

AHAM Recommendations on EPRI Smart Appliance Adapter Architecture

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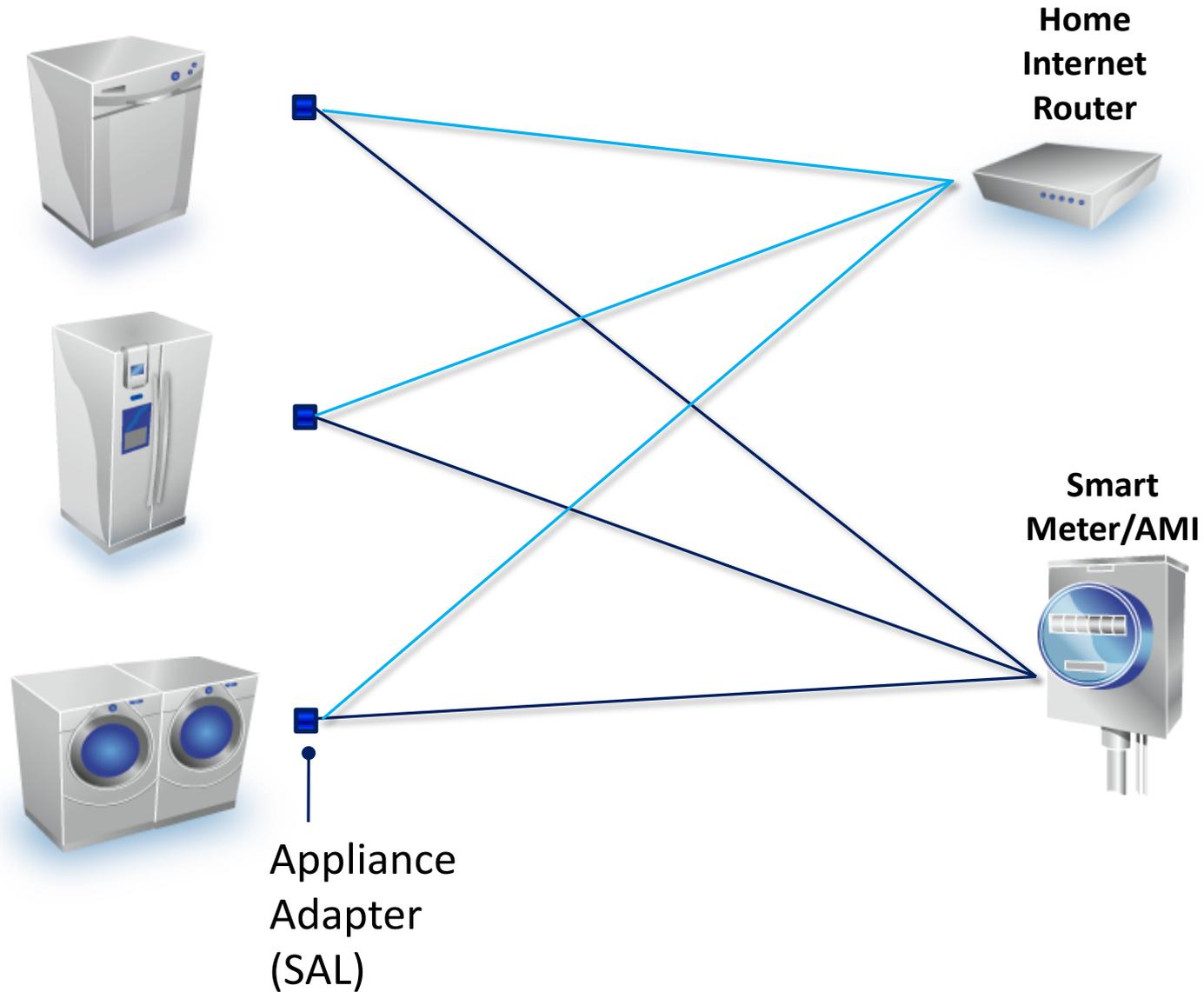
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EPRI AND AHAM SHARE SIMILAR GOALS



- 1 Accelerate deployment of smart grid solutions
- 2 Drive consumer adoption of smart grid solutions
- 3 Work with smart grid stakeholders so that benefits of smart grid are realized by all – consumers, electric utilities and appliance manufacturers

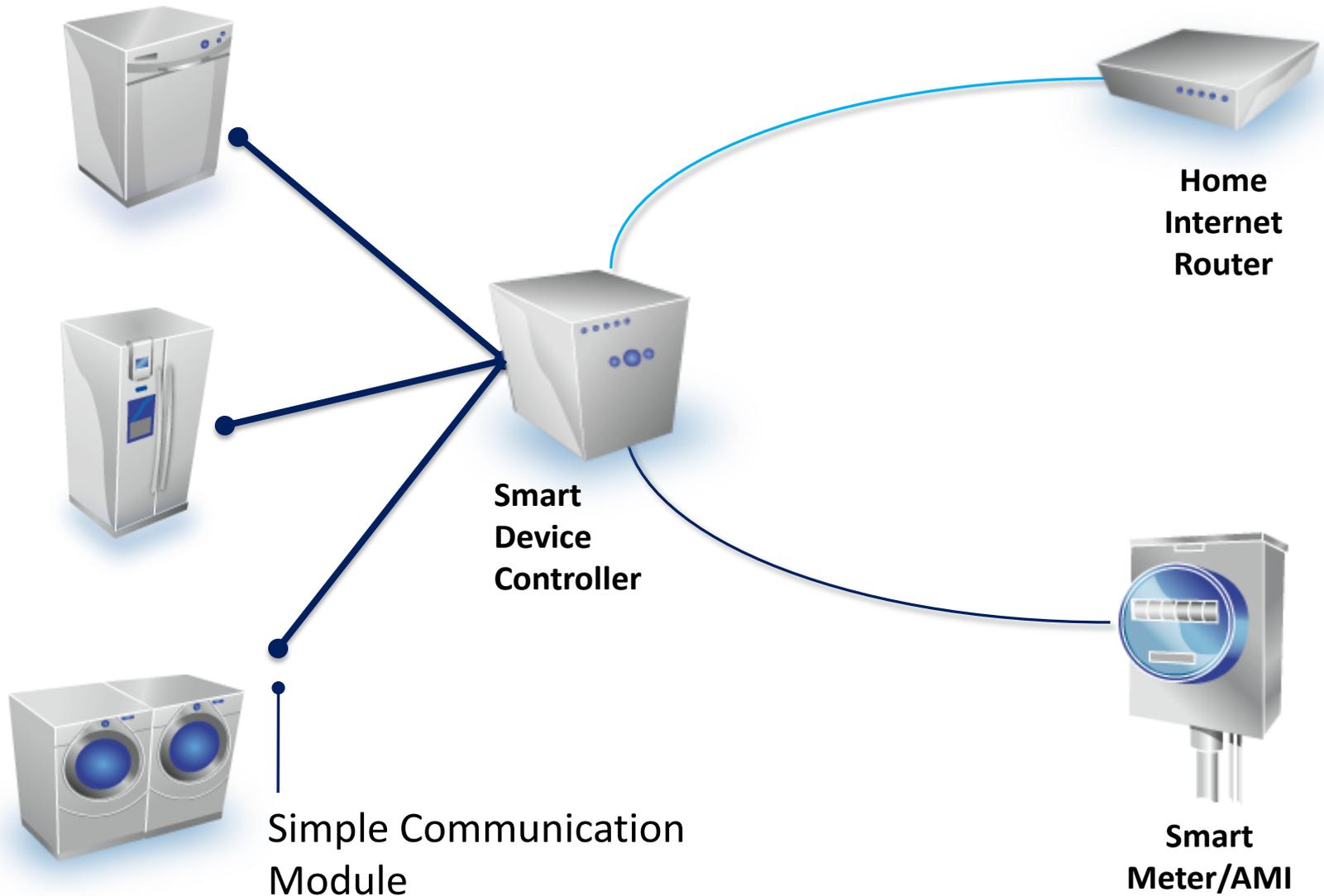
EPRI PROPOSED ADAPTER ARCHITECTURE



SOME CHALLENGES WITH THIS ARCHITECTURE

- 1 Demands high level of capability in adapter (e.g. multiple types of communication, processing power)
- 2 Cannot optimize energy within the home as adapters are single nodes and not networked
- 3 Requires one adapter per appliance
- 4 Expensive to consumer

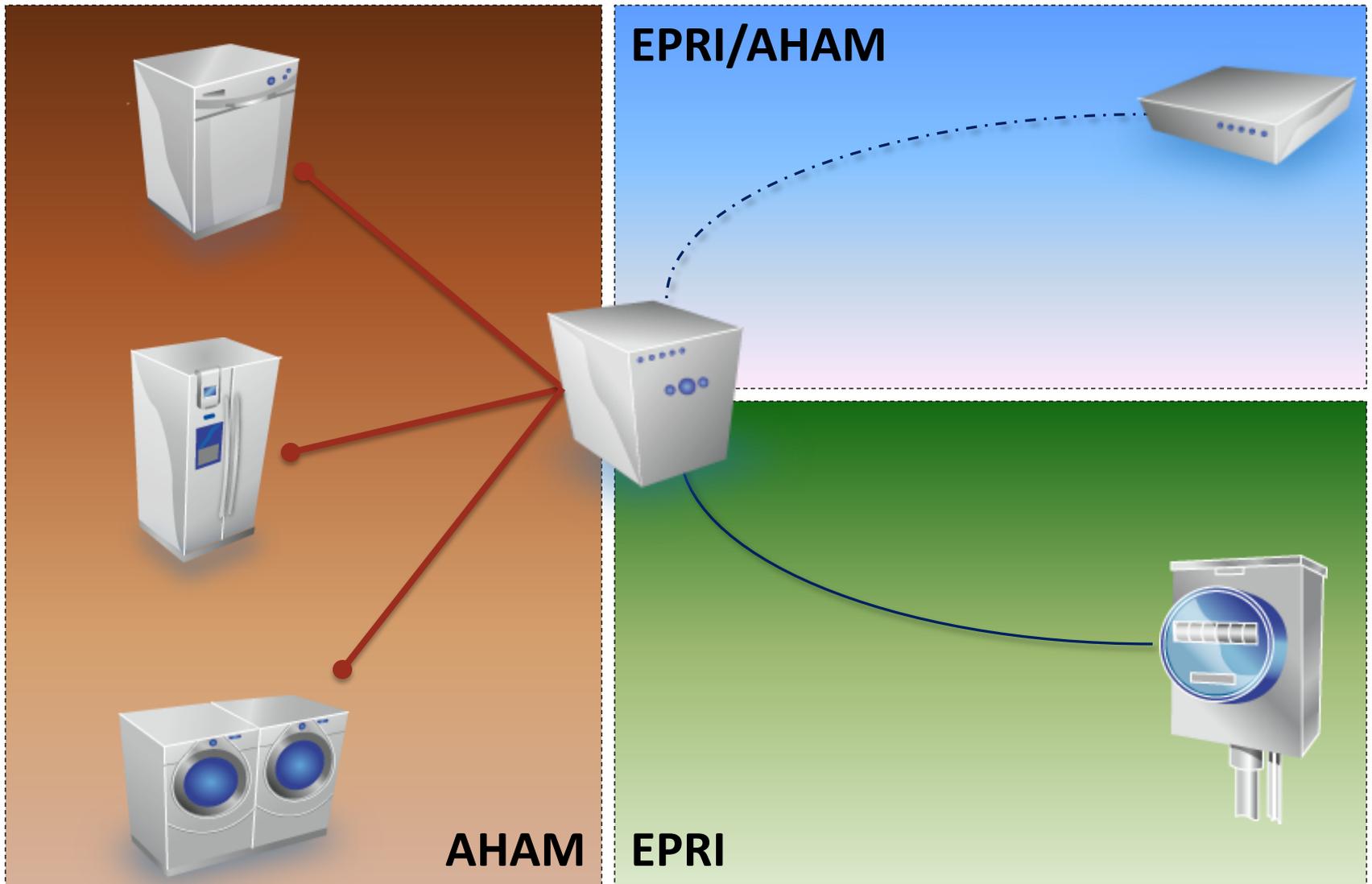
AHAM's PROPOSED ARCHITECTURE



ADVANTAGES OF THIS ARCHITECTURE

- 1 Adapter needs to focus only on communication and not control
- 2 Home-level energy optimization based on consumer preferences
- 3 Good value – consumer buys single hub and simple communication modules
- 4 Meets flexible architecture goals established by EPRI

DIVIDE AND CONQUER



CONSUMER ELECTRONICS v/s APPLIANCES



- False analogy with PC industry
- Examples - Wi-Fi cards and modems which started external and moved internal, as costs dropped
- Not a good comparison: appliances are not CE products
 - Appliances are not discretionary items
 - Life expectancy is 10 to 20 years and not 2-4 years
 - Appliance purchases rarely driven by technology innovation

CONSUMER ELECTRONICS v/s APPLIANCES



- False analogy with PC industry
- Technology does not sell Appliances, consumer convenience does
- According to Best Buy Marketing data 80% of Appliance purchases made by Women
 - Looking for Style and Appearance
 - Some sensitivity to Energy Star
 - BB indicated an effort to educate consumers on Smart Grid in the Stores

TAKEAWAYS

- 1 Replace individual appliance adapters with a smart device hub/ gateway
- 2 EPRI's help needed to define industry communication standard between the meter/Internet and the hub/gateway
- 3 AHAM task force will standardize the communication between the hub and home appliances