

Home Voice Gateway - A Proposal

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Market need

- Homes with multiple network access
 - POTS, Wireless, Broadband access
- Customers need an arbitrage mechanism
 - Least-cost routing
 - Limited customer interaction
- Fallback to POTS capability

Capability Description

- Maintain POTS interface towards the premise (one or more)
- Provide multiple network interface
 - POTS
 - wireless, xDSL, Cable (one or more)
- Interconnect premise interface and network interface(s)
- Failure mode is to interconnect premise interface to POTS

Innovative Components

- Personality module for cell phone interface
- Easy to change/add additional network/cell phone interfaces
- Use UPnP to overcome NAT traversal problem for VoIP
- Can be provisioned using a computer or telephonic interaction
- Provide features across all interfaces
- Simple and fail-safe installation
 - POTS interface will work under all scenarios
- Competitively priced

Call Treatment

- Outgoing
 - Provide dial-tone and collect digits (with end-of-dial indication)
 - Select the network interface
 - Dialing plan
 - Provisioned data
 - Historical data
 - Consultation with a Service Provider
 - Use native call setup procedure on the selected interface

Call Treatment (contd.)

- Incoming
 - Select premise interface based on the incoming network interface
 - Use POTS signaling to notify the incoming call
- Midcall
 - Mechanism to notify generation of DTMF and CW tones
 - Intercept mode
 - Transparent mode

Product Placement

- Marketed by the BB Service Provider
 - Alternate access providers can skim the traffic
 - Handle only on-net calls (minimize interworking)
 - Power supply is not an issue
- Channel/Direct marketing
 - Consumer item
 - May need to provide installation service
- OEM
- Reference architecture

Market Activity

- Many vendors for voice gateway
- Quite a few with multiple network interfaces
- Some with similar capabilities
- High level of interest in this set of capabilities
- Need for a reference design and carefully selected components set