ELECTRO-MECHANICAL BUILDING HARDWARE FOR SMART HOMES: CHALLENGES WITH SMART LOCK STANDARDISATION

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ARGE Executive
• **Background**

• Developments in European standards

• Draft standard status and issues

• ARGE standard next steps
Smart lock standard: Background

- No EN Standard exists
- 3 national existing quality marks (UK, SE, FR)
- Standard scope: to encompass mechanical and electronic locking performance combined with connectivity with credentials. Scope should cover:
  - Application across Europe
  - Residential end user markets
- Standard should provide a platform/basis for local quality marks
- It is also important to communicate to market about the connectivity security level (cyber security).
ARGE Conference – Bonn – September 6th, 2019

ARGE strategy

- bsi.
- NF
- Stödskyddsföreningen
- SKG

Product standards
- EN 1303
- EN 12209
- EN 14846
- EN 15685
- EN 15684
- TS 103
- PAS 24
- prSSF
- TS 103
- 425
- EN 16867

Graded

National standards bodies

Reminder
Pass/fail
UK smart lock strategy

Launched October 2018
• Background

• **Developments in European standards**

• Draft standard status and issues

• ARGE standard next steps
Launched in the U.S.

Coming to Europe.....

Windows and doors
Zero cost to OEM’s
Low cost
Easy to install
Standards developments

Oct 2018
Code of Practice for IoT consumer devices

Feb 2019
Global Tech Specification
Security of IoT consumer devices

Legislate for cyber security labelling 2020

- Unique password
- Vulnerability policy
- End of life policy for security updates
Smart lock standard - Agenda

• Background
• Developments in European standards
• **Draft standard status and issues**
• ARGE standard next steps
• Core Team with 6 AA people: Product Managers, IT security expert, anti-burglary Engineers, standards specialists
• Objective and general principles defined
• First standard project drafted to get a base to be discussed
• Liaison initiated with external organisations which could contribute: ETSI, ENISA, Riscure.
• New ways to by-pass a connected device arise everyday
• It is very difficult to build a standard like our typical EN standards, including requirements, test methods, and a classification which could be consistent across Europe.
• The standard shouldn’t help the hackers!
• It is impossible to 100% guarantee the SDL is secure
• Local quality mark owners have their own penetration test, which is a secret black box.
• The different credentials in the market can use various communication protocols.
Proposed title: « Information Security Assessment for Smart Door Locks »

Based on the ETSI guide TS 103 645 V1.1.1 (2019-02) « Cyber Security for Consumer Internet of Things »

2 parts:

- Requirements and tests for the SDL:
  - passwords, data storage, secure communication, sofware integrity, personal data protection, ...

- Process to maintain and update efficiently security performance:
  - Reports of vulnerabilities, software testing and updates during all life cycle, ...

.....reflect ETSI and DCMS guidelines
• Background
• Developments in European standards
• Draft standard status and issues

**ARGE standard next steps**
ARGE Technical Specification:

“Information Security Assessment for Smart Door Locks”
Road map for publishing an ETSI TS

In dialogue with the Chair of TC Cyber within ETSI....

TC Cyber meeting Nov 2019. Present ARGE strategy
Review ARGE associate membership of ETSI
Engage with TC Cyber. Create working sub group for smart lock standard
Create draft ETSI Tech Spec for smart door locks
ETSI secretariat reviews draft, verifies and publishes SDL standard

TC Cyber industry driven, covers cyber security across ETSI
An ETSI SDL Tech Spec would be recognised across Europe
• Circulate draft SDL Technical Specification (TS) within ARGE WG C

• Invite technical input to draft TS from a broader base of ARGE experts

• ARGE working group to refine and confirm ARGE draft TS

• Arrange for ARGE to present our proposals for smart door locks to the ETSI TC Cyber meeting in November

• Review output from ETSI November meeting and agree next steps