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# Technical options and drivers for implementation

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# Introduction To ARM

- 2.5B+ units per quarter
- Partnership model
  - About 750 processor licenses sold to more than 250 companies
  - Millions of developers; billions of users
- Most broadly adopted architecture
- ***Always focused on low-power!***



1998

2010

2020

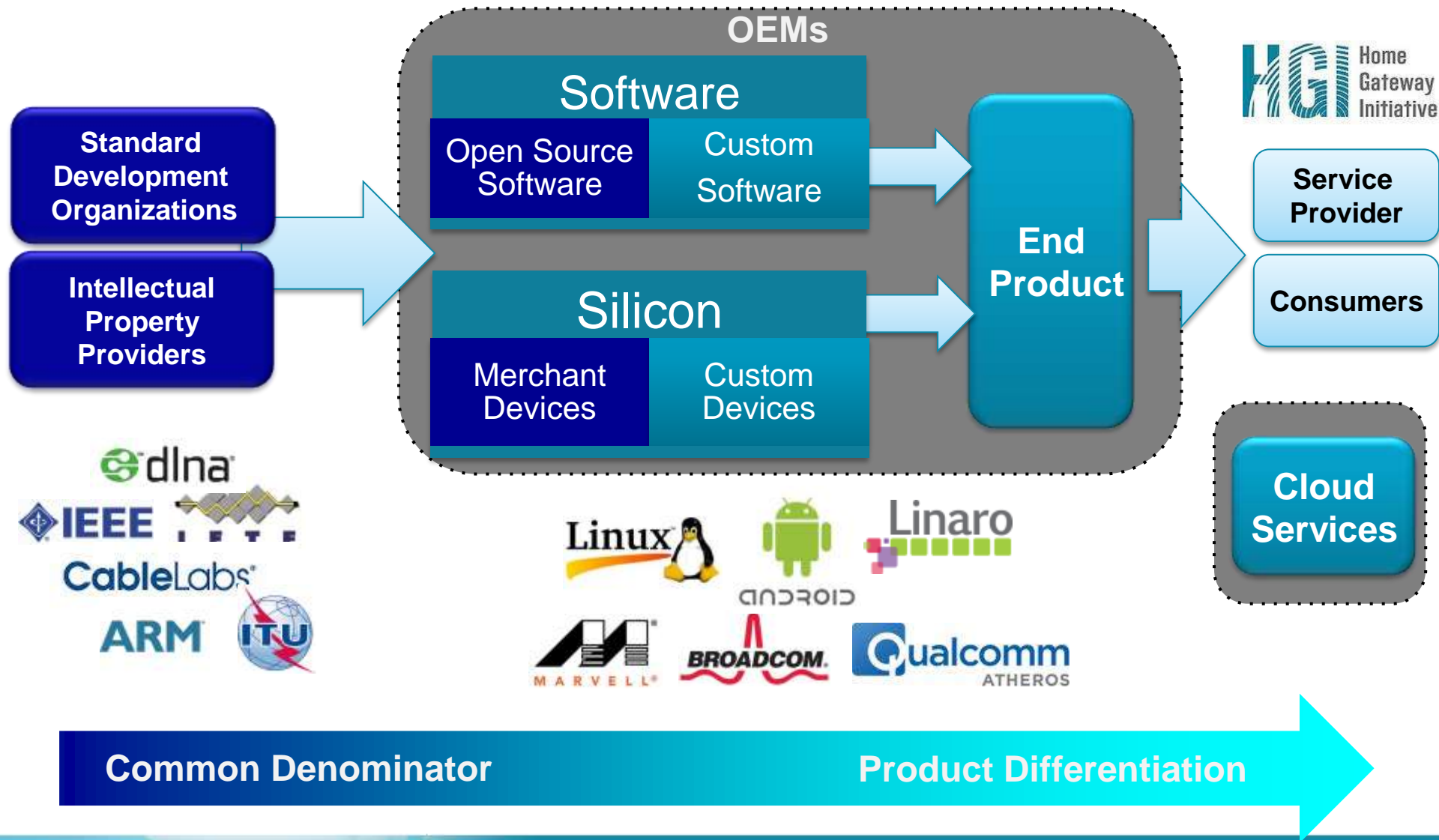
**20+**  
billion

Units to date

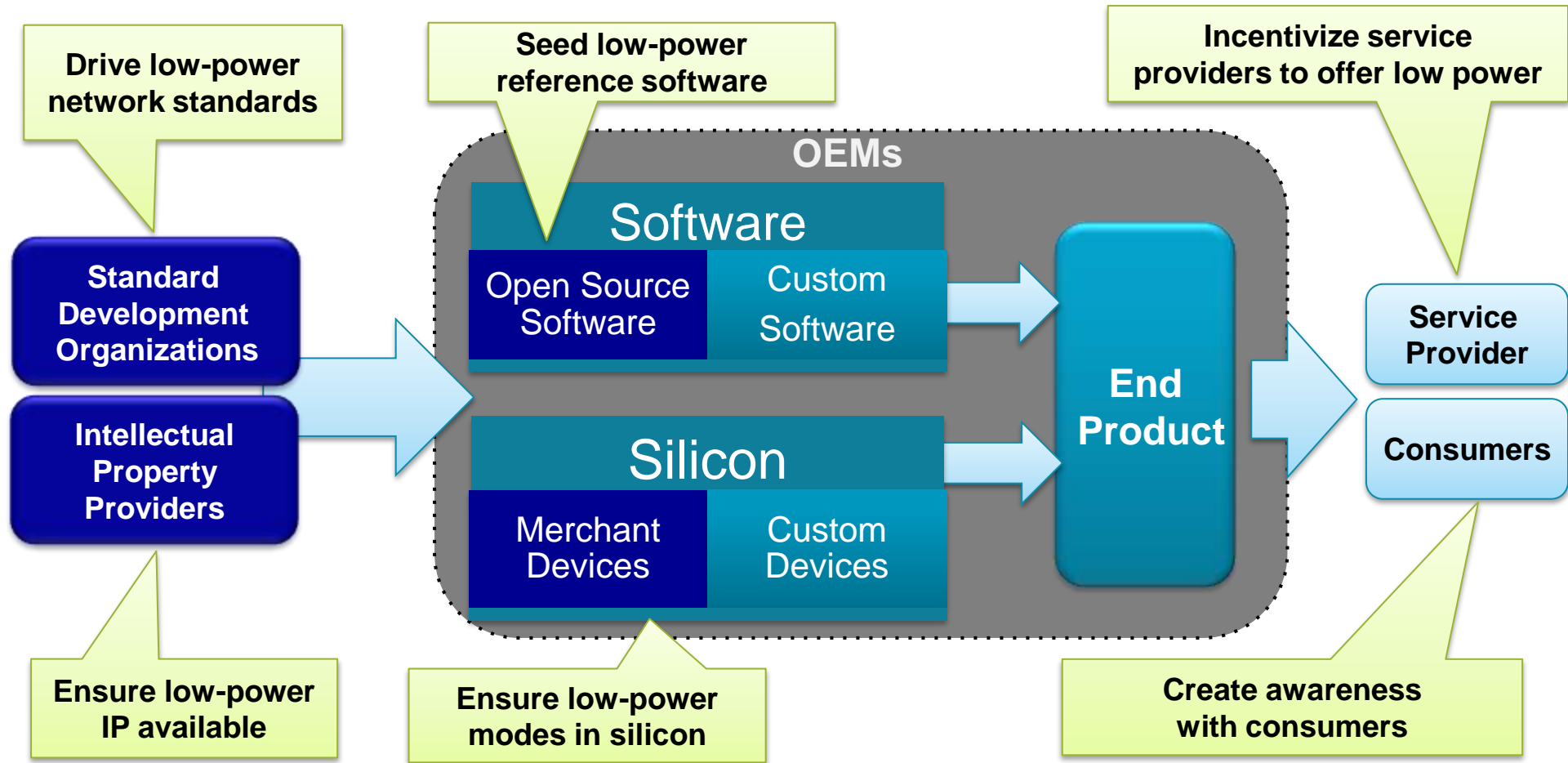
**100+**  
billion

Units accumulated  
in 10 yrs

# Development Supply Chain



# Making Low-Power Networking Less Painful...

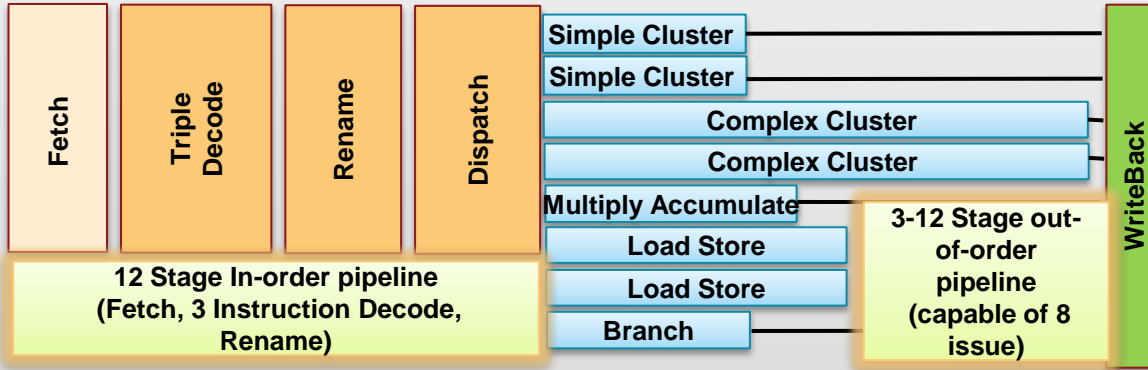


Common Denominator

Product Differentiation

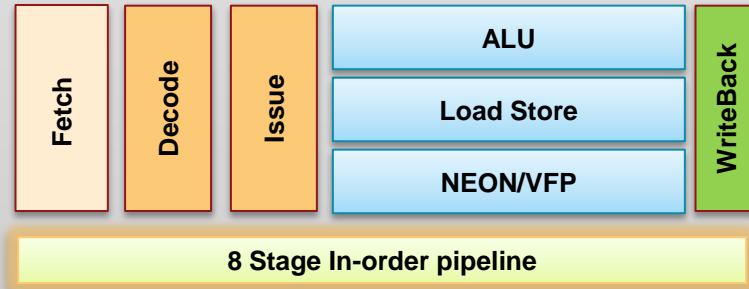
# State Of The Art In Mobile

## Cortex™-A15

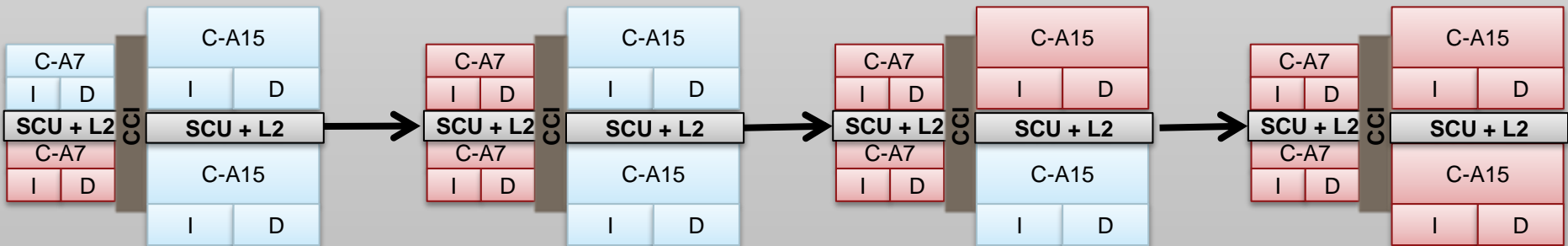


High Performance

## Cortex™-A7



Low Performance



**Peak performance of large core, average power closer to small core**

➤ Goal is to make this completely transparent to software

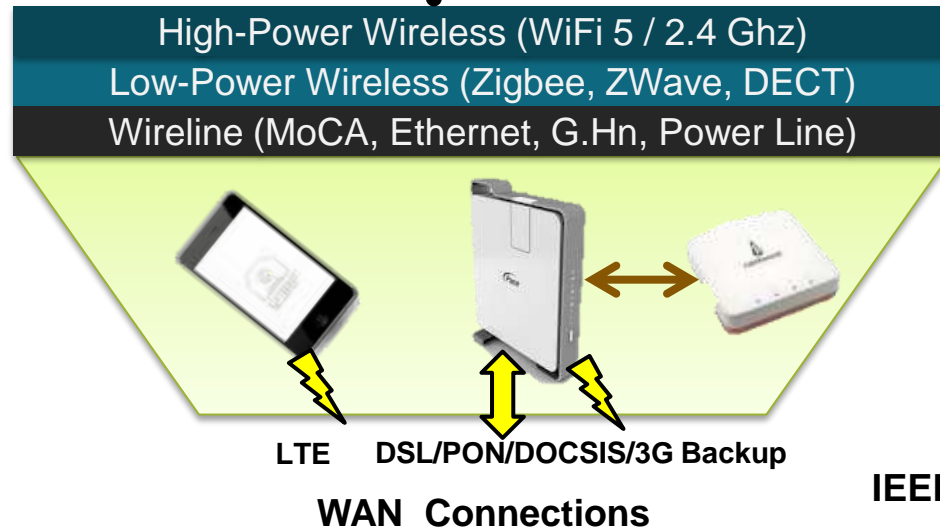
# Future Of Home Networking

## Explosion of Networked Devices



### Network Characteristics

- Range
- Availability
- Reliability
- Bandwidth
- Security
- ... and Power!



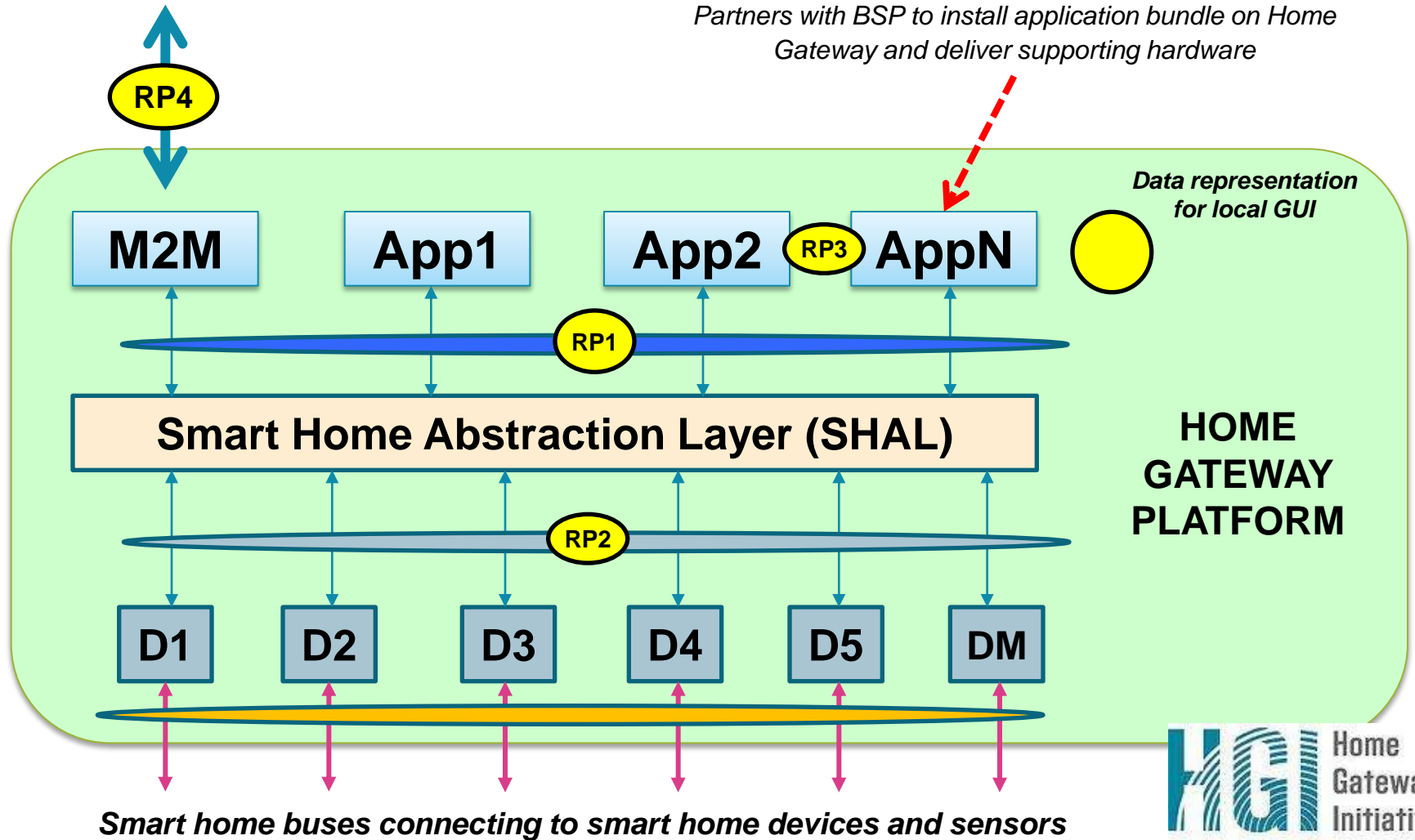
IEEE P1905 allows bridging

# HGi Smart Home Architecture

**Cloud Services are enabled**

**Local applications**

*Example: Provider of home energy management service.  
Partners with BSP to install application bundle on Home Gateway and deliver supporting hardware*



# Summary

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- Industry has created very efficient devices in mobile space
  - Opportunity to proliferate learning in other product classes
  - Mobile devices can scale with workload at a very small granularity
- Make it easy to be power efficient
  - Seed standards with low-power modes and options
  - Open source software is prolific in CE
- In the future, there will be several home networks
  - Enable devices to choose the right network (power, bandwidth)



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# APPENDIX