Open Source Cloud Communications in Mission Critical Apps
Real Time Communications
Value Added Services

Web / Mobile
Application
Developer

Group Messaging
HTML 5 A/V
IPBX / Call Center
IPTV / VOD
Telemedicine
Telepresence
Home/Office Security

PHP
Java
Python
.NET
Ruby
JavaScript
C

RESTful Web Services (XML/JSON) - Twilio API, Tropo API, One API

Messaging
SMS/MMS/USSD/XMPP
Presence
RCS/XCAP/XDM
Voice
SIP/PSTN/SS7
Video
WebM/H.264
Billing
Diameter Rf/Ro/Sh/Gx/Cx

Mobicents Communication Platform

Telco Network Connectivity Layer
Trusted by the world’s top telecoms
Powered by the TeleStax Communications Platform based on Mobicents
What is RestComm

RestComm is a Realtime Cloud Communications Platform for Web Developers to build and scale Voice, Video, Fax and Messaging Apps for WebRTC, SIP and PSTN networks.

Deploy your own Twilio or Tropo in a box in no time
Why RestComm?

• Telecom API For Web Developers
• Built on top of Carrier Grade Mobicents Platform
• Deployable in public/private/hybrid clouds
• Pluggable Architecture
• Designed For Scalability
• Offers 100% API Compatibility with
• Voice/SMS/MMS/ASR/TTS service provider agnostic
RestComm High-Level Architecture

Telco World
- PSTN
- SMPP
- USSD
- SIP
- RTP
- ...

Hard, Dedicated Expertise

RestComm

Web World
- HTTP
- REST
- XML
- JSON

Easy, Huge Pool of Developers
“How do you send text messages?”
RestComm Outgoing Call Flow

Your Application Makes a REST Request to RestComm with business logic

TelScale RestComm Sends an SMS or Make a Phone Call
<Response>
  <Sms from="+85268081234" to="+85292771234">
    Welcome to Tele-Stax Community.
  </Sms>
</Response>
RestComm Incoming Call Flow

Incoming Phone Call

TelScale RestComm receives the call and asks your web app how to handle it

Application joins Caller into Conference Call
<Response>
  <Say>Welcome to the TeleStax conference bridge.</Say>
  <Say>Powered by TelScale RestComm!</Say>
  <Say>You are now joining the conference room.</Say>

  <Dial callerId="+13055872294">
    <Conference>
      TeleStaxConference
    </Conference>
  </Dial>
</Response>
RestComm Features & Business Use Cases
B2B/B2C Use Cases

- **Inbound/Outbound Calling**
  - Create Predictive Dialer
  - Appointment Reminders
  - Click To Call
  - Browser to Browser (no plugins) calls
  - Video Calls (roadmap)
  - Call Queueing for Call Center applications

- **IVR**
  - Users can create Interactive Voice Response - IVR:
    - Phone Menus
    - Call Centers
  - Use text-to-speech
  - Use Automatic Speech Recognition
  - Play prerecorded files
  - Allow DTMF (Phone keypad) Recognition
**B2B/B2C Use Cases**

- **Conference**
  - Create conference on fly
  - Play on-hold music till organizer enters
  - Record conference
  - Beep on enter/exit of participant
  - Call Center Capabilities Bridge Agent, Customer and Supervisor
  - Video Conferencing (roadmap)

- **Record**
  - Record entire call for later use
  - Or prompt user to leave voice mail
  - Get the recorded file when ever you want
  - End recoding on specific DTMF recognition
  - Specify max length of file
B2B/B2C Use Cases

- **SMS/USSD/Email**
  - Send/Receive SMS/USSD for SMS Notifications Service
  - Appointment Reminder
  - Delivery Follow up
  - Polls
  - Marketing Campaigns
  - Group Messaging (groupme.com)
  - Send VoiceMail Transcribed in text over mail or SMS
  - Act on received SMS/USSD, for example call back user

- **UI**
  - Web based UI for easy configuration of subscriber account
  - Subscriber can manage their SMS, Voice recordings, Call Logs via UI
  - Drag and Drop Communications Flows (roadmap)
B2B/B2C Use Cases

WebRTC
- Browser to Browser or PSTN Audio Calls
- Browser to Browser Video Calls
- Video Conferencing
- Messaging (Chat) for Remote Support Widgets or M2M Communications
- Screen Sharing for Remote Support or Collaboration
- File Sharing
- Video VoiceMail
Charge flat subscription fee per month from individual subscribers

Charge per usage

★ Per Minute for Voice/Video
★ Per SMS/USSD/Chat

Premium charges from SME's

★ Offer IVR
★ Conference facility

CRM Integration – charge flat monthly fee

Voicemail to email – charge flat monthly fee
Helping baby boomers age safely
Introduction to Healthsense

Healthsense enables caregivers to provide the right care, at the right time, in the preferred environment

- Improve Observation through remote monitoring combined with analytics
- Accelerate Action based on early, improved observation
- Drive better Outcomes, reduced cost, and improved care

Innovation leader for technology-enabled care with

- Remote monitoring technology
- Analytics & Reporting
- Proactive Care Data

The Innovation Leader in Technology-Enabled Care Solutions
About Healthsense

Established: Founded in 2001

Proven: 116 clients, caring for more than 12,000 individuals

Innovative: Recognized market leader in technology-enabled care, combining real-time data with powerful analytics and multi-modal communications

Backed by Industry Leaders:
The Healthsense Platform

Nurse & Emergency Call
- Wireless
- Safe, Secure, Reliable

Flexible, Scalable Network of Remote Monitoring Sensors
- Motion detection
- Bed pressure & moisture
- Door / cabinet / refrigerator
- Toilet flush
- Wearable, water-resistant emergency pendant
- Vitals monitoring for chronic conditions

Analytics
- Aberrancy, Predictive

Communication
- Push & Pull Alerts
- Secure: Security by role (provider, insurer, family), SSL

An Integrated Set of Capabilities with One Focus: Better Outcomes
Healthsense technology solutions are delivered via Healthsense Advantage

- Hosted, SaaS model based on OpenStack
- Healthsense manages security, availability, performance
- Healthsense manages all updates & upgrades, provides robust support

Lowers Costs, Simplifies Maintenance, Streamlines Care
Real-time, actionable data reporting to improve care & efficiency
Entire System is taking an average load of 75 calls per minute and growing
Real World Impact for Residents

**An Alert Based on a Specific Event**
1. Molly falls getting out of bed in the morning
2. eNeighbor motion sensors detect initial motion, then no motion in apartment
3. Alert call by RestComm sent to care staff at Emerald Glen; helps Molly to her feet
4. Molly avoids hospitalization, loss of independence

**An Alert Based on a Trend**
1. Molly increases in toilet activity: 2x normal use
2. eNeighbor toilet sensors monitors activity; predictive analytics identify issue
3. Alert e-mail by RestComm to caregiver with relevant data
4. Care team diagnosis early-stage UTI
5. Molly avoids hospitalization, associated complications

Molly
Age: 74
Resides: IL
Health: History of dizzy spells, UTI
Solution: Healthsense eNeighbor®, IVR
GOAL
Reduce Response Times

Real World Impact for Staff

Measurement & Accountability
1. Jenny sets goals for improvement
2. All alert calls and responses are time stamped and reportable through RestComm
3. Staff can track time improvements, celebrate success, develop accountability
4. As response times improve, so does care, resident satisfaction

Example: Clark-Lindsey, Champaigne, IL
1. Pre-eCall response times: ~12 min
2. Administrators set goal to improve time
3. Engaged staff with dashboards, reporting, celebrations
4. Developed accountability programs for non-compliance
5. New response time with eCall: ~4 min
An Example of Operator partnership


- The new services will be offered to senior- and assisted-living housing developments utilizing Verizon's advanced FiOS all-fiber-optic network. Healthsense's Wi-Fi based technology systems will provide increased independence for residents and added assurance that they are safe.
- With Verizon's help, Healthsense will market its home health-monitoring and response systems to those senior-living communities currently served by Verizon's FiOS network, as well as to prospective FiOS-served communities. Healthsense will be responsible for installing and maintaining its systems.


- Verizon Enhanced Communities and Healthsense Inc. announced on Thursday (Dec. 6) the launch of their first joint initiative -- at The Virginian, a 350-unit continuing-care retirement community in Fairfax. The community is the first in the U.S. to have both Healthsense's wellness-related products and services and Verizon's FiOS TV, Internet and voice services.
Financial & Business Impacts

Additional revenue streams
- Triple play
- Internet fees
- Care services

Cost savings
- Containment for life care models

Optimized occupancy
- Flexible care space

Future scalability
- On- and off- campus

Future proofing
- Robust infrastructure
- Healthsense Saas Model
Automated phone questions for disease management of chronic conditions. Daily automated call to streamline check-ins

- Customizable questions for individual needs
- Data gathered remotely
- Exception-based reporting
  - Receive alerts when responses are out of normal range
- Configure questions based on:
  - Time of day, day of week
  - Content
  - Frequency
- Library of Questions related to chronic conditions
Flexible Workflows

- Alert communications routed based on customizable RestComm based call-trees

- Information can be sent via multiple channels
  - Email
  - Phone Call
  - Web portal
  - Nurse Application

- Reporting & Analytics let you monitor & optimize workflow
Monitoring Scaled to Acuity

Better Healthcare, Lower Cost

- MyHealthsense
- Health & Wellness Questions
- PERs+ & eCall
- eNeighbor
- eNeighbor Vitals

Cost vs. Acuity
Case Study Key Takeaways

• We now live in an API world and economy

• No need to reinvent the wheel, expose your network assets today to the world…

• … or internally for your teams

• Partner Today and drive new source of revenue