



International Revenue Share Fraud The Value of International Premium Rate Test Numbers as a Fraud Indicator

International revenue share fraud – A threat you cannot afford to ignore.

CFCA GLOBAL FRAUD LOSS SURVEY

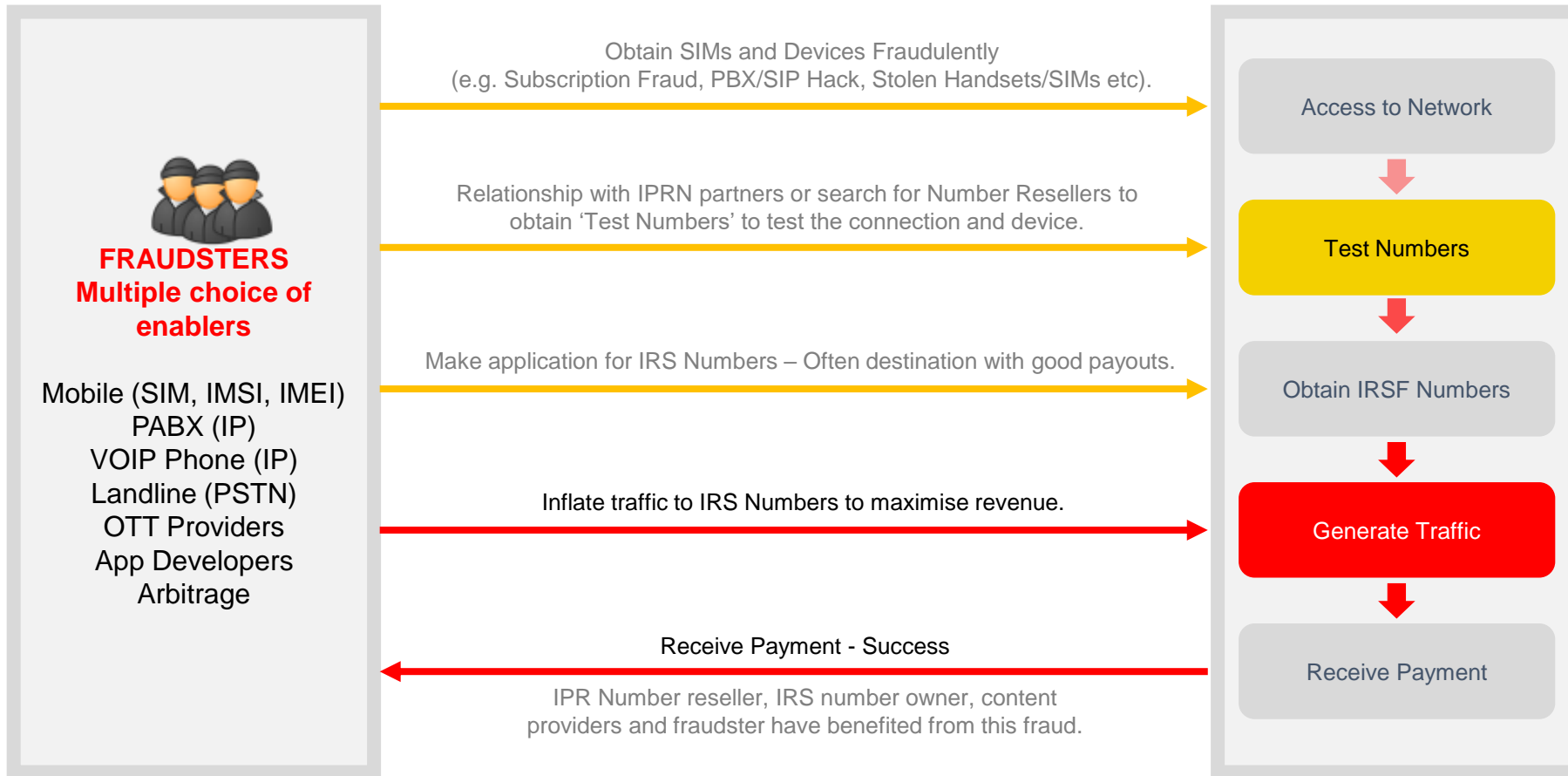
CFCA Total Estimated Fraud Losses 2017 = **\$US29.2 Billion**
CFCA Total Estimated Fraud Losses 2021 = **\$US39.89 Billion (up 28% from 2019)**

IRSF Estimated Fraud losses 2013 Survey	IRSF Estimated Fraud losses 2015 Survey	IRSF Estimated Fraud losses 2017 Survey	IRSF Estimated Fraud losses 2019 Survey	IRSF Estimated Fraud losses 2021 Survey
\$US1.8 Billion	\$US10.7 Billion	\$US6.10 Billion	\$US5.04 Billion	\$US6.69 Billion

CFCA Survey 2021 also attributes a further \$US4.45B to Traffic Pumping and \$US3.82B to Arbitrage, some of which will also be a result of International Revenue Share Fraud.

Up by 32% between 2019 and 2021

Typical modus operandi of fraudsters before an IRSF attack.



One common factor in the majority of IRSF attacks is the use of IPR Test Numbers. Fraudster must confirm that the device/enabler they are using to make their IRSF calls is able to complete a call to the number range and country they wish to call, from the country they are calling from.

Imagine the value to a victim operator if these test numbers were known, and a fraud alert could be generated if one of these numbers was called.

PRISM – a cloud based pioneering database to tackle IRSF fraud.



No technology overheads. **A simple and secure cloud database.**
Subscriber set up in few seconds.



Around 8 Million Test Numbers representing 242 countries in PRISM (as at 06/12/2021). Over 4 million numbers removed from PRISM during 2021 as these had not been advertised for previous 3 months. 120+ number resellers assessed. **Numbers updated every 2 weeks.** PRISM numbers not advertised for 3 months will continue to be purged every 3rd month.



Simple to use. **No training required.** Subscription comes with **complete support and expert advice.**



The lowest cost IRSF Detection/Prevention tool available. ROI of several folds by stopping just one IRSF attacks.

How can PRISM help fight against IRSF attacks?

- 1** Use the *'PRISM Test Numbers'* or *'PRISM Wildcard Test Numbers'* as B-NO hotlist in your FMS (Some PRISM users prefer to convert to ranges and block).
- 2** Monitor all calls (A-NO) to this B-NO hotlist and destinations. Identify devices used (SIMs, IMEIs, PSTN, VoIP, PBX etc.) by the callers.
- 3** Alert all calls originating from the same number (A-NO) or devices used for making calls to the B-NO hotlist (e.g. SIMs, IMEIs, PBX etc.)
- 4** If a call alerts against a PRISM number, then it is because that number has been advertised by an IPRN Reseller. Even short calls becomes important
- 5** Search for other SIMs and devices that may also be under the control of these fraudsters and implement your approved procedures for IRSF incidents.

How can PRISM help fight against IRSF attacks?

6

In most IRSF incidents, fraudsters will first call an IPR Test Number to confirm that the destination country and number range can be reached from their calling location and from the device they are using to originate the calls

7

In many cases, these test calls occur 10 to 45 minutes before IRSF call pumping commences (or longer), to allow fraudster to establish their final arrangements

8

Look at recent IRSF call records, and in most cases you will see <1 to 2 minute calls to the IRSF destinations before the IRSF calls escalate to each destination. (This may not occur if Fraudster has an existing relationship with IPRN reseller)

9

A hotlist alert from a PRISM number called will initiate an investigation and identify a pending IRSF attack, or provide confirmation that one has started

10

PRISM does not contain all IPR Test Numbers, but existing users advise that it consistently provides early warning in between 75 and 80% of IRSF attacks

Introduction to PRISM Database

Every 2 weeks we search 120+ of these websites or Rate Cards to create the PRISM database.

Go On, Get Your International Premium Rate Number Now.
Telepremium is IPRN provider interconnected in more than 250 countries and 2500 networks.

Sign Up

Anti Fraud System | Carrier Center | Call Center | Tech Support Cases | IVR Services | SIP Routing

Download Test Numbers List

Test Number's / Total Groups : Showing 2900 Of 95714

ENTER COUNTRY NAME / GROUP NAME / NUMBER RANGE :

Group Name	Test Number	Payout	Payout Term	Per Day Number Limit	Per Day CU Limit
ABKHAZIA 01	7940200000	7 Days 1 Delay			
ABKHAZIA 06	7940707001	7 Days 1 Delay	5000 Min	20000 Min	
ABKHAZIA 07	7940704000	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 08	7940704000	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 09	7940704000	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 10	7940200000	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 11	7940900001	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 12	7940907001	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 13	7940100004	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 14	7940100004	7 Days 1 Delay	4000 Min	20000 Min	
ABKHAZIA 17	7940000000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 18	7940707000	7 Days 1 Delay	6000 Min	20000 Min	
ABKHAZIA 19	7940707000	7 Days 1 Delay	6000 Min	20000 Min	
ABKHAZIA 20	7940707000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 2000	7940704000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 2001	7940700000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 2002	7940700000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 21	7940000000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 22	7940700000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 23	7940700000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 24	7940000000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 25	7940000000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 26	7940000000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 27	7940000000	7 Days 1 Delay	3000 Min	20000 Min	
ABKHAZIA 28	7940000000	7 Days 1 Delay	3000 Min	20000 Min	

Real Time Statistics

Test Numbers | Active Calls | My Stats

Sorting: Most Traffic | New And Old Together | Show

Filter groups by first test number digits: Show

To check active calls on test numbers log in with:
USER: TEST
PASS: test123

PLEASE NOTE:
* You are allowed to request 1 numbers per termination. Once you start traffic on those numbers you can request more

Count: 18,584

New terminations are marked in red

Live traffic terminations

Group Name	Number	Default payment terms
VENEZUELA 422014	00584249582912	7 DAYS NO DELAY
BELGIUM 421021	0032460564664	7 DAYS NO DELAY
GUINEA 421035	00224632058574	7 DAYS NO DELAY
TUNISIA 421020	0021627085655	7 DAYS NO DELAY
ALBANIA 421044	00355692054364	7 DAYS NO DELAY

Group Name	Number	Default payment terms
ANGULLA 422016	0012643300800	7 DAYS NO DELAY
HONDURAS 421016	0050426002996	7 DAYS NO DELAY
HONDURAS 421012	0050426683601	7 DAYS NO DELAY
BARBADOS 421014	0012462360979	7 DAYS NO DELAY

Management | Terminations | Statistics | User

Terminations

Internal name	test number
ABKHAZIA 10	79407010029
ABKHAZIA 11	79407887404
ABKHAZIA 12	79407519018
ABKHAZIA 411001	79400711600
ABKHAZIA 421002	79407010000
ABKHAZIA 421003	78406508800
ABKHAZIA 421004	78400648700
ABKHAZIA 421005	78405647400
ABKHAZIA 421006	78408070800
ABKHAZIA 421007	78408040000
ABKHAZIA 421008	78402199800
ABKHAZIA 421009	78407041900
ABKHAZIA 421010	78405668900
ABKHAZIA 421011	79400214100
ABKHAZIA 421012	79400219200
ABKHAZIA 421013	79403456800
ABKHAZIA 421014	79408147100
ABKHAZIA 421015	79402481900
ABKHAZIA 421016	79403891400
ABKHAZIA 421017	79402443400
ABKHAZIA 421018	79408135600
ABKHAZIA 421019	79406420300
ABKHAZIA 421020	79405921700
ABKHAZIA 421021	79407812100
ABKHAZIA 421022	79407713900
ABKHAZIA 421023	79407202000

Login Screen



PRISM PRICING

A YATES FRAUD CONSULTING SOLUTION. DESIGNED AND DEVELOPED BY FRSLABS.

- Database is hosted on a Rackspace cloud server.
- Secure https access by subscribers to server via SSL Certificate.
- Database has an XLS upload and download feature.
- Browser access supports Chrome (Version 28+), Safari (Version 5+), Firefox 3.6 and IE 8+
- No technology overheads. A simple and secure cloud database. Subscriber set up in a few minutes.
- Simple to use. No training required. Subscription comes with complete support.
- We also offer an API to allow the automated downloading of PRISM numbers and PRISM MSRN's to customers FMS

PRISM Database Fields

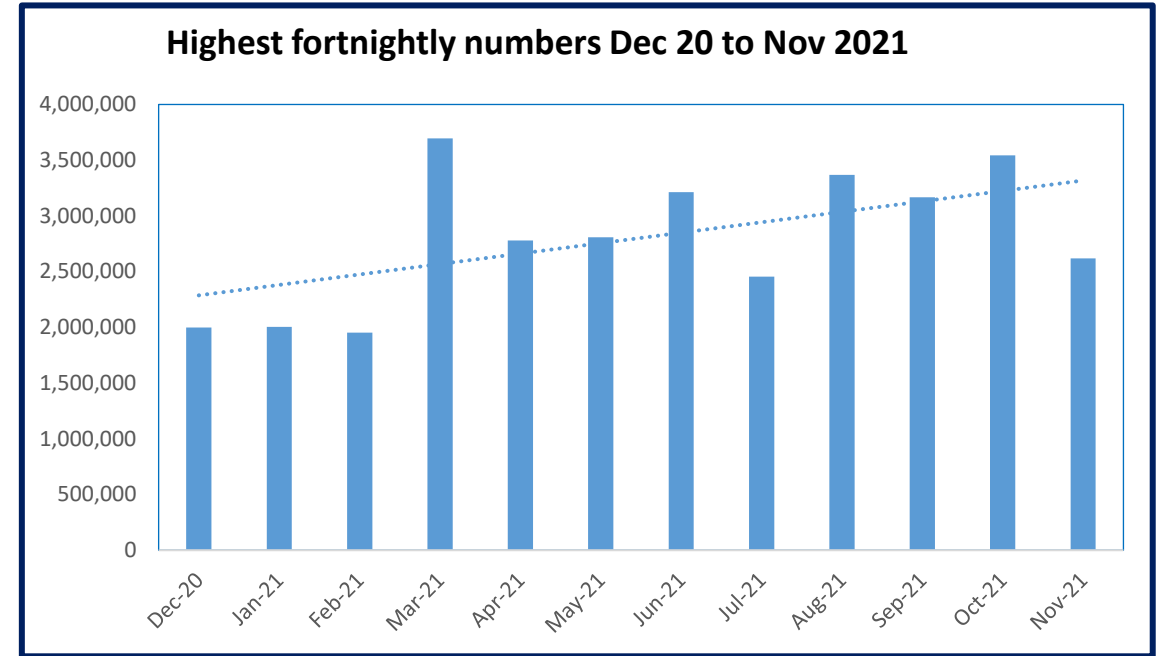
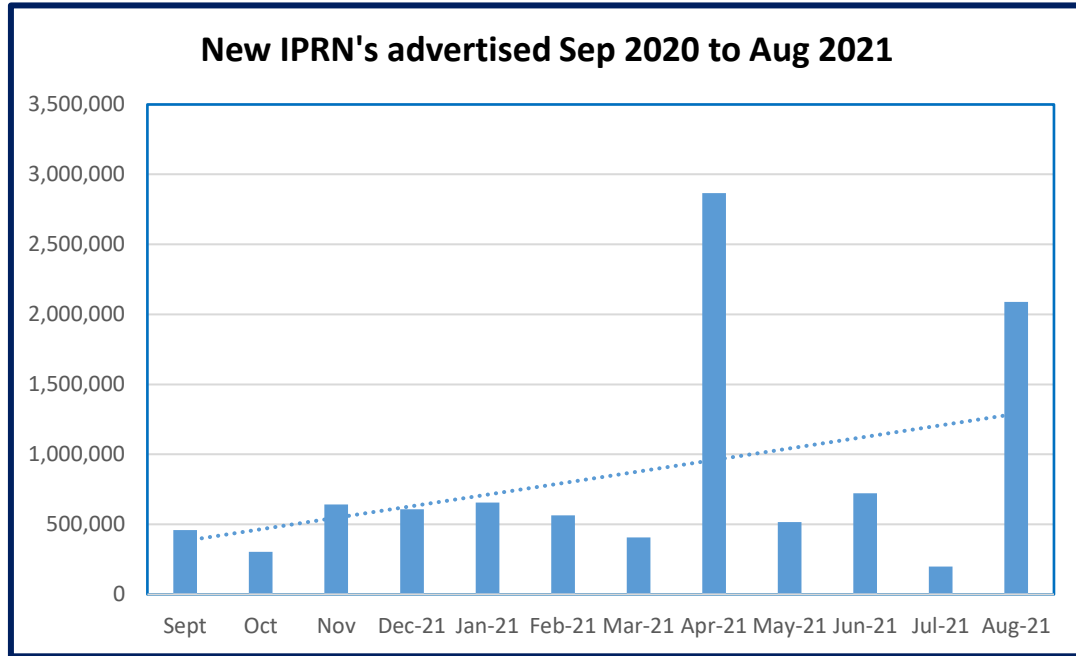
IRSF Test Numbers

The screenshot shows the PRISM database interface. At the top, there is a navigation bar with icons for Home, Admin, Dashboard, Feedback, Help, and Logout. The word "PRISM" is displayed in the top right corner. Below the navigation bar, the total number of records is shown as 7,955,003, and the report last updated date is 07/12/2021 00:00:00. There are "Upload" and "Download" buttons. The main content is a table with the following columns: Terminating Country, Test Number, First Advertised Date, and Latest Update Date. The table contains 19 rows of data, all for Afghanistan. The footer shows "Page 1 of 79,551".

	Terminating Country	Test Number	First Advertised Date	Latest Update Date
1	Afghanistan	93000589336	06/11/2021	06/11/2021
2	Afghanistan	93000603543	06/11/2021	06/11/2021
3	Afghanistan	93000830316	06/11/2021	06/11/2021
4	Afghanistan	93000851043	19/05/2021	19/10/2021
5	Afghanistan	930009540316	19/05/2021	19/10/2021
6	Afghanistan	93001224911	06/11/2021	06/11/2021
7	Afghanistan	93001611124	06/11/2021	06/11/2021
8	Afghanistan	93002011454	06/11/2021	06/11/2021
9	Afghanistan	93002439300	06/01/2020	07/12/2021
10	Afghanistan	93002480776	19/05/2021	19/10/2021
11	Afghanistan	93003154796	06/11/2021	06/11/2021
12	Afghanistan	93003615338	06/11/2021	06/11/2021
13	Afghanistan	93003693011	20/01/2020	07/12/2021
14	Afghanistan	93003693561	20/01/2020	07/12/2021
15	Afghanistan	93003693650	19/07/2019	07/12/2021
16	Afghanistan	93003693880	19/07/2019	07/12/2021
17	Afghanistan	93004115009	19/05/2021	19/10/2021
18	Afghanistan	93004284000	19/05/2021	19/10/2021
19	Afghanistan	93004458905	06/11/2021	06/11/2021

- Up to 120 IPRN Websites monitored.
- Numbers updated every 2 weeks.
- This database is provided to over 60 CSP's on an annual subscription for use as a called number hot list or blocking list
- Current database only contains numbers which have been advertised over the past 3 months. (Older numbers available)
- Databases available to download;
 - Main PRISM Database
 - PRISM MSRN Database
 - Database of new numbers added during this update period
 - PRISM Wildcard Database

Growth in New and currently advertised IPR Numbers



- Many IPRN Providers removing detected numbers each month and replacing them with new ones
- Huge increase in new numbers starting April 2021
- Almost 10 million new numbers added in 12 months between Dec 2020 and Nov 2021. (6.3m new numbers added in same period 2019-20)
- Increase in new numbers coincided with COVID outbreak.

- There has been a significant increase in the numbers advertised each month by IPRN Providers
- Currently advertised numbers have increased from 1.9m in Jun 2020 to almost 3.5 mil in Oct 2021 (This is highest fortnightly total each month).
- These are the numbers most likely to be used currently as Test or IRSF numbers and so high risk.

Changes in IPRN Provider behaviour

Previous Update 20 Jan 2017		
Terminating Country	Total Numbers	% of Total
Cuba	47,066	11.41%
Latvia	25,701	6.23%
Lithuania	17,783	4.31%
Somalia	16,363	3.97%
Guinea	15,139	3.67%
Gambia	13,676	3.32%
Maldives	11,958	2.90%
Estonia	9,973	2.42%
Sierra Leone	8,248	2%
Zimbabwe	7,724	1.87%

Current update 20 Nov 2021		
Terminating Country	Total Numbers	% of total
Nigeria	640,962	8.15%
Dominican Republic	262,360	3.34%
Iraq	141,406	1.80%
United Kingdom	139,176	1.77%
Somalia	138,402	1.76%
Algeria	125,091	1.59%
Gabon	120,525	1.53%
Belgium	117,917	1.50%
Latvia	104,486	1.33%
Russia	95,868	1.22%

- Leading up to January 2017, the top 10 IPRN destinations within PRISM remained fairly consistent with around 40-45% of all numbers relating to these 10 countries
- The top table to left is the result from January 2017, where 42.1% of all numbers in PRISM related to these 10 destinations
- This has decreased, with the top 10 responsible for 28.45% of numbers in Jan 2018, and down to 20.06% in Jan 2019, and further down to 13.77% in Feb 2021. This has risen to 23.00% in Nov 2021 as a result of huge volumes of numbers for Nigeria
- IPRN Providers are moving away from traditional ‘high risk’ destinations and advertising more lower risk numbers
- This makes it more difficult to detect IRSF using traditional methods such as monitoring traffic to high risk destinations. The Fraudsters strategy is likely to settle for a lower per call rate but a longer detection time which equals higher profits

2019 to 2021 spread of IPRN's advertised

- There are now 242 destinations represented in the PRISM database
- Increase in numbers advertised between Apr 2019 and Aug 2021 was 1311%
- These are spread across 6 continents
- Biggest percentage increase in period April 2019 to Aug 2021 is Asia, followed by South America. Africa and Europe are highest total numbers for all years.

Continent	April 2019 total	% of 2019 total	August 2020 total	% of 2020 total	August 2021 total	% of 2021 total
All Continents	464,303		2697167		6554015	
Africa	193,599	41.69%	1017830	37.70%	2130998	32.51%
Europe	105,190	22.65%	617868	22.90%	1639460	25.01%
Asia	59,401	12.79%	470976	17.46%	1437651	21.93%
Nth America	67,497	14.53%	380672	14.11%	728345	11.11%
Sth America	13,024	2.80%	114444	4.24%	249799	3.80%
Oceania	18,842	4.05%	75523	2.80%	307730	4.69%
Other (Satellite etc)	6,750	1.43%	19854	0.73%	60032	0.91%

MSRN/PRISM Database

- From fraud reports submitted, it has become apparent that many IPRN Providers are now including MSRN numbers in their offerings
- An MSRN (Mobile Station Roaming Number) is a temporary number assigned to a mobile customer which roams into another country and allows calls in to that customer number to be forwarded from the home network
- If an MSRN is hijacked and short-stopped, inward calls to a roaming customer from their home network may be terminated to an IPRN Provider controlled IVR
- We have now created a database from the PRISM numbers analysing all published MSRN ranges from operators IR21's to identify MSRN's being offered as IPRN's
- As at 20 Nov 2021, we have identified 74,300 MSRN's in PRISM with 31,895 advertised currently. In Nov 2021, 6,721 new MSRN's were added to the database (normally c3,000 - 10,000 new numbers added per month)
- If a visited roamer has his home country MSRN range blocked, no inbound calls from their home country will be received, which could also have a customer and revenue impact
- The PRISM MSRN Database is also available for download along with the other databases available for PRISM customers

Aiding an IRSF or Wangiri Fraud Investigation

- **For any IRSF or Wangiri attack, certain actors and circumstances are required, which include;**
 - A person (or object) to originate the calls
 - A means to originate the calls (stolen handset, hacked PBX etc)
 - IPR Numbers to call to generate income
 - An IPRN Provider through which to source the terminating numbers to be used
 - The ability to make test calls to ensure fraud calls can be terminated
 - A relationship between the call maker and the IPRN Provider to enable the call maker to be paid
 - A relationship between the IPRN Provider and either the owner of the number range or terminating carrier to enable the IPRN Provider to be paid
 - The most valuable prevention/detection information is the IPRN Provider and number called

Aiding an IRSF Investigation

- **If the IPRN Provider who supplied these numbers can be identified, they should have maintained records which can assist an investigation. These include;**
 - In most cases, an application form for numbers from the fraudster, which will contain details such as name, email address, Skype contact etc of that person
 - In some cases this will include copies of identification documents
 - Details of who they paid for making these calls, typically via Bank/Wire transfer, Western Union, MoneyGram, PayPal, Skrill or Bitcoin
 - Some IPRN Providers log the IP addresses of fraudsters using their numbers
 - Details of the terminating carrier, or number range owner they received payment from
 - Details of any IPRN Wholesaler they obtained these numbers from
 - If a IPRN used for fraud is advertised by an IPRN Provider we monitor, then it will be in PRISM

Recent Fraud cases that could have been prevented by PRISM (Europol Investigations)

IPRN Provider	IPRN Code	100% Match	Partial Match	Total
www.wyxxxxx.com	IPRN_072	1173	89	1262
http://www.kaxxxxxxx.com	IPRN_142	732	36	768
http://www.caxxxxxxx.com	IPRN_044	229	27	256
www.stxxxxxxx.com	IPRN_088	50	7	57
http://staxxxxxxx.com	IPRN_97	31	11	42
http://www.livxxxxxxx.com	IPRN_029	30	0	30

- Matches found with 60 – 80% of numbers
- Common IPRN Providers appear in most cases
- Many of these cases involved roaming fraud

IPRN Provider	IPRN Code	100% matches	Partial matches	Total
www.wyxxxxx.com	IPRN_072	533	34	567
http://www.kaxxxxxxx.com	IPRN_142	102	3	105
http://.repxxxxxxx.com	IPRN_260	62	3	65
http://www.iprxxxxxxx.com	IPRN_244	34	11	45
http://myvxxxxxxx.com	IPRN_18	30	20	50
http://www.livxxxxxxx.com	IPRN_29	26	13	39
http://staxxxxxxx.com	IPRN_97	26	13	39
http://www.caxxxxxxx.com	IPRN_044	20	10	30
http://www.unixxxxxxx.com	IPRN_085	19	13	32
http://www.wesxxxxxxx.com	IPRN_248	10	3	13

IPRN Provider	IPRN Code	100% matches	Partial matches	Total
www.wyxxxxx.com	IPRN_072	42	18	60
http://www.caxxxxxxx.com	IPRN_044	8	3	11
http://www.kaxxxxxxx.com	IPRN_142	7	3	10
http://.repxxxxxxx.com	IPRN_260	5	1	6
http://www.wesxxxxxxx.com	IPRN_248	1	4	5
http://www.iprxxxxxxx.com	IPRN_244	0	4	4
http://myvxxxxxxx.com	IPRN_018	0	2	2

IPRN Provider	IPRN Code	100% matches	Partial Match	Total
www.wyxxxxx.com	IPRN_072	52	10	71
http://myvxxxxxxx.com	IPRN_018	24	24	48
http://www.livxxxxxxx.com	IPRN_029	24	21	45
http://www.caxxxxxxx.com	IPRN_044	14	30	44
http://www.unixxxxxxx.com	IPRN_085	13	21	34
http://staxxxxxxx.com	IPRN_097	17	15	32
https://reaxxxxxxx.com	IPRN_023	17	11	28

IPRN Provider	IPRN Code	100% Match	Partial Match	Total
http://www.livxxxxxxx.com	IPRN_029	33	16	49
http://staxxxxxxx.com	IPRN_097	31	16	47
http://myvxxxxxxx.com	IPRN_018	17	14	31
http://www.unixxxxxxx.com	IPRN_085	8	4	12
www.wyxxxxx.com	IPRN_072	5	3	8
http://.repxxxxxxx.com	IPRN_260	2	1	3
http://calxxxxxxx.com	IPRN_008	1	1	2

Recent Fraud cases that could have been prevented by PRISM (Europol Investigations)

Results from these 8 sample cases

IPRN Provider	IPRN Code	100% positive numbers	Partial numbers	Total
http://myvxxxxxxx.com	IPRN_018	77	56	133
http://www.livxxxxxxx.com	IPRN_029	62	15	77
http://staxxxxxxx.com	IPRN_097	62	14	76
http://www.unixxxxxxx.com	IPRN_085	38	9	47
http://.repxxxxxxx.com	IPRN_260	10	3	13
www.wyxxxxx.com	IPRN_072	9	8	17

SUMMARY OF IPRN PROVIDER NUMBER MATCHES				
IPRN Provider	Number of cases	100% match	Partial match	Total
IPRN_072	8	1938	202	2140
IPRN_142	4	897	60	957
IPRN_044	5	363	82	445
IPRN_035	7	184	67	241
IPRN_097	6	173	71	244
IPRN_018	5	148	116	263
IPRN_260	5	81	25	106
IPRN_248	4	68	14	82
IPRN_244	4	36	35	71

IPRN Provider	IPRN Code	100% positive numbers	Partial numbers	Total
www.wyxxxxx.com	IPRN_072	116	36	152
http://www.caxxxxxxx.com	IPRN_044	92	12	104
http://www.kaxxxxxxx.com	IPRN_142	56	18	74
http://www.wesxxxxxx.com	IPRN_248	7	0	7
http://www.iprxxxxxx.com	IPRN_244	2	17	19
http://www.livxxxxxxx.com	IPRN_029	6	2	8
http://staxxxxxxx.com	IPRN_097	6	2	8

IPRN Provider	IPRN Code	100% positive numbers	Partial matches	Total
http://www.carxxxxxx.com	IPRN_045	13	0	13
www.wyxxxxx.com	IPRN_072	8	2	10
http://www.livxxxxxxx.com	IPRN_035	4	1	5
http://www.livxxxxxxx.com	IPRN_029	3	0	3
http://www.iprxxxxxx.com	IPRN_244	0	3	3

During Oct to Jul 2020 we analysed 59 IRSF cases for Law Enforcement. 55 of these cases could have been detected after a few calls had PRISM been used at the time of the fraud. These results have continued through to 2021.

Test Numbers - Value as an IRSF identifier

CASE STUDY – Asia Pacific MVNO (3)

- MVNO purchased capacity from Network Aggregators and on-sold services to his customers
- Received request from a European Travel agent wanting 70 Simcards for a tour group traveling to MVNO's home country. Simcards to be given to tourists and activated on arrival in MVNO's home country
- All details relating to requestor of Simcards checked out and Simcards sent to Europe in inactive state
- 1 month before tourists due to arrive in MVNO's home country, MVNO advised by his Network Aggregator that all 70 Simcards were being used for multiple calls in to known IRSF destinations
- MVNO found that all Simcards had been activated without his knowledge (suspected internal collusion) with roaming permitted and all calls made while Simcards still physically located in Europe
- Fraud continued for 77 hours during which time 605 unique numbers in 41 different countries were called
- Total losses amounted to US\$2.13million with these losses accumulating at \$US27,662 per hour
- When call records were analysed, it was found that the PRISM IPRN database could have generated 289 fraud alerts, 36 during the first 30 minutes of the fraud, with losses restricted to under \$US50,000
- Eventually the network aggregators who provided network access required full payment from the MVNO, which could not be paid, resulting in the MVNO going in to liquidation.

Test Numbers – Also valuable to detect arbitrage or exploitation of bundled offerings

- We are investigating more and more disputes that arise from abuse of bundled services, for example unlimited calls to certain destinations using both prepay and post-pay Simcards
- Fraudsters are targeting these services and purchasing multiple prepay Simcards which allow unlimited calling to specific international destinations
- Many of these permitted destinations are popular IRSF destinations
- While this type of ‘arbitrage’ may breach the originating carriers Fair Use Policy, any breach must be detected before the originating carrier can take action
- Most carriers do not closely monitor prepay calling
- Many of the recent cases we have looked at have continued for between 8 and 22 days leaving the originating carrier with excessive interconnect charges that cannot be recovered
- In 100% of the cases reviewed, PRISM alerts from the called numbers would have detected this misuse within hours of it commencing.

Business Case Considerations

- PRISM is quite different to the GSMA Hot Number Range list.
- GSMA numbers are those previously used for fraud and are typically blocked.
- PRISM numbers are Test Numbers, many of which are currently advertised by IPRN Resellers, to test that a number and destination can be called from a fraudsters location and device.
- Used as a Called Number Hotlist, these can provide an early warning prior to traffic inflation starting in an IRSF attack. It should only take 1 PRISM alert to initiate an investigation.
- An alert generated from a PRISM Test Number will allow an IRSF attack to be closed down before AIT starts, resulting in an immediate return of the investment made to access PRISM
- The Wildcard database (ranges) has proven to be effective to identify Wangiri Fraud attacks.
- Alerting against inward and outward calls, or blocking PRISM ranges allows calls to identified Wangiri Fraud numbers to be blocked. This provides significant protection to customers and reduces the risk of reputational and brand damage.
- Low risk. Access to PRISM is by annual subscription. If it provides little value (which we know is unlikely) simply do not renew the subscription next year without penalty.

Important issues you should be aware of

- The 3rd and 4th columns in PRISM (slide 10) are headed 'First Advertised Date' and Latest Update Date'. If the Latest Update Date is the current month, this signifies that the number is currently being advertised by an IPRN Reseller.
- There are normally between 1.9 million and 3.5 million of these, so as they are current, they are considered the highest risk of being used during the month.
- The date difference between column First Advertised Date and Latest Update Date indicates how long that test number has been advertised.
- We have now provided another download option, which allows users to download only the new advertised numbers – numbers that have never previously been added to PRISM.
- If a number is in PRISM, then it is there because it has been advertised by an IPRN Reseller, either on their website or their rate card, as an International Revenue Share test number.
- PRISM does not contain numbers that have been used for IRSF (unless a test number has previously been used by an IPRN Reseller in their general numbering pool).
- Users have the option of downloading these numbers directly, and/or utilising our API to push the number updates automatically as they are ready.(For main and MSRN databases).

Final Words

- Those who are using PRISM now rely on this as a key tool in their IRSF & Wangiri defence strategy.
- Unfortunately many of the existing PRISM customers started using the product after one or more significant IRSF hits. All would agree that they should have done this earlier.
- We are now adding an average 600,000 new numbers to PRISM most months and the number of IPRN Resellers continues to increase (9 new IPRN Providers identified since January 2021 alone).
- The CFCA survey results speak for themselves – Overall fraud is increasing and IRSF is up by 32% since the 2019 survey. The number of IPRN's advertised each month has increased significantly, as has the incidence of Wangiri fraud (Some IPRN Providers promote 'short calls')
- Some FMS Vendors will argue that IPR Test Numbers are ineffective as fraud indicators as the fraudsters are changing them too frequently. This is why we update PRISM every 2 weeks to capture all IPR Test Numbers in use. We can put you in touch with some of our customers who can tell you just how effective at detecting fraud PRISM is.
- A standard Rules based FMS will provide some protection, but PRISM can improve that detection rate by 75-80% through early warnings.

Final Words

- The early detection of Fraud, particularly IRSF and Wangiri Fraud is not just about preventing losses.
- Some Carriers are now testing new procedures where payment for fraud is withheld to deny the fraudsters revenue
- This may work in some cases (particularly with very large carriers) but there are other benefits that need to be considered through early detection, such as –
 - Customer impact, particularly with account takeover
 - Time, costs and resources required to negotiate credits etc with transit partners
 - Brand/reputational damage when fraud has been allowed to continue through late detection
 - Admin time to arrange credits/contact with customers impacted (e.g. Prepay customers)
- Fraud detection should be the responsibility of the originating carrier and those with visibility of traffic during transit, and PRISM provides the ability to identify IRSF and Wangiri before losses start to accumulate or customers are affected.

One low annual subscription fee – quick set up – real savings.

**“IRSF is one of the top
Emerging Threats”**

Source: CFCFA Global Fraud Loss Survey 2011 .

**~~“IRSF is one of the now the top
Emerging Industry Threats”~~**

*Source: CSP’s who have suffered significant
IRSF attacks since 2011.*



Thank You

colin@yatesfraudconsulting.com

pshankar@frslabs.com

