



# Accessibility of, by and for the Cloud

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# NIST Cloud Computing Roadmap

- Mandate to “accelerate the federal government’s secure adoption of cloud computing by leading efforts to develop standards and guidelines”
- Requirement #7 refers to “... unique government regulatory requirements and solutions”; this is interpreted to include accessibility.

# Cloud Computing Accessibility Public Working Group (CCA-PWG)

- ~40 members: federal, state, researchers, public
- Includes people with disabilities
- General discussion
  - what's unique about cloud computing?
  - how can accessibility be factored into cloud computing decisions the way privacy and security are?
  - who needs to know what, to make this work?

# Cloud Computing and Accessibility Considerations

- Introduction to accessibility in the cloud
- Cloud-specific issues
- Possible Solutions
- Guidance for popular applications
- Taxonomy for Cloud Accessibility

**NIST SP 500-317 (draft)**



<http://www.nist.gov/itl/cloud>

# (Non) Use Case - Need for Simplicity

- Garrett is a wounded veteran with a moderate cognitive disability as a maintenance technician.
- Uses a mobile device that lets him navigate by GPS and retrieve his work orders through the company's app.
- Some work orders are confusing and he needs help.
- He must call his supervisor, and read the order. The supervisor then explains the work order and texts him a simplified order.
- Keeping track of the company's app and the separate text messages can be confusing as well, and makes his recordkeeping less accurate.
- He and his supervisor talk about creating a simpler solution.

# Cloud Specific Issues

- Version Control
- Reliance on browser
- Thin clients
- Rich data visualizations

# Possible Solutions

- Global Public Inclusive Infrastructure (gpII.net)
  - An accessibility infrastructure in the cloud with auto-personalization
  - Does not create new access technologies or services.
- Section 508 of the Rehabilitation Act
  - Professionalization of accessibility
  - Improved enterprise processes/oversight
- Accessibility APIs
  - Efficiency
  - Automation
  - Integration

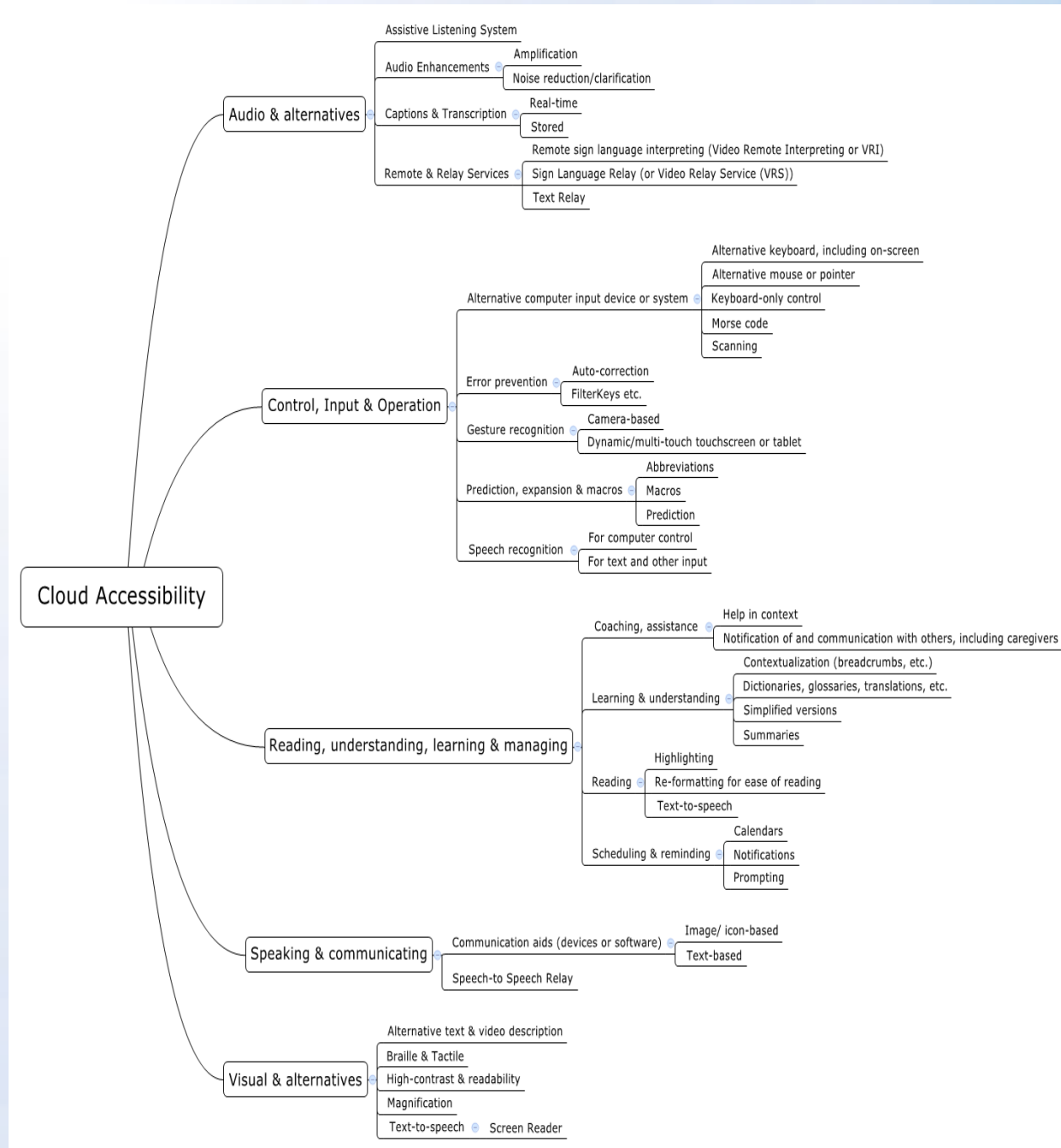
# Guidance for Applications

- General guidelines
  - App should not block out device's accessibility features.
  - Should provide multiple methods to create, read, update, delete
  - Controls need descriptions
- Enterprise collaboration tools
- Customer Relationship Management
- Web Server / Content Management
- Identity Management
- Document Retrieval / Library Systems



# Taxonomies

- Many agree that information resources are a chokepoint
  - Solutions are hard to find, confirm, decide upon
  - Non-experts have difficulty structuring the domain
- Many taxonomies exist
  - for different audiences
  - with different dimensions
    - Audio & alternatives
    - Control Input & Operation
    - Reading, understanding, learning
    - Speaking & communicating
    - Visual & alternatives



Thank You

