

Proposal of an IVR Solution and Granting of Credit With Asterisk's AGI and a Flask RESTful Framework in an IMS Network: Case of an Advertisement

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Abstract__The need to communicate has become a necessity in Africa today, particularly in Senegalese families whose income level is low. The implementation of Interactive Voice Mailboxes (IVR) in an Internet Multimedia Subsystem (IMS) environment increases communication services for 4G or even 5G.

In this article, we propose an innovative Interactive Voice Response (IVR) solution in an IMS network. The goal is to have a network user, the ad or an audio ad listen to the end, in order to benefit from a phone credit rate without hanging up the phone. IVRs are implemented with Asterisk's Asterisk Gateway Interface (AGI). Once the call is launched, a check of its balance is carried out, if the person has credit allowing him to make a call, the announcement will not be played for him, but as soon as one notes a lack of credit, we propose to listen to the announcement until the end to grant him a sum allowing him to continue his call. Automatic credit reloading at the end of the ad is ensured by a Flask RESTful Framework which is responsible for connecting to the MySQL database on the account of the user in question to credit his balance with a fixed sum.

This solution will have a major impact on the current population and also on the level of research in general. It will make it possible to communicate even if one does not have money, the essential thing is to listen to an advertisement or a publicity until its end. As part of the research, it will allow researchers who are in areas where access to credit becomes very difficult and the need to want to exchange feels .

Keywords __ IVR, IMS, AGI, Flask RESTful, MySQL, Asterisk.



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