

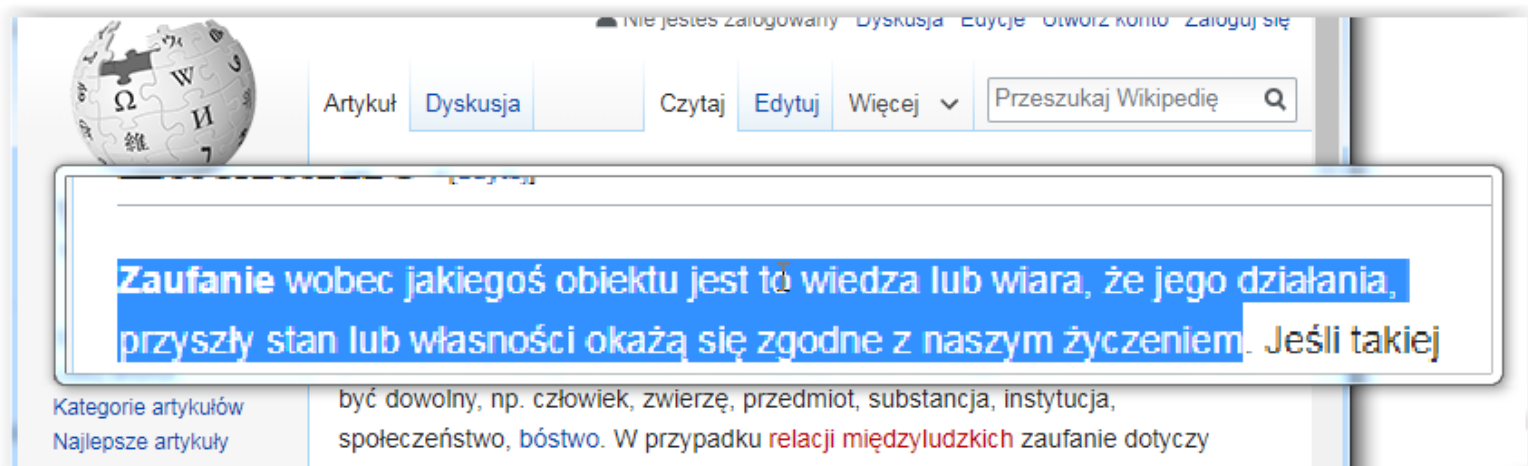
ROOT of TRUST



gemalto
security to be free

Piotr Wróbel
11'2018

zaufanie?!



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obiekty zaufania?!



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**Zaufanie jest czynnikiem stabilizującym,
pozwalającym się skoncentrować na istocie
aktywności i jest doskonałości**



A collage of various IT and technology products and logos, including servers, databases, mobile devices, and operating systems, set against a background of green binary code. The items include: a blue server rack, a hard drive, a smartphone showing 11:00, a smartwatch showing 15:36, the Apple logo with 'iOS', a green Android robot, a white car with various app icons (Maps, Messages, Photos, etc.), a stack of silver server units, a black wireless router, a Dell server tower, a screenshot of a VMware vSphere interface showing 'VMware Activity & Trends', the Oracle Database logo, the Microsoft SQL Server logo, a black server rack, the Apache HTTP Server logo, a red hat logo, the VMware logo, a desktop computer with a monitor showing a world map, and a small orange circuit board component.

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NetApp Storage Encryption (NSE) provides full-disk encryption without compromising storage efficiency or performance

NetApp® Storage Encryption (NSE) is NetApp's implementation of full-disk encryption (FDE) using self-encrypting drives from leading vendors.

Non-disruptive **encryption** implementation that provides hardware-based security that is simple to manage and compliant with industry standards.

Apache SSL/TLS Encryption

Apache HTTP Server module `mod_ssl` provides an interface for SSL/TLS protocols.

VM Encryption Overview

The primary purpose of VM encryption is to secure the data in VMDKs, such that when the VMDK data is accessed by any unauthorized entity, it gets only meaningless data. The VM that legitimately owns the data whenever read and then fed to the guest operating system. Encryption algorithms to secure this traffic with minimal overhead.

Available Languages: [en](#) | [fr](#) | [ja](#) | [tr](#) | [zh-cn](#)

library, which provides **Strong Encryption** using the Secure Sockets Layer and Transport Layer

Brocade Encryption Switch

Brocade Encryption Switch is a high-performance standalone switch aimed at protecting data at rest in mission critical environments.

The SSH protocol (also referred to as Secure Shell) is a method for secure remote login from one computer to another. It provides a secure channel over an insecure network and it protects the confidentiality and integrity of the data.

...the database, ... in the operating system data files ... **encrypts sensitive data stored in** ... the database.

...al alternative options for strong authentication, ... ty and integrity with **strong encryption**. It is a ... in protocols (such as [telnet](#), rlogin) and insecure

Oracle Database uses authentication where data is stored. To protect data files. To prevent unauthorized access.

...the Creative Cloud and Document Cloud is encrypted, for extra layers of control and security, you can choose to have Adobe generate a dedicated encryption key for some or all the domains in your organization. **Contents are then encrypted** using the dedicated encryption key. If necessary, you can revoke the encryption key from the Admin Console. ... for enabling dedicated encryption keys for your domains, see [Adobe Creative Cloud for enterprise security](#) or [Adobe Document Cloud security](#).



DIGITAL VAULT

Ark's Digital Vault is hardened for on-premises and cloud deployments with multiple layers of built-in security for authentication, access control, **encryption**, tamper-proof storage, and data protection.

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Schneier on Security

The NSA has turned the fabric of the internet into a vast surveillance platform, but they are not magical. They're limited by the same economic realities as the rest of us, and our best defense is to make surveillance of us

Trust the math. Encryption is your friend. Use it well, and do your best to ensure that nothing can compromise it. That's how you can remain secure even in the face of the NSA.

we have some news ...

... three years ago, we knew we had to try to make The Guardian sustainable by deepening our relationship with our readers. The revenues from our

Remember this: The math is good, but math has no agency. Code has agency, and the code has been subverted.

EDITED TO ADD (9/6): Someone somewhere commented that the NSA's "groundbreaking cryptanalytic capabilities" could include a practical attack on RC4. I don't know one way or the other, but that's a good speculation.

EDITED TO ADD (9/6): Relevant [Slashdot](#) and [Reddit](#) threads.

EDITED TO ADD (9/13): An [opposing view](#) to my call to action.

Tags: [cryptography](#), [Edward Snowden](#), [encryption](#), [intelligence](#), [Internet](#), [NSA](#), [privacy](#), [Schneier news](#), [secrecy](#), [surveillance](#)

Posted on September 5, 2013 at 2:46 PM • 393 Comments

Like Tweet +1

Comments

About Bruce Schneier



I've been writing about security issues on my blog since 2004, and in my monthly newsletter since 1998. I write books, articles, and academic papers. Currently, I'm the Chief Technology Officer of IBM Resilient, a fellow at Harvard's Berkman Center, and a board member of EFF.

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Glenn Greenwald on
security and liberty
World news

Edward Snowden: NSA whistleblower answers reader questions

The whistleblower behind the biggest intelligence leak in NSA history answered your questions about the NSA surveillance revelations

Mon 17 Jun 2013 20:31 BST

f t e 271 3,845



Snowden, pictured in a Hong Kong hotel. Photograph: The Guardian

5.12pm

Question:

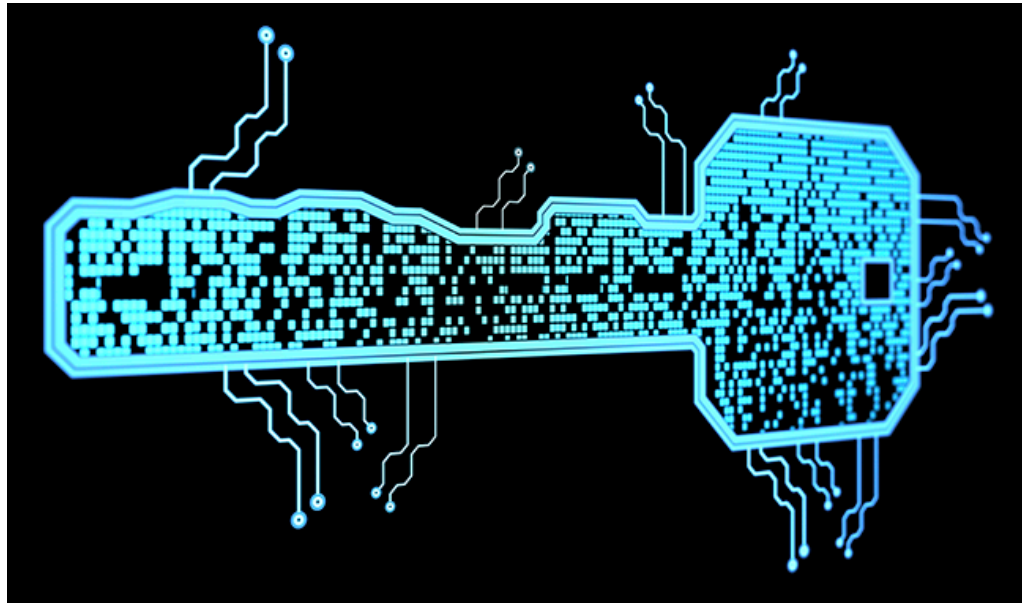
Is encrypting my email any good at defeating the NSA surveillance? Is my data protected by standard encryption?

Answer:

Encryption works. Properly implemented strong crypto systems are the few things that you can rely on. Unfortunately, endpoint security

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co jest najważniejsze w kryptografii?



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**czy wiesz gdzie są Twoje klucze i jak
są przechowywane?**

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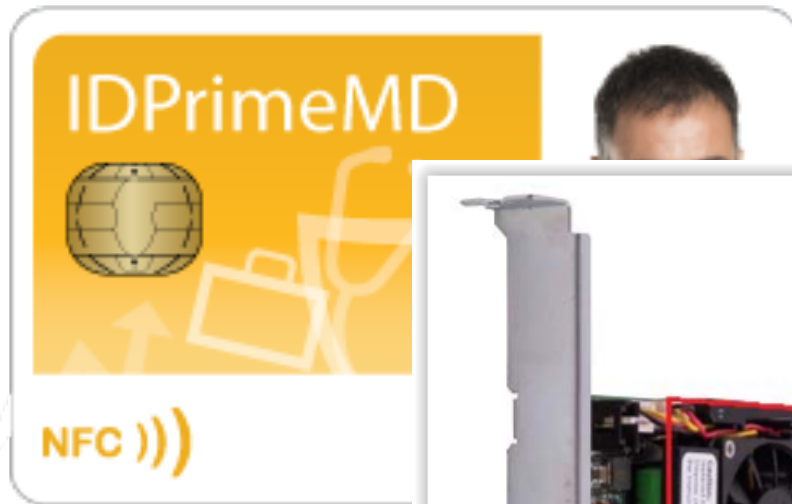
```
root@hector:/opt/trend/imss/config/dkim/keys
[root@hector dkim]# ll
total 16
-rwxr-x--- 1 imss imss 3446 Mar 18 23:00 dkim.conf
-rwxr-x--- 1 imss imss 2587 Jun  4 2016 dkim.ini
-rw-r--r-- 1 root root 159 Mar 18 23:00 InternalAddress
drwx----- 2 imss imss 4096 Jun  4 2016 keys
-rw-r--r-- 1 root root  0 Mar 18 23:00 KeyTable
-rw-r--r-- 1 root root  0 Mar 18 23:00 SigningTable
[root@hector dkim]# cd keys/
[roo]# ll
[roo]# ll
[roo]# ll
[roo]# cat default.cllico.pl.private.key
-----BEGIN RSA PRIVATE KEY-----
MIIEpAIBAAKCAQEA0vWrhGMzwvRbzWwnxebxMT6g9Ff910sJ7h+H8QDasHvPD
tiAajEPQM6KQFvr2Y0Z0ohmFoObT93sCUjuz30+Wv7+el5/
ZC1a/t0avHhOu7VY7NKqcluyEsxF71fdCHnY69Hlp5acVAD
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PO609sJp3in9a5SQ/He6lDPs+QSexbExUPwXmvLStFTrGqE
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XLvDbn+/n9hA6Luq+WXObPR2/S0sRU+Ze/DV+f/H3bHa4hK
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2n+2QbZu89GHcJGrQjZJz/7ainRHKVFUWVMoFS6bdbiUO2x
no+2dFLjpUvk3qnuj63YjWDY2pW3ltYWN2Guadwm51NABc2
XRvSyKVUTcsbBnWLQw7a9a23Ly+o6V3ack15q9Cf+siUXW8
OH+L3Tg6DEJupbuisS5eHwhnXN6EhuAzCJin5KwBAoGBAMke
013jkuYXC+10w0KefPYqN8e2VWvHGC/mMJwXDyqXHEZbC/n4
vkjfe8eHTGow/EwWSAaHtWPn26J9dYI2r1KDH7/Vtzfp2H
JrafUkv26qqR2AGiyY5K+mBAoGAF+JPLQaJzzT6w3NXXR6YR
q4cppxHCf3RSYa5EW6VEMFdYEkoMOC4bxYhlu90kOyKSZ2H
pz+O+BkVw07mvKV+N95jinxzrQaUVyGZpNe+QOXIa9MYpM6W
tmzgAECgYB/WLL+kIDRPaAJtylK3/Y6JWN7wj4ZP+w02JPy
uoE4ZdYO3Zq92kcmV86uxr8ymfZFXbPAFlUC++EjBPieZTM
R03qVclhff6fv4YKliaRBESPG6yrwI7KVzVoy+98WoPCCu3w7VtScg+IgDiX7Yla
uf3IAQKBgQCX1GhNUDDel1quHXNcq7iBTtVYewOITujjruyyKUgQuCRPzK57leUt
coPwk/uBYkzBcR1XcGucP52l3oDF7HWelkYcbiiJGAqmB8AkV9kEw3l0K3dN/wHV
q+1Pkvzdt0x4GYf3/4K2oLzcH/Ha/G+yudqT61j9XHwqimBkvMiFcg==
-----END RSA PRIVATE KEY-----
[root@hector keys]#
```

czas najwyższy coś z tym zrobić...

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H S M

Hardware Security Module



↑
Cryptograph
Boundary

NIST
Information Technology Laboratory
COMPUTER SECURITY RESO

National Institute of
Standards and
Technology
Agencja rządowa

Cryptographic Module Validation Program

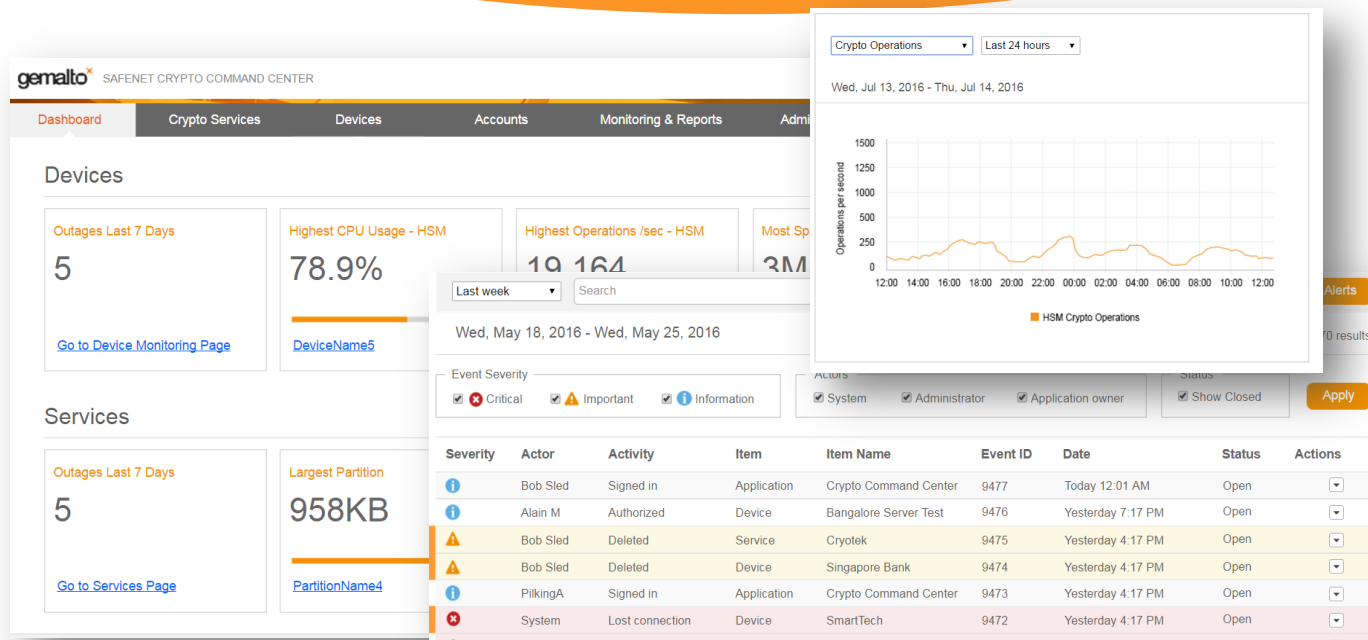
Certificate #3205

Details	
Module Name	SafelNet Luna K7 Cryptographic Module
Standard	FIPS 140-2
Status	Active
Sunset Date	6/24/2023
Validation Dates	6/25/2010
Overall Level	3
Causes	When operated in FIPS mode and initialized to Overall Level 3 per Security Policy
Module Type	Hardware
Embodiment	Multi-Chip Embedded
Description	The SafelNet Luna K7 Cryptographic Module is a high-assurance, tamper-resistant Hardware Security Module which secures sensitive data and critical applications by storing, protecting and managing cryptographic keys. It provides end users with industry-leading security and performance, and can quickly be embedded directly into servers and security appliances for FIPS 140-2 validated key security. The module meets compliance and audit needs for FIPS 140, HIPAA, PCI-DSS, eIDAS, GDPR.
FIPS Algorithms	AES Certs: #1753 and #1754 CIVL Certs: #1392 and #1431 DRBG Certs: #1392 and #1431

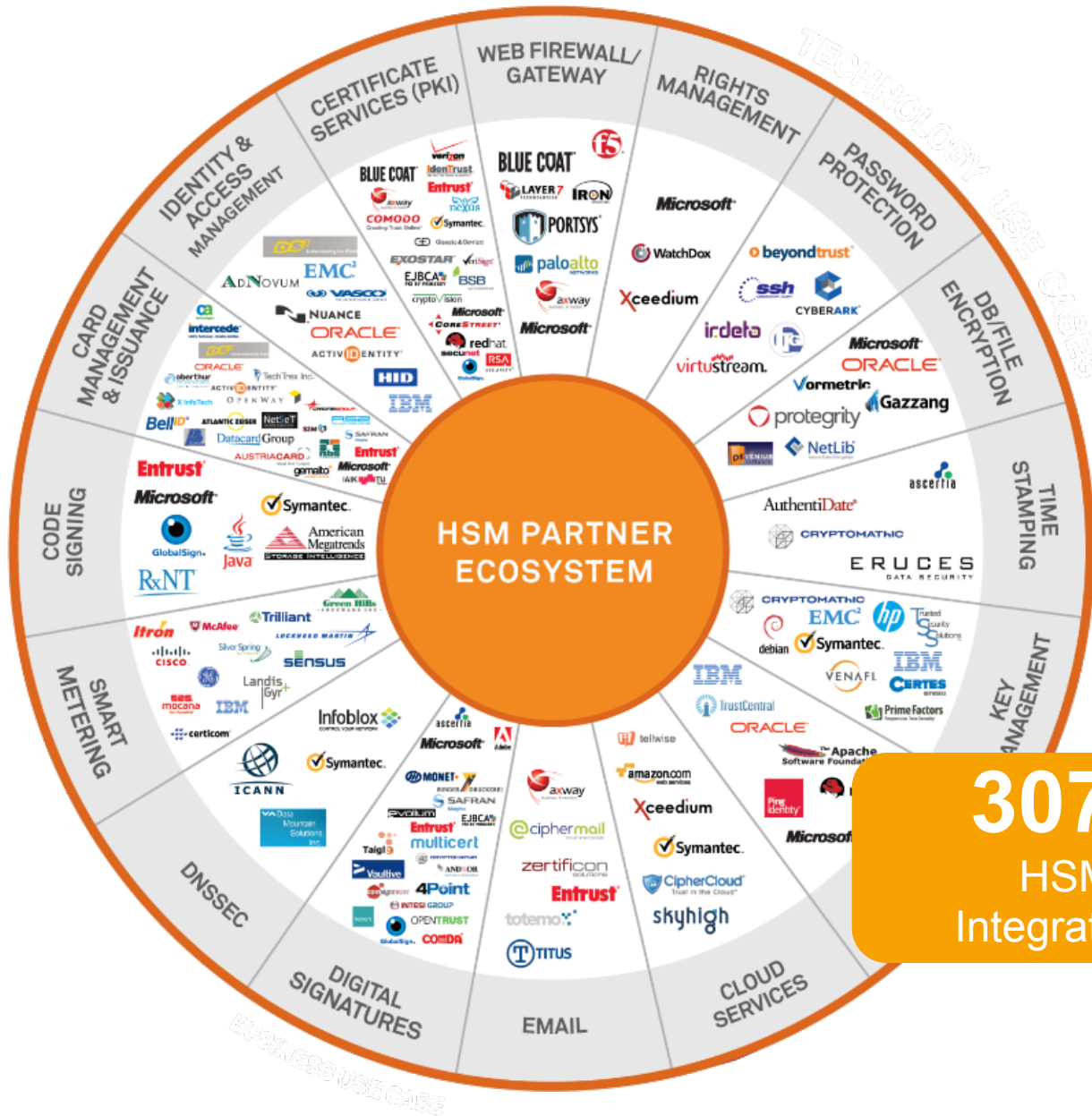
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SafeNet PCIe HSM

SafeNet Network HSM



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307+
HSM
Integrations

Dlaczego Gemalto?

2+ mld

A smart national ID card for Saudi Arabia

[Version Française](#) 



Last updated 4 June 2017

March 2009 saw the announcement that Gemalto will continue to deliver its ID cards to the Kingdom of Saudi Arabia over the next three years as well as supplying support and maintenance to the Riyadh personalization center.

The credit-card sized ID documents are mandatory for all citizens aged 15 and over.

According to the [Ministry of Interior](#), the national ID cards are valid for 10 years.



eDriver
Licenses for
Monterrev



develop
eD
337kb

The New
Electronic
Driving License
In The
Netherlands



[The New Electronic Driving License In The Netherlands \(PDF - 3.2mb\)](#)

[License In The Netherlands \(PDF - 3.2mb\)](#)

The new French
electronic
driving license



[The new French electronic driving license - \(PDF -1.4mb\)](#)

665kb

UK confirms post-Brexit passport deal with Gemalto

18 April 2018

[Share](#)



Germany's new Electronic Health

||||| The Key to the country's new healthcare infrastructure

A comprehensive social security system

Germany, with over 80m citizens, is the biggest economy in Europe. It has one of the world's oldest universal healthcare systems, created at the end of the 19th century with the aim of providing a comprehensive social security for the nation's working forces. This system is funded through social contributions by employers and employees and today covers 92% of the population. Highly decentralized – with private doctors providing ambulatory care and independent hospitals providing in-patient care – it is administered by around 150 different health insurance companies.



Scope of the new healthcare system

• Networked IT infra-

Launch in:

From spring 2017, a secure interface national provide connect thousand hospitals, pharmacy insurance companies healthcare treat data to be secure between parties patient privacy.





In October 2017 began to roll-out 70 million people possession of it



Last updated 01 March 2018

Jordan has chosen Gemalto for its ambitious identification program and the issuance of an ultra-modern national eID card.

Algeria's new biometric identity card: a successful launch

[SHARE THIS](#)    

Last updated 14 November 2017

The landmark of 5 million eID cards has been reached in summer 2017.

Launched in January 2016, the new Algerian biometric identity card is also very emblematic of the country's modernization goals.



Driver's license for Quebec



Enhanced identity protection for drivers

In December 2014, "La Société de l'assurance automobile du Québec" (SAAQ) selected Gemalto to provide the new polycarbonate driver's license for Quebec.

gemalto

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Dziękuję!!!

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