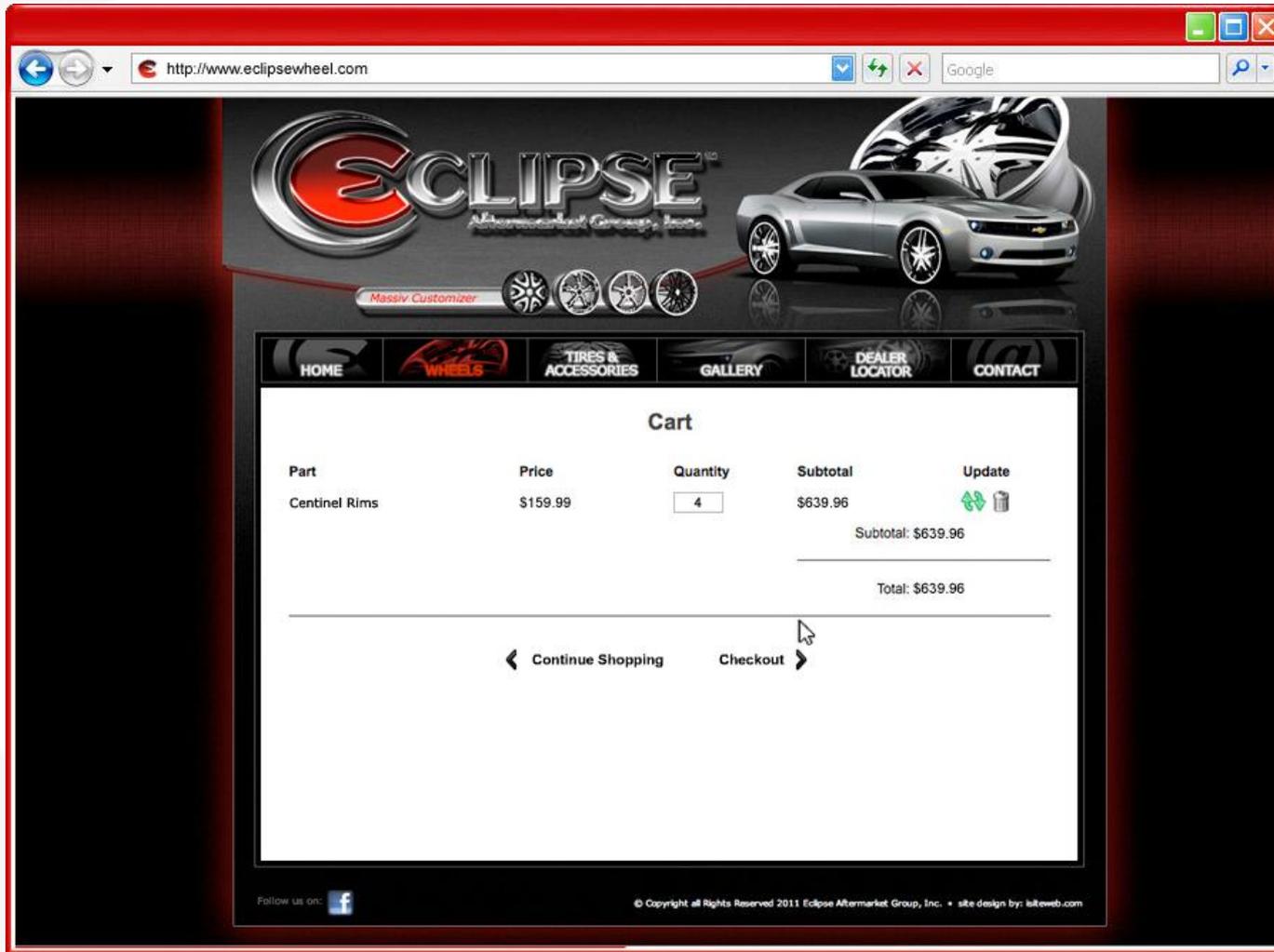
- International growth strong
 - Europe
 - APAC
 - USA...not so much
- Brand mandates – Maestro – 600 million
- Governmental / regulatory mandates
 - Reserve Bank of India
 - APAC – Australia, Japan and New Zealand
 - Brazil
 - Others in process

3D Secure - Demo



The screenshot shows a web browser window with the URL <http://www.eclipsewheel.com>. The website features a dark theme with a large 3D image of a silver sports car and a chrome wheel. The Eclipse logo is prominently displayed at the top left. Below the car, there is a "Massiv Customizer" section with four wheel icons. A navigation menu includes "HOME", "WHEELS", "TIRES & ACCESSORIES", "GALLERY", "DEALER LOCATOR", and "CONTACT". The "WHEELS" menu is active, leading to a "CENTINEL RIMS" product page. The product is shown in a 3D view, and the text "CENTINEL RIMS" and "CHROME" is displayed. A list of sizes is provided: 18X7.5, 20X8.5, 22X9.5, and 24X10. The price is listed as \$159.99. There is an "ADD TO CART" button and a quantity selector set to "4". At the bottom, there is a Facebook social media link and a copyright notice: "© Copyright all Rights Reserved 2011 Eclipse Aftermarket Group, Inc. • site design by: iktweb.com".

3D Secure - Demo



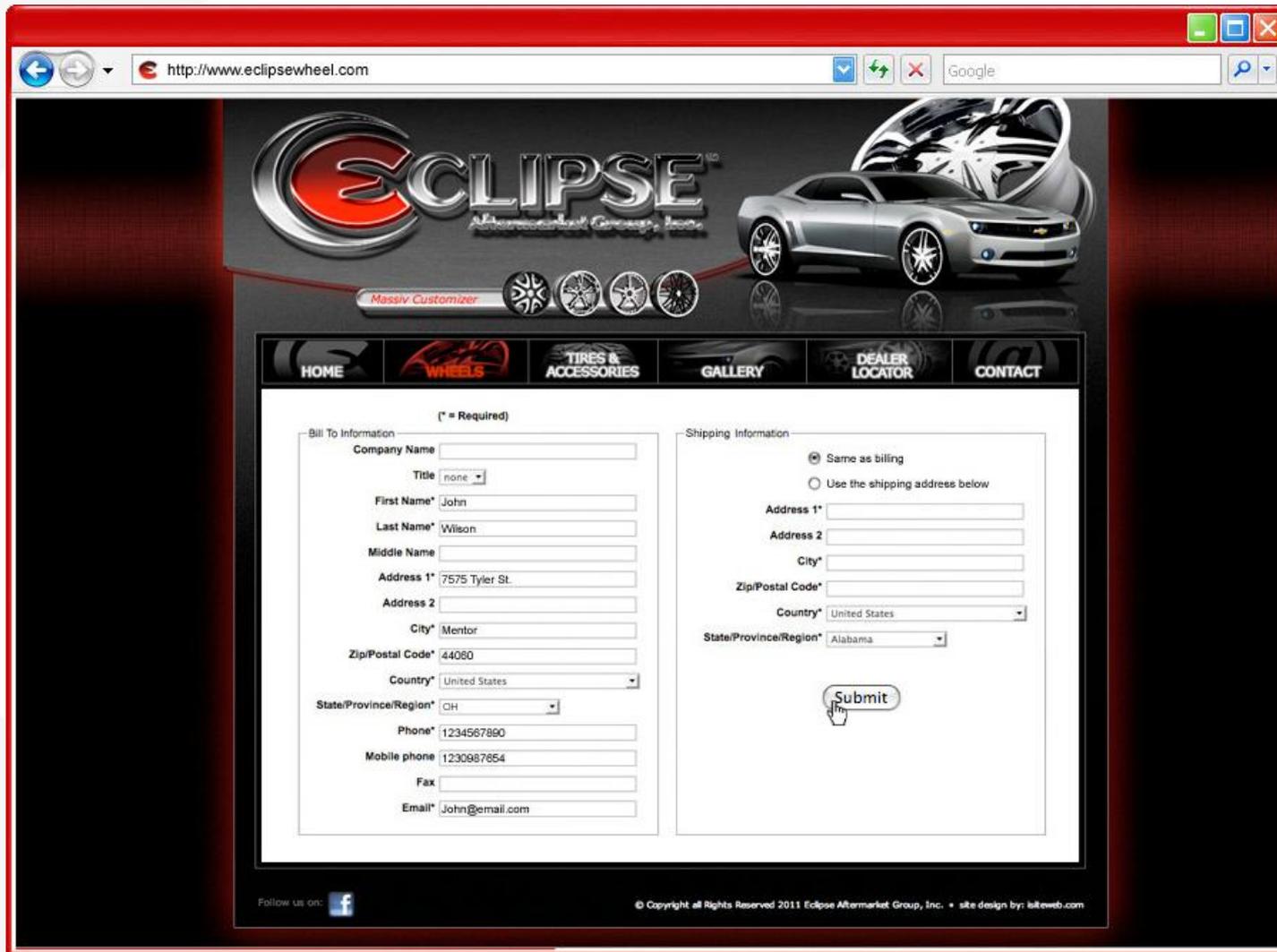
The screenshot shows a web browser window at <http://www.eclipsewheel.com>. The website features a navigation menu with links for HOME, WHEELS, TIRES & ACCESSORIES, GALLERY, DEALER LOCATOR, and CONTACT. The main content area displays a shopping cart with the following items:

Part	Price	Quantity	Subtotal	Update
Centinel Rims	\$159.99	4	\$639.96	
			Subtotal: \$639.96	
			Total: \$639.96	

At the bottom of the cart area, there are two buttons: "Continue Shopping" with a left arrow and "Checkout" with a right arrow. A mouse cursor is hovering over the "Checkout" button.

At the bottom of the page, there is a Facebook social media link and a copyright notice: "© Copyright all Rights Reserved 2011 Eclipse Aftermarket Group, Inc. • site design by: kilweb.com".

3D Secure - Demo



http://www.eclipsewheel.com

ECLIPSE
Aftermarket Group, Inc.

Massiv Customizer

HOME WHEELS TIRES & ACCESSORIES GALLERY DEALER LOCATOR CONTACT

(* = Required)

Bill To Information

Company Name _____

Title

First Name*

Last Name*

Middle Name

Address 1*

Address 2

City*

Zip/Postal Code*

Country*

State/Province/Region*

Phone*

Mobile phone

Fax

Email*

Shipping Information

Same as billing

Use the shipping address below

Address 1*

Address 2

City*

Zip/Postal Code*

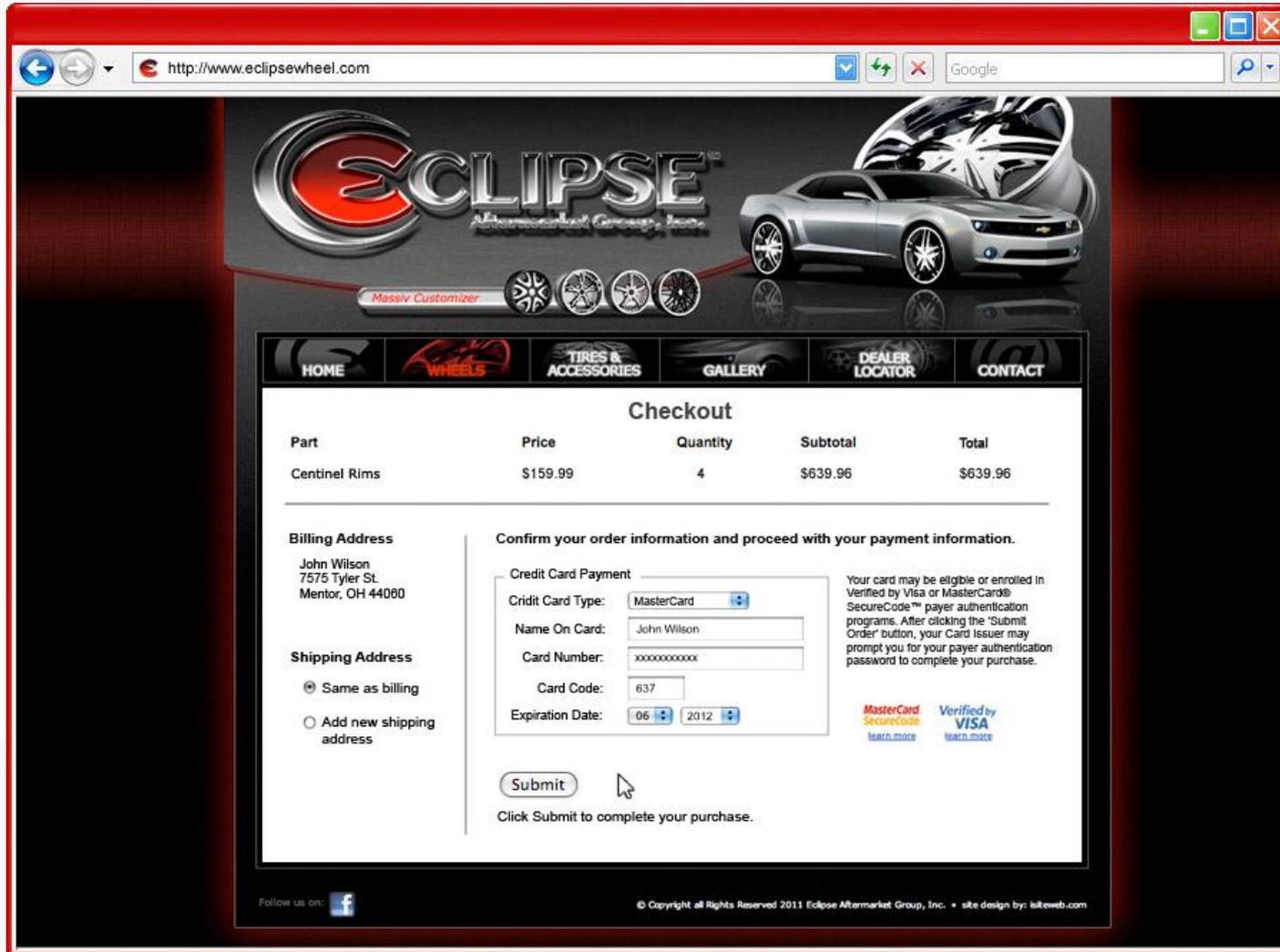
Country*

State/Province/Region*

Follow us on: 

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3D Secure - Demo



http://www.eclipsewheel.com

ECLIPSE
Aftermarket Group, Inc.

Massiv Customizer

HOME WHEELS TIRES & ACCESSORIES GALLERY DEALER LOCATOR CONTACT

Checkout

Part	Price	Quantity	Subtotal	Total
Centinel Rims	\$159.99	4	\$639.96	\$639.96

Billing Address
John Wilson
7575 Tyler St.
Mentor, OH 44000

Shipping Address
 Same as billing
 Add new shipping address

Confirm your order information and proceed with your payment information.

Credit Card Payment

Credit Card Type:

Name On Card:

Card Number:

Card Code:

Expiration Date:

Click Submit to complete your purchase.

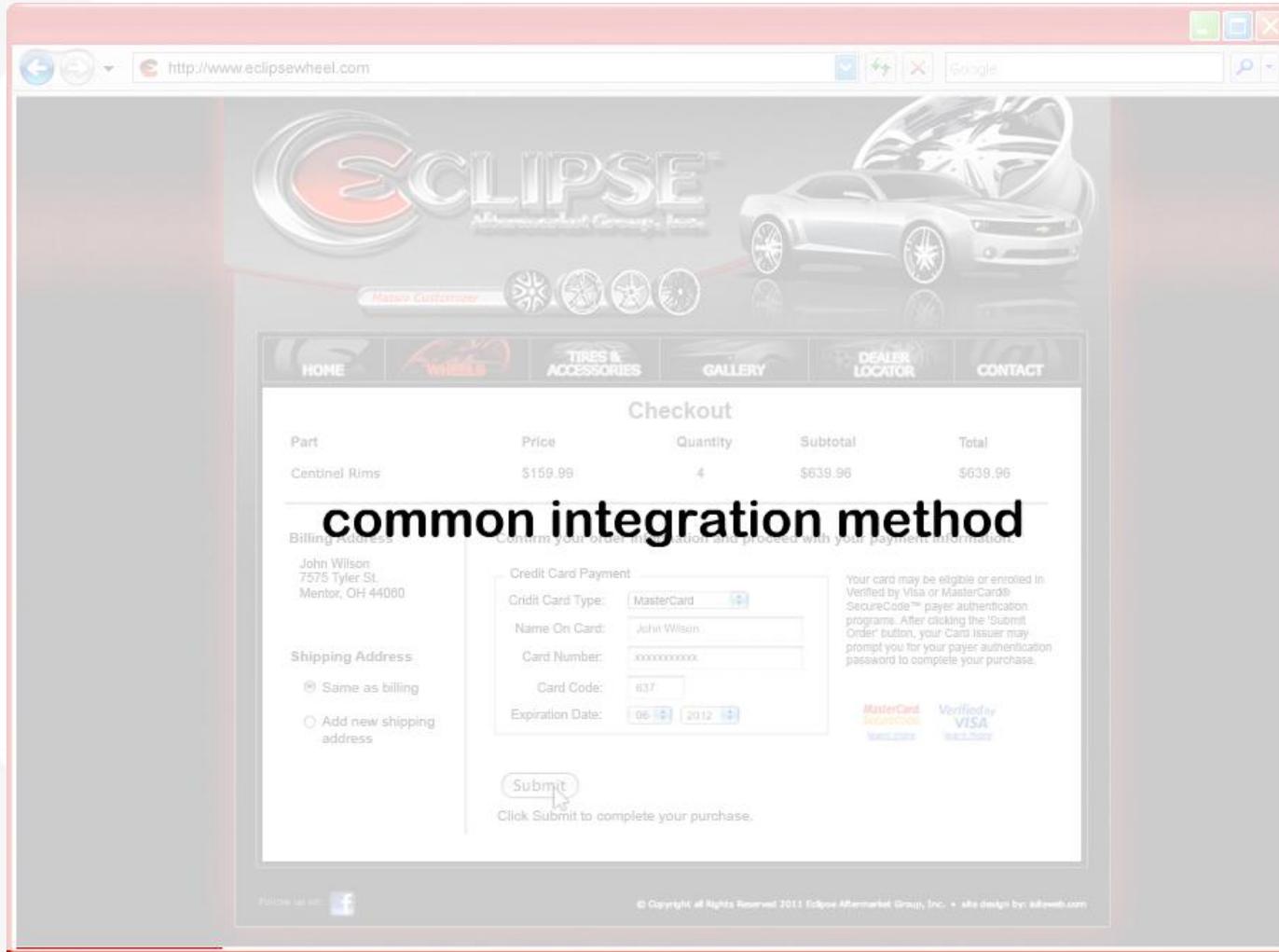
Your card may be eligible or enrolled in Verified by Visa or MasterCard® SecureCode™ payer authentication programs. After clicking the 'Submit Order' button, your Card Issuer may prompt you for your payer authentication password to complete your purchase.

[MasterCard SecureCode learn more](#) [Verified by VISA learn more](#)

Follow us on: 

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3D Secure - Demo



The screenshot shows a web browser window at <http://www.eclipsewheel.com>. The page features the Eclipse logo and a navigation menu with links for HOME, WHEELS, TIRES & ACCESSORIES, GALLERY, DEALER LOCATOR, and CONTACT. The main content area is titled "Checkout" and displays a table of items:

Part	Price	Quantity	Subtotal	Total
Centinel Rims	\$159.99	4	\$639.96	\$639.96

Below the table, there are sections for "Billing Address" (John Wilson, 7575 Tyler St, Mentor, OH 44060) and "Shipping Address" (with "Same as billing" selected). A "Credit Card Payment" form is present, including fields for "Credit Card Type" (MasterCard), "Name On Card" (John Wilson), "Card Number" (masked), "Card Code" (637), and "Expiration Date" (06/2012). A "Submit" button is highlighted with a mouse cursor. A note on the right states: "Your card may be eligible or enrolled in Verified by Visa or MasterCard SecureCode™ payer authentication programs. After clicking the 'Submit Order' button, your Card Issuer may prompt you for your payer authentication password to complete your purchase." Logos for MasterCard SecureCode and Verified by Visa are also visible.

common integration method

3D Secure - Demo

http://www.eclipsewheel.com

ECLIPSE
Aftermarket Group, Inc.

Massiv Customizer

HOME WHEELS TIRES & ACCESSORIES GALLERY DEALER LOCATOR CONTACT

MasterCard
SecureCode

Your Bank \$

Added Protection

Please submit your MasterCard® SecureCode™ password:

Merchant: Eclipse Wheels
Amount: \$839.96
Date: 11-15-2010
Card Number: xxxx_xxxx_xxxx_2054
Personal Message: MasterCard® SecureCode™
User Name: JohnShopper
Password:

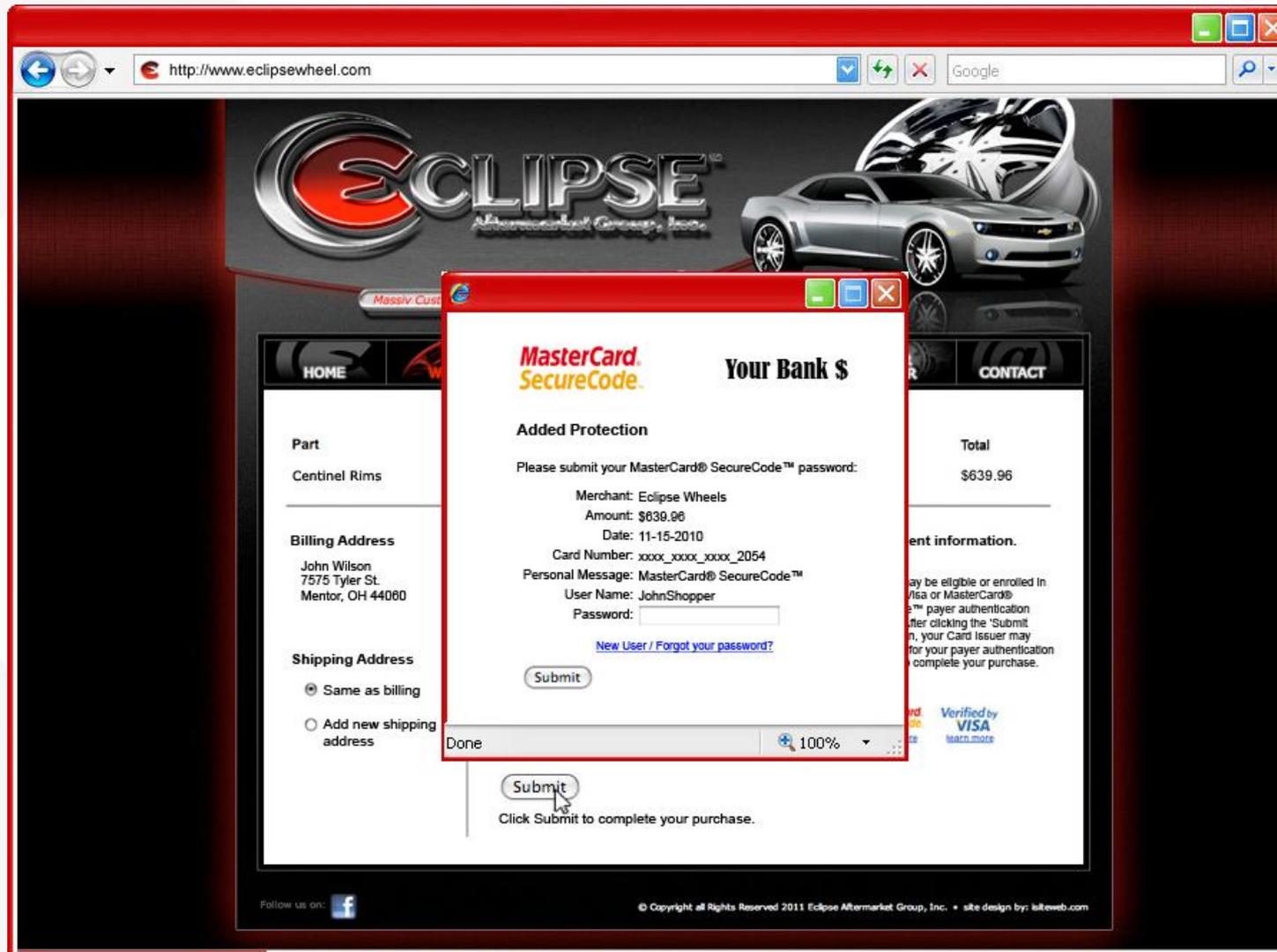
[New User / Forgot your password?](#)

Submit

Follow us on:

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3D Secure - Demo



The screenshot shows a web browser window with the URL <http://www.eclipsewheel.com>. The page features the Eclipse logo and a silver sports car. A MasterCard SecureCode authentication window is overlaid on the page. The window title is "Your Bank \$". The text inside the window reads:

MasterCard. SecureCode.

Added Protection

Please submit your MasterCard® SecureCode™ password:

Merchant: Eclipse Wheels
Amount: \$639.96
Date: 11-15-2010
Card Number: xxxx_xxxx_xxxx_2054
Personal Message: MasterCard® SecureCode™
User Name: JohnShopper
Password:

[New User / Forgot your password?](#)

Done 100%

Click Submit to complete your purchase.

The background page shows a shopping cart with the following items:

Part	Total
Centinel Rims	\$639.96

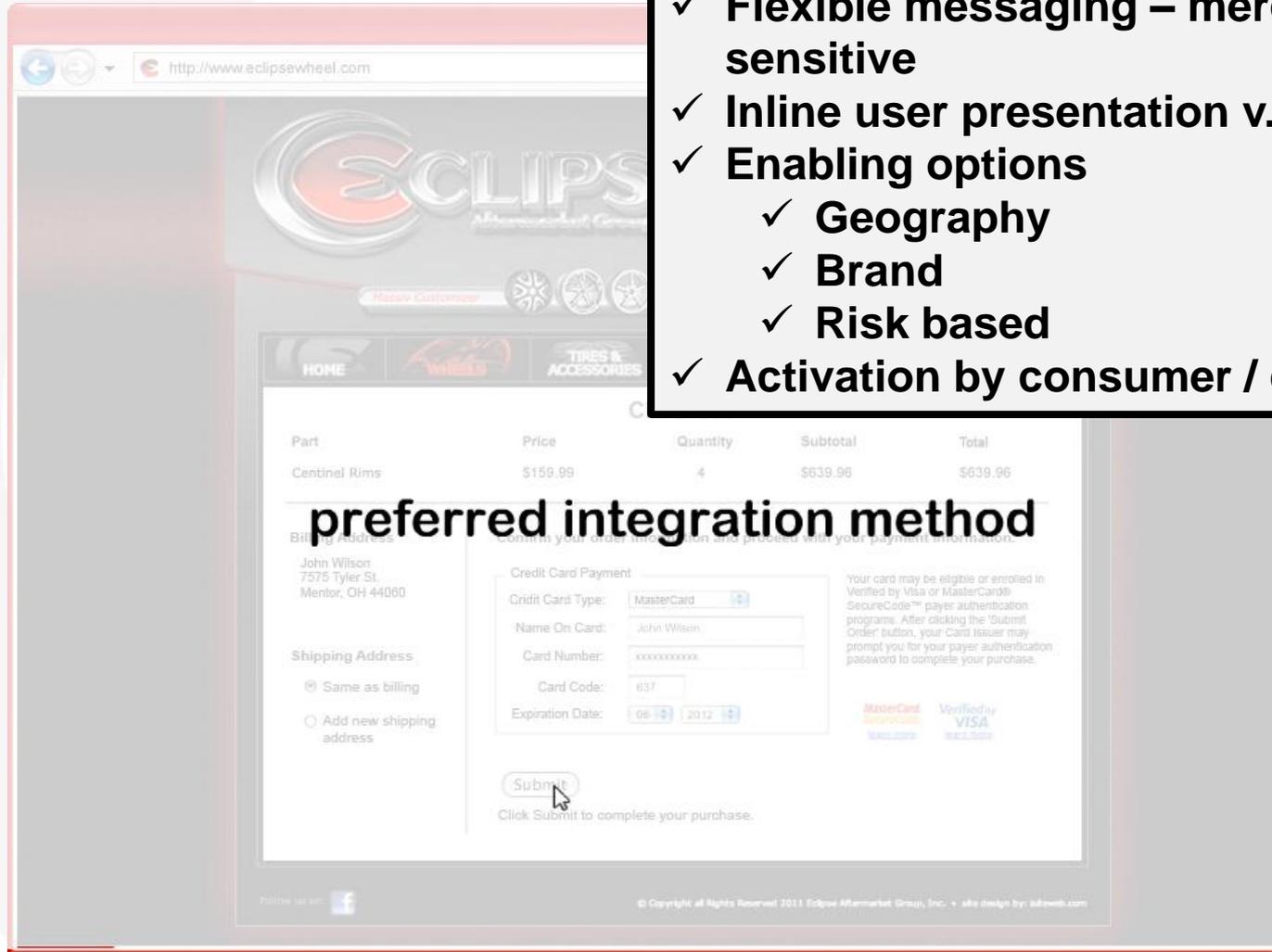
Shipping Address options:

- Same as billing
- Add new shipping address

Footer text: © Copyright: all Rights Reserved 2011 Eclipse Aftermarket Group, Inc. • site design by: iktweb.com

3D Secure - Demo

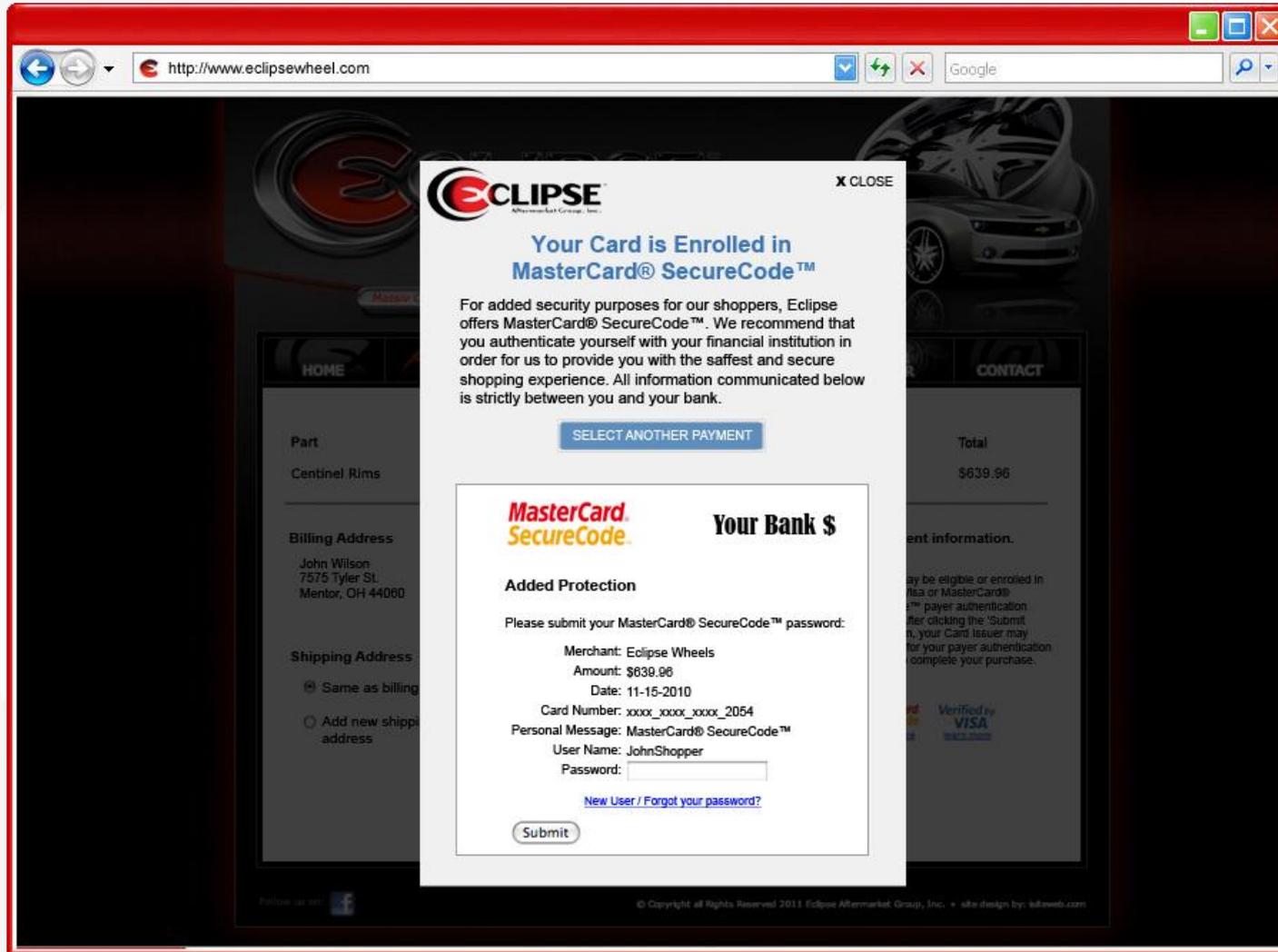
- ✓ Flexible messaging – merchant sensitive
- ✓ Inline user presentation v. Pop-ups
- ✓ Enabling options
 - ✓ Geography
 - ✓ Brand
 - ✓ Risk based
- ✓ Activation by consumer / choices



The screenshot shows a web browser window at <http://www.eclipsewheel.com>. The page features the Eclipse Wheel logo and navigation tabs for 'HOME', 'WHEELS', and 'TIRES & ACCESSORIES'. A table lists 'Centinel Rims' with a price of \$159.99, a quantity of 4, a subtotal of \$639.96, and a total of \$639.96. Below the table, there are sections for 'Billing Address' (John Wilson, 7575 Tyler St, Mentor, OH 44060) and 'Shipping Address' (with 'Same as billing' selected). A 'Credit Card Payment' form is visible, including fields for 'Credit Card Type' (MasterCard), 'Name On Card' (John Wilson), 'Card Number', 'Card Code' (637), and 'Expiration Date' (06/2012). A 'Submit' button is highlighted with a mouse cursor. An inline notification on the right side of the form states: 'Your card may be eligible or enrolled in Verified by Visa or MasterCard® SecureCode™ payer authentication programs. After clicking the 'Submit Order' button, your Card Issuer may prompt you for your payer authentication password to complete your purchase.' Logos for MasterCard SecureCode and Verified by VISA are also present.

preferred integration method

3D Secure - Demo



The screenshot shows a web browser window with the URL <http://www.eclipsewheel.com>. The browser's address bar and search bar are visible. The website content is partially obscured by a white modal window with a red border. The modal window has a close button in the top right corner.

ECLIPSE X CLOSE

Your Card is Enrolled in MasterCard® SecureCode™

For added security purposes for our shoppers, Eclipse offers MasterCard® SecureCode™. We recommend that you authenticate yourself with your financial institution in order for us to provide you with the safest and secure shopping experience. All information communicated below is strictly between you and your bank.

[SELECT ANOTHER PAYMENT](#)

MasterCard SecureCode **Your Bank \$**

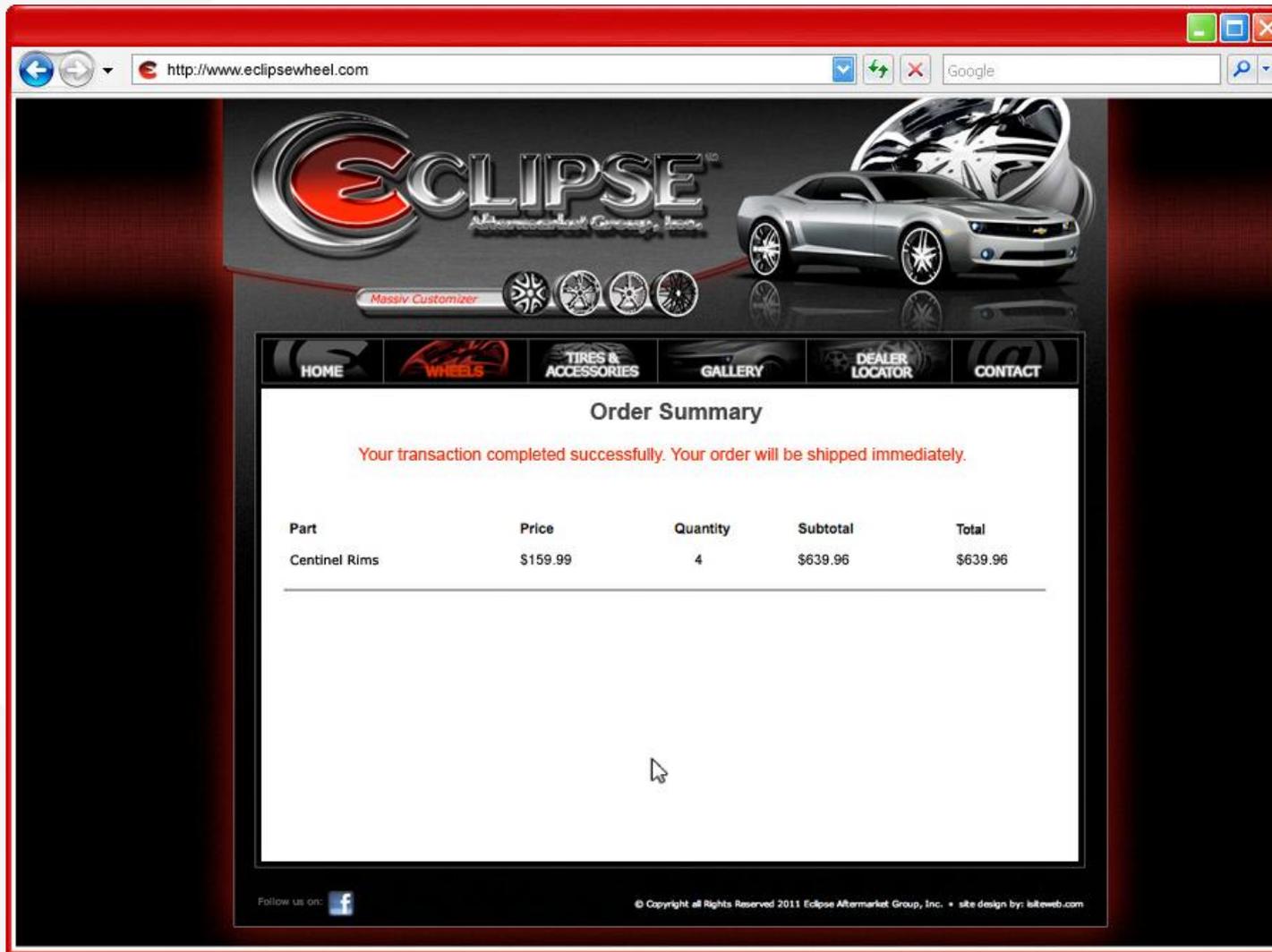
Added Protection

Please submit your MasterCard® SecureCode™ password:

Merchant: Eclipse Wheels
Amount: \$639.96
Date: 11-15-2010
Card Number: xxxx_xxxx_xxxx_2054
Personal Message: MasterCard® SecureCode™
User Name: JohnShopper
Password:

[New User / Forgot your password?](#)

3D Secure - Demo



The screenshot shows a web browser window at <http://www.eclipsewheel.com>. The website features a navigation menu with links for HOME, WHEELS, TIRES & ACCESSORIES, GALLERY, DEALER LOCATOR, and CONTACT. The main content area displays an "Order Summary" with a confirmation message: "Your transaction completed successfully. Your order will be shipped immediately." Below this is a table with the following data:

Part	Price	Quantity	Subtotal	Total
Centinel Rims	\$159.99	4	\$639.96	\$639.96

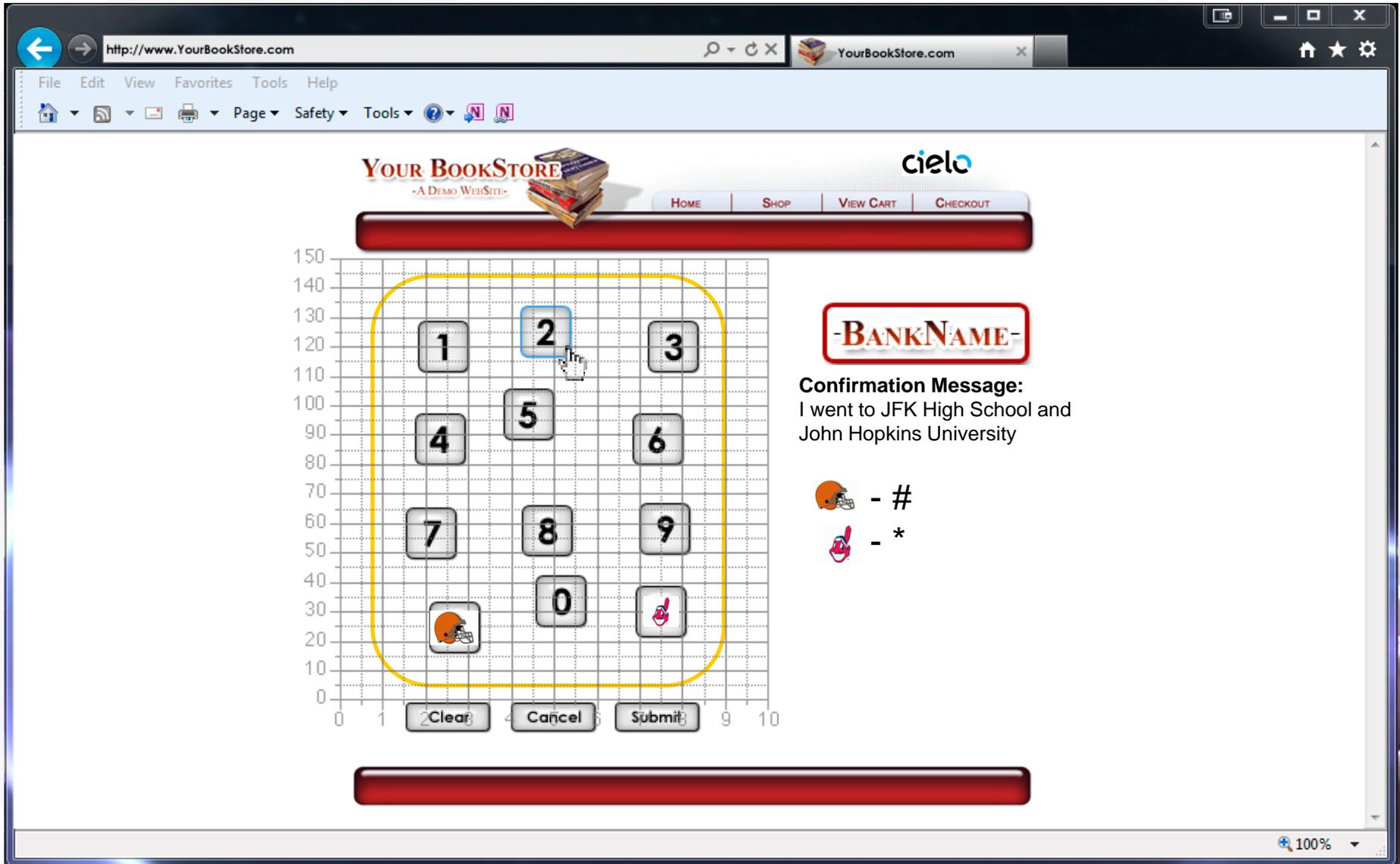
At the bottom of the page, there is a Facebook social media link and a copyright notice: "© Copyright all Rights Reserved 2011 Eclipse Aftermarket Group, Inc. • site design by: liltweb.com".

SRPc - Launch

- Early 2012
- Debit networks
- Merchants / Merchant service providers
- Secure PIN Pad
 - Credentials – alpha / numeric
 - Card / payment - information
- Location / Position / Algorithm
- Supports
 - Mobile
 - PC / laptop
 - Remote devices (tablets and other devices)

The screenshot shows a web browser window with the address bar containing `http://www.YourBookStore.com`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The website header displays "YOUR BOOKSTORE -A DEMO WEBSITE-" with a stack of books icon and navigation links for HOME, SHOP, VIEW CART, and CHECKOUT. The main content area features a numeric keypad on a grid background, with a yellow rounded rectangle highlighting the keypad area. The keypad includes buttons for digits 1-9, *, 0, and #. Below the keypad are buttons for Clear, Cancel, and Submit. To the right of the keypad is a red-bordered box labeled "-BANKNAME-". Below this box is the text "Confirmation Message: I went to JFK High School and John Hopkins University". A red horizontal bar is positioned below the keypad and buttons. The browser's status bar at the bottom right shows a zoom level of 100%.

Cardinal Authenticated PIN Pad - CAPP



YOUR BOOKSTORE
-A DEMO WEBSITE-

cielo

HOME SHOP VIEW CART CHECKOUT

1 2 3
4 5 6
7 8 9
[Helmet] 0 [Hand]

Clear Cancel Submit

-BANKNAME-

Confirmation Message:
I went to JFK High School and
John Hopkins University

[Helmet] - #
[Hand] - *

http://www.YourBookStore.com

YOUR BOOKSTORE
-A DEMO WEBSITE-

HOME SHOP VIEW CART CHECKOUT

My cat is brown

-BANKNAME-

Confirmation Message:
I went to JFK High School and
John Hopkins University

100%

Next Steps

- Add authentication!
- Questions & Answers