

IDENTIFYING FUTURE CYBER THREATS FOR SMART HOMES

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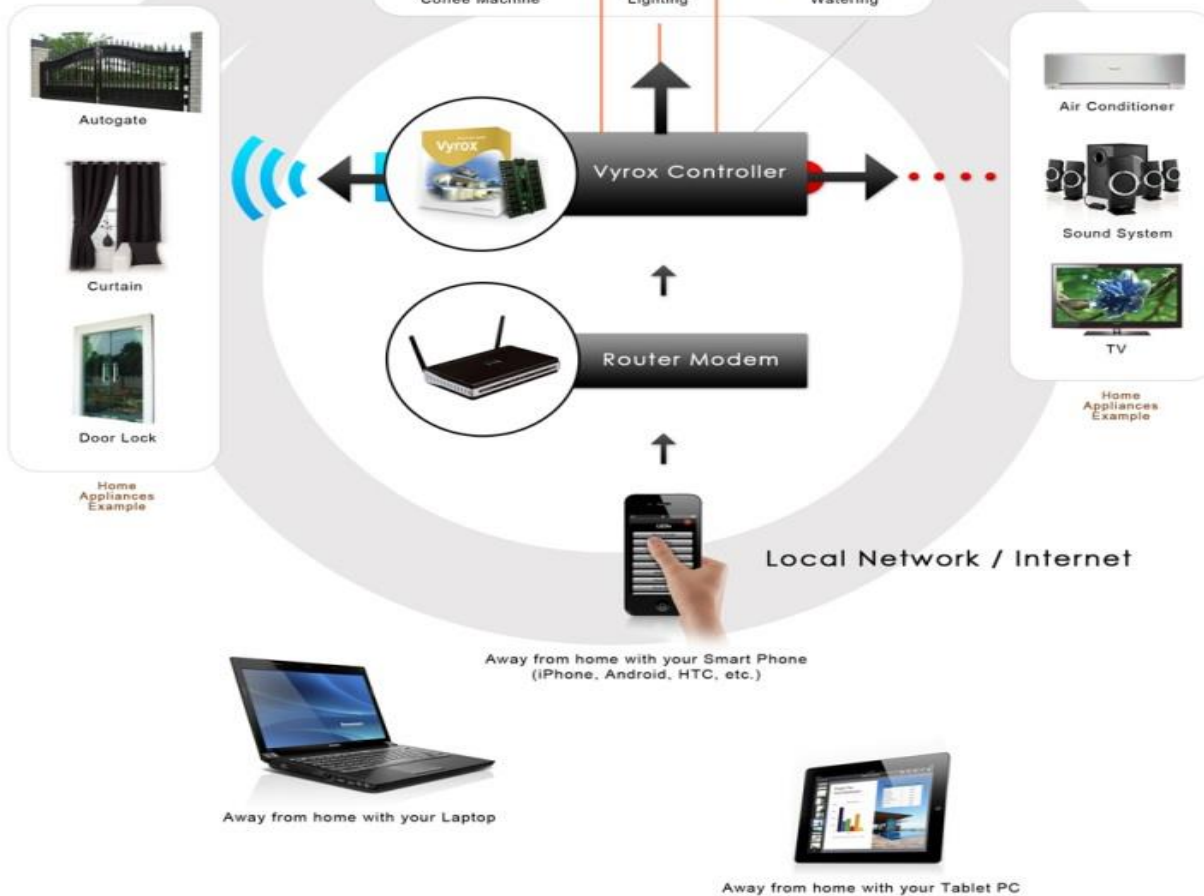


A Feasibility Study on Cyber Threats Identification and their Relationship with Users' Behavioural Dynamics in Future Smart Homes, Research Grant 'Funding of Fundamental & Applied Scientific Research in Priority Fields', Bulgarian Science Fund, Ministry of Education Youth and Science, 2012-2014, DFNI-T01/4

Vyrox Smart House

Concept Philosophy

- Infrared
- Radio Frequency
- Wired



- ✓ One Touch Automation
- ✓ Schedule Automation
- ✓ Sensors Automation

1. Overview

2. Threats

2.1 Ownership threats

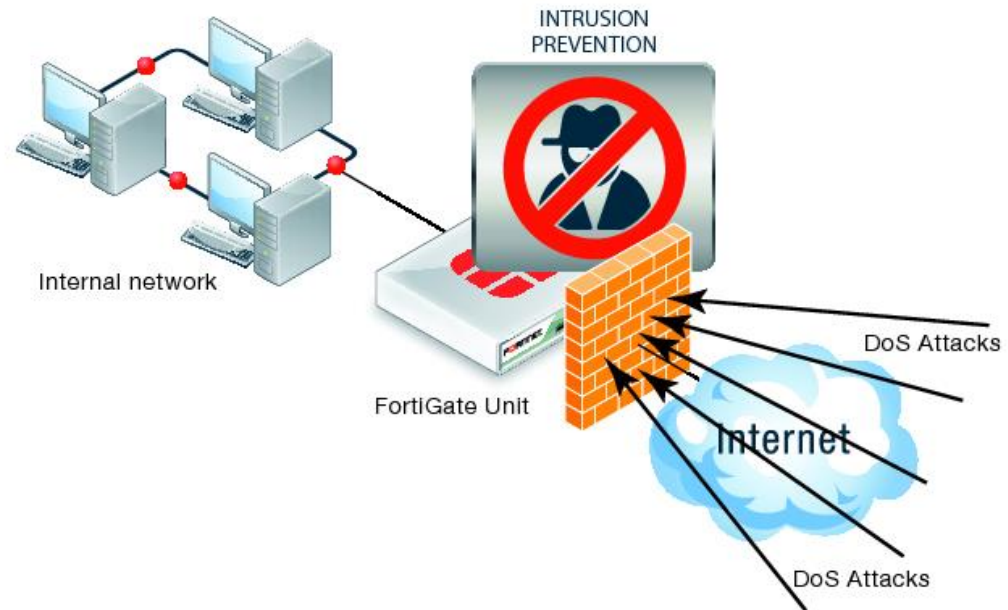


Users other than the owner using property

Data ownership threats
internal/external

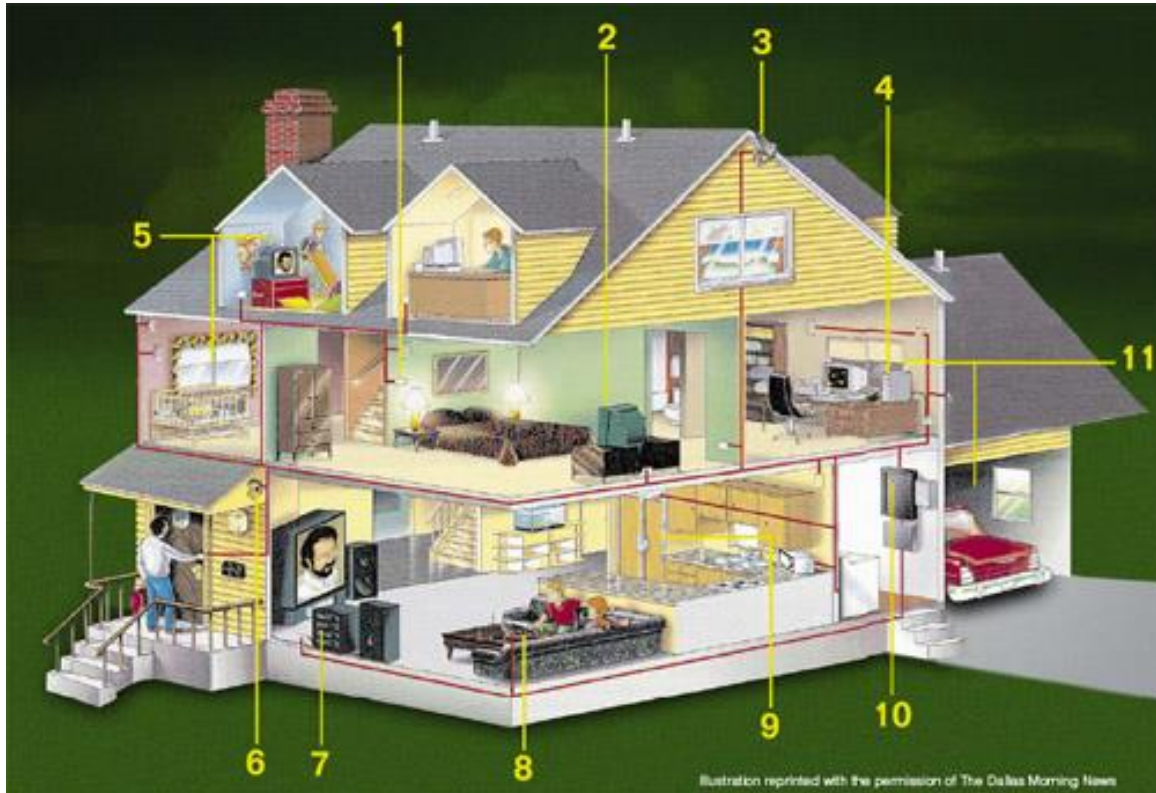
Data access
for third parties

2.2 Availability threats



- Denials of service
- System failures/power shortages
- Jamming
- Re-authentication related attacks

2.3 Locality threats



- Locating the user within the smart home environment

2.4 Data leaks



- Wireless protocols liabilities
- VoIP liabilities

2.5 Other attacks



- Online or physical impersonation
- False aid credentials (eHealth , false aid)
- Remote control user threats
- Compromised appliances
- Cameras and recording devices
- Compromised user accounts
- Compromised trusted devices



3. Security approach



4. Conclusion



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