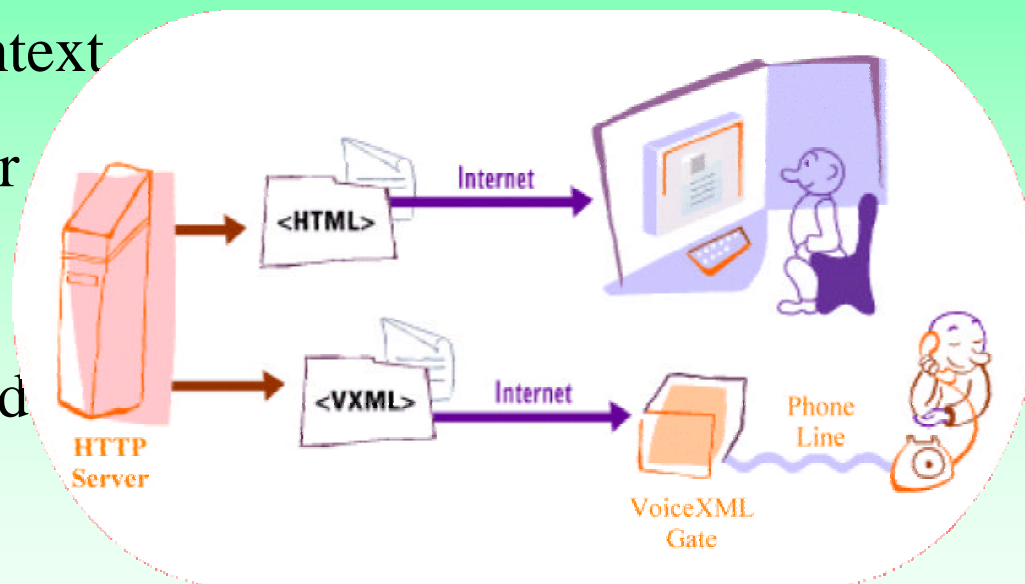


Voice XML

- Mark up language descended from XML
- Used to create audio dialogues
- Needs an interpreter context
 - Elvira LSD interpreter
 - Set of programs to test, evaluate and build dialogue applications



Voice XML Document Structure

```
<?XML>
<VXML>
  <VAR/>
  <FORM>
    <ITEM>
      <GRAMMAR> </GRAMMAR>
      <PROMPT> </PROMPT>
      <FILLED>Executable content</FILLED>
      <NOINPUT> </NOINPUT>
      <NOMATCH> </NOMATCH>
      <CATCH>
    </ITEM>
    <ITEM> ... </ITEM>
    ...
  </FORM>
  <FORM>
  </FORM>
  ...
</VXML>
```

Executable content:

```
<VAR>
<ASSIGN>
<CLEAR>
<IF>, <ELSEIF>, <ELSE>
<PROMPT>
<REPROMPT>
<GOTO>
<SUBMIT>
<EXIT>
<RETURN>
<DISCONNECT>
<SCRIPT>
<LOG>
```

VXML - Finite State Machine

- Voice XML forms a conversational finite state machine
 - User in one conversational state (dialogue) at one time
 - Each dialogue determines the next dialogue to go to
 - Grammar controls the response to input and transition
- Form Interpretation Algorithm
 - Begins at first item of first dialogue
 - Selects form item, plays prompts
 - Collects input
 - Interprets actions

Example from tutorial

```
<?xml version="1.0" encoding="ISO-8859-1"?><vxml version="1.0">
<form id="start"><field name="answer">
  <noinput> Hey, don't sleep! </noinput>
  <nomatch> <reprompt/><prompt> Say 'yes' or 'no' </prompt> </nomatch>
  <prompt> Are you sleepy? </prompt>
  <grammar> yes{yes} | y{yes} | no{no} | n{no} </grammar>
  <filled>
    <if cond="answer=='yes' && answer.substring(0,1)=='y'">
      So you are sleepy. Me too.
    <elseif cond="Math.round(Math.random()*10) < 5"/>
      So you are not sleepy. But I am.
    <else/>
      So you are not sleepy. Mee too.
    </if>
  </filled>
</field></form>
</vxml>
```