2015 Survey – Respondents
2015 Survey

In which region are you located?

- Asia: 7.0%
- South Pacific: 8.8%
- Central and South America: 5.3%
- North America: 29.8%
- Western Europe: 19.3%
- Eastern Europe & Russia: 8.8%
- Africa: 14.0%
- Middle East: 7.0%
2015 Survey

Which services does your company provide?

Retail
- Retail Fixed Wireline: 18.2%
- Retail Wireless & MVNO: 25.1%
- Retail Converged (IP): 10.3%
- Retail All Others (Cable & Satellite): 13.5%

Wholesale
- Wholesale Fixed Wireline: 26.7%
- Wholesale Wireless & MVNO: 45.5%
- Wholesale Converged (IP): 14.3%
- Wholesale All Others (Cable & Satellite): 13.5%
2015 Survey

How many subscribers does your company have?

<table>
<thead>
<tr>
<th>Subscriber Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10,000</td>
<td>8.7%</td>
</tr>
<tr>
<td>10,001 to 1,000,000</td>
<td>17.4%</td>
</tr>
<tr>
<td>1,000,001 to 10,000,000</td>
<td>28.3%</td>
</tr>
<tr>
<td>10,001 to 1,000,000</td>
<td>17.4%</td>
</tr>
<tr>
<td>10,000,001 to 25,000,000</td>
<td>19.6%</td>
</tr>
<tr>
<td>25,000,001 to 50,000,000</td>
<td>8.7%</td>
</tr>
<tr>
<td>50,000,001 +</td>
<td>15.2%</td>
</tr>
<tr>
<td>Wholesale Only</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Wholesale Only (no end user subscribers)

COMMUNICATIONS FRAUD CONTROL ASSOCIATION
2015 Survey –
General Fraud Trends
2015 Survey

- Estimated Global Revenues: 2.25 Trillion USD (+2.5%)
- Estimated Global Fraud Loss: $38.1 Billion USD (-17.8%)
- % Loss*: 1.69% (-0.4%)

Graph showing the trend from 2005 to 2015 with a decrease of 17.8%.
2015 Survey

Top Fraud Methods:
- $3.93 B – PBX Hacking
- $3.53 B – IP PBX Hacking
- $3.53 B – Subscription Fraud (Application)
- $3.14 B – Dealer Fraud
- $2.55 B – Subscription Fraud (Identity)
- $2.16 B – Service Abuse
- $2.16 B – Account Takeover
- $1.96 B – Subscription Fraud (Proxy/Mule)

Top Fraud Types:
- $10.76 B – International Revenue Share Fraud (IRSF)
- $ 5.97 B – Interconnect Bypass (e.g. SIM Box)
- $ 3.77 B – Premium Rate Service
- $ 2.94 B – Arbitrage
- $ 2.84 B – Theft / Stolen Goods
- $ 2.35 B – Device / Hardware Resale
- $ 2.09 B – Domestic Revenue Share (DRSF)
- $ 2.01 B – Wholesale Fraud

Fraud Method – is how they access the network or service to enable revenue gain from the attack.

Fraud Type – is how they use the service or network to generate revenue from the attack.

For more information please visit: www.cfca.org/fraudlosssurvey/
2015 Survey

What do you view as the top fraud methods GLOBALLY?

- PBX Hacking: 14%
- IP PBX Hacking: 12%
- Subscription Fraud (Application): 10%
- Internal Fraud / Employee Theft: 8%
- Subscription Fraud (Identify): 6%
- Dealer Fraud: 4%
- Wangiri (Call Back Schemes): 2%
- Account Takeover: 2%
- Subscription Fraud (Credit Muling/Proxy): 2%
- Abuse of network, device or configuration weakness: 0%
2015 Survey
What do you view as the top fraud methods at YOUR COMPANY?

- PBX Hacking: 12%
- IP PBX Hacking: 10%
- Subscription Fraud (Application): 8%
- Dealer Fraud: 6%
- Subscription Fraud (Identify): 4%
- Abuse of network, device or configuration weakness: 2%
- Account Takeover: 0%
- Subscription Fraud (Credit Muling/Proxy): 0%
- Abuse of Service Terms and Conditions: 0%
- Internal Fraud / Employee Theft: 0%
- Wangiri (Call Back Schemes): 0%
2015 Survey

2015 Estimated Fraud Losses by Method
(in $ USD Billions)

- Subscription Fraud (Application); $3.5
- IP PBX Hacking; $3.5
- PBX Hacking; $3.9
- Dealer Fraud; $3.1
- Abuse of network, device or configuration weakness; $2.2
- Account Takeover; $2.2
- Subscription Fraud (Credit Muling/Proxy); $2.0
- Abuse of Service Terms and Conditions; $1.8
- Internal Fraud / Employee Theft; $1.8
- Wangiri (Call Back Schemes); $1.8
- Phishing / Pharming; $1.6
- Payment Fraud; $1.6
- Social Engineering; $1.0
- Voicemail Hacking (Not associated with PBX Hacking); $1.0
- Mobile Malware; $0.8
- Pre-Paid Equipment & Services; $0.8
- SMS Faking or Spoofing; $0.8
- IMEI Reprogramming; $0.6
- Brand Name / Logo Abuse; $0.4
- Signalling Manipulation; $0.4
- SIM Cloning; $0.4

COMMUNICATIONS FRAUD CONTROL ASSOCIATION
2015 Survey
What do you view as the top 5 fraud types at YOUR COMPANY?

(In-Network)

<table>
<thead>
<tr>
<th>Fraud Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Revenue Share Fraud (IRSF)</td>
<td>0%</td>
</tr>
<tr>
<td>Premium Rate Service</td>
<td>5%</td>
</tr>
<tr>
<td>Interconnect Bypass (e.g. SIM box)</td>
<td>10%</td>
</tr>
<tr>
<td>Theft / Stolen Goods</td>
<td>15%</td>
</tr>
<tr>
<td>Commissions Fraud</td>
<td>20%</td>
</tr>
</tbody>
</table>

(Roaming)

<table>
<thead>
<tr>
<th>Fraud Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Revenue Share Fraud (IRSF)</td>
<td>0%</td>
</tr>
<tr>
<td>Interconnect Bypass (e.g. SIM box)</td>
<td>5%</td>
</tr>
<tr>
<td>Arbitrage</td>
<td>10%</td>
</tr>
<tr>
<td>Premium Rate Service</td>
<td>15%</td>
</tr>
<tr>
<td>Device / Hardware Reselling</td>
<td>20%</td>
</tr>
</tbody>
</table>
2015 Survey

2015 Estimated Fraud Losses by Type (in $ USD Billions)

- International Revenue Share Fraud (IRSF); $10.8
- Interconnect Bypass (e.g. SIM box); $6.0
- Premium Rate Service; $3.8
- Arbitrage; $2.9
- Theft / Stolen Goods; $2.8
- Device / Hardware Reselling; $2.3
- Domestic Revenue Share (DRSF); $2.1
- Wholesale Fraud; $2.0
- Commissions Fraud; $1.5
- Friendly Fraud; $0.9
- Service Reselling (e.g. Call Sell); $0.9
- Cable or Satellite; $0.8
- Private Use; $0.8
- Theft / Compromise of data (e.g. logins); $0.5
2015 Survey – Fraud Locations
In 2013, the top 3 countries were United States, India and United Kingdom.
2015 Survey

Top 10 Countries That ORIGINATE Fraudulent Calls:
(North American View)

In 2013, the top 3 countries were United States, India and United Kingdom.
2015 Survey

Top 10 Countries That ORIGINATE Fraudulent Calls:

(European Union View)

In 2013, the top 3 countries were United States, India and United Kingdom.
2015 Survey

Top 10 Countries That ORIGINATE Fraudulent Calls:

(Rest of the World View)
2015 Survey

Top 10 Countries Where Fraud TERMINATES:
(Consolidated View)
2015 Survey

Top 10 Countries Where Fraud TERMINATES:
(North American View)

Cuba    Somalia    St. Lucia    Bosnia    Sierra Leone
Jamaica  Kiribati  Tunisia  Grenada  United States

COMMUNICATIONS FRAUD CONTROL ASSOCIATION
2015 Survey

Top 10 Countries Where Fraud TERMINATES:

(European Union View)
2015 Survey

Top 10 Countries Where Fraud TERMINATES:

(Rest of the World View)
2015 Survey – Company Losses
2015 Survey

What percentage of the total GLOBAL telecom revenue base do you think is fraud?
2015 Survey

What percentage of YOUR COMPANY’S revenue base do you think is fraud?

- < 1%: 48.6%
- 1-2%: 10.8%
- 2-3%: 27.0%
- 3-4%: 8.1%
- 4-5%: 2.7%
- 5-10%: 2.7%
- > 10%: 0.0%
Communications Fraud Control Association

4 Becker Farm Road 4th Floor
PO BOX 954
Roseland, NJ 07068

+1 973 871 4032 Phone
+1 973 871 4075 Fax

fraud@cfca.org email
www.cfca.org website