

CEBP STATUS REPORT

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A CEBP STATUS REPORT

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INTRODUCTION

There is a truism that every wave of technology innovation is followed by another wave of business innovation. Simply, it takes us all a while to figure out what to do with our technical innovations. As has been pointed out brilliantly by Geoffrey Moore, Crossing the Chasm is brutally hard.

This report provides an overview of where the Communications Enabled Business Process (CEBP) industry stands relative to Telco APIs and voice centric application providers. After a minimum of 3 to 10 years of work by a wide range of service providers and application vendors we can clearly say the industry is at the end of its initial phase of technical innovation. At one point in late 2007, a colleague (Thomas Howe) and I had counted 100 different companies leveraging telco voice or sms infrastructure to build their own applications or api services. There have been successes, failures, consolidations, mergers, and acquisitions. However, IPOs, exits, or standalone profit centers within bigger companies have been few. Yet, revenue is being generated and hard earned profits ramped up by a some smart and well timed vendors. As with any technology wave, most firms will fail. This report is pragmatic. We want to improve the odds for Crossing the Chasm. We are at the end of the beginning of CEBP innovation and Moore's Chasm is in front of us.

This report serves as iteration on the work already done by several fantastic analysts firms including Gartner, Alan Quayle, and STL Partners.

Gartner's report on CEBP several years ago coined the phrase (for better or worse) and began to put some definitions around a group of vendors and technologies coming out of the communications space.

Quayle's (June, 2008) Report titled "Opening up the Soft Service Provider: The Telco API" provides an intelligent and cogent explanation of the API technology strategy as one of several tactics that must be used by Telcos to deal with falling ARPUS and the loss of voice revenue.

STL Partners sells a report entitled " Introducing two-sided markets: a template for future growth in telecoms" published in January 2009. Their report supports research they have been doing on the topic of two-sided business models over the past couple of years. Martin Geddes currently of BT Design is to be thanked for his fantastic early work on this topic of applying the two sided business model theory to telcos over the past several years. Previous work out of the Harvard Business School on two- sided networks should be reviewed by those interested in the topic too.

Our CEBP status report is meant to span these earlier reports by providing a snapshot of what has happened with Telco APIs and Voice Application vendors.

Quayle's and STL's reports are both " must- read" documents for anyone interested in the telecommunications industry. Both identify and predict significant potential revenue opportunities. Quayle's focus on Telco APIs predicts an opportunity calculated to bring 3% to 12% revenue growth in telco services that are opened and created via API access. The STL

report is broader in its coverage by focusing on the two- sided business model theory as an opportunity available to Telcos. STL quantifies that market opportunity as being worth 350 Billion per year once mature. Gartner is planning to provide updates on CEBP as part of several of their paid events and reports during the Fall of 2009 and early 2010.

My tendency towards practice over theory led me to reach out to Alan Quayle to ask him to lend his considerable insights to this CEBP update. I am thankful he accepted my offer to collaborate.

From a definition and terminology perspective this report is focused on a particular area of these broader market trends. We view the concept of Telco APIs and Telco 2.0 as being big picture strategies. As discussed, in more detail later in this report, the reader may see them as essentially two sides of the same coin. Telco APIs are a technical strategy in search of a business model evolution. On the other hand the Two-sided Network is a business model strategy dependent on technology evolution and organizational execution. Our point with this report is to show that CEBP leverages technology and business models in a way that drives revenue and value now. It is obvious that the CEBP space is but one segment of the total evolution happening across the telecom industry solution. Dramatic changes are being felt within the Telecom industry across many sectors including mobile apps, mobile connectivity, VoIP, Peering, content delivery, data services, and many others area that will all contribute to changing the global carrier industry.

Regardless of your place within the innovation spectrum the ultimate goal is the same. These innovations will provide carriers, application vendors, and service providers another path to a sustainable, profitable business. For some, the goal is to overcome what some predict as the pre- ordained evolution of telcos into dumb pipe providers. For others, the goal is to drill a stake into the heart of the incumbents. Regardless of our motivation, if we pay attention to the clients' needs and how to bring our solutions into the marketplace we will have a chance at succeeding.

Our research and experience suggests that for existing telcos, application vendors, and new service providers Communications Enabled Business Process (CEBP) is by now an important and well understood method to drive a new business line of profitable, sustainable service to business clients of varying sizes and across many verticals. To borrow a golf phrase "it is the shortest putt" to achieving new revenues.

Thank you for your taking the time to read this report. We encourage you to add your voice and insights to this ongoing discussion by joining the CEBP group on LinkedIn.

Sincerely

Patrick Murphy and Alan Quayle

Historical Review

Several analysts at [Gartner](#) including Bern Elliot, Steve Blood, and Bob Hafner can be thanked for coining the phrase CEBP or communications enabled business processes. Their initial report and description came out around April of 2006. Within several quarters, Avaya took the phrase and started applying it to their own messaging efforts. Some analysts have even suggested the premium that Avaya received when being taken over by a combination of hedge funds in early 2007 was based upon their strategic messaging away from hardware sales and towards a CEBP software and services business.

The definitions around the term (CEBP) communications enabled business processes were originally focused on eliminating human latency or decision making delay from a particular business process.

Over the past few years, broader definitions of CEBP have evolved taking into account a full range of IVR and voice applications. At the same time, product suites identified as Unified Communication solutions started to appear as value added upgrades by the telephone hardware vendors, Cisco, and even Microsoft. The on premise UC solutions are typically efforts at combining a complete communications suite of voice mail, conferencing, messaging, presence technologies in one package. The solution sell was all about improving staff efficiencies. Thus, the initial CEBP solutions found themselves better able to differentiate on the business process improvement side of the equation.

Arguably, the definition of CEBP has evolved over the last few years to be less focused on people and more focused on business process improvement triggered by specific events or activities inside or outside the walls of the enterprise.

[CEBP vs. UC](#)

"To Avaya, UC focuses on the personal productivity capabilities, helping individuals and teams better communicate and interact. CEBP is different, and Avaya notes, "Avaya CEBP continuously analyzes information from a wide range of sources, detects important events and then orchestrates and manages the organizational response by selecting the appropriate people and tools based on expertise and availability. People distributed across multiple locations and functional groups are automatically brought together by a robust multi-channel communications infrastructure – they can be contacted and provided information via voice, e-mail, SMS, text-to-speech and conferencing." To Avaya, this is CEBP, but to me, this is UC. While UC is generally person triggered (an individual or worker initiates the communication), CEBP is event triggered (a business process-related event initiates the communication). The event could be an inventory shortage, a stock price change by a specific percentage, a manufacturing malfunction, a shipment delay, etc." 2007, Blair Pleasant; bpleasant@commfusion.com

November 2007 by [Robin Bloor](#) in Briefings

"Software products are rarely long in gestation. There's usually a rush to bring them to market before something competitive emerges. Oddly, this was not the case with Avaya's Communications Enabled Business Processes (CEBP). (If you don't know what CEBP is, read this.) At the recent Avaya analyst conference, Ravi Sethi, the President of Avaya Labs, explained to me that the CEBP product built on research demos of CEBP in Avaya Labs,

starting about 6 years ago. So, CEBP evolved at a leisurely pace - until it was put into use within Avaya and then into Beta test last year. There were probably reasons for this that had little to do with picking the right time to come to market.

Avaya is a communications hardware vendor that's hell bent on transforming itself into a software vendor - a direction it announced at its analyst conference last year. Such a transformation is not an easy trick to pull off (can you think of a company that has done it?), but there are definite rewards for doing so. As I noted, in a recent comment on major IT vendors, software vendor stocks trade at higher multiples than hardware vendor stocks. It is possible that the decision by SilverLake Partners and TPG Capital to take Avaya private was related to this. In any event, Avaya's CEBP, launched in March of this year, is a "flagship product" which may indicate, one way or another, whether Avaya can make it as a software vendor.

Avaya pulled off a coup - probably, more by luck than good judgment, but it did anyway. It chose CEBP to be the name of its product at the same time that the Gartner Group declared CEBP to be a software category. It thus came to market with what customers will now presume to be the "category defining product." And indeed, it may be. All the other vendors in this nascent market are either recent start-ups or vendors with products that are "moving in a CEBP direction". Avaya's is the most mature product.

Still, it is too early to say much about this emerging market. According to Jim Hickey, the CEBP product manager, Avaya has "grown" a software salesforce, and is forging partnerships with the likes of IBM and SAP. It has a solid pipeline, has sold some direct licenses and is generating a good deal of interest - but it still has to educate while selling. "We had one customer in the Far East simply ring up and ask us to ship them the software. They didn't want any consultancy other than the basic training and they just got straight to work" said Hickey, "Mind you - that's the exception. The typical sales cycle is longer than we'd like." This must be encouraging for Avaya, but it hasn't got a big competitor yet - no IBM or Microsoft. One will emerge eventually, probably from the Unified Communications market. If it doesn't happen, then Avaya is likely to take this market by default."

It should be noted that some of the earliest and still important players in the industry today can chart their founding back to the start of this decade prior to the coining of the term CEBP. Companies to be reviewed later in this report including Voxeo, Varolli (previously PAR 3 and Envoy Worldwide), and Estara (now ATG) got their start around the 1999 to 2000 time frame. The Telco API efforts have been active for years prior to the coining of either UC or CEBP too. Thus, it is clear that a range of voice application and voice platform players have been working in this space for much of the decade.

In the middle of the decade (2004-2007), a new set of players entered the CEBP market with an on premise software solution. Several well funded venture backed firms including Lignup and Blue Note Networks as well as Avaya created a packaged set of server based solutions that were compatible with a range of legacy PBX and handsets. Although providing interesting technical solutions and being staffed well, none of these premise based solutions have been able to gain serious market traction. Lignup and BlueNote were closed or sold for pennies on the investment. The massive disruption in the Nortel and Lucent vendor communities combined with the melt down of the Finance Sector that has traditionally served as an early adopter all combined to derail a premise base CEBP industry. The rise of

the Software as a Service (SaaS) model also seems to have been a factor contributing to the death of these technically interesting but failed on premise efforts .

When asked the question whether or not premise based CEBP is dead as differentiated from UC within our CEBP LinkedIn group discussion page, Steve Blood of Gartner responded thoughtfully.

"Hmm - yes and no. Yes, there are some great hosted CEBP applications out there, especially around notification. But CEBP, by definition is closely linked to process flows, and the majority of those are enterprise implementations. We've seen some innovative applications inside the enterprise. ";

The majority of CEBP implementations today are done independent of UC, by a different set of IT people that are charged with managing communications. However the act of engaging collaborative workers to resolve business process exceptions can be done faster and more effectively if there is a tight link between UC and CEBP.

It is a tough concept to sell to the enterprise at the moment, especially with focus on cost optimization. I would concur that CEBP isn't high on the enterprise agenda at the moment."

From the authors' perspective the debate over CEBP versus UC is not particularly helpful and primarily serves as self serving noise getting in the way of market maturity and client adoption. Encouraging analysts and vendors alike to come to some detente over this topic is needed. We do like the idea of tight links between UC and CEBP as mentioned by Gartner's Steve Blood.

For the purposes of the rest of this free report we will NOT be reviewing premise based CEBP solutions. Look for an expected update from Gartner within the next few quarters to see if they see any future life left in the premise based CEBP market.

OVERVIEW - TELCO API SERVICE PROVIDER AND PLATFORM PROVIDERS

Although it does initially sound like a semantic argument , it is important to differentiate between voice or telco applications and applications that are enabled with voice or telco services being pulled through apis or vxml platforms.

As will be delineated later, it is clear that the voice application vendors have as a group, so far, experienced more market traction and revenue accretion than the API or platform providers. However, the broader innovation of exposing easy to use APIs has certainly become almost status quo within the past 5 years.

As of approximately 2005, with the advent of Web 2.0 technologies and the meme of a programmable web the old concept of an Application Programming Interface was given new life. Allowing APIs to be specified by web sites and integrated using methods preferred by web developers created a wave of API releases across the entire technology spectrum. The launch and growth of the web API trend has been tracked beautifully by John Musser at his site ProgrammableWeb.com

As of September 2009, this one site has listed over 1400 APIs with 67% presented using REST protocols, 20% using SOAP, 7% Javascript, 2% XML-RPC, and 2% Atom. In a search of this one directory they are helpfully categorized with 43 telephony and 49 messaging (sms) apis listed. Telco APIs have been released by an array of large and small vendors and service providers including AIM, Broadsoft (and their acquisition Sylanro),British Telecom (and acquisition Ribbit), Callfire, Deutsche Telekom, Evoca, Fonolo, Globe Labs, Ifbyphone, Intelepeer, Jaduka, Lypp, Mindgram, MyVox, OpenVoice, Orange (France Telecom), PhoneDog, Phweet, ShotCode, Skype, Sprint, Telefonica, Tringme, Twilio, Voxbone.

For those one or two telecom engineers who might be reading this report it is recognized that APIs, development platforms, and SDKs have been around telephony for ages. The change over the last decade and especially within the last 5 years is that these apis, sdks, and platforms are all being built to leverage a much, much wider audience of web oriented developers.

Whether it is VXML as an accepted W3C standard, Adobe's highly adopted FLASH, or variations on REST and SOAP integration protocols the recent Telco API and platform trends all focus on growing the developer community beyond the limits of the traditionally trained telco engineer.

So what APIS or Platform functions can a Telco or Service Provider offer? Within this list, other than some content or network items, these functions are core to the CEBP tool kit.

Communication and Collaboration

One way Voice Call types
(notification, diary, mass alerts)
Two way voice call types
(diary, survey or digit collection, click and connect)
Conferencing
SMS/MMS
Collaboration Enablers, white boarding
IVR
Voicemail
Call Control
Message Store,
Automated Call Distributor

Payments

Carrier billing prepaid/postpaid, wholesale/retail programs,real time debiting, account set up, logging, charging, billing

Content

Ringback, ringtones, video, mobile apps., Content Enablers, e.g. video adaptation

User data

address book,usage,calendar,Group List Management,CRM,Directory

Context and Logic

Location, Presence, Profile, Device
Digital Rights Management
Preferences (policies or rules),Age Rating
a combination of presence, location, device status, application status, meeting status
Customer data and usage patterns,

Security/Identity/Logistics

Authentication,authorization,fulfillment,Single Sign-on,federated identity, help desk

Network

Bandwidth,Call quality,VoIP / SIP
Call Flow,Enterprise Mobilization, e.g. FFA
Call control, tone insertion
Policy - Quality of Service
IPTV enablers
IPTV STB enablers
Device Management
Presence & Call State
Device Capabilities

A Quick Review of Operators Developer Communities and their APIs

Operator developer community initiatives have been around for nearly one decade, their roots can be traced even back to the programs operators ran with local system integrators in delivering PBX and CTI solutions to enterprise customers.

Over the past decade we've seen an increased focus on stimulating developers to create data services, predominantly for consumers, leveraging network API's such as location. Before GPS and AGPS were viable in handsets, operators had a natural monopoly on location information. However, the price points operators offered for such APIs stifled most developers' business models, so developers did not use those APIs. We show below from only 2 years ago the location API charges in the UK. The charges did not reflect the network costs, so the price could have been significantly lowered to stimulate the market, but it was not, so we arrive at today's situation where the operator is increasingly bypassed for location.

| Location Requests per Month | Vodafone | O2 | T-Mobile | Orange |
|-----------------------------|----------|--------|----------|--------|
| 0 - 50,000 | £0.093 | | | |
| 50,001 - 250,000 | £0.080 | | | |
| 0 - 100,000 | | £0.080 | £0.110 | £0.095 |
| 100,001 - 250,000 | | £0.070 | £0.105 | £0.080 |
| 250,001 - 500,000 | £0.074 | £0.060 | £0.096 | £0.075 |
| 500,001 - 1,000,000 | £0.068 | £0.050 | £0.088 | £0.070 |

However, some operator due to specific market conditions and also a keener co-operative business sense did achieve success. Telenor's Content Provider Access is such as example, which generates within Norway roughly \$100m a year in revenue, that is 6% of Telenor's total subscription revenues. Below I show a table of the revenue share charges from 2002 in Norwegian Krona, 1 NOK = 17c (USD). Developers can receive up to 80% of revenue for their content using the operators billing. No uncertain location charges, but a share of the upside.

| End user price | | Only for outgoing messages | | |
|----------------|----------|----------------------------|--------------|--------------|
| Inc. VAT. | Ex. VAT. | To TnM | To CP | % to CP |
| 1,- | 0,81 | 0,44 | 0,37 | 45,5% |
| 1,50 | 1,21 | 0,56 | 0,65 | 54,0% |
| 3,- | 2,42 | 0,91 | 1,51 | 62,5% |
| 5,- | 4,03 | 1,37 | 2,66 | 65,9% |
| 6,50 | 5,24 | 1,73 | 3,52 | 67,1% |
| 10,- | 8,06 | 2,54 | 5,52 | 68,5% |
| 20,- | 16,13 | 4,88 | 11,25 | 69,7% |
| 30,- | 24,19 | 7,22 | 16,97 | 70,2% |

However, over the past 3 years the rules have been rewritten. Once AT&T opened the Pandora's box of the iPhone; allowing Apple to own the exclusive store on a device with a virtually unlimited data plan, a revolution took place. Critically, Apple listened to developers and the frustrations they'd amassed through a decade of unsuccessful business dealings with operators and created a simple process allowing developers to get direct access to an engaged audience with a 70/30 revenue split regardless of price or volume, over 1k APIs (all handset based) all for free; including location. Remember this was for a proprietary platform, not a standard like Java - development or porting was required to create the apps. But their simple model has resulted in iPhone becoming the preferred platform for most mobile developers, even though it only covers 35M+ devices (iPod Touch is also included.) compared to the 2.5B mobile customers potentially available.

The next section will focus on several service providers, Orange, BT-Ribbit, and Voxeo, that have gone down the path of creating an ecosystem for developers to use their telecom assets. They claim to serve over 100,000 developers between them. Orange is the global brand of France Telecom, BT Design and their recent Ribbit acquisition are brands of British Telecom, while Voxeo is a privately held VXML platform based in Orlando. We have also included an overview of Broadsoft as a vendor making strides in allowing carriers to enable application ecosystems.

These companies are example of firms that do no build voice applications but have instead created apis or a platforms in order to support the work of others.

Telco API and platform service vendors: Orange Partner, BT Design/Ribbit, Voxeo, and Broadsoft

Of the 100,000 developers claimed by Orange Labs, Ribbit (BT), and Voxeo how many companies and developers have chosen to leverage services from more than one platform or api vendor? It is doubtful that the overlap is significant. However, it is clear that these three service providers are intent on expanding their offerings to a broader array of developer communities. Orange has partnered with Microsoft to leverage the .Net community. Ribbit has announced a php library will be released soon. While Voxeo has announced the sponsorship of the open source Adhearsion project which provides a Ruby framework and builds upon the Asterisk community.

All three providers will point out that they can be leveraged in various ways by a wide range of developers. Yet, their core communities are currently distinct. Application vendors review - the range of telephony inspired applications created and launched by entrepreneurs is huge when you take into consideration mobile web applications, voice, sms, ringtone, location, and mobile payments to name a few. Arguably, the fastest growing user base in the world is Twitter, a social networking application that leverages SMS infrastructure. Interestingly, few of these firms successfully monetize telco assets in a profitable manner.

Voice services continue to be the primary “product” provided by Telcos around the world as it has been over the past decades. However, voice services, especially land line voice services, have also seen the largest drop in profitability.

Orange Partner

In May, 2004 Orange Lab in France and the Orange Developers Forum in the UK merged to form Orange Partner. A global team was created to build synergy amongst countries and ensure that developers have one supporting team, one focus and one portal of information. By 2009, Orange Partner successfully launched Application Shops in the UK, France, Belgium and Spain, reaching over 50 million customers in just those 4 countries. The community grew from a handful of dedicated developers to over 55000 “sign ups” today with 28 apis exposed although mostly in France. The business model is to open up the APIs access for free and then create transactional pricing when they are used. The developer community targeted was primarily Java focused with .NET efforts being made too. Despite the impressive numbers and approximately \$45 million in investment the Orange Partner’s API monetization strategy has not become profitable. Currently, there is a major reorganization taking place within the Orange Partner program.

BT Design

The British Telecom experience with an API strategy started with releases through the BT Web21C effort. This launch in late 2006/ early 2007 gained a lot of attention and praise.

Their SOAP interface appealed to the enterprise development community. Interestingly, the analyst community uniformly praised BT or more specifically BT Design's global leadership strategy in opening up their APIs to a broader developer community. The initial developer community targeted was primarily PHP. The internal monetization plan was to create a professional services division to handle projects for BT's own global client base. Soon after launch, an executive internal to BT Design estimated that this professional services division would rapidly grow to handle 40 major BT clients a quarter with the ultimate goal of creating ongoing CEBP style professional services relationships with most of BT's global clients.

By mid- 2008 there was a course change, BT acquired a VC funded Silicon Valley startup named Ribbit. It had been in existence less than a year. The published acquisition price was \$105 million dollars. Soon after, BT's original foray into the API space was shut down. Ribbit operates as an independent subsidiary of BT. Ribbit's developer focus has been to leverage the Adobe Flash and Flex community. Ribbit will be extending their offering to the PHP community too. Since the acquisition, (and economic downturn) optimistic growth estimates and revenue projections have not been met. The approximate size of their developer program is 12,000.

Voxeo

As the largest and oldest VXML platform, Voxeo can certainly lay claim to having the most successful business model thus far. With over 70,000 ports in service worldwide, recent strategic acquisitions of Voice Objects, IMified, and Micromethod, and the sponsorship of the Adhearsion Open Source project Voxeo has been building on their business success. They describe a customer base of over 37000 companies and a growth rate of 100% year over year since founding in 1999. They claim to serve half the Fortune 100 companies. Interestingly, the Voxeo platform has also been used by VC funded application startups If by Phone and Jott. This is a privately held, employee owned company based in Orlando, Florida with offices in Europe and Asia. Their developer community is in excess of 30,000 with a focus on building and supporting a VXML community. Voxeo's recent sponsorship of the Adhearsion Open source project indicates a strong desire to extend their reach into the Ruby and Asterisk communities. For clarification, Voxeo does also ship a premise based enterprise server solution. We believe their hosted platform business is the growth driver.

Broadsoft

BroadSoft is the leading, worldwide innovator of residential and business Voice over IP (VoIP) applications. For over 10 years BroadSoft has been at the forefront of IP technology, helping to advance the convergence of voice, video and data.

Today, the product is deployed in more than 450 telecommunications service providers' networks and empowers them to deliver enhanced and personalized communications and entertainment services to their businesses and residential subscribers. BroadSoft serves nine of the top 10 and 14 of the top 25 largest telecommunications carriers in 71 countries and in 25 languages.

In addition to the self-care web portal and a variety of desktop client applications, BroadWorks provides a very rich set of open programmable interfaces called the Xtended Services Interface (Xsi) that allows operators, ISVs and even end users to build their own niche applications around the services offered by BroadWorks.

The Xsi is a RESTful HTTP based interface that uses simple commands to enable service configuration, click to dial and other call control primitives over the web. The BroadSoft Xtended program gives operators access to a growing community of software developers that have adopted the Xsi and are building innovative applications and web mashups based on the BroadWorks platform.

Broadsoft has demonstrated success with 23 3rd party applications deployed with 5 operators using their voice apis. Broadsoft also acquired their primary competitor Sylantro which had successfully run developer mashup contests using their own application platform. The current business model split of 40:30:30 between the developer, Broadsoft, and the operator may require more work.

APPLICATION VENDORS: JOTT, VAROLII, eSTARA

When reviewing voice based services there are really only a handful or so of unique functions that are useful to the consumer or enterprise customer. These functions include feature sets related to IVR, conferencing, diary, notifications, mass alerts, click and connect. For definition purposes IVR is a system that enables users to enter data on a telephone keypad or input information by voice. The system can then process the input and route the caller appropriately. Conferencing of a scheduled or unscheduled in its simplest format allows more than two callers to join the same call. Diary is a service that allows users to proactively or reactively provide a voice description that is recorded and saved. For some in the industry, notifications are differentiated from mass alerts by the scale or customization of the message being delivered. Click and connect provides an automated mechanism or event driven kick off to create a two legged call between two people.

IVR and Conferencing functionality has been delivered by a wide variety of both premise based and hosted vendors for many years. As stand alone applications these two sets of functionality are well understood and mature. Creative advancements with these applications are being seen primarily in how they are being added to other software/web platform offerings.

There are many companies that can be viewed as application vendors in the telco space. We are going to mention just a few US based firms with voice focused applications. The term "over the top player" has been coined to refer to a company creating an application (typically hosted) that relies on telecommunication infrastructure yet the firm essentially outsources that functionality. We have chosen three application providers (over the top players) that are viewed as leaders in providing a distinct application using primarily just one of these core functional variations of voice services: Diary, Mass Alerts, and Click to Call.

Jott (Diary)

Jott is a great example of an over the top service as they have leveraged other vendors to provide telco services and voice to text transcription services. Since it's inception in 2006 by former Microsoft employees Jott has focused its application on providing diary type services for consumer and business users. Headquartered in Seattle, WA, Jott Networks describes itself as a world leader in mobile voice-to-text applications. Jott allows individuals and businesses to easily capture thoughts, send emails and text messages, set reminders, organize lists, and post to web services and business applications - all with their voice, using any phone. Jott also converts voicemail into email and text messages, making voicemail a more productive tool. Jott's primary focus has been to create a user friendly applications (Jott voicemail, Jott assistant, Jott for Salesforce) that can stand alone or be easily integrated (Mashed Up) within 50 plus other platforms including Twitter, Facebook, Iphone, Quickbooks etc..The startup was funded by Bain Capital Ventures, Draper Richards, Ackerley Partners, and UK-based Atomico Investments; its last publicly divulged funding round, in 2007, amounted to \$5.4 million

The service has proved popular among mobile professionals, gaining hundreds of thousands of users with their free offerings. The transition to a paid version over the last year has gone well according to the company.

In July, 2009 Jott was acquired by Nuance Communications.

[Wade Roush 7/14/09](#)

Nuance Communications (NASDAQ: [NUAN](#)), the Burlington, MA-based voice technology juggernaut that has already absorbed most of its East Coast competitors, reached west today, [announcing](#) that it has acquired Seattle-based [Jott](#).

Nuance's acquisition of Jott gives it a credible product in the area of phone-based voice-to-text services, where other companies such as Google, with its Google Voice service, and UK-based [Spinvox](#) have begun to encroach.

"Jott's voice-to-text offerings have experienced a groundswell of adoption and positive industry recognition since the company's inception, and we're thrilled about the opportunity to expand our market reach and our voice services portfolio," Nuance senior vice president Michael Thompson said in an announcement. "Together we will deliver a range of new services to our mobile operator and enterprise customers."

Nuance isn't saying how much it shelled out for Jott. . Jott may have needed a larger partner like Nuance in order to compete in its sector, given that competitor Spinvox, with some \$200 million in venture cash, had far outpaced it in fundraising efforts.

Nuance and Jott said that Jott's services, including Jott Assistant, Jott Voicemail, and Jott for Salesforce, will keep working as usual, with no interruptions in service. But as a result of the acquisition, Jott-like capabilities may come to many more consumers—Nuance says it plans to package Jott Assistant as part of the voice services it provides to wireless operators.

"Our combined expertise will bring innovative and differentiated voice services to a variety of markets with tremendous scale," Jott co-founder John Pollard said in a statement. One area where Nuance's technology may help Jott is in automated speech-to-text software. While the basic user interface that Jott users encounter when they call the service is driven by speech recognition software, users' recordings are actually transcribed by humans working in large processing centers. Replacing those humans with advanced speech-to-text software, similar to Nuance's [Dragon Naturally Speaking](#) line of dictation software, would be an obvious way to make Jott's service more efficient and scalable.

Varolii (mass alerts and notifications)

With approximately 80 million dollars in annual revenue and 300 employees Varolii can be considered a major application player in the alert and notification space.

Varolii builds and host software that enables businesses to deliver automated communications (sometimes referred to as notifications) to its customers and employees over the phone, through text messaging, fax or email. Their application strives to apture and analyze every interaction, so each message delivered is of the highest quality and drives the customer to take the action required to meet client's goals. Varolii has grown to serve more than 100 of the Fortune 1000. Current U.S. customers include six of the ten largest banks and financial services companies, the five largest wireless carriers, 25 utility companies, five of the top ten airlines, four of the top ten pharmacy benefits management companies and retail pharmacies, and over 25 government departments and agencies.

Launched in 1999 initially as AlertOnline and then renamed PAR3 Communication the Seattle based company acquired venture capital backing. In 2005 Par3 and Envoy Worldwide, another venture backed firm based in Massachusetts and launched around the same time in 2000 combined forces. It is estimated that the combined companies had secured (and spent) upwards of 70 million dollars in investment to date. By 2007 the combine companies rebranded as Varolii. Although an IPO was initially planned during this time frame, Varolii remains a private company. Their website lists revenue growth from \$16.2 million in 2004 to \$29.7 million in 2005 to \$50.9 million in 2006 and \$68 million in 2007. Business revenue is driven through approximately 80% direct relationships and 20% indirect relationships. For example, Verizon resells their application in a white label relationship.

Although the Varolii solution suite would not be considered a consumer friendly self service web app., Varolii can still be viewed as an over the top player as they do not own or manage their own telco switching infrastructure.

eSTARA (click and connect)

Founded in 1999, Estara provides applications with features like Click to Call, Click to Chat, Call Tracking, Save and Send, and Form to Phone. eStara provides technology for some of the world's most recognizable brands including Starwood Hotels, DaimlerChrysler, Dell, Apple Computer, and Continental Airlines. Approximately 350 customers use eStara's technology to increase online sales conversions by up to 50%, reduce Web site and shopping cart abandonment rates by 10-45%, and reduce call handling time by up to 60 seconds. eStara Click to Call and Click to Chat engage visitors proactively and selectively offer them the opportunity to contact a live agent from any page on any Web site, These on demand services engage customers at the most relevant time, such as when a transaction is at risk of being abandoned, or when the consumer's Web behavior implies confusion. eStara Call Tracking enables marketers to track inbound phone leads, and more accurately measure pay-for-performance campaigns. eStara grew annual revenue 64% year over year to \$7.4 million for full year 2005. Revenue for the first six months of 2006 was \$6.5 million. Estara had received in excess of \$15 million in venture investment during 2000.

In late 2006 and continuing into early 2007 ATG (Art Technology Group, Inc., NASDAQ: ARTG), acquired eStara in a stock and cash merger to complement ATG's existing CRM and e-commerce enhancing products. ATG also saw eStara as an offering that could drive a recurring revenue model. Under the terms of the agreement, ATG will acquire all of the outstanding common stock, preferred stock, vested and unvested stock options of eStara for approximately 15.3 million shares of ATG common stock, \$2.0 million in cash, and up to an additional \$6.0 million in earn-out potential, which implies that the total transaction is valued at up to approximately \$48.3 million based on the closing sale price of ATG's common stock as reported on the NASDAQ stock market on September 18, 2006.

CONCLUSIONS

As we stated in our introduction “Crossing the Chasm” is a difficult challenge. What have we learned over the last decade? What are the lessons learned that will allow the CEBP space, regardless of the analysts' and vendors' definition games, grow in a dramatic way? What don't we know yet? The technical and business changes we have witnessed over the last few years may not be particularly obvious to outsiders but have been extraordinarily disruptive to the status quo. Management decisions across the industry made in response to these technical innovations may have already determined the next decades winners and losers. As one management guru stated “strategic thinking matters but just not right now.”

What has been evident in this CEBP world over the past few years is that most of the bigger questions about the shape and direction of the technical innovation wave are being answered in the same way. IP and Web services tools are being leveraged in exciting ways. When Telcos or Application vendors now think about innovation what comes out of their mouths are themes, standards, and technical lessons learned from Google, Apple, Salesforce or Open Source communities.

From the 40,000 foot level, it is understood that the Telco market has been effectively commoditized across several product lines during the past decade. US Land line voice services, the original cash cow, are expected to be bypassed by mobile revenues in the early part of the next decade. Competition among mobile providers world wide is unlike anything the landline providers have ever experienced. Voice service revenue are under attack both from a technical perspective and through business model changes. All you can eat voice service packages are the standard being pushed by the cable companies. While, over the top, players like Skype, Vonage, or Google Voice provide yet another method to bypass the incumbent telco. This is a great advancement for the consumer worldwide. The competitive challenge is for vendors and providers to evolve fast enough in order to stay relevant.

Obviously there is still plenty of work that can be done but from a technical perspective global telcos do (finally) have true buy, build, or rent options placed in front of them. We hope they (finally) realize what needs to be done. For most telcos, service providers, and application vendors it comes down to how best to focus resources.

CEBP is clearly an important method for maintaining or expanding voice and messaging revenues in the face of declining margins.

For the smaller service providers and application vendors across the industry that have been pushing innovation in this space the time is ripe to move their business models forward in a manner that locks in scale and profitability. Finding a way to create some semblance of sustainable competitive differentiation with business model innovation could be the difference between long term success and ongoing struggles. The tendency towards commoditization in the Telco space has become the most difficult challenge to overcome. Other than regulatory or monopolistic tactics, constant innovation technically and on business models is the only long term option.

What do we now know? What do we want to spend more time researching?

When comparing the CEBP Application players as a group to the API/Platform players there is a clear winner so far. We have found that as a group, the application vendors have seen real success (in revenue, profitability, client growth, and valuation) across various functional telco areas. Obviously there have been successes and failures but investor exits and sustained revenue growth are more the norm. A most interesting finding is that application vendors tend to outsource their telco infrastructure needs. They treat the telco services as a commoditized but important ingredient in their application. They buy it wholesale. To borrow a phrase from a terrific ECOMM presentation by Thomas Howe, "Voice (or any other telco service) is simply a spice and not the main ingredient anymore."

These "over the top" application companies are still young and relatively small. We don't have a billion dollar pure play CEBP firm yet. Yet, as an industry, they do seem to have entered a virtuous cycle. For the most part these firms have taken a direct path to consumers or business users. They sell, learn, iterate. Their business models gain in maturity as the applications go through faster and faster release cycles. Investment capital sees revenue growth and successful exits. More money follows new or existing companies. More creative people come into the space. More application innovation follows. More growth happens.

The logical direction for application vendors is to continue to gain real vertical or business process expertise so that their applications' logic and industry knowledge justify high "software-style" margins. Following the traditional indirect model of leveraging consultants and system integrators to pull CEBP application adoption through Enterprises will gain traction as customer education of CEBP benefits grows.

What will the next few years bring? Could there be a roll up opportunity by a well capitalized firm identifying best of breed CEBP style applications covering all the primary telco functions within the next few years? With the growth of the mobile and virtual workforce as well as a global consumer base, the extension of business processes through CEBP style applications continues to look bright. As long as the application players continue to innovate based on their customers demands value added pricing based upon record, head count, hit, lead, pay for performance, business process, or contextual message will continue.

On the application vendor side of the coin additional research on leveraging the traditional ecosystem of global consultants, VARS, and SIs to push CEBP application adoption into new verticals and deep into complex business processes is of particular interest to the authors.

Within the API/Platform mix of players the results are much more mixed. It is difficult to identify even a handful of winners despite the money and resources that have been made available. One clear exception seems to be Voxeo and their VXML platform. They have been operational since 1999 so may have already learned the hard lessons still being figured out by the other API/Platform providers. Their recently announced Adhearsion relationship provides an opportunity to extend Voxeo services to the existing Ruby and Asterisk developer community if not others. On face value, a business model based upon monetizing services

provided to global developer communities does seem to offer a larger potential market opportunity. Yet, the missteps made over and over again by global carriers and smaller service providers have been frequent.

From our perspective, the obvious place for more research on growing and monetizing developer communities starts with a clear understanding of the entire ecosystem of technology tools, decision makers, and legacy platforms a particular (segmented) developer community faces. A strategy of simply expanding APIs or Platforms integration methods in order to broaden its appeal to more developers seems a reasonable albeit simplistic step. Commoditization pressures will continue unless customer logic and vertical knowledge can be cycled back into the api or platform's reporting tools. One way for api/ platform vendors to get closer to this end user knowledge base is by entering into strong technology enabling relationships with existing software suites. CRM, CEM, BPM, CMS, Mashup, and HCM software or SaaS suites all look to extend business processes outside the corporate firewall. Amazingly, across entire suites, email or self help web portals provide the only current method to stay in touch with workers, vendors, and consumers in every business process. At the same time, the desire to "mobilize" the existing corporate applications and better leverage corporate investments in phones is a consistent message.

From the perspective of API/Platform service providers, additional research on blending developer communities with technology enabling partnerships of traditional or SaaS software vendors is of particular interest to the authors.

Finally, there has been a theme to many conversations during the past few weeks surrounding the writing of this CEBP report. They seem to fall under the category of Context Delivery or Event Driven Architecture. Simply, this refers to setting off specific and customized actions based upon business event, activities, or context/data that is meaningful to users. The solutions are starting to behave intelligently.

What caught our attention is that CEBP tool sets and solutions are starting to focus on business process creation and logic sets as a path to building sustainable, value added relationships with clients. From a business development perspective this should fire up the imagination.

Within the last three years, the biggest objection to overcome arguably was something related to SaaS versus premise based deployment. Given, cloud services accounted for \$16.2B in 2008 and is projected to grow to \$42.3B in 2012 (source IDC) a CAGR that is 5 times the rate of project IT growth over that period. SaaS is clearly entering mainstream deployment.

Today, the client statement that attempts to commoditize pricing on a per minute or per message basis is clearly at the top of the most heard objections in the CEBP space.

However, as we have seen in several niches viewed as functional subsets or closely aligned with the CEBP category, voice based commoditization pressures tend to push value added application development forward.

We have seen global market size estimates for CEBP style value added services to eventually be as high as 85B from STL Partners by the latter half of the next decade (Telco 2.0 Forum ,Spring 2009). This estimate has a much broader definition.

On the other hand we have seen market estimates of 5 Billion by 2014 for global “Hosted UC” revenue (with a strict feature definition) from Wainhouse Research.

As a way to test these estimates, lets aggregate revenues for several narrow subsets of solutions as a stand in for a true CEBP market size. Our premise is that advanced CEBP solutions/platforms are evolving to include several of these features and functionality.

- a. alerts and notifications - 1Billion
- b. hosted conferencing/ 1Billion
- c. (non medical) transcription diary (100sM)
- d. hosted IVR- 1Billion
- e. click to connect services (100s M)

To be blunt the analyst estimates are all over the place on definitions and geographic coverage. Our best estimate (of analyst estimates) would suggest a current market for CEBP style functionality at approximately 3-4 Billion.

Every analyst does agree on double digit (or higher) growth rates. Thus, by 2015 a global CEBP market of 8 to 10 Billion seems to be a reasonable estimate.

To be clear, clients buy CEBP solutions for real ROI results. Lead generation, logistical improvements for staff and clients, customer feedback or notification, and internal decision escalation can all be quantified as valuable by business clients.

Our findings are that the commoditization pressure lessens and the market expands greatly as a result of real innovation within the business process and logic tools of CEBP solutions. These advancements become the solutions that allow businesses to trial, implement, and iterate quickly and independently.

In a world filled with phones as the user preferred device, CEBP solutions with business process tools, contextual messaging, and logic algorithms suddenly seem like the bridge to helps us cross the chasm. It is fantastic to see the CEBP space move rapidly beyond useful but relatively dumb tools sets towards applications and platforms that drive intelligent change, easy integration, real-time learning, and concrete results for clients.

To reiterate, the applications vendors as a group have been the clear winners. CEBP remains an evolving market without any dominant players yet. Interestingly, the telcos are not even currently positioned to win despite the fact that they have the most to lose with voice and messaging commoditization.

END

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