



INTERACTIVE AND USER-ADAPTED VOICE PORTALS FOR CITY COUNCILS

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Developed system

We present a Voice Portal developed to provide municipal information.

○ Functionalities:

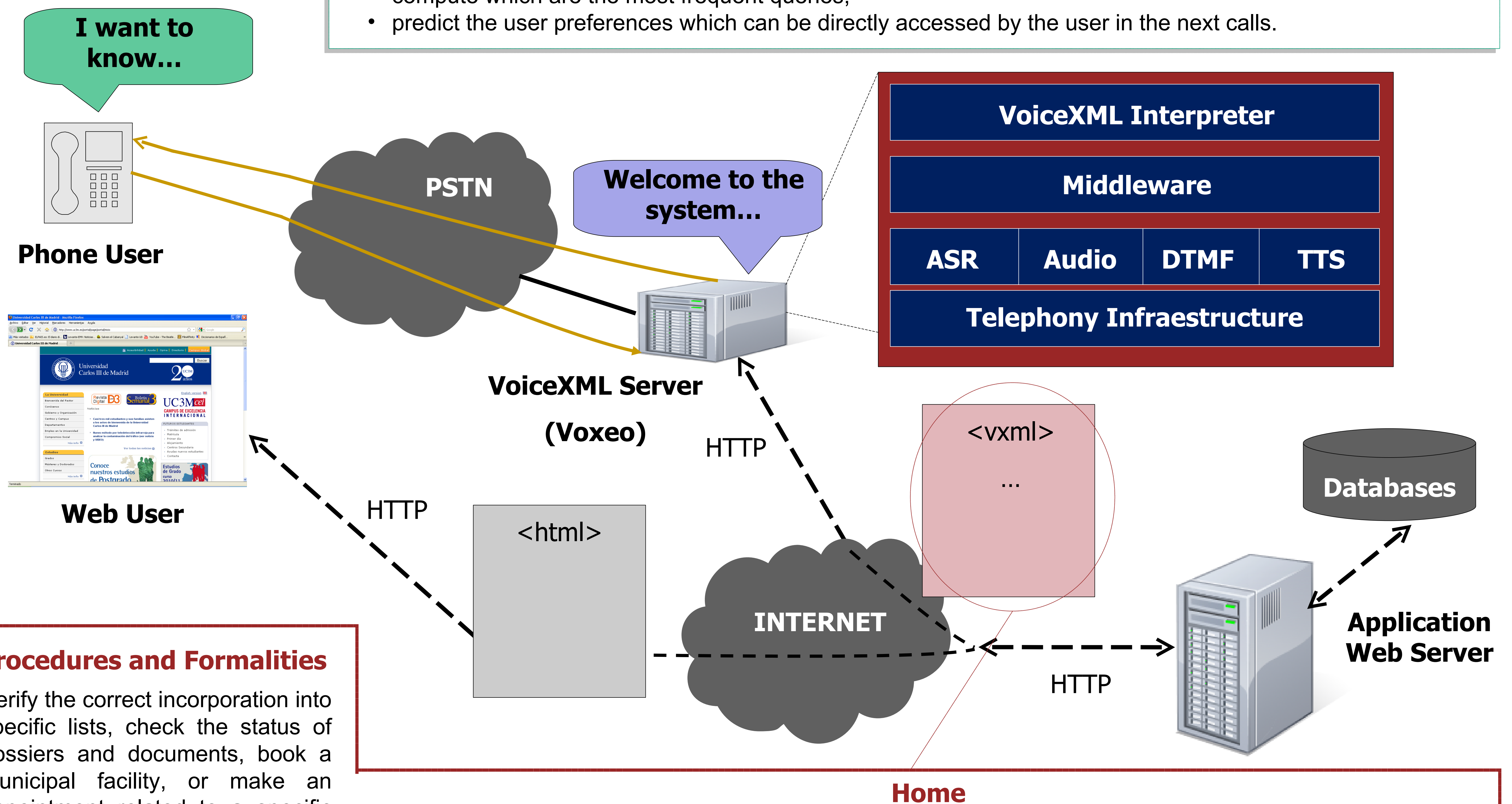
- To provide information about the City Council, guide accesses to the city, carry out several steps and procedures, complete surveys, access the citizen's mailbox to leave messages for suggestions and complaints, and transfer calls to the City Council to be attended by a teleoperator.

○ Objective:

- To improve the support of public services by increasing their availability, flexibility and control while reducing costs and missed calls.

Personalized service

- Static and dynamic information.
- Voice grammars (static and dynamic) and DTMF.
- VoiceXML events (*noinput*, *nomatch*, and *help*).
- VoiceXML properties (*Condencelevel*, *Sensitivity*, *Documentfetchhint*, and *Grammarfetchhint*) adjusted dynamically depending on the analysis of the generated events and the history of the dialog.
- Different languages (Spanish, English, French, German, and Italian).
- The voice portal stores the telephone numbers from which the users access the system in order to:
 - compute which are the most frequent queries,
 - predict the user preferences which can be directly accessed by the user in the next calls.



Procedures and Formalities

- Verify the correct incorporation into specific lists, check the status of dossiers and documents, book a municipal facility, or make an appointment related to a specific municipal service.

Surveys

- Gather the citizens' opinion about specific issues and queries.

Citizen's mailbox

- Record a user' speech message and store it for further processing. Citizens can provide their requests, complaints, claims or comments at anytime and anywhere.

Home

- Specific information related to the local government, local governing entities, teams and areas.

Information

- **City Council:** Specific information related to the local government, local governing entities, teams and areas.
- **City:** Information related to the city (history, access, and yellow pages with bars, cafes, restaurants, shops, hostels, hotels and entertainment guides for cinemas and theaters).
- **Thematic Areas:** Rest of information that users can consult divided into the competence areas of the city council
- **News:** current news of the municipality (date, title and corresponding description).
- **Events:** List of events of the municipality (specific area, title, date, location, and detailed description).
- **Weather information:** Current weather information from the municipality and a forecast for the next two days.

- Voice portal implemented using the VoiceXML standard that constitutes a useful tool to access information of a specific city, carry out procedures and formalities, complete surveys, use a mailbox to make their complaints and requests, and be transferred to a PBX.
- To our knowledge, there are not voice portals in the Spanish city halls offering the functionalities described.
- Future works include the development of additional functionalities for the described modules and to improve the adaptation capabilities of the system to each user.