Demonstration

- Speech-to-Speech Translatioin Technologies @ NICT-ATR -

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Multi-lingual speech-to-speech translation system

- **Overview**
  - Corpus-based approach enables wide coverage, robustness and portability to new languages and domains.

- **Signal processing**
  - Realizes robustness for real use of speech translation in noisy environments.
    - Noise suppression based on particle filtering
    - MMSE estimator using a GMM

Multi-lingual speech-to-speech translation system

- **Speech recognition**
  - Compact and accurate model from limited size corpora.
    - Acoustic modeling:
      - MDL-SSS
      - Adapted to several accents

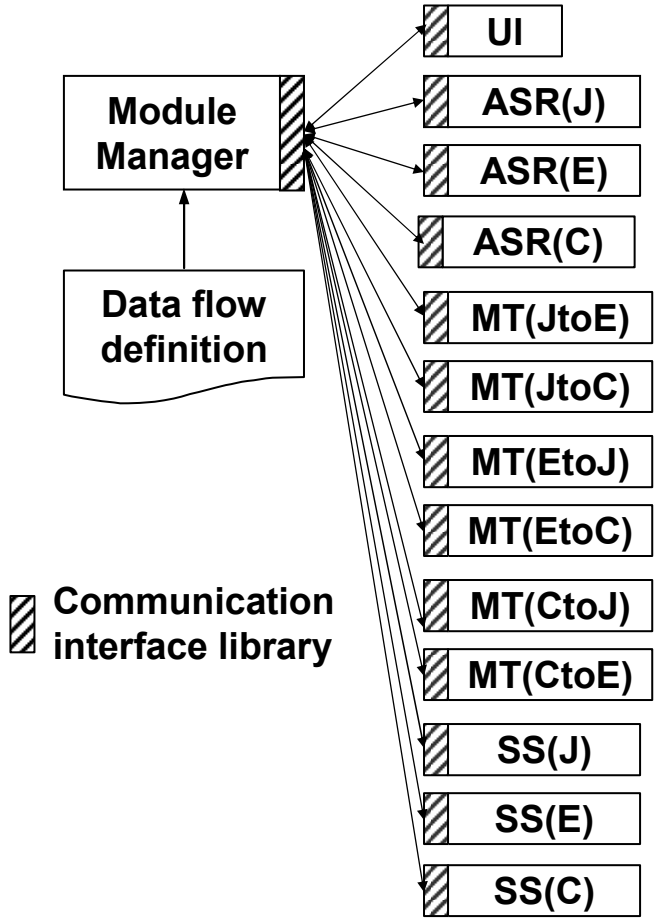
        e.g., US (the United States), AUS (Australia), and BRT (Great Britain) for English.
    - Language modeling:
      - Composite multi-class N-gram

Multi-lingual speech-to-speech translation system

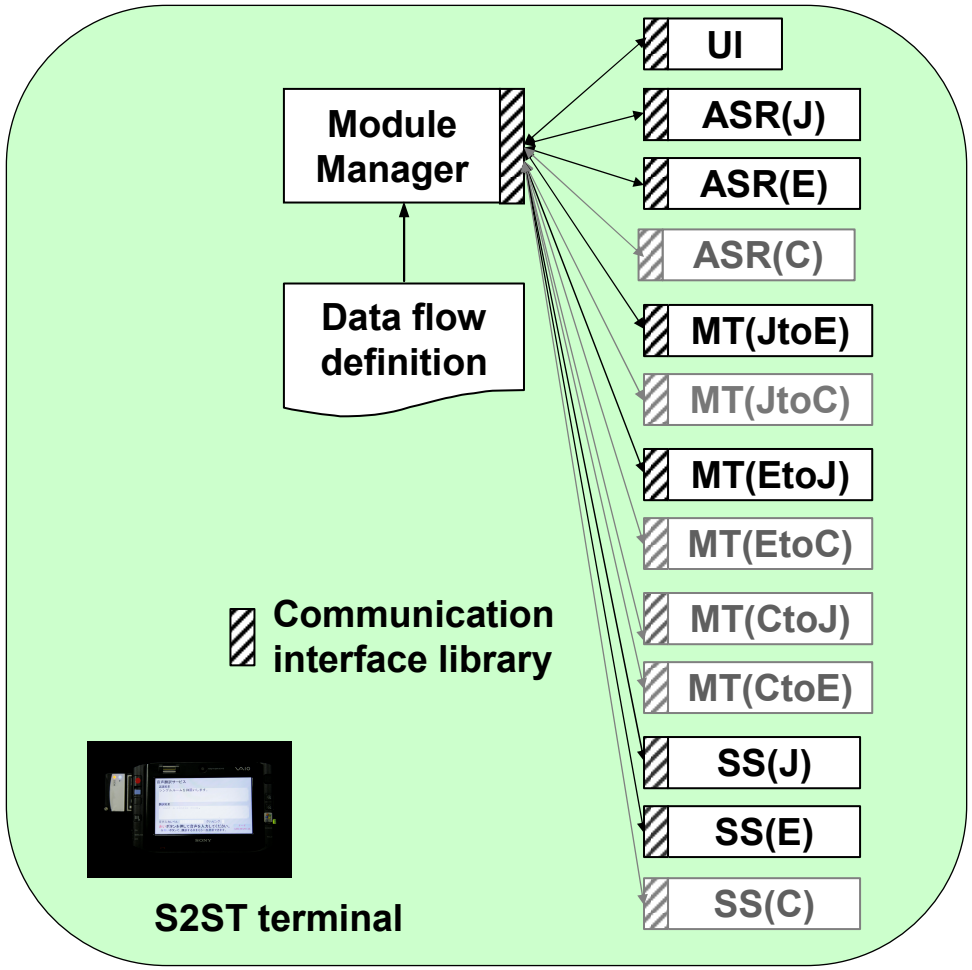
- **Machine translation**
  - Automatically constructed from large-scale corpora in the travel domain.
    - Phrase-based SMT system, and EM

- **Syetem Integration**
  - Easy assembly of speech communication system from the corresponding software modules.
  - Designed for use at mobile terminals.
    - Multi-lingual speech communication platform

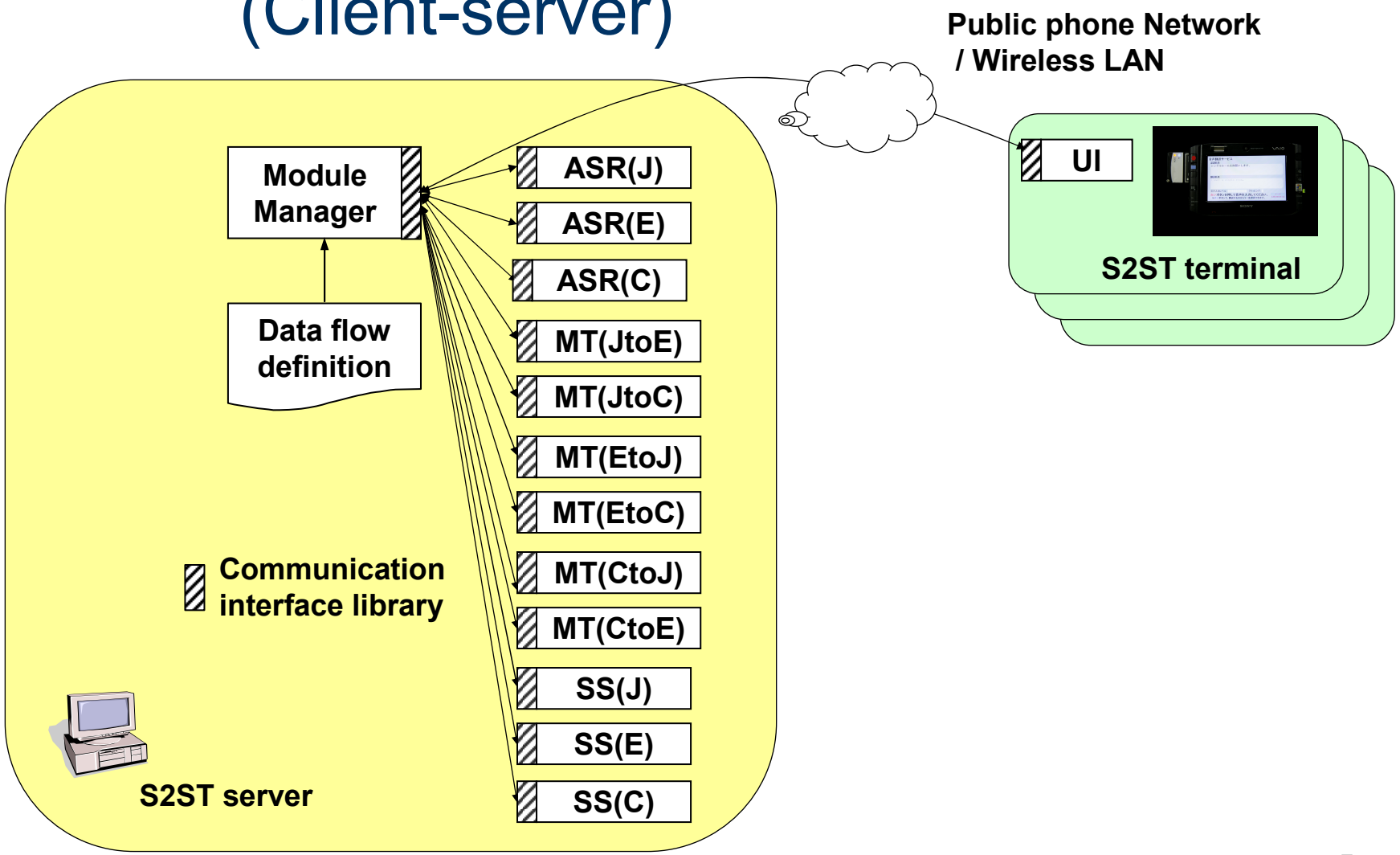
Configuration of speech-to-speech translation system



Configuration of speech-to-speech translation system (Stand alone)

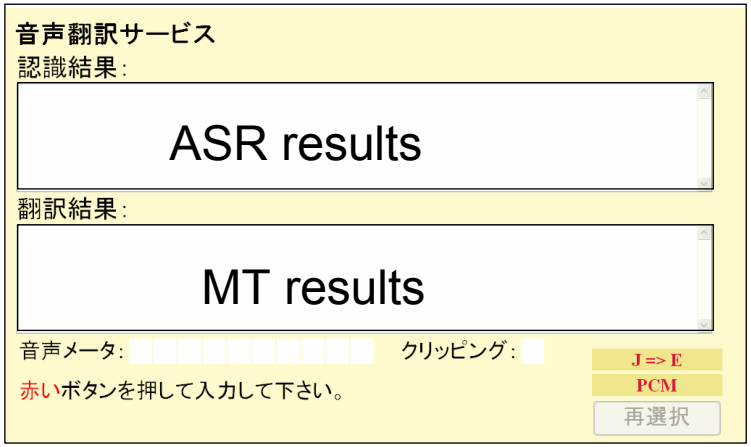


Configuration of speech-to-speech translation system (Client-server)



Demonstration
- S2ST terminal

JtoE



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