



BD Associates, Ltd.

# Introduction to QUANSY

Question ANswering System

An approach to **intelligent** home  
automation

# QUANSY and Modules

- QUANSY offers a menu of Options for potential integration into the system
- These modules include:
  - Basic home automation – Starting stage
  - Speech Servant : Telephony and Internet
  - Video Interface
  - Home Security
  - And so on





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# Speech Servant

In Use with Internet and the Phone  
System

# Speech Servant

- Serves direct use & interface with the system
  - Answer the phone
  - What is the weather in four days in Chicago
- As well as for remote control of system functions (the cell phone is the remote controller for the system)
  - Turn on the air conditioning, we should be home within ten minutes.



# Considerations

- The Speech Servant is a powerful tool
  - It requires no GUI, no learning curve!!
  - It only does what you direct it to do!!
    - “Take” my calls
    - Tell me who is calling
    - Take my direction with regard what to do
      - Answer
      - Ignore
      - Interact
        - » Call back in two hours
        - » When can I call back



# Internet, considerations

- Goal (example)
  - What is the weather in 3 days in Chicago
  - (Within a few minutes) The weather in Chicago in 3 days will be 65° and fair
- Security
  - For system
  - For messages
  - While being attacked



# Telephony Considerations

- System Interfaces
  - Wired
  - Wireless
    - Cellular
    - Radio
    - Other



# Control of the Speech Servant

- System Administrator Directs Operation
  - Who may have access to the phone through QUANSY
  - Who may have remote access to the system
    - Via phone
      - Requires voice sample
    - Via internet
      - Passwords, speech input
    - Via Speech directly to system





# Control via the Speech Servant

- An example of Control via QUANSY
- The system administrator addresses QUANSY
- “QUANSY, please meet George”
- “He is visiting for the next three days”
- “He has control of the lights in the guestroom.”
- “He has access to the house between 6:00 AM and 12:00 PM.”



# Control via the Speech Servant<sup>2</sup>

- “Any Questions?”
- “Hi George, I have to talk to you a little.”
- “Have you ever worked with a Speech Servant?”
- “No, but I am willing to try the experience.”
- QUANSY will talk to George until it has enough information to clearly identify him.
- George now can turn the lights on and off in his room and has access to the house.



# Control via the Speech Servant<sup>3</sup>

- Similar control procedures could be used with various other people who need access
- “QUANSY, the maid will come on Tuesdays between 1:00 PM and 5:00 PM”
- “Let her in when she comes and let me know that she has arrived.”
- “Keep a video record of what she does.”
- “Let me know when she leaves.”



# Control via the Speech Servant<sup>4</sup>

- For the above discussion to be successful, QUANSY would have to already have full details on the maid including full details of her voice.
- “QUANSY, the air conditioning man will come on Wednesday between 1 PM and 3 PM. The password will be 10 20 30 55. If he knows the password, let him in and tell him where the air conditioner is.



# Telephone use with QUANSY

- Interaction
  - “David, there is a call from Helen.”
  - There are several different possibilities. These are dictated by several different conditions
  - “I want to talk to her, put the call through.”
  - “I can’t talk to her now, when can I call her back?”
  - “I can’t talk to her now, when can she call back?”
  - “Ignore the call, I don’t want to talk to her.”



# Telephone use with QUANSY

- Interaction, cont'd
  - Examples 2 and 3 above place QUANSY potentially in direct interaction with a human.
  - In the first releases of QUANSY, the users will be warned that the linguistic interactions that QUANSY can handle are limited.
  - The administrator can program QUANSY to handle some of the possible situations.



# Cathy's Comment

- A Reason for QUANSY.....

