

Invention Title:	Real time language translation for video (broadcast or on-demand)
Invention Summary:	Implement a translation module in a cable Set Top Box (or TV) system that performs real-time translation of the audio track associated with a video asset into a target language.
Invention Description:	The current mechanisms for presenting an alternate audio language track in video content require a process where the alternate language track is created ahead of time and linked into the video stream prior to distribution. The state of the art in real-time spoken language translation is now advanced enough that we could construct a translation module in an STB (or TV) system that performs translation of the audio track into the target language of choice in real time. This saves the cost and complexity of pre-building additional audio content into a stream (and then, offering only a small number of alternate languages). The proposed system could translate from a source language to any number of target languages with no special advanced stream processing required.
Invention Commercial Value/Customers:	This solution provides broad capabilities to support multiple languages for the consumer population without special pre-handling of the content stream. This could save content production costs and greatly expand the number of customers who can understand a given piece of content.
Invention Differences:	The difference in this case is to put the translation software into the set-top box of the end user so that it depends on the CPU power of a client device (close to the point of use) for translation services rather than a central server. Also, because users at one client device location are likely to require the same translation every time, efficiencies in the translation implementation can be employed. That is, the translator in a given client can be optimized for a particular pair of source and target languages.