



**3-DIMENSIONAL DATA ENCODING TECHNOLOGY WITH  
HOLOGRAM-BASED DISRUPTIVE TOKENIZATION<sup>TM</sup>**

## **PAYMENT PROCESSING RECONCEPTUALIZED**

- *Extremely fast* transaction authentication.
- Fewer clicks to complete a transaction
- Very simple Card Activation/Registration
- With no hackable information, ever

### **PROCESSING PROBLEMS**

***Fraud*** in Payment Card Processing ***relies on access to personal information***. ***Hacking*** and ***counterfeiting*** are major concerns to business and government and are an ***increasing threat*** to the ***security*** and the smooth-running of ***society***.

**The Payment Card Problem:**

- ***Over 500 million payment cards*** are active in the US alone!
- Even with the increased security of the Chip Card, ***counterfeit cards*** continue to be the largest single category of Payment Card Fraud
- US payment card fraud was ***\$37 Billion***
- Total ***cost of fraud*** = actual loss ***PLUS*** mitigation strategies = ***\$121 Billion!***

*(Federal Reserve 2018)*

### **3DDE SOLUTION -- *Eliminates Fraud Vulnerabilities at the Front-End***

3DDE is a ***real solution*** for ***securing on-line and mobile CNP (card not present)*** and even ***in-person CP (card present)*** transactions. All personal information remains behind the banks' firewalls and is replaced with tokenized information in every transaction and on every card. Thus, counterfeiting cards and hacking merchant databases is rendered useless. Moreover, 3DDE is designed to serve as a ***universal front-end*** for all payment cards.

**Implementation** - 3DDE is ***simple to implement*** by the consumer, the merchant and the banks.

***For the Consumer:***

- Smartphone
- Free download 3DDE App
- 3DDE encoded hologram on the issued payment card

***For Merchants and Banks:***

- Software update or plug-in supplements existing transaction software

**NO transaction can be *completed UNTIL verified* by 3DDE, **OK'ed** by the issuer and *accepted* by the **card holder**!**

### **3DDE TECHNOLOGY**

***Uniquely exploits*** the properties of a hologram. ***Advanced tokenization*** and ***sophisticated communication*** technologies ***securely verify*** and ***authenticate*** every transaction.

***Foils*** efforts at fraud, hacking and counterfeiting by ***Combining***

- ***Optical data encoding*** – 3-dimensional holographic methods
- ***Multi-dimensional*** digital analysis and tokenization
- ***Multi-aspect*** encryption of communications

***Such that no personal information is ever used in any part of a transaction.***

**SECURITY TRIANGLE - *The three points*** of the 3DDE Security Communications Triangle verify and authenticate: **The Bank \* The Merchant \* The Consumer**

**CONTEXT SENSITIVE TOKENS** - Verification/Authentication of the ***communicated*** data between each of the 'three points' of the Security Triangle is ***solely via*** proprietary ***context sensitive tokens. Even if hacked***, these alphanumeric tokens have no meaning outside of the 3DDE System Environment. The tokens ***DO NOT carry*** any ***personally identifiable*** information which ***REMAIN SECURE behind the bank's firewall!***

### **MITIGATION STRATEGIES INCORPORATED IN 3DDE**

3DDE technology incorporates these strategies cost-effectively and seamlessly:

- ***3DDE Card Verification*** (more secure alternative than CVV)
- ***Transaction Verification***
- ***Geolocation***
- ***3DDE APP and encryption*** (more secure than Browser/Malware Tracking)
- ***Device Verification*** (more secure than Pin/Sign Authentication and/or ID Fingerprinting)
- ***Real Time Transaction Tracking***
- ***ELIMINATES the need*** for ***Transaction / Customer Profile Database Tracking***  
(which is not only costly but raises privacy issues and is a target for hackers)

Contact:

XIVIX Inc. \* Eliezer Sandler, CEO \* [eliezer.sandler@gmail.com](mailto:eliezer.sandler@gmail.com) \* [www.xivix.info](http://www.xivix.info)