



# Speak With Me

**Client vs. Server**  
**How about both?**

Ajay Juneja  
[ajay@speakwithme.com](mailto:ajay@speakwithme.com)

# Vision



- We believe technology should be centered around our humanity.
- We believe technology should connect us more with our world, rather than remove us from it.
- We believe in creating compassionate products for the human race, that connect us more to our world and to one another.

# A conversation with the Siri team... April 2010...

“Wow, your client side stuff is so much faster than our server side stuff” – Tom Gruber

“Wouldn't it be great if our client side stuff worked with your server side stuff? – Me to Adam Cheyer, Tom Gruber, and Gummi Hafsteinsson

“Yeah, that'd be awesome! How do we do that?” – Tom Gruber

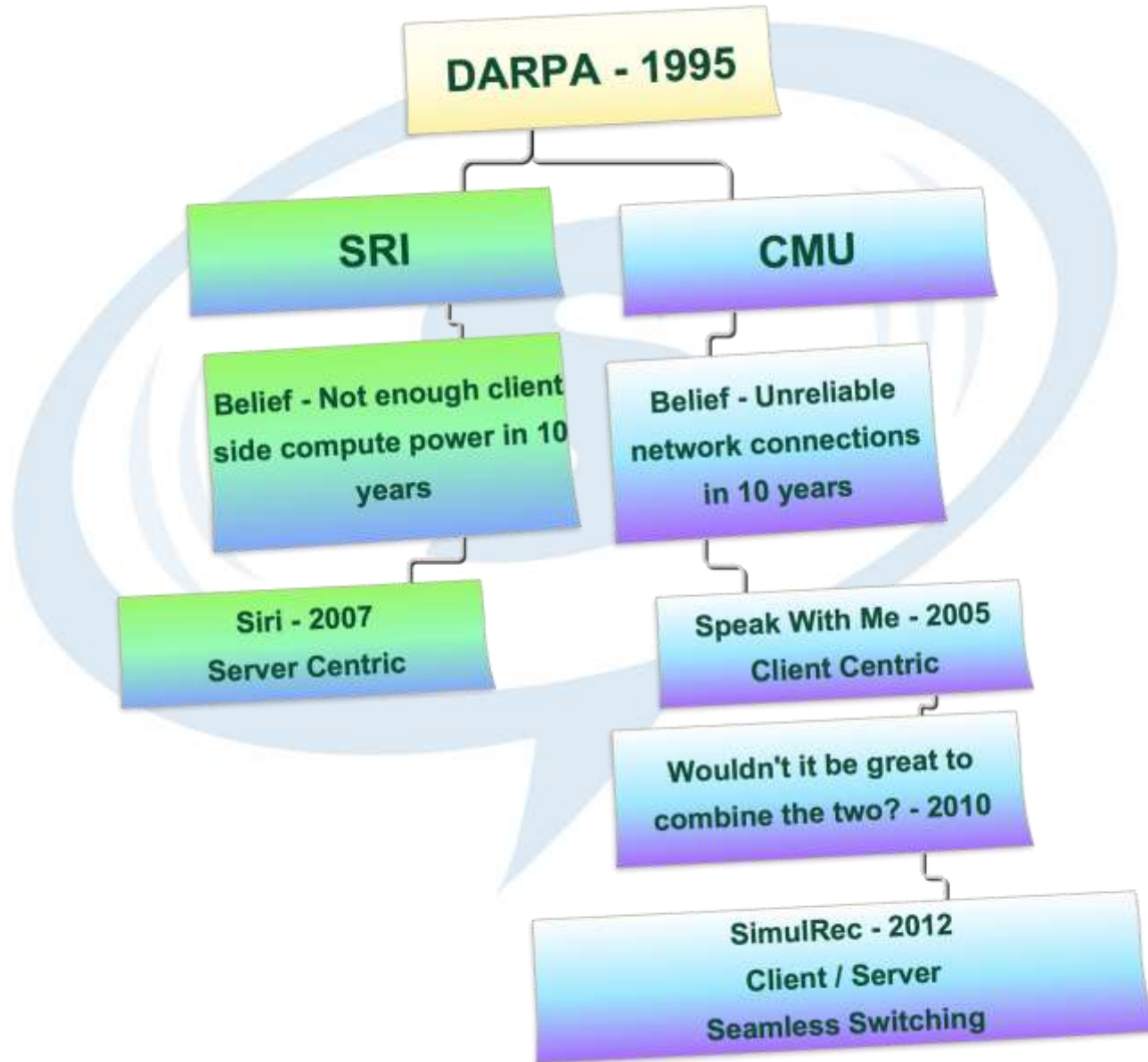
“I have no idea, do you?” – Me

“No.” – Tom

“No.” – Adam

“No.” – Gummi

# Two Ten Year Bets... converge



# Solution

- A hybrid client/server voice system that switches to the server only when needed
- It must be:
  - Responsive
  - Accurate
  - Scalable
  - Low Cost
  - Work when not connected to the internet

# What does Speak With Me Aria do?

- We keep track of:
  - **Information about the user.**
  - **Information about the modality of the input.**
  - **Confidence level about the input.**
  - **Information about the data.**
  - **The structure of the data.**
  - **What the previous requests were.**
  - **What the next query is likely to be.**
  - **The subset of data to have the speech recognizer focus on.**
- And we use all of that information to:
  - Find things for you
  - Do things for you
  - Converse with you in Natural Language
  - Manage the input and output modalities
  - Run Online AND Offline