

Open Standards in FreeSWITCH

Cluecon 2011



Alex Kurganov
EVP, Business Development
alex@phonologies.com

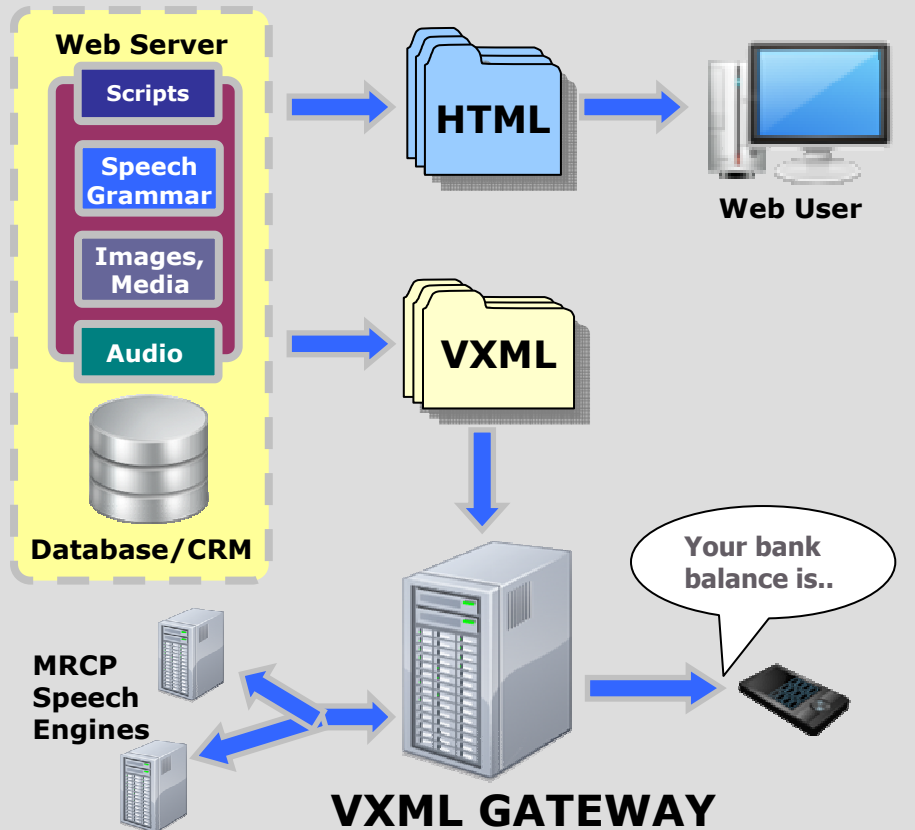
Current State of CCXML & VoiceXML

- VoiceXML spec is currently version 2.1. Version 3 is work in progress
- 75% to 80% IVR systems shipped today are VoiceXML-based. Predicted to grow to 95% by 2013
- CCXML has become a W3C recommendation on July 5th 2011
- All major vendors support VoiceXML and CCXML - Avaya, Cisco, Genesys-Alcatel, Convergys-InterVoice, Syntellect-Envox, Voxeo, Nuance, Loquendo, Microsoft Tellme, Broadvox, HP
- There are a few VoiceXML and CCXML open source projects



VoiceXML Recap

Architecture

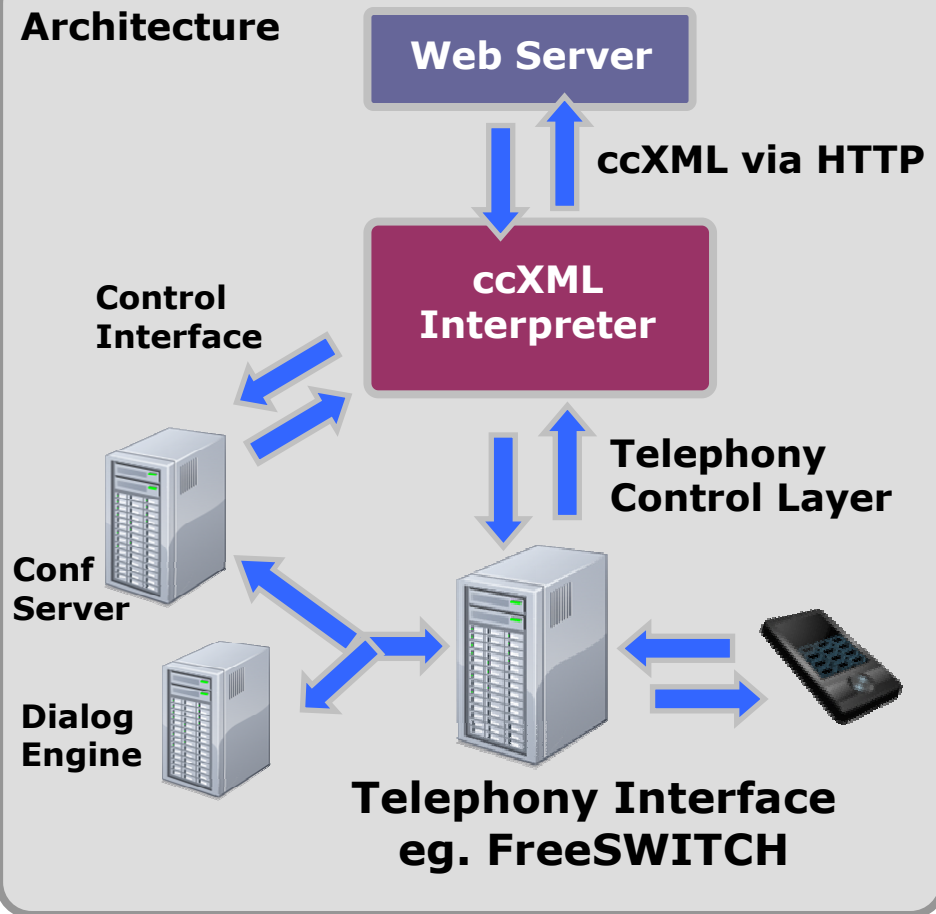


- Uses existing web infrastructure making it easy to create & deploy apps
- Hides all underlying complexities of the telephony & speech platforms from developers
- Supports scripting via standard ECMAScript which is based on Javascript



CCXML Recap

Architecture



- Provides efficient asynchronous event handling, enabling sophisticated call control capabilities for dialog systems.
- Controls how calls are placed, answered, joined, transferred, conferenced by executing simple 'open standards' XML documents
- It is not necessary to support voice dialogs. Can also support dialog languages other than VoiceXML.



CCXML & VoiceXML Adoption Drivers

- **Cost Pressures with high demand for hosted & managed speech solutions:** Enterprises are looking at hosted IVR to cut costs and investments. Speech services will represent ~ 40% of hosted IVR revenue in 2013, compared to just 22% in 2007.
- **Growth in IP technology and Cloud services adoption:** Open standards based platforms can be deployed to run anywhere and linked to web applications. By 2013 only 10% of all IVR ports shipped will be TDM (non-IP)
- **Customer retention:** In struggling economy better customer service increases customer retention rates

.... contd

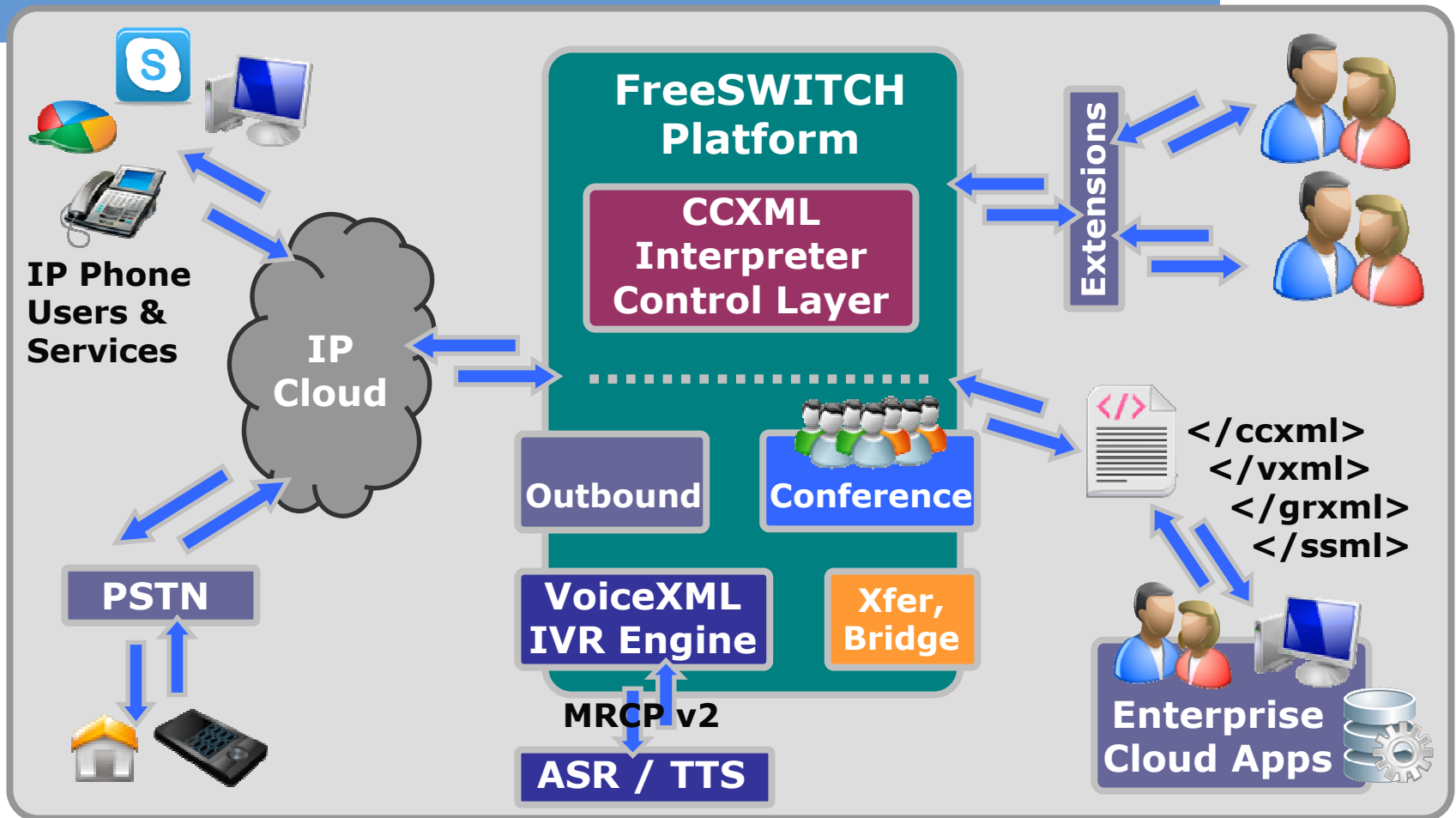


CCXML & VoiceXML Adoption Drivers (contd)

- **Commoditization:** Off-the-shelf components can be utilized to build a distributed system (separating telephony, media and application logic) improving processing power and overall performance of the system
- **Growth of the addressable market for speech (horizontal and vertical):** From large to mid- and small size enterprises
- **Proliferation of smart devices:** Growing demand for hybrid speech solutions comprising device + server resident speech engines
- **Growth in telematics and embedded speech apps:** Have you driven a speech enabled Ford lately?



FreeSWITCH Platform Architecture: Open Standards



Auto Attendant in VXML / CCXML



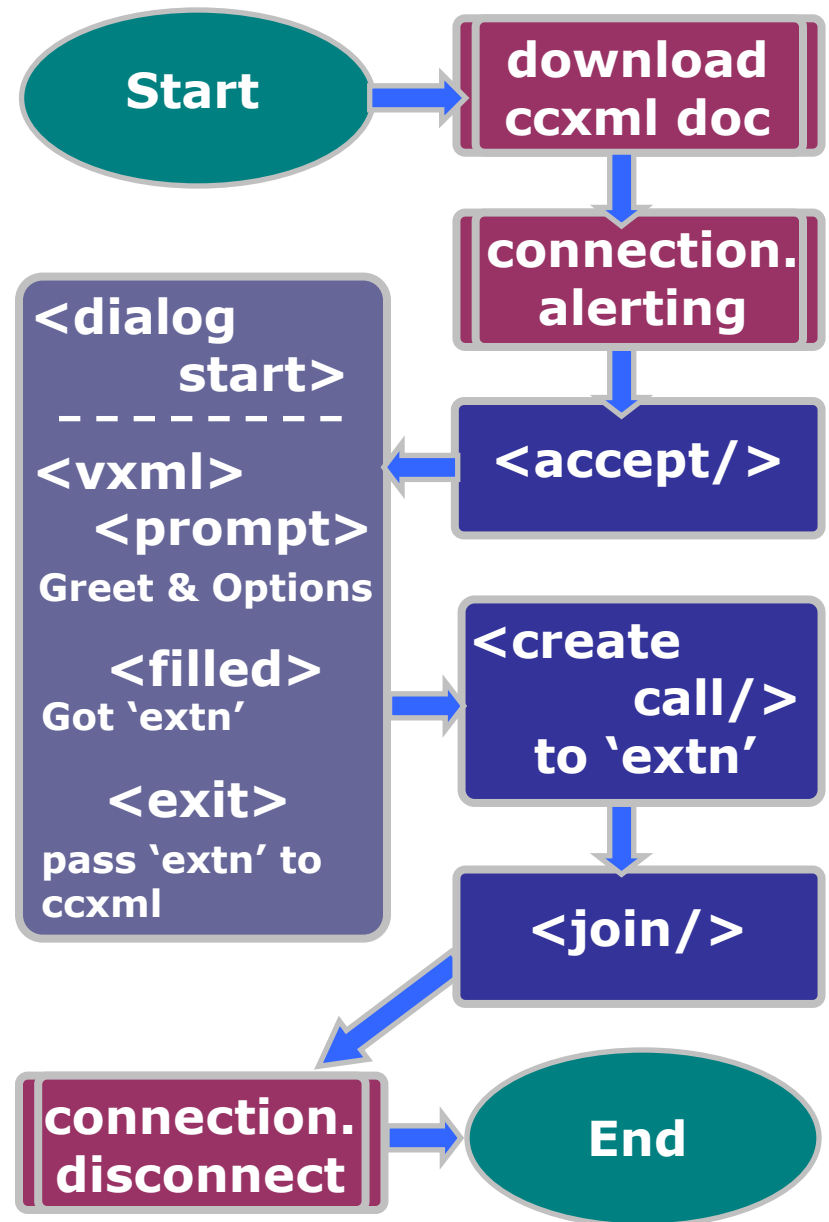
```
<transition state="ccxmlLoaded"
  event="connection.alerting"><accept/>
</transition>
```

```
<transition state="inboundaccepted"
  event="connection.connected">
<dialogstart src="welcome.vxml"/>
</transition>
```

```
<transition state="dialog.active"
  event="dialog.exit">
<assign name="extn"
  expr="event$.values.extn"/>
<createcall dest="extn"/>
</transition>
```

```
<transition state="outbound_progressing
  event="connection.connected">
<join id1="c1" id2="c2"/>
</transition>
```

```
<transition state="joined"
  event="connection.disconnect">
  <exit />
</transition>
```



These Applications are in demand

- Speech Auto Attendant + ACD for skills based routing
- Outbound Calling
- Web Callbacks, Click-2-dial
- Conferencing and collaboration
- Voice chat, Voice dialing, Voice-2-text, Contact book look-up
- Business Transaction Enablement

Environments:

- Enterprise / Public Cloud
- Contact Center and CRM
- Social Media
- Unified Communication
- PaaS / SaaS



FreeSWITCH Adoption Drivers and Community Benefits

- Enterprises are looking for cost effective platform to deploy their new or expand the existing VoiceXML/CCXML applications. FS adoption will accelerate if it is able to run these apps
- Many entrepreneurs with an intimate knowledge of business problems are looking to bootstrap their speech and telephony startups deploying standards compliant apps on a fully functional media platform such as FS
- There is a very large pool of developers with vast experience in building standards based apps – developing most complex calls flows easily!
- Social media networks in many vertical industries will be looking for cloud resident and inexpensive communication services to support their growing user needs. FS community can benefit from widespread deployments of simple packaged VXML/CCXML apps in the cloud



About Phonologies

- Provider of cloud based platforms to 'voice enable' business processes, by cost effectively deploying telephony applications, within the social media, contact center and other enterprise domains
- Phonologies flagship product, Oktopous CCXML Interpreter powers over 5 Million calls everyday.
- Phonologies was established in 2001 and operates from Mumbai and Hyderabad, India with global clients. Team comprises of experts in developing Telephony Platforms and applications for IVRs, ACDs, Outbound, Web telephony
- Customers located in United States, Canada and Europe – including a Fortune 500 company and one of North America's largest Carrier



Contact

Alex Kurganov
EVP, Business Development
Phonologies (India) Private Limited

m/ +1.925.979-5874

e/ alex@phonologies.com

| t/ +91 22 2768 4560

| w/ www.phonologies.com

