

SIMPLE ELECTRONIC MEASUREMENTS DEPENDENT ON UNCLONABLE & UNIQUE ATOMIC ARRANGEMENTS
 PROVIDING UNIQUE IDENTITIES OR CRYPTOGRAPHIC KEYS ON DEMAND

01

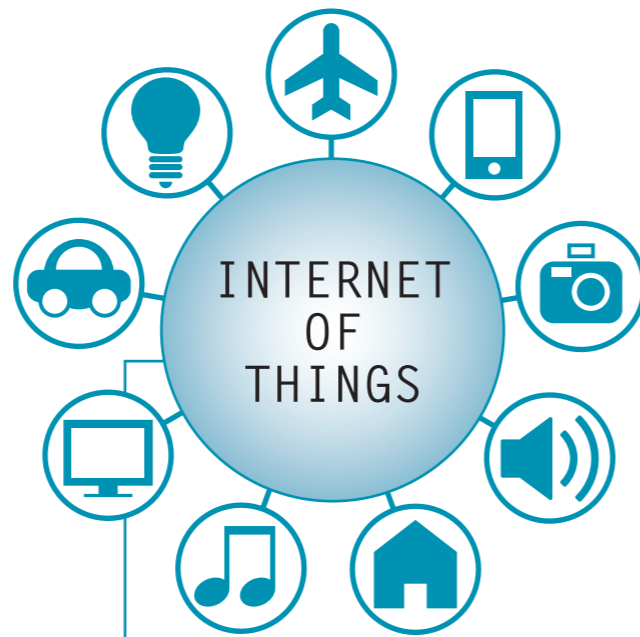
CONSTRUCT UNIQUE Q-IDS



- Q-ID: A QUANTUM SECURITY DEVICE
- DEVELOPED BY WORLD LEADING SCIENTISTS AT A WORLD LEADING INSTITUTE
- PUBLISHED IN HIGH-PROFILE JOURNALS SUCH AS NATURE
- PROVIDES UNIQUE DATA FOR AN ID OR KEY
- ID BASED ON QUANTUM EFFECTS
- THE DEVICE CANNOT BE CLONED OR SIMULATED

02

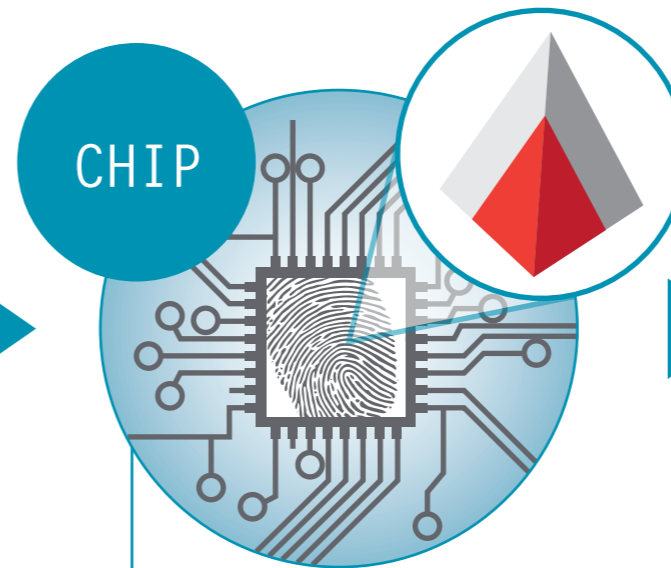
INTEGRATE INTO ELECTRONIC SYSTEM



- HIGH BIT DENSITY
- SMALL FOOTPRINT ON CHIP
- LOW ENERGY DEMAND
- GOOD INTEGRATION POTENTIAL
- MASS PRODUCABLE
- COMPATIBLE WITH CMOS AND III-V MANUFACTURING PROCESSES

03

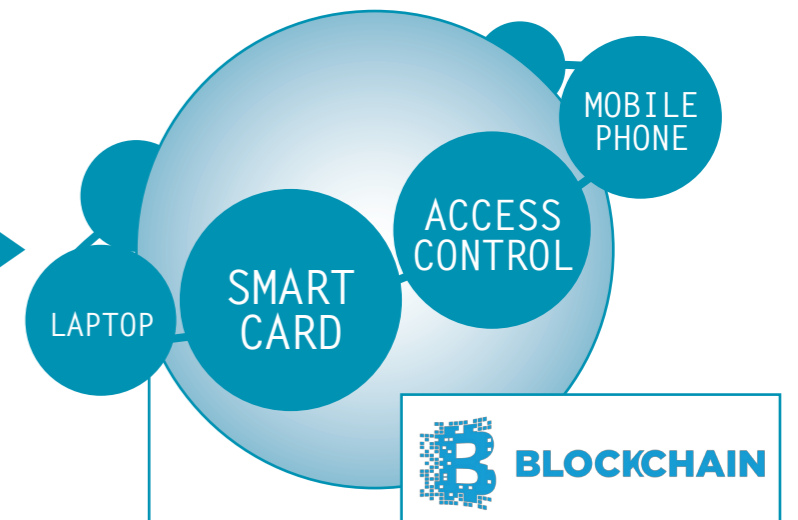
SIMPLE IDENTITY/ KEY EXTRACTION



- ID/KEY IS NEVER STORED IN MEMORY
- SIMPLE ELECTRONIC MEASUREMENT EXTRACTS INFORMATION
- RECONFIGURABLE, ENABLES RESET
- VARIOUS RESOLUTION LEVELS, DEPENDING ON APPLICATION
- VERIFICATION OF ID BY:
 - HUMAN
 - HARDWARE
 - SOFTWARE
- FEATURE ENABLEMENT

04

VARIETY OF APPLICATIONS



- VERIFICATION OF PRODUCTS (HARDWARE OR SOFTWARE)
- IDENTITY BOUND TO HARDWARE
- PROVIDES A ROOT OF TRUST
- CAN PROVIDE PRODUCT-UNIQUE IDS
- LICENSE MANAGEMENT INCLUDING 3RD PARTY LICENSE VALIDATION

