INTRODUCING DARKMATTER: A UAE BASED CYBER SECURITY COMPANY

MAY 2016

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DARKMATTER

UAE ORGANIZATIONS DESIRED A TRUSTED LOCAL PARTNER WITH GLOBAL EXPERTISE CAPABLE TO PROVIDE THE ENTIRE SPECTRUM OF CYBER SECURITY SOLUTIONS

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DARKMATTER: GUARDED BY GENIUS

WHO WE ARE

| UAE Headquartered | The world's elite cyber security talent | Trusted to protect the nation | Offering the complete portfolio of cyber security solutions | Driving & developing the next generation cyber solutions |

DARKMATTER

WE HAVE GATHERED SOME OF THE WORLD'S BEST TALENT...

Harshul Joshi
Senior Vice President
Cyber Governance, Risk &
Compliance

Stephen Brennan
Senior Vice President
Cyber Network Defence

Eric Eifert
Senior Vice President
Managed Security Services

Michael Pak
Senior Vice President
Secure Communications
Engineering

Scott Rea
Senior Vice President
Public Key Infrastructure

Dr. Robert Statica
Senior Vice President
Technology and Research

Dr. Najwa Aaraj
Senior Vice President
Special Projects

Chris Bender
Vice President
Engineering & Product
Management

Paul Lawson
Vice President
Infrastructure &
System Integration

Suresh Bollapragada
Vice President
System & Architecture

DARKMATTER

...TO ADDRESS THE MOST ADVANCED CYBER THREATS

CYBER NETWORK DEFENCE

GOVERNANCE, RISK & COMPLIANCE

MANAGED SECURITY SERVICES

NATIONAL PUBLIC KEY INFRASTRUCTURE

SECURE COMMUNICATIONS

INFRASTRUCTURE & SYSTEM INTEGRATION

SMART SOLUTIONS

DARKMATTER CAN SUPPORT THE UAE IN COMPLEX NATIONAL CYBER INITIATIVES

Government Secure Communications

Superior Cyber Security Centre

Smart City Cyber Security

Elite Cyber Academy

National Root Certificates

National Crypto Suite

DARKMATTER

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OUR CAPABILITIES

DARKMATTER

GOVERNANCE, RISK & COMPLIANCE

GOVERNANCE & STANDARDS

As strategic partner to the UAE government and with senior members of our leadership team developing globally recognised national and international standards, DarkMatter is uniquely positioned to help customers address all aspects of governance, risk and compliance.

Risk Assessment

Audit Readiness Assessments

Compliance

NESA UAE IA controls assessments

Vertical based compliance and risk assessments

– Oil and Gas
– Government
– Finance

Cyber Regulations

Smart City Cyber security regulations

Standards development

GRC Platform implementation

Implementation of Industry leading GRC platform

Business process redesign

CYBER NETWORK DEFENCE

ADVANCED THREAT DETECTION & REMEDIATION

Our multi disciplinary team provides a suite of security assessments, forensic and incident response services designed to help our clients to understand the threats and vulnerabilities they face and determine how best to manage them.

Security assessment

Technology compliance

Vulnerability assessment

Penetration testing

Application security

Incident response

Cyber Incident Readiness

Emergency / Critical Response

Incident Management

Digital Forensics

Active defence & advanced research

Social Engineering Assessment

Malware and Reverse Engineering

Advanced Threat Intelligence

Limited Stealth Operations

Expert Services

Digital investigative services

Digital / Mobile Forensics

E-Discovery

Data Recovery

Password Recovery

MANAGED SECURITY SOLUTIONS

NETWORK MONITORING & INCIDENT RESPONSE

Round the clock, security monitoring, remediation and resolution service providing peace of mind to organisations regarding their operations and networks.

On Premise Security Operations Centre

Manage On-Premises Security Operations Centres

World class on-site Intrusion Monitoring, Incident Analysis, Investigation and Response

Continuous Monitoring as a service

Managed Remote SOC

Remote monitoring, remediation and resolution

Advanced Correlation Analysis

We work with you to plan and define a scalable cyber security solution

Advisory and Design of SOC

Conduct gap assessments and provide recommendations

Develop use cases to determine capabilities

Review current infrastructure, workflows, SLA/SOPs

SECURE COMMUNICATIONS

DELIVERING PRIVACY & CONFIDENTIALITY

We provide services and products targeted at protecting the confidentiality and integrity of voice; chat, email and overall data communication over the mobile network and landline.

Secure communication products
Hardened Android OS

Hardened IP Phone

Voice, Chat and email

File sharing

News

Calendar

Emergency alerting

News application

File sharing

Advisory & Assessment of Products
Cryptographic algorithms

Cryptographic implementation

Secure requirements and architecture

Design and implementation reviews

Security response

Managed Service
Products hosted, managed and secured within our infrastructure.

On-premise deployment within the client's infrastructure.

INFRASTRUCTURE &
SYSTEM INTEGRATION

DARKMATTER

TRUSTED INFRASTRUCTURE

Managing projects from initiation and planning through to execution and completion.
Designing the tools, services, software and hardware to deliver bespoke infrastructural and technical solutions, guaranteed inherent security tailored to every organisations needs.

Technical architect
Virtual assessment
IT security assessment
Infrastructure assessment
Critical facilities assessment
Identify sophisticated and
customised solutions

Implementation
Implementing the solution
infrastructure
Configuring and integrating the
solution components
Working closely with
technology partners to deliver
world-class deployments
Greenfield, brownfield, service
transition deployments and
migrations

Project management
Evaluate needs
Planning & execution
Project delivery

SMART SOLUTIONS

INNOVATIVE PHYSICAL SECURITY

Smart Solutions offers a comprehensive security suite of services comprising
four elements of protection for both home and buisinessess.

Secure Home & Office
Access Control
Wifi
CCTV
Parental Monitoring

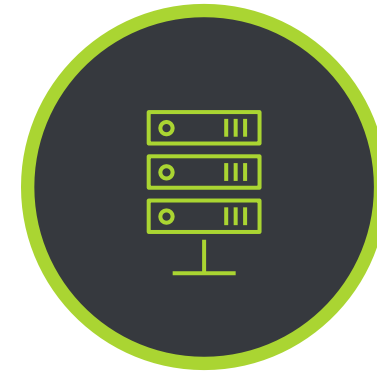**Technical Surveillance
Countermeasures**
Assessment
Procurement
Sweeps
Monitoring
Training

Mobile Peace of Mind
Express Mobile Device Repair
Mobile Monitoring Services
Secure Data Transfer

Trusted Hardware Supply

NATIONAL PUBLIC KEY INFRATRUCTURE

PROMOTING NATIONAL TRUST

National PKI program aims to provide interdisciplinary national trust establishment, achieve full international interoperability, and enable the foundational services required for a digital economy

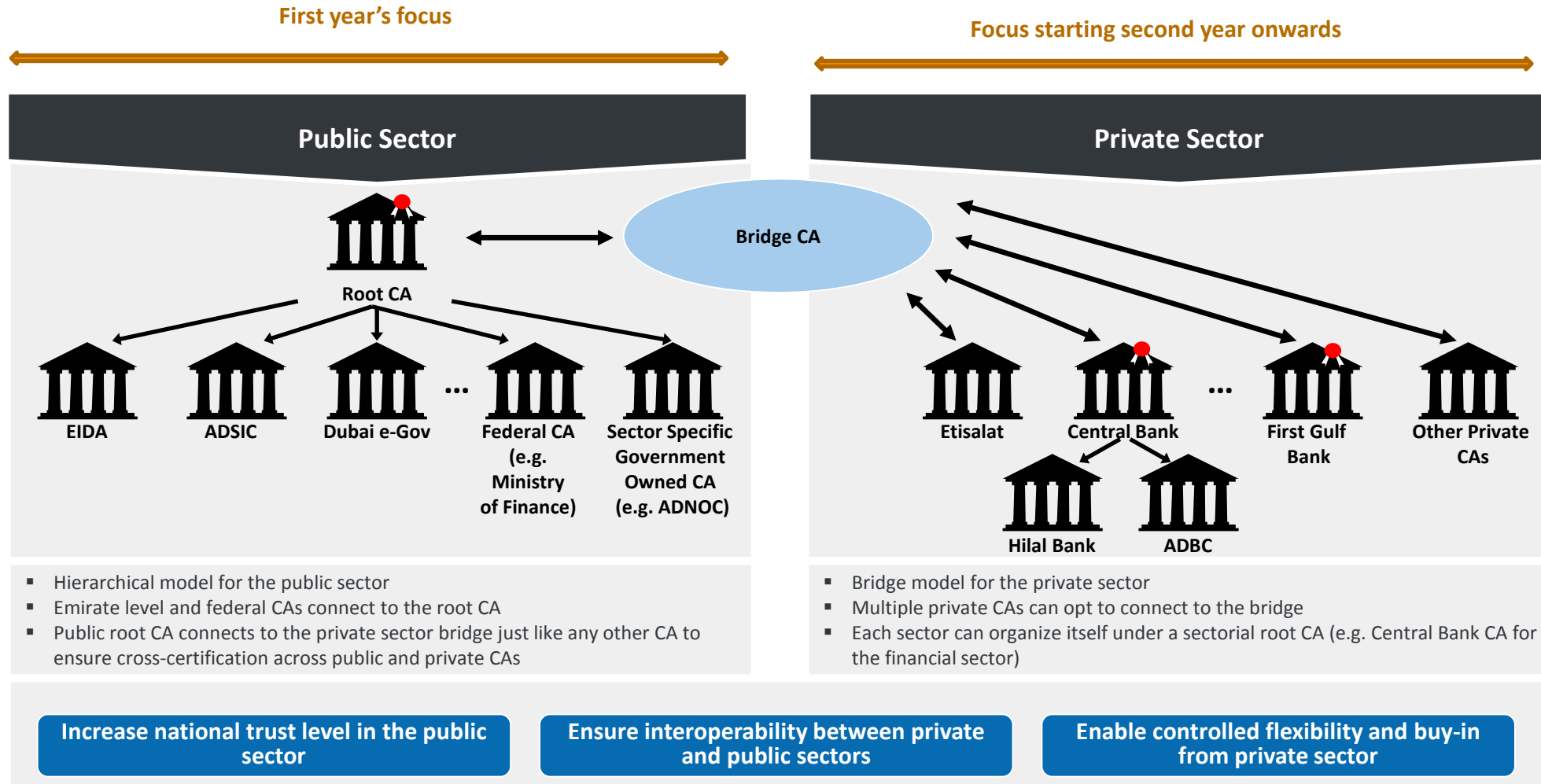## National PKI Strategic Objectives

- Establish and operate national trust anchors
- Increase the uptake of digital certificates as enablers of electronic transactions
- Provide digital certificate provisioning services to public and private entities
- Obtain international recognition for the national root CAs
- Provide national and international trust interoperability through cross-certification
- Improve the UAE legal environment to enable the national CA services
- Influence the adoption of strong security standards on the international stage that are set nationally and promote UAE as a leading security community
- Establish a governance model that enables control while promoting innovation
- Encourage collaboration of all stakeholders to improve the national CA ecosystem

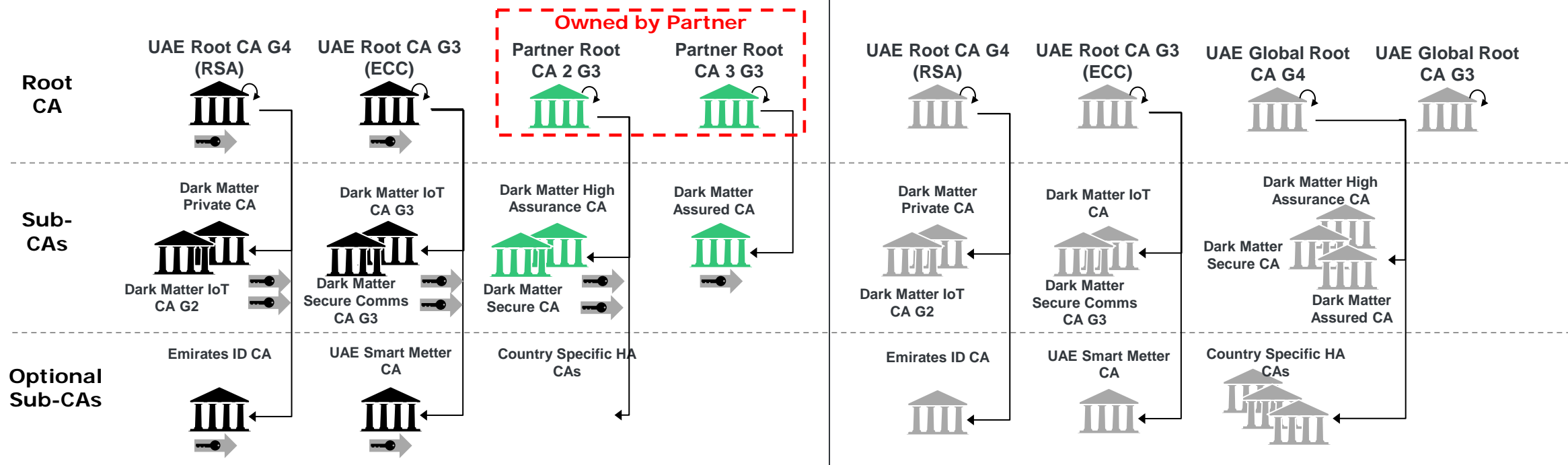# 03

THE PUBLIC KEY INFRASTRUCTURE

NATIONAL CA STRUCTURE

First year's focus

Focus starting second year onwards

Public Sector

Root CA

- EIDA
- ADSIC
- Dubai e-Gov
- ...
- Federal CA (e.g. Ministry of Finance)
- Sector Specific Government Owned CA (e.g. ADNOC)

Bridge CA

Private Sector

- Etisalat
- Central Bank
  - Hilal Bank
  - ADBC
- ...
- First Gulf Bank
- Other Private CAs

- Hierarchical model for the public sector
- Emirate level and federal CAs connect to the root CA
- Public root CA connects to the private sector bridge just like any other CA to ensure cross-certification across public and private CAs

- Bridge model for the private sector
- Multiple private CAs can opt to connect to the bridge
- Each sector can organize itself under a sectorial root CA (e.g. Central Bank CA for the financial sector)

Increase national trust level in the public sector

Ensure interoperability between private and public sectors

Enable controlled flexibility and buy-in from private sector

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UAE NATIONAL CA ARCHITECTURE

DARKMATTER PKI STATUS

- UAE Infrastructure being built out
  - Production and DR sites being configured
  - EJBCA platform with FIPS140 Level 3 HSMs
  - Modular architecture with separation of CA, RA, VA modules where needed
  - Significant expansion of RA module to facilitate Managed PKI use cases
  - Expected to be operational and WebTrust audited December 2016
- Engagement of International Trust Partner
  - Using established CA to bootstrap trust for a few years while UAE Roots are embedded and deployed in parallel
  - Gradual cut over to UAE Roots
  - 2 Roots & 7 subCAs already created
- Transition from Partner infrastructure to DarkMatter
  - Transition will be completed prior to end of 2016
  - Once DM is WebTrust audited and capable of receiving transfer of publicly trusted CAs.

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DARKMATTER + IGTF

DARKMATTER + IGTF

- DarkMatter is seeking IGTF accreditation of 2 Classic CAs
  - Will be ready to submit CP/CPS within a week
  - (NOTE: CPS updates required to accommodate partner)
  - Will be operational in that time frame also
- Ankabut in the UAE
  - The Ankabut Project is the UAE Advance Network for Research and Education
  - Founded in August 2006 by Khalifa University, Institute of Applied Technology, United Arab Emirates University, Zayed University and Higher Colleges of Technology
  - Currently has 26 Universities as participating members
  - Wish to provide members access to National Grid Initiatives and also EGI participation
- DarkMatter is seeking IGTF Accreditation so it is in a position to provide Ankabut services needed to participate in target initiatives
  - Potentially not required for national grid initiatives but why not kill two bird with one stone?

Questions?

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THANK YOU

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