Cloud-based Communication Applications & Services

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Shervin Bakhtiari
Principal Consultant & Business Development Director

舍文
首席顾问兼业务发展总监
Actel Consulting

- Strategy, Business, Technology, and Market Development Consulting & Advisory
- Core competency with ICT, Telecom, and Media
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Cloud Communication Services

Agenda:

- Cloud Application Requirements & Evolution
- Communication / UC Market Status
- Cloud Enterprise Voice / Unified Communication
- Communication Platform as a Service & CEBP
- Interconnectivity / Federation Services
- Status & Challenges In China
Delivering Real Time Applications

- Billing/Finance
- CRM-ERP
- Voice
- Email
- Instant Messaging
- Collaboration
- Web/HTTP
- Analytics
- Storage/Backup
- Video

Latency / Jitter Sensitivity

Network Bandwidth / Quality of Service / SLA’s
Evolving Enterprise Applications

User driven
Employees
  Administrators
  Decision makers

- Consumerization
- Personal choice
- Usability
- Productivity
- Access to services

New Business Models
As a service
  Pay per use

- Flexibility to changes
- Cost predictability
- Geographical need
- Elastic Demand & Supply

Technologies
Devices
  Networks
  Security

- Device capabilities drive productivity
- Network maturity and bandwidth
- Security maturity
- Security AND Usability
- Standards over time

Need to rethink & redesign applications for the cloud!

Source: Telepo
The Great Equalizer

(Public) Cloud Computing & XaaS are allowing SME’s to:

- Access & afford large computing resources when needed
  - Scale on demand for large projects

- Access & afford more advanced Applications & Solutions
  - CRM/ERP/Finance

- Decrease demand & cost for dedicated/large IT staff
  - Can focus on developing their core business

SME’s can become more effective and more productive when competing against large and multi-national companies
Hype Cycle 2011

Source: Gartner, Aug 2011
Today’s Fragmented Approach to Business Communication

Users are forced to mix business models, technologies and devices
Impossible to manage or control
Rapidly Growing Market Opportunity

Existing on premise spend is moving into cloud
- USD 14+ Billion WW market, 50% is SME market
- By 2012, 25%+ of enterprises will source new telephony as a hosted communications service.
- By 2012, 40% of Unified Communications delivered from cloud (2009 < 4%)

3 Billion mobile devices in enterprise space
- By 2014, 40% of the knowledge workers has abandon desk phones.
- By 2014, 90% of organizations will support corporate applications on personal devices.
- By 2013, 80% of businesses will support a workforce using tablets.

SMEs are already adopting
- No capex and no complexity to manage
- Integrated fixed and mobile communication
- Advance solutions not available/affordable for SMEs

Larger enterprises are following….
Unified Communications Value Stack

Responsiveness
- Business Application Integration
  - CRM, ERP, Office etc.

Productivity
- Next generation conferencing & Collaboration
  - Voice, web, video, desktop, file, chat, feed, documents etc.
- Instant Messaging, Presence, Directory
- Mobile/Portable device integration
- Enterprise Voice / IP-PBX

Cost / Mobility

Convergence

Cost efficient operations

Rapid Deployment and/or Feature Add-ons from the Cloud

Source: Telepo
Delivering the mobile UC experience

- Feature transparency
- Sophisticated services with native mobile clients
- Seamless Call and messaging handling & Session hand off
- Works with any network
Fruit Salad and spider web approach to cloud service
A broken “Ecosystem”

- Fragmented point solutions
  - Different views on functionality
  - Different data models
  - Different security models
  - Different user experiences
  - Different provisioning APIs
  - Inconsistent branding
- NOT engineered to work together
  - Advanced functionality lost
- NOT engineered to evolve together
- Very complex environment
  - to install
  - to automate
  - to manage
  - high risk for failure
  - high risk for poor end user quality
  - Difficult to upgrade and evolve over time

Virtualization (alone) ≠ Cloud

Source: Telepo

Strategy & Technology Consulting
End-to-End “Horizontal” Approach
Purpose built for short TTM and Operational Excellence

- One Completed & Integrated Solution
  - One installation
  - One management
  - One data model
  - One security model
  - Consistent user experience
  - Consistent branding
- Easy to use, deploy and manage
  - One provisioning API for IT Automation
  - Built in client provisioning
- End to end design and ownership
  ➔ Enables advanced functionality
- Engineered to work together
- Engineered to evolve together
- One integrated roadmap to influence

Design & Build for Cloud
Virtualization, Multi-tenancy, Elasticity, Security, Management

Source: Telepo
Avoid vertical thinking, give up silos

- Stacking point components ≠ best solution
- People just want to communicate...
- User centric vs. devices and technology
- Move towards Horizontal platforms
Communication Platform as a Service

- Open platform to expose communication / Telco network capabilities
- REST/XML API’s
- Rapid Communication application prototyping & development
- Customization & business Application & Processes integration
  (CEBP = Communication Enabled Business Processes)
Communication Platform as a Service

Horizontal Use Cases
(Call Center, Conferencing, Click to Call, Recording etc)

API’s

Core Services
(call, STT, TTS, conference, IVR, Messaging, etc)

Phone Numbers, SMS/MMS, IDD, Routing

Mobile Carriers
Fixed Carriers
VoIP Carriers
Cable Providers

Source: Twilio
SIMPLE WEB API’s

Abstract action based API’s not requiring understanding of underlying technology

<Say>
Hello Shervin, Thank you for calling.</Say>

<Play>
http://mybusiness.com/welcome.mp3</Play>

<Gather>
Gather action='handleOrder.php' />

<Record>
Record action='handleVoiceMessage.php' />

<Dial>
18601770563</Dial>

<Sms>
Please send us your payment.</Sms>

Utilize existing Web API’s & Platform Models
Ease of Development & Adoption
Example Applications & Service

Phone ID verification Service
Used for financial or eCommerce Transactions
Example Applications & Service

**NOT** just a native App but a Cloud Communication App!
The backend Technology is **NOT** new but now available to masses via the Cloud & Ubiquitous Connectivity

Apple will drive adoption of Voice UI from Consumer side! Others will have to follow including Enterprise Apps!
Federation!

Same Idea, Many Standards!

Solution: Travel Adapter!
Presence/IM Federation

Same Idea, Many Standards!

But Enterprises need to connect to their customers, suppliers, partners

Solution: Cloud Federation Service

Source: NextPlane
Status & Challenges in China

- Communication/UC Managed Services is being provided by SI's, Vendors, and some Telco's
- Initial foray to provide add-on UC/Collaboration features
- Partnership to provide integrated Solution (e.g. Cisco & Tencent)
- Telco’s working on Communication as a Platform services under their IMS projects

- Regulatory Challenges and barrier to entry for new service providers
- Interconnectivity & Choice over Telco operators
- Application use models & requirements are different – need beyond localization
- Fostering Developer Community
Thank You!

Softcopy of Presentation can be found at:

http://www.actelconsulting.com/papers.html
Due to accelerated innovation and increased availability of cloud computing, coupled with ubiquitous high-speed connectivity, service providers can now offer their business customers cloud services beyond basic applications - email, CRM, or storage. They can start to offer “real time” cloud communication and collaboration applications, such as enterprise Unified Communications (UC) as well as communication services API’s & platforms. This enables enterprises, large & small, to build innovative communication enabled business processes (CEBP) and mashup applications.

A new breed of product and solutions are needed to cater to the cloud delivery model by rethinking the architecture, usability, feature set, and open API’s as well as addressing challenging issues such as scalability, federation, and security.
About the Speaker

Shervin Bakhtiari
Principal Consultant & Business Development Director
Actel Consulting
Shanghai, China
Shervin@actelconsulting.com
+86 186 01770563

Shervin is a multi-disciplinary ICT professional with 15 years of experience driving emerging technology evaluation and adoption for a wide variety of customers and clients including telecoms/mobile, enterprise verticals (such as financials), and venture investments. Based in Shanghai, Shervin is currently a Principal Consultant & Business Development Director at Actel Consulting, a leading specialist strategy and technology consulting firm in Asia Pacific. Previously he has held senior positions at multinationals such as Avaya, Cisco Systems, and Brooks Automation as well as startups such as Emotive Communications, Ubiquity Software, and Vovida Networks with work experience in Silicon Valley, Europe, and for the past seven years in Asia Pacific and China. Shervin is an emerging technology enthusiasts and evangelist and has been involved in VC capital acquisition for various companies and he is also active in innovation/startup advisory, incubation, and angel investments. Shervin holds both a Bachelors and Masters of Engineering from the University of British Columbia in Vancouver, Canada.

舍文 (Shervin) 是 Actel Consulting 驻上海的亚洲区首席顾问兼业务发展总监, 他在跨学科 ICT 领域有着 15 年的丰富经验。通过操纵新兴技术，舍文为众多客户如电信和移动等进行技术评估及运用，并且擅长在企业纵向（如金融方向）建立联系及风险投资等。 在 Actel Consulting 之前，曾在美国硅谷，西欧工作，而过去的 7 年时间都工作在亚洲中国地区，并且在 Emotive Communications, Avaya, Ubiquity Software, Cisco, Vovida Networks 及 Brooks Automation 多家公司担任高层职位。舍文作为一个新兴技术的资深专家，帮助了无数企业获得风险投资机会，同时他也活跃于中小企业的创建或创新方面的咨询、筹划及天使投资的获取。 舍文拥有加拿大温哥华的英属哥伦比亚大学工程学学士及硕士学位。