



# Internet Payment Services

*Powered by ValuCard Nigeria Plc  
(Joint Acquirer for Visa International in Nigeria)*

## About “Verified by Visa”

Internet based credit/debit card transactions are 'card-not-present' and 'no signature present' kind of payments. Merchants are therefore faced with special challenges in accepting credit/debit cards for payment because they cannot obtain and validate customers' signatures, nor can they record the contents of the magnetic stripe on the cards.

In many cases, merchants are vulnerable to *online* shoppers that deny execution of the transactions and when disputes arise, which are typical of *online* frauds, the merchants were usually unable to prove that the actual cardholder is the person performing the payment transaction at their websites.

*Verified by Visa* (VbV) is a simple password-protected identity-checking service, developed by



Visa International Services Association (Visa), to take the risk out of *online* retail for merchants and their Visa cardholder customers. VbV is built around a new payment protocol, 3D Secure, to address the challenge of disputes arising from customer identity and to improve the security of Internet payments. Integrating the 3-D Secure technology to merchants *online* shopping systems allows them to verify and authenticate the true identity of shoppers in *real time*.

## About 3-D Secure

3-D Secure is an authentication technology that uses Secure Sockets Layer (SSL) encryption and a Merchant Plug-in (MPI) to pass information and query participants to authenticate the cardholder during an online purchase, and protect payment card information as it is transmitted via the Internet. It is a protocol developed by Visa to improve the security of Internet payments by enabling Issuers to authenticate their cardholders at participating merchants' Internet payment portal. The objective is to benefit all participants by providing Issuers the ability to fully authenticate cardholders during online purchases, reducing the likelihood of fraudulent usage of Visa cards and improving overall transaction performance.

The 3D-Secure technology provides a means to actually validate that a Visa cardholder is duly authorized to use the card to make payment on the web, and to qualify the transaction for guaranteed payment to the merchant thereby protecting the merchant against cardholder charge backs.

## The Participating Bodies

Visa 3-D Secure is not just a payment authentication method or a technology definition, but a model that isolates the responsibilities of various parties associated with a payment transaction cycle. Based on the fact that Card Issuers have close relationship with Cardholders and Card Acquirers have close relationship with Merchants, Visa 3-D Secure categorises the processing relationships into three domains as follows:

**Issuer Domain** - comprises of Cardholders and Issuing Institutions

**Acquirer Domain** - comprises of Merchants and the Acquiring Institution. ValuCard is the acquirer of all Visa transactions in Nigeria.

**Interoperability Domain** - comprises of communication systems operated and managed by Visa (i.e. Visa Directory Server and Visa History Server) that interlink the Issuer and the Acquirer domains.

## **1. Issuer Domain**

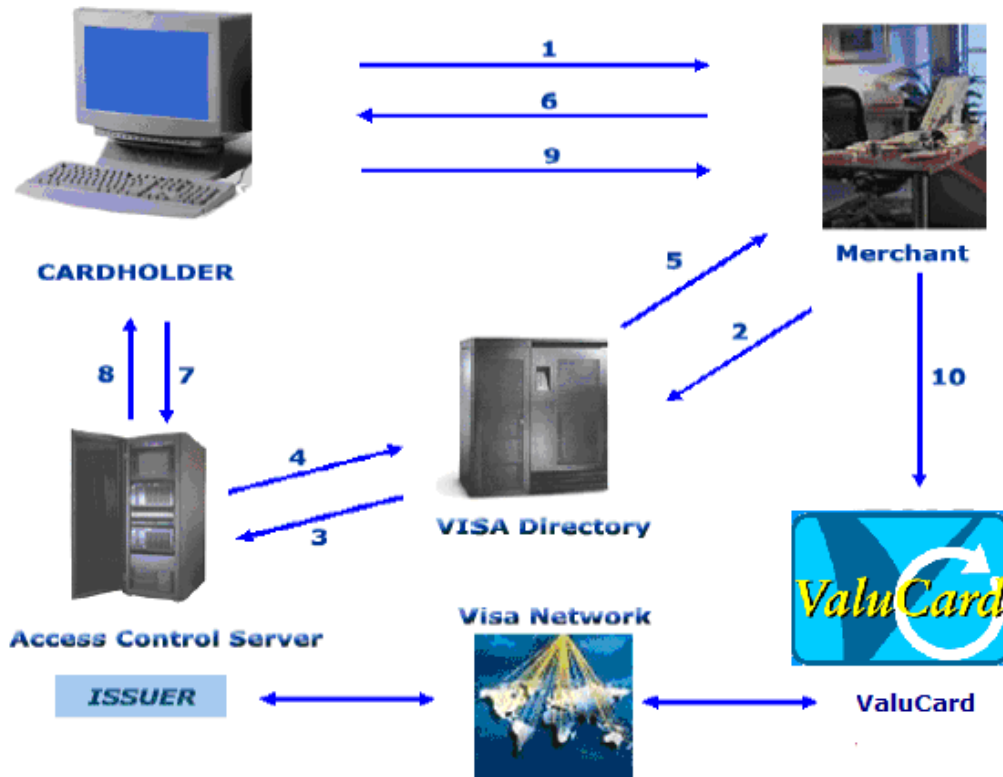
Ideally, the Issuer is responsible for enrolling cardholders in the service; verifying the identity of each cardholder who enrolls, and authenticating cardholders during online purchases. The Issuer system handles communication with 3D-Secure enabled Merchants and a centralized Visa directory, which acts as a communication intermediary between Merchants and Issuers. The Issuer system handles all interactions with the customer at multiple Internet access points that support a browser.

## **2. Acquirer Domain**

ValuCard Nigeria Plc, the acquirer, is responsible for defining the procedures to ensure that all the participating merchants in Internet transactions are operating under a common merchant agreement. ValuCard also provides the transaction processing for authenticated transactions.

## **Interoperability Domain**

This domain facilitates the transaction exchange between the other two other domains with a common protocol and shared services.



*Figure 1 : A typical 3D-Secure Payment Transaction Flow*

**ISSUER DOMAIN                      INTEROPERABILITY DOMAIN                      ACQUIRER**

## Benefits of VbV

The *Verified by Visa* payment process offers the following benefits:

### Merchants

- It provides selling opportunity to the over 1.6 billion Visa cardholders spread over 160 countries.
- It reduces disputed transactions and eliminates charge backs on transaction repudiations: "I didn't do it" type of claims. Once a Merchant is up and running with *Verified by Visa*, the Merchant is no longer liable for charge backs of this nature. Charge back liability passes to Issuer/Cardholder.
- Increased sales by enhancing consumer confidence in online purchasing. Merchants are protected from fraudulent transactions and the associated costs of such fraudulent transaction while their Visa cardholder customers get the reassurance they need to spend with confidence, thereby increasing purchases.
- Ease of integration into merchant legacy systems; only a software Plug-in is required at the merchant/processor, which is provided by ValuCard.
- There is minimal impact on merchant's interaction with consumer.
- Free corporate publicity on Visa International's website.
- Free corporate logo display on ValuCard Nigeria Plc's website.

### Cardholder

- Increased consumer confidence when purchasing on the Internet. The fear and uncertainty associated with exposing his Card details over the Internet is mitigated.

## How 3-D Secure Works

The 3-D secure payment process comprises of two main functions: Enrollment and Authentication.

### Cardholder Enrolment

Enrolment is the process by which cardholders are enabled to use the service. Ideally, when cardholders enroll they are asked for relevant identification information as well as personal information such as a password. A Personal Assurance Message (PAM) may also form part of the enrolment requirements. These data is used later at time of purchase.

The Issuer's Enrolment Server tracks participating cardholders and passes the record of enrollment to the Issuer's Access Control Server. Each time the cardholder conducts a transaction for which a 3-D Secure authentication request is generated, this Access Control Server will be consulted to verify that the cardholder is in fact enrolled in 3-D Secure.

Internationally issued Visa cardholders would need to enroll for VbV through their Issuers.

For VPay or any Visa card issued by Nigerian Banks, the initial point of registration is any ATM where Visa cards are accepted. The cardholder is expected to enroll by requesting an Internet PIN (iPIN) from the ATM. The iPIN is usable only for the VbV programme while the cardholder's regular PIN would still be in place for purchases made at PoS devices.

At a date in the very near future, cardholders would also be able to register for VbV through ValuCard Nigeria Plc's website, [www.valucardnigeria.com](http://www.valucardnigeria.com).



The detailed registration procedure for now is as follows:

1. Cardholder goes to any Visa card accepting ATM with his/her card, inserts it and request PIN change.
2. Under PIN change menu, the cardholder chooses the Internet PIN (IPIN) option and makes a PIN change.
3. Issuer, through the ATM, validates cardholder-supplied information and notifies the cardholder of successful completion of the enrollment process.
3. The Enrollment Server supplies an update to the Access Control Server, including the newly enrolled card number and any other data required for subsequent purchase authentication such as a password.

## **Authentication**

After enrollment, the cardholder is ready to shop at any participating merchant site where the merchant has integrated the ValuCard 3-D Secure Merchant Plug-in. The Merchant Plug-in (MPI) is integrated into a merchant's existing website and is able to obtain the cardholder information, and able to access the Issuer's Access Control Server (hosted by ValuCard Nigeria Plc) to validate the card's participation in the service.

The authentication procedure is as follows:

1. The cardholder selects goods or services and proceeds to the merchant's checkout page.
2. The Merchant Plug-in queries the Visa Directory to determine whether authentication or proof of attempted authentication is available for the card number. If the card number is in a participating card range, the Visa Directory queries the appropriate Issuer Access Control Server to validate cardholder participation or availability of proof of attempted authentication and sends the response back to the Merchant Plug-in.
3. The Merchant Plug-in sends an authentication request to the Access Control Server via the cardholder browser.
4. The Access Control Server queries the cardholder for password. The cardholder enters the password, and the Access Control Server verifies it.

5. The Access Control Server returns the authentication response to the Merchant Plug-in via the cardholder browser and passes a record of the authentication to the Authentication History Server.
6. The Merchant Plug-in validates the response.
7. If appropriate, merchant proceeds with authorization exchange with the acquirer.

ValuCard, the joint acquirer of Visa transactions in Nigeria, hosts, deploys and will maintain the Merchant plug-in (MPI) application that is encapsulated into the merchants' payment portal or website.

### **Merchant Enrolment Procedure**

Merchants in Nigeria who desire to enroll for the service are to contact ValuCard Nigeria Plc, and would need to do the following:

1. Complete a VbV Subscription Form (to be provided by ValuCard Nigeria Plc)
2. Complete a Merchant Application Form (ditto)
3. Execute a Merchant Agreement (ditto)
4. Nominate a Deposit Bank/Account where payment proceeds would be credited to
5. Instruct his/her bank to provide a Bank Mandate in the form prescribed by ValuCard Nigeria Plc
6. Pay a one-off sign on fee (the sum of which would be advised by ValuCard Nigeria Plc in an offer letter).

Other technical considerations include:

- The Merchant must have a functional website
- The website must have an active shopping cart/payment engine:
- A related check out facility on the site is also mandatory
- The site must have Customer Service Contact information. For this purpose at least 1 phone number and an email address must be provided.

- The Merchant must operate and clearly display the following on his website:
  - Return, Refund and Cancellation Policy
  - Delivery Policy for the goods/service(s) on offer
  - A commitment to process orders promptly (stating in clear terms delivery timelines).
  - Complete description of the goods/service(s) being offered for sale
- The Merchant must have a Privacy Statement that clearly undertakes not to violate the privacy of Visa cardholders who pay on the site.
- The Merchant should have intermediate web development skills to facilitate the integration process. This could however be provided by ValuCard Nigeria Plc for a fee or by any vendor deemed fit by the Merchant.
- The Merchant and/or his ISP should be Payment Card Industry (PCI) Data Security Standard compliant (see [www.pcissc.org](http://www.pcissc.org) for compliance standards). If not already compliant, plans should be put in place to achieve this within the shortest possible time

In addition to the technical requirements, we recommend that merchants should keep a database of prospective buyers, by requesting them to register on the site before they make their purchases. This way merchants are able to identify their customers as well as profile their purchasing habits so that they (merchants) can pro-actively maintain good customer relationship with such buyers.

For more information on VbV, contact the following:

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