

O mlis
A uthentication
S ecurity
I ntegrated
S ervice



September, 2018

Presented by: Rob Griffin, CEO

robert.griffin@omlis.com

+44 786 8699707

www.omlis.com

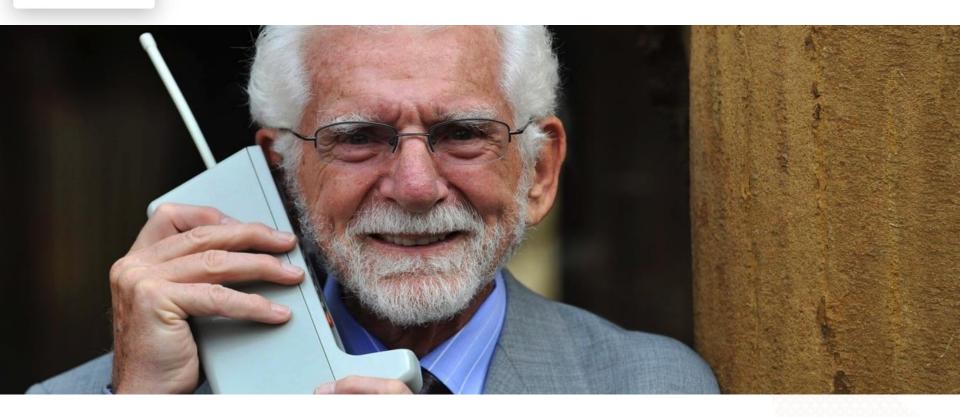
Private and Confidential

Omlis Limited is seeking to close a round of £2m + £3.5m to fund the testing, delivery and market launch of **OASIS**.

**OASIS** is a software-only cybersecurity system, which enables a leapfrog improvement in the authentication and ultra-secure delivery of mobile and IoT applications in a scalable and low cost way.

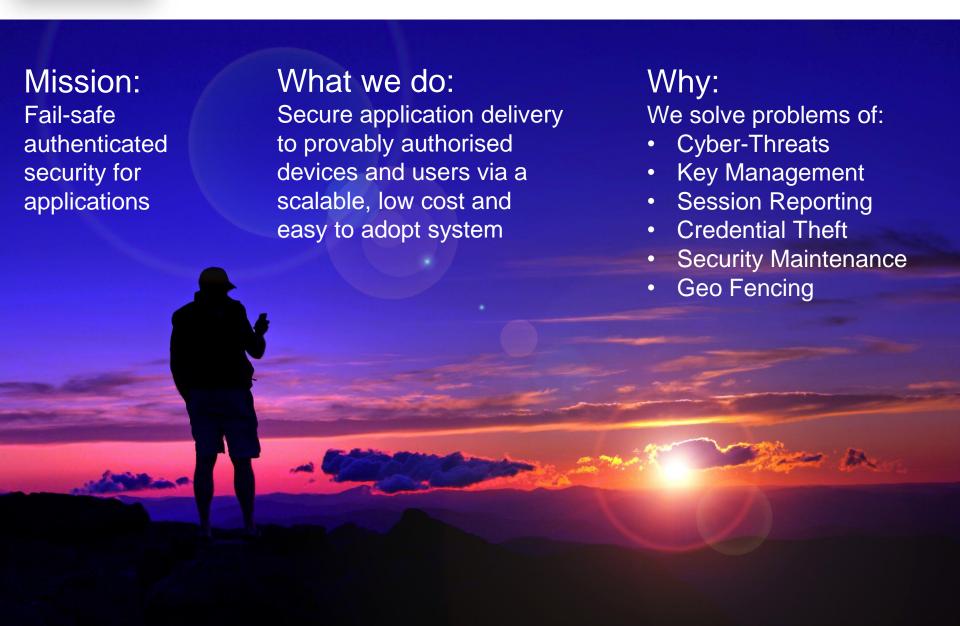


### Nobody Would Ever Use a Mobile Phone From 1985\*...



- ...so why do we still secure connections using 80s technology?
- With Fast Evolving Cyber Threats, Regulatory Requirements (GDPR\*) and App Use-Cases, Public Key Infrastructure (PKI\*\*) Is No Longer Fit For Purpose.
- OASIS is the New PKI Alternative that: a) Meets These Needs; b) Is Inter-Operable
  - \* Martin Cooper, Snr engineer at Motorola, holding the Motorola A DynaTAC 8000X, the first commercially available mobile phone.
  - # General Data Protection Regulation
  - \* U.S. Patent 4,405,829 for a "Cryptographic communications system and method"; the basis for Public Key Infrastructure (PKI), September 20, 1983.







## An Expert and Experienced Team

Correy Voo, Chairman



Formerly CTO of UBS, Head of Tech Strategy & Architecture at Bank of America, President and Chairman of the Open Data Center Alliance. From the engineering to the implementation, Correy has first-rate knowledge of secure and scalable enterprise applications and tech architectures across multiple industry sectors.







Rob Griffin, Chief Executive Officer



Co-founded a US investment advisor focused exclusively on high growth, disruptive venture software companies in the US (Linkedin, Palantir, FireEye, Nutanix, MongoDB). Rob focused on mobile, SaaS and cybersecurity within investment while also managing Ops and Marketing, securing over \$125m of institutional allocations.



J.P.Morgan

Markus Milsted, Chief Innovation Officer



Markus was the Founding Architect of OASIS and has already had 2 patents granted in the US for the OASIS tech. Markus raised £3.5m of investor capital and won the Dynamo Award, 2015.



Grant Wyatt, Chief Operations Officer



Grant is experienced across development (originally a developer), sales, operations and project management to deliver technical development on time and budget. He also has extensive knowledge of the payments sector.







Tim Smith PhD, Chief Technology Officer



Tim is an accomplished software engineer with experience of defining, evolving, architecting and promoting mission critical systems and then managing teams of multidisciplinary developers to deliver them on time and budget.





- 1.9bn Credentials For Sale on Dark Web 250k New Credentials Hacked Per Week\*
- 17% of Passwords Are Re-Used ~35% Are Close Derivations\*
- Identity Fraud Suffered by 6.5% of People in 2017
  Losses Incurred of \$16bn\*\*
- UK GDPR Fines Could Be £122bn / Year\*\*\*
- Existing Secondary Authenticators Increase False Declines by 40-70%\*
  - Source: Google, Nov 2017
  - \*\* Source: Javelin Strategy & Research, Feb, 2017
  - \*\*\* Source: PCISSC (Payment Card Industry Security Standards Council)



## **Technical and Crypto Validation**

"As mobile and IoT grows, PKI (Public Key Infrastructure) is looking increasingly outmoded from an architectural point-of-view because it fails both to keep pace with the evolving threat and to scale efficiently...

Omlis has recognised the evolving security and trust needs of the market and has successfully designed and built a standards-based technology capable of a leapfrog advance in performance and cost."

**Prof Bill Buchanan OBE, Edinburgh** Napier University, Cybersecurity / Crypto expert





# Why Is OASIS Superior?

**Partial Solutions** 

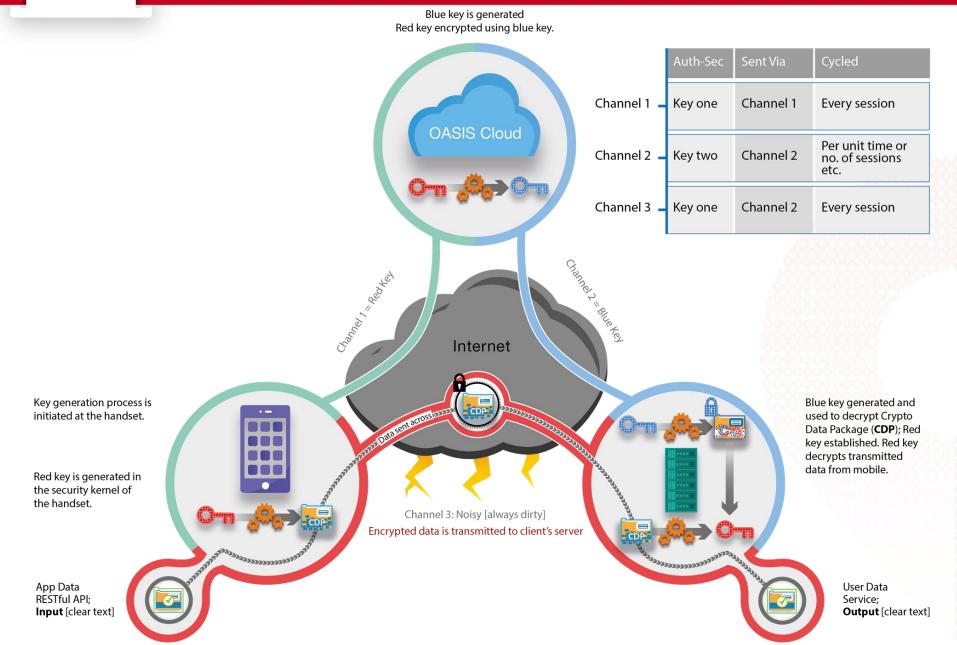
X No Solution

|                |  | OASIS   | PKI         |
|----------------|--|---|-------------|
| Authentication | <ul><li>Device</li><li>User</li></ul>  | <ul><li>✓ Binary Proof</li><li>✓ Behavioural</li></ul>  | ×           |
| Security       | <ul><li>Key</li><li>Architecture</li><li>Human Error</li><li>Vulnerabilities</li></ul> | <ul> <li>✓ Dynamic</li> <li>✓ Distributed</li> <li>✓ Automated</li> <li>✓ No MitM / No Malware</li> </ul> | ×<br>×<br>× |
| App Protection | <ul><li>Data in Transit</li><li>Data in Process</li><li>Data at Rest</li></ul>         | ✓ Through to the App<br>✓ Secure<br>✓ Secure  | ×<br>×      |
| Reporting      | <ul><li>By Session</li><li>Key Shared?</li><li>Soft Tokens?</li></ul>                  | ✓ Full Data<br>✓ No Key Sharing<br>✓ No Tokens  | ×           |
| Cost           | <ul><li>GDPR Fines</li><li>Maintenance</li><li>Capital Intensive</li></ul>             | <ul><li>✓ GDPR Requirements Met</li><li>✓ Automated</li><li>✓ Pay As You Go</li></ul>                     | ×           |

√ Full Solution
 √



## An API-Led Symmetric Security Architecture, With Trust





Omlis enabled networks are the most cyber-resilient because the security is:



a) **DISTRIBUTED** throughout a network: - there's no single point of failure and no centralised database of keys and credentials;



b) DYNAMIC - every session has a unique key;



c) **DEVICE** first: - without prioritising the security of devices at a bare metal level, no authentication can be relied on;



d) **DEPLOYED** quickly and easily. Omlis is API enabled to the app, software-only and inter-operable with legacy systems.

Omlis provides unrivalled authenticated security for data at rest, data in process and data in transit without requiring new hardware.



### Market-Focused Product Evolution With Tranches

Version 0.0 Existing Version 1.0 Month 12

Version 2.0 Month 18

Version 3.0 Month 24

**Use Case Specific:** 

MMF\*\* 1

MMF\*\* 2

MSP# Appendix 1

Core Tech

MVP\* (Cloud)

#### **Core Tech Attributes:**

- 1. Key generation at handset:
- 2. Operates on Android
- 3. Single key across 2 parties
- 4. Test data showing stability and Crypto integrity

**CORE TECH' TESTED** 

#### **MVP Functional Attributes:**

- 1. Key management across the system:
- 2. Operates on Win & Linux, Android & IOs
- 3. Tested operating results across 3 parties using a 2 key symmetric process
- 4. System Test evidence with 3<sup>rd</sup> parties

PROVEN IP = REALISABLE VALUE

#### **PoC\*\*\*** Functional Attributes:

- 1. User authentication via behaviour.
- 2. API## enabled call-up and easy implementation.
- 3. Sessional key-based Audit Reports
- 4. Billing System

**REVENUE GENERATING** 

#### **MSP Functional attributes:**

- 1. Policy rules engine
- 2. Rapid roll-out and app Integration viability
- 3. SOAP## available
- 4. Server to Server connectivity

**COMMERCIAL SCALING** 

**Funding** Milestones Tranche 1: £2m funds IP land grab + developed and tested MMF with revs.

- = Valuable, proven IP in for Verification and Validation.
  - Minimum Viable Product
- Minimum Marketable Function

- **Proof of Concept**
- Minimum Sellable Product

Tranche 2: £3.5m in month 15 enables enterprise commercialisation and roll-out.

- Application Programming Interface
- Simple Object Access Protocol



## Commercial Validation: £975k ARR\* On Delivery

HEADS OF TERMS





"OASIS can provide our gaming apps with detailed information on the user, device and location of every bet or money transfer placed. If realised, our in-house current titles will purchase the solution for ~300,000 users [at 25p per active device per month]."

Graham Martin, Chairman

PROOF OF CONCEPT





"We are keen to run a Proof of Concept program to demonstrate the many value-add features of the OASIS system."

Paul Dick, Managing Director

"Omlis' unique encryption solution ... epitomises the type of application that demands the absolute availability which Stratus provides."

Richard Sharod, Regional Director

LETTERS



















ENTERPRISE PROSPECTS







**BAE SYSTEMS** 



"If your technology can address the volume of false transactions by spoof devices, as you say it can, then we would be very interested."

Jun Liu, VIP of Technology Strategy, Baidu Inc.

"This technology, if it can be realised, has the potential to fix the security issues that surround the Internet of Things."

Dave Locke, Senior Inventor and Product Manager for IoT, IBM



# **PKI Is No Longer Fit For Purpose**

- A 'Credential Crisis' is Evident on The Dark Web
- PKI Doesn't Meet GDPR's Requirements
- High Cost in Fines, Fraud and False Declines
- Maintenance / Human Error

# **OASIS: Superior and Inter-Operable**

- Authentication
- Security
- App Protection
- Reporting
- Cost



# The Investment Opportunity

- Team: Expert and Experienced
- **Tech:** Revolutionary Patented IP Validated by Leading Crypto Professor
- **Demand**: Mobile, Enterprise, Military and Other: 6 Sec Distributors and 7 Customers
- Scalable: Legislation and Hard ROI Drive Sales; Easy to Then Implement
- Valuable: High Growth, High Margin, IP-rich, Recurring Rev Cyber Franchise