

Always On, Always Listening, Always Understanding - Hands-Free Voice Activation for Mobile Handsets

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- **Replace single-button trigger with keyword/phrase trigger**
- **Do this at low enough power to operate in standby-mode**
- **Enables hands-free voice control to be “always on”**
- **No impact on natural communications style**

LOW POWER DOMAIN

Replaces button-trigger

Always on, even in standby

Micro power budget

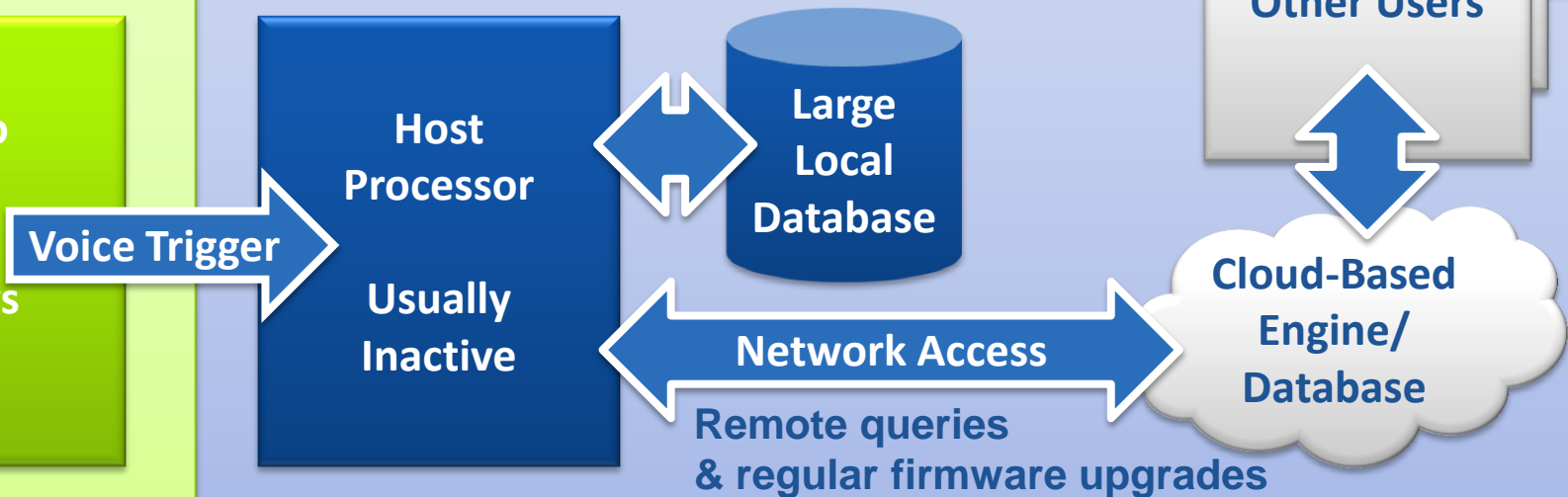


CONNECTED DOMAIN

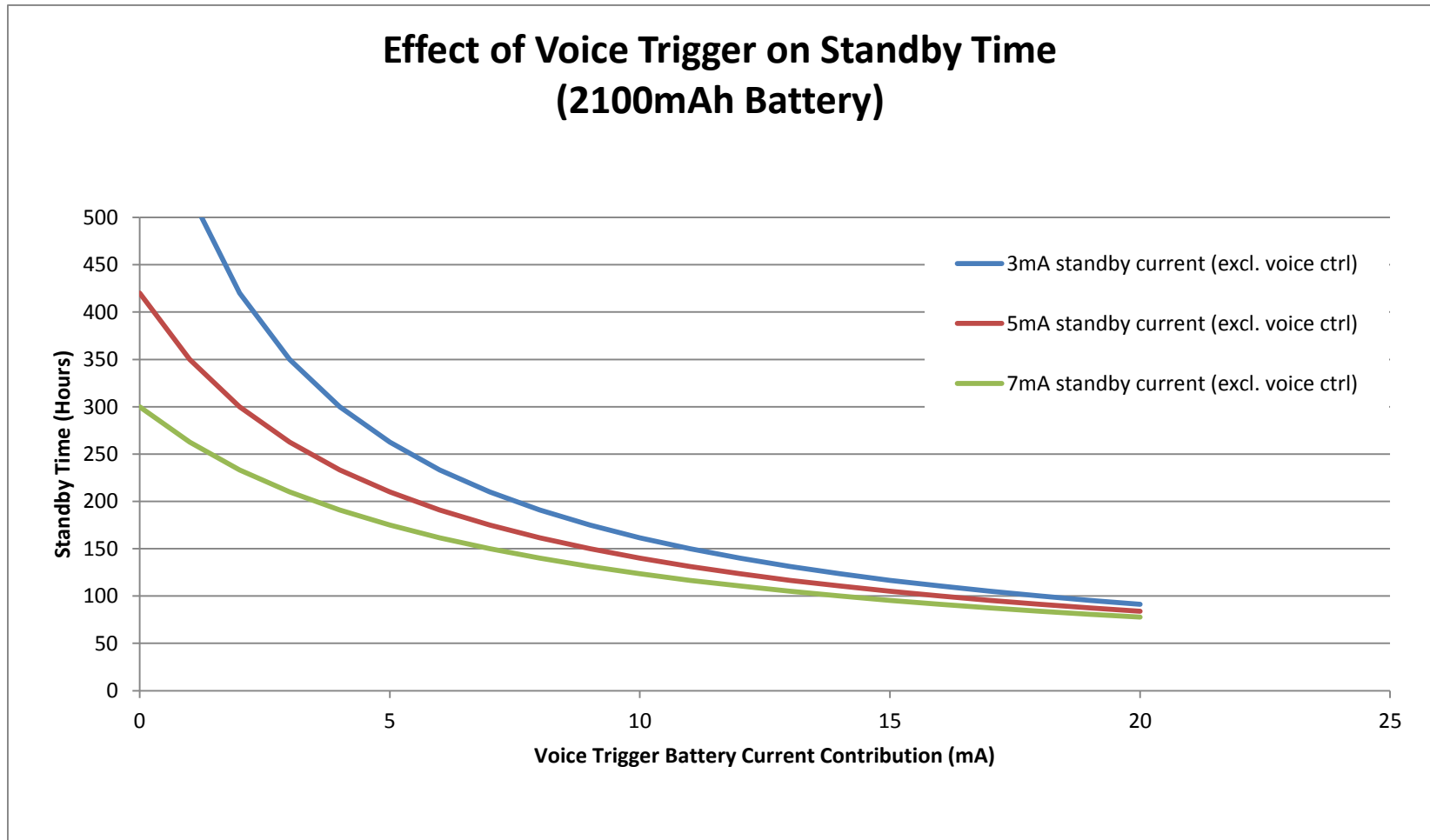
Host needs access to vast processing resources, local and remote, to provide competitive, natural communication which can regularly adapt & improve

Cloud-based engine has access to live statistical data from huge pool of users which enables continuous improvement to firmware & database

Very infrequent use so power is not a limiting factor for host processor



- **User should not have to remember a “virtual menu hierarchy”**
 - Looking at the display is not always convenient (e.g. when driving)
 - Wearables may not even be able to display a menu anyway
 - New users will not have time to learn a new hierarchy
- **No complex “protocols” or waiting for prompts**
 - Talk naturally to phone in a similar way to human communication
- **One exception: a fixed trigger phrase which gates voice control**
 - Provides reassurance that phone will not react to nearby conversations
 - i.e. provides same predictability as the button it replaces
- **Fast response time**
 - Query-to-result should not be longer than for human-human comms



- High power voice triggers will dominate standby current
- Competitive voice triggers contribute low single-digit mA