iSignthis Patents : Expanded Intellectual Property Portfolio.

Highlights:

- **iSignthis holds 5 unique US Patents[1] for Payment Instrument Verification.**
- **EU Member State Patents also granted, with further patents pending.**
- **Payment Instrument Verification is a core requirement of the EU's PSD2 and 4AMLD**

Melbourne, 14th June 2017- iSignthis Ltd (ASX : ISX) ['the Company'] is pleased to announce that its portfolio of granted patents has increased to 6 distinct types, 5 of which are directly related to Payment Instrument Verification (PIV). The Company has also filed for a further 4 new unique patents, which are related to identity, payments, security and customer pay-outs and are pending examination.

Retrieval of a Secret Generated by iSignthis

The 5 granted US patents allow the company to offer PIV via the following means, whereby in each case the customer must first access their account issuers online, mobile or phone banking account, and retrieve a 'secret' generated by iSignthis and transmitted with the payment transaction.
The secret can be generated by the cardholder by utilising information transmitted with a transaction that appears in the descriptor field, including;

- solving a mathematical equation, or
- creating an anagram, or, completing a word form letters provided by iSignthis, or
- completing a numeric sequence, or
- matching a word in the descriptor to an onscreen picture.

The above 4 patents compliment and provide alternatives to the Company's previously announced patented 'ratio method', where the Sales amount is randomly divided into two amounts, and each of the amounts is calculated as a ratio against the Sales Amount. The ratio method ensures that when a customer retrieves the two values from the secure area of their account, and subsequently responds to iSignthis' verification request, that foreign currency conversion is automatically accommodated, as the ratio between the two sums will stay consistent, even after application of foreign exchange.

iSignthis also holds a US patent for adding or deducting a random amount from the Sales Amount, and requires the cardholder to access their account and retrieve the modified Sales Amount.

The importance of the US within the interconnected global payments and banking network means that US patent rights are of significance globally. The Company also holds European patents for its core Paydentity™ service.

EU's Payment Services Directive 2 (PSD2) and the One Leg Out Scenario

The European Banking Authority has a requirement that all card transactions originating from outside the EEA (European Economic Area) must be subject to either Strong Customer Authentication, or, "*European PSPs (Payment Services Provider) shall make every reasonable effort to determine the legitimate use of the payment instrument*"[2]. This requirement to determine legitimate use is known as the 'one leg out' requirement.

The Company sees opportunity for use of the above patents to solve the one leg out requirement as part of its own transactional banking and payment operations, which it will conduct under its own authorisation as a Monetary Financial Institution, soon to be operating in the EEA. PIV is also a critical

[1] Granted US Patents 7765153, 8805738, 7588181, 8131617, 6032863, 8620810
[2] https://www.eba.europa.eu/documents/10180/1761863/Final+draft+RTS+on+SCA+and+CSC+under+PSD2+%28EBA-RTS-2017-02%29.pdf , Page 8 para 16 and Comments [295]

function of Anti Money Laundering (AML) and Counter Funding of Terrorism (CFT) customer due diligence, to ensure that identity and ownership of accounts are matched.

About Paydentity

Paydentity™ is the world's most advanced automated identity and payments platform, incorporating real time remote verification of end users domiciled in any FATF (Financial Action Task Force), MONEYVAL or equivalent low risk jurisdiction, leveraging verification of '*bank verified*' payment instruments to establish identity. The Paydentity™ platform allows our merchants to on-board their customers at a much faster rate, whilst also increasing their overall customer reach.

The iSignthis® solution incorporates cascading KYC, which supplements UK residents data supplied from credit reference agencies, electoral roll and government public access data, with Paydentity™ data. This approach minimises customer friction for UK residents, by augmenting partial "1+1 matches" and "no match" customers with Paydentity payment instrument verification (PIV) and associated data and metadata, to deliver enhanced due diligence to satisfy the JMLSG (Joint Money Laundering Steering Group) and 4AMLD (Fourth Anti-Money Laundering Directive).

For customers domiciled in the rest of Europe or elsewhere in the world, where independent and reliable databases such as those found in the UK and Australia are limited, Paydentity™ provides our merchants with global reach and access to over 3.5Bn *'bank verified'* potential customers, optimising customer on-boarding and conversions with marketing campaigns.

About iSignthis Ltd (ASX : ISX)

Australian Securities Exchange listed iSignthis Ltd (ASX : ISX) as the global leader in remote identity verification, payment authentication and payment processing to meet AML/CFT requirements. iSignthis provides an end-to-end on-boarding service for merchants, with a unified payment and identity service via our Paydentity™ and ISXPay® solutions.

By converging payments and identity, iSignthis delivers regulatory compliance to an enhanced customer due diligence standard, offering global reach to any of the world's 3.5Bn 'bank verified' card or account holders, that can be remotely on-boarded to regulated merchants in as little as 3 to 5 minutes.

iSignthis Paydentity service is the trusted back office solution for regulated entities, allowing merchants to stay ahead of the regulatory curve, and focus on growing their core business.

iSignthis, trading as ISXPay®, is an EEA authorised eMoney Institution, offering card acquiring in the EEA, Australia and New Zealand.

Read more about the company at our website www.isignthis.com.

For more information, please contact:
iSignthis Ltd (ASX : ISX) **Media:** contact@isignthis.com

Investor Relations, Chris Northwood, Activ8Capital,
+61458 809 177, cnorthwood@activ8capital.com.au

Intellectual Property Update:

An overview of the iSignthis Patent Advantages

iSignthis Ltd and ISX IP Ltd

June 2017

iSignthis Ltd / iSignthis BV
ASX : ISX

The Issues to be solved

4th AML Directive 91/308/EEC (4AMLD)

Requires

- Enhanced due diligence for remote transactions
- Source of funds to be verified and tracked
- Ongoing Transaction monitoring
- Data to be kept up to date, with re-verification on a risk based approach or at least annually.

Payment Services Directive 2015/2366 **(PSD2)**

Requires

- Cards, wallets and credit transfers to be subject to two factor authentication (2FA)
- Card ownership must be verified before settling payments from card, including for non EU cards ("one leg out" scenario)

Incumbent

- 3DSecure is presently a 1FA service, moving to 2FA in 2018.
- 3DSecure requires card to be pre-enrolled, and presently has very low global acceptance and very low conversion rates.

4AMLD: Electronic Identity Verification

- Existing Electronic Verification (EV) of a person requires a Knowledge Based Authentication (KBA) method which verifies the identity of the customer by comparing collected data to “past” or historic records of the person. This is known as “data matching”.
- Historic records include credit reference files, electoral rolls or telephone directories.
- Regulators have continued to tighten the requirements around data matching; EU regulators including UK, Cyprus and others now require “present” data in addition to “past” data.
- EU regulators will under 4AMLD require a real time or dynamic element as part of customer due diligence identity verification. This is also referred to as data “recency”.
- The 4AMLD, CySec 2016 directive and the 2017 draft UK JMLSG require exisiting EV data match approaches to be augmented by verification of ‘current’ circumstances.

Historic Data Matching : only part of the challenge

What is Historic data matching?

- Build up a database of customers' non public information e.g. credit history, address, mother's maiden name, drivers license details, passport details etc
- Ask customers a series of questions that only they should reasonably be able to answer.
- Verify that the answers match the database.
- Limited geographically to only a few countries, principally UK, US and Australia.
- Often referred to as 2+2, 1+1 or no match in relation to name, address and DOB matches from at least 2 independent sources.

Historic data matching has limitations and regulators are moving away from it as a sole or standalone method of Identity Verification.

Providers in this area are Equifax, GBG, Experian, Sphonic and Trulioo.

Dynamic Payment Instrument Verification (PIV)

What is dynamic payment instrument verification?
It is a real time and up to date process that verifies ownership of a payment instrument.

What's the iSignthis approach to dynamic verification?

- Generate and send a secret (via a transaction) to a customer's payment account (debit card, credit card, current account, etc)
- Ask the customer (payment account holder) to retrieve the secret by accessing their statement, thereby proving they're the rightful owner of the payment account.
- In some cases, ask the customer to 'solve' a simple problem to demonstrate cognitive function
- Verify that the secret retrieved matches that generated

- 2017 JMLSG Draft incorporates the 'retrieve a secret' approach at #5.3.70

Dynamic PIV provides a higher degree of security and certainty through the use of dynamic "secrets" which could only be known by the person undertaking the transaction

The PSD2 & Transactional Payment Processing Authentication

- Requires a two factor authentication (2FA) to be linked to the card's owner, in order to establish a process known as Strong *Customer* Authentication (SCA). The use of 2FA without proving a persons identity first, is known as Strong Authentication – commonly used by tech companies.
- PSD2 Regulations require Strong Customer Authentication for every transaction acquired in the EU, including first verifying ownership of a card before accepting it for processing.
- The only quasi SCA service in market at the moment is 3DSecure, which is 1FA. Not yet compliant.
- The abandonment rate for 3DSecure is > 70%, so merchants dislike it. This has resulted in the overwhelming majority of cards (80%++) outside the EU not enrolled to 3DSecure (and unlikely to be), which creates an opportunity for iSignthis.
- The largest opportunity is in solving the 'one leg out' scenario, as iSignthis has patented technology that addresses this need and correspondingly massive market opportunity.

PSD2 & 4AMLD Convergence

- The PSD2 and 4AMLD challenges can be solved by the iSignthis technology suite
- The challenges are ‘flip sides of the same coin’ – by solving 4AMLD we solve PSD2 and vice versa.
- Verifying ownership of a regulated payment instrument, such as a debit or credit card, is the basis for 4AMLD enhanced due diligence, and, also the basis for PSD2 ‘one leg out’ authentication.
- Once a card has been verified as to its ownership, ongoing 2FA authentication can be linked to it to satisfy PSD2, and, it can then also be monitored to satisfy 4AMLD.
- 3DSecure is not accepted as enhanced due diligence, as it can be reset easily, and is often in a ‘bypass’ mode in order to streamline transactions.

Data Matching vs Payment Instrument Verification (PIV)

	'Historic' Data Matching	Payment Instrument Verification
Effort	Building and maintaining 'big data' for a country's entire population, in a ready-to-be-requested state H	Extracting 'small data' from a person's live financial identity on demand L
Reach	c. 60% of population in mainly anglo-saxon countries (USA, UK, CAN, AUS, NZ) and selected developed countries M	c. 3.5bn people across 200 countries (i.e. virtually any financially / banked included person with internet access, especially cards) H
Cost	Big upfront investment to create the database and high maintenance costs to keep it current H	Minimal upfront investment and maintenance cost. Satisfies the "present and historic" verification requirements of regulations L
Security	By nature, susceptible to large-scale data compromise and vulnerability increases with each re-use/access of the database (entropic security) M	Minimal vulnerability as minimal data held upfront. Distributed / active data sources are used (issuing banks) H
Data accuracy and currency	Data ages and is difficult/expensive to maintain current across entire database M	Data is up-to-date as generated in real time, on an as required basis. H

H High M Medium L Low Non compliant partially compliant compliant

Payment Instrument Verification methods are patented

Methods to create or deliver dynamic “secrets”

1. The type of transaction (debit, deposit etc) and its processing time
2. The value of the transaction
3. The number of transactions making up the secret
4. The transaction description
5. Dummy vs actual transaction
6. Transaction monitoring / on-going authentication capability
7. Use of the descriptor field to insert a secret, question or cognitive challenge.

Two companies own 100% of the IP around payment transaction dynamic KBA

Approach	Examples (not exhaustive) Includes Europe and US PayPal	Examples (not exhaustive) Includes Europe and US iSignthis
1 or more Test / Dummy Transactions / Changing merchant name	US7430537,CA2412184A1, EP1356438A2, EP1356438B1, EP2209095A1, US8296204, US8370259, US8417637, US8515871, US20020004772, US20080312998, US20120054103, US20120054104, US20120109823, US20130332364, WO2002005224A2, WO2002005224A3 ✗	**Paypal's Dummy Credits approach DOES NOT SATISFY 4AMLD**
Dynamic Changing of Statement Descriptor	Random Alphanumerics US7734542, CA2728618A1, EP2304679A1, EP2304679A4, US8001050, US8452709, US20090319426, US20100241567, US20110302085, US20130268441, WO2010008770A1, WO2010008770A8 ✓	Use of Equation, Anagram, Word to Match to Picture US6032863 , US8131617, US7588181, US8805738, US7765153 ✓
Splitting a Transaction (Sales) Value / More than two splits / As an advanced electronic signature		US8620810, CA2791752A1, CN102812480A, EP2553642A1, US20120323791, US20140222677, AU2012261779, AU2011235612 , AU2010100533, ZA2012/06455, SG201206344-2, WO2011120098A1 ✓

Note : Paypal Inc and iSignthis Ltd (held by ISX IP Ltd) both have multiple granted patents in numerous jurisdictions claiming monopoly over their core intellectual property.

R&D and Patent filings continue

ISX has the strongest patent position for dynamic verification of a payment instrument in the world today. Our methods meet or exceed the requirements of PSD2 and 4AMLD.

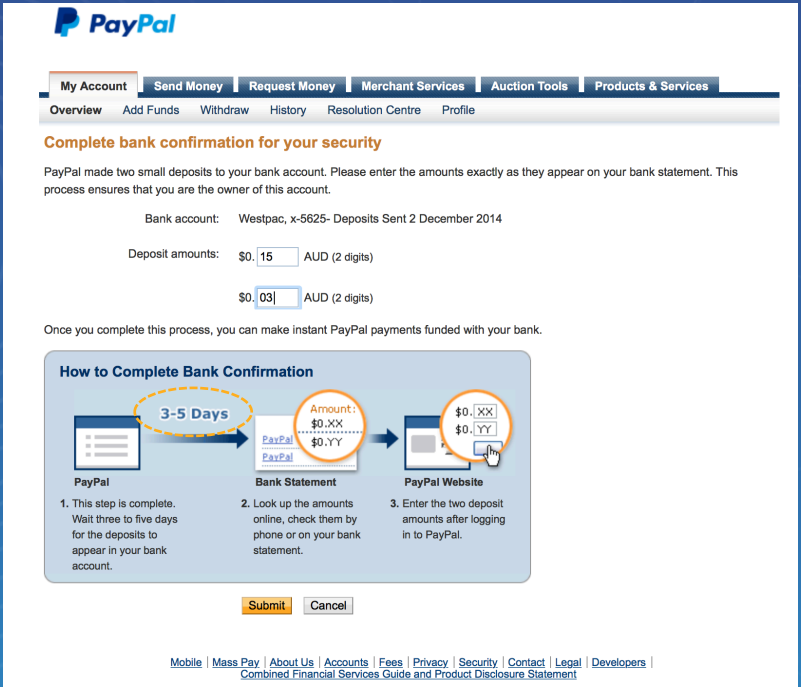
ISX will continue to build out it's suite of IP to further secure their leading position, focussing on dynamic approaches.

R&D and Patent filings continue into adjacent areas, including:

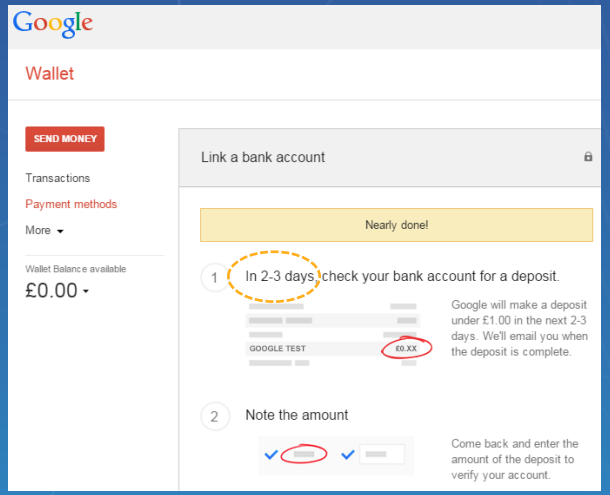
i) Computer systems, computer-implemented methods and software for processing payouts
ii) Identifying an entity
iii) Secure Payment
iv) Securing a transaction

Appendices

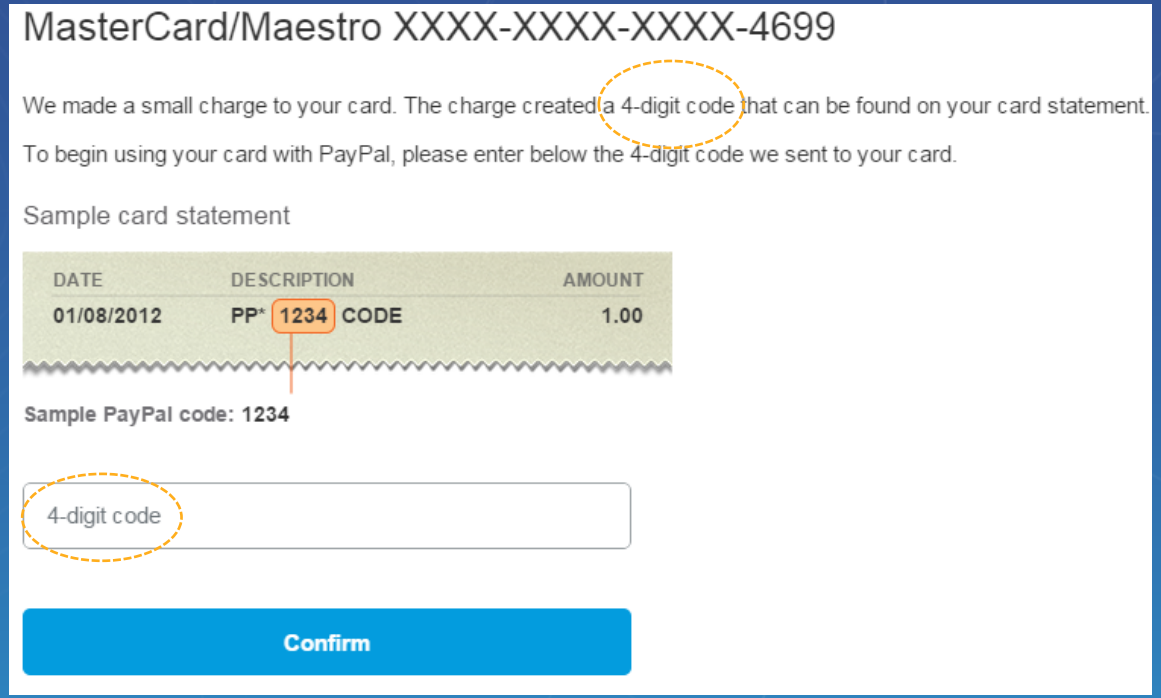
Example 1 : Payment transaction - dynamic KBA
PayPal method i.e. dummy transaction



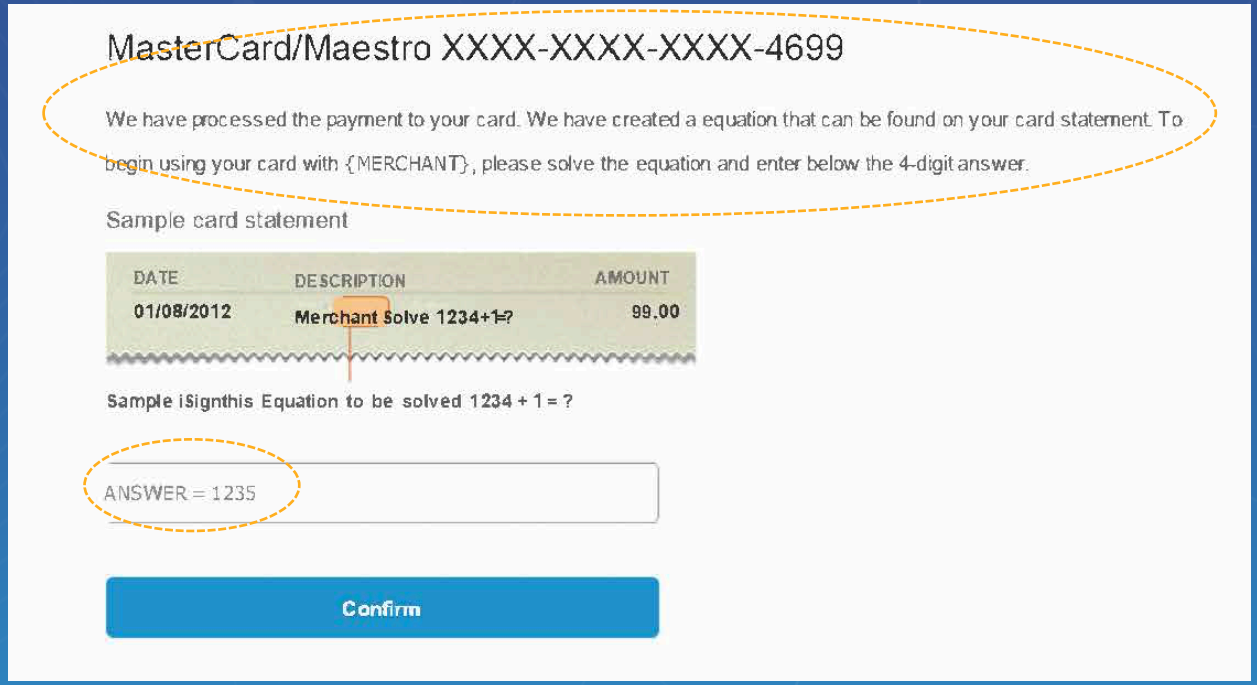
DUMMY CREDITS APPROACH
DOES NOT SATISFY 4AMLD



Example 2 : Payment transaction dynamic KBA
PayPal method 2 - Random Statement Descriptor



Example 3 : Payment transaction dynamic KBA iSignthis method 1 - Random Statement Descriptor



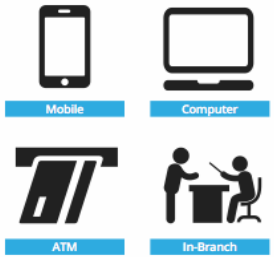
Example 4 : Payment transaction dynamic KBA
iSignthis method 2 - actual transaction divided dynamically

1

Check your card or account statement

You can access your statement **online, via mobile, computer, ATM or in-branch.**

Depending upon your bank, the debit/charges will appear on your statement anywhere between **0-3 Working Day.**



2

Locate the 2 debits/charges from your merchant

For example, a **$50 order** might be split into **2 charges**, which will always add up to the total value of your order.

In some cases, there may be 3 debits or charges from your merchant.

Credit or Account Statement

Merchant Charge 1	€39.09
Merchant Charge 2	€10.91
Total:	€50.00

3

Register by entering the debits or charges

Enter the 2 (sometimes 3) debits or charges on the registration page by following the link from your merchant.

You will also be asked to enter and verify your mobile phone number - we will send a code to your phone by SMS. Enter the SMS code and then choose a **6-digit PIN** that's easy to remember for future use.

Authenticate & Register

Merchant Charge 1	€39.09
Merchant Charge 2	€10.91
Your Mobile Phone #	
SMS Code	
Your 6-digit PIN code	

iSignthis technology: available as a b2b service or licensing to scaled enterprise

Freedom to operate within protected and defined IP boundaries, via an improved, patented process – via API, SaaS or under license.

