Advances in Privacy Protection

• What is Greenlisting?
  – Problem
  – Solution

• Technology
  – Increased network choice
  – Lower payment cost

• Why Greenlisting matters
What is greenlisting?

It is a foundational and critical feature to FI checking accounts in the growing online and mobile payment future, assuring FIs maintain and grow:

- Role of trusted provider of accounts and epayments
- Non-Interest Income from account and payment revenue
- Risk management in payments and funds
- Regulatory compliance of fraud and identity
Who's my identity bureau on the Internet?

Who's willing to vouch for me to third parties?

What does a bank need from me so I can get started?

Banks’ role in privacy

Accelerating migration to smaller more frequent electronic payments
The problem

The ten-fold growth in mobile...

undermines FI revenue and relationships where non-banks have garnered as much as 33%

- Revenue
- Relationship
- Risk
- Regulatory Compliance (ID)

Payment Networks:
(PayPay, Google, Dwolla)

Aggregators
(BillFloat, PinPoint, BillMyParents)

Billers and Services
(Online/Phone Payment, Manilla, Doxo, Volly)

Merchants
(Walmart, Target, Home Depot)

Online
(7%)

Mobile Carriers
(Isis, Boku, Verizon, AT&T)
The solution

**Advantages:**
- No Bank, Card or Account Data ever Shared
- FI Based
- Publicly Searchable

**Payment Networks:**
(PayPay, Google, Dwolla)

**Aggregators**
(BillFloat, PinPoint, BillMyParents)

**Greenlist: Identity & Privacy Protection**
- Bank Routing # & Account #
- Debit Card #

**Billers and Services**
(Online/Phone Payment; Manilla, Doxo, Volly)

**Telephone**
(Isis, Boku, Verizon, AT&T)

**Merchants**
(Walmart, Target, Home Depot)

**FI Checking Account**
- Revenue
- Relationship
- Risk
- Regulatory Compliance (ID)
Greenlist explained

Public | Private

Registry NEVER knows final destination account numbers

Payment Pathways warrants that every Greenlist ID is unique and remains unchanged as registered and maintained by the registrar.

<table>
<thead>
<tr>
<th>Public Identifiers</th>
<th>Publicly Discoverable Greenlist ID (GLID)</th>
<th>Publicly Discoverable Payment Addresses</th>
<th>Privacy-Protection Assured by Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Customer and/or Bank Supplies</td>
<td>a.k.a. UPIC or LCA-ACH</td>
<td>Bank Account Number</td>
</tr>
<tr>
<td>City</td>
<td>Proxy and/or VISA Supplies</td>
<td>a.k.a. &quot;Masking PAN&quot;</td>
<td>Personal Account Number &quot;PAN&quot;</td>
</tr>
<tr>
<td>Mobile Phone Number</td>
<td>1-630-880-0873</td>
<td>0710000505 - 1348098709</td>
<td>0710000505 - 1344230947</td>
</tr>
<tr>
<td>Linked Sender's GLID</td>
<td>Nickname: &quot;MyGreenlistID&quot; <a href="mailto:Pedro@gmail.com">Pedro@gmail.com</a></td>
<td>123456-123456789012-1</td>
<td>123456-493847605942-4</td>
</tr>
<tr>
<td>Facebook, Twitter, Skype, etc. name</td>
<td>P-24-0598234-059843</td>
<td>123456-1344230947 (Instant Class of Service)</td>
<td></td>
</tr>
</tbody>
</table>

Registrars warrant that public names are linked to and are the rightful owners of the accounts behind the associated public payment addresses which cannot be debited except by the owner or his linked recipient.

Only accredited entities can register participants
Greenlist combines the most efficient designs with the power of modern technology. It will replace old systems much as the wheel has replaced dragging.”

Dr. Franco Modigliani
Nobel Laureate - Economics
When network choice

Payment costs

Identity
Provider

Trust

Service
Support

Registration

Trust framework agreements

BANCwire™

Relying
Party

Payment costs

NIST
NSTIC
Identity Attribute Network

Trust

Trust

Trust
### What gaps are filled?

#### Instant Payment Transfers

<table>
<thead>
<tr>
<th>Security Level</th>
<th>High Bank</th>
<th>Off-Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Traditional Payment Nets</td>
<td>Internet</td>
</tr>
<tr>
<td>High Value Payments &gt; $1,000 ✓</td>
<td>$50B</td>
<td>Greenlist</td>
</tr>
<tr>
<td>Small Value Payments &lt; $1,000</td>
<td>$16B</td>
<td>PayPal, Western Union, Obopay</td>
</tr>
</tbody>
</table>
WHY?

HEALTHY RELATIONSHIP RULES
ENSURE

FINANCIAL IDENTITY PROTECTIONS
LEAST COST MOVE PEOPLE

SIMPLE IDEAS ROUTINE REGULATORS WANT LAYERS
IDENTITY ASSUREDNESS PROGRESSES

Web | Telco | Bank

Use Case Categories

Enrollment
- Self
- Merchant
- Bank

ACH & PAN
- US-ACH PAN
- Foreign PAN
- Merchant PAN

Output
- Acct. Sweep
- Merchant
- Mobile Carrier

Notification
- SMS
- Email
- Call-back
After the Durbin Amendment

Online merchant payments in U.S.

- Paypal - ACH backed
- Paypal - Card backed
- Credit Card
- Debit Card
- Emerging Payments*

Bank Profits
Remittance and Card-Not-Present payments between the U.S. and Latin America

WITH THE NEW GREENLIST TOOL

Bank Profits

- Paypal - ACH backed
- Paypal - Card backed
- Credit Card
- Debit Card
- Emerging Payments*

Where
For more ways to harness the power of Greenlist® to create world-changing identity applications based on bank trust, visit: www.paymentpathways.com

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