The 21st Century Telco as Business Process Platform Enabler

BT Innovate & Design Crafts Open Platform to Take Friction Out of Multisided Business Processes

When Telcos Refuse to Innovate

Considering that AT&T has my vote for being the most retrograde of the phone companies of N. America, reading Andy Kessler's column in the August 18 *Wall Street Journal* gave me considerable pleasure.

"Earlier this month, Apple rejected an application for the iPhone called Google Voice. The uproar set off a chain of events—Google's CEO Eric Schmidt resigning from Apple's board, and the Federal Communications Commission (FCC) investigating wireless open access and handset exclusivity—that may finally end the 135-year-old Alexander Graham Bell era. It's about time."   SNIP

"AT&T clings to the old business of charging for voice calls in minutes. It takes not much more than 10 kilobits per second of data to handle voice. In a world of megabit per-second connections, that's nothing—*hence Google's proposal to offer voice calls for no cost and heap on features galore.   **What this episode really uncovers is that AT&T is dying. AT&T is dragging down the rest of us by overcharging us for voice calls and stifling innovation in a mobile data market critical to the U.S. economy.**"

"For the latest quarter, AT&T reported local voice revenue down 12%, long distance down 15%. With customers unplugging home phones and using flat-rate Internet services for long-distance calls (again, voice is just data), AT&T's wireline operating income is down 36%. Even in the wireless segment, which grew 10% overall, per-customer voice revenue is down 7%.

Wireless data service is AT&T's only bright spot, up a whopping 26% per customer."http://online.wsj.com/article/SB10001424052970204683204574358552882901262.html?mod=rss_opinion_main

AT&T has 60 billion in debt and 5 billion in cash while Verizon labors under a debt load of $100 billion. http://blogs.marketwatch.com/cody/2009/06/25/att-sell-this-balance-sheet-nightmare/ Verizon at least has FiOS while ATT has the I-phone

and a monopoly grip. *The Register* http://www.theregister.co.uk/2009/07/23/att_bets_big_on_iphone/ points out: It's no surprise, then, that AT&T is reportedly in negotiations with Apple (http://www.theregister.co.uk/2009/04/15/att_longer_iphone_deal/) to extend their iPhone-exclusivity deal. And it's equally unsurprising that Big Phone is fighting (http://www.theregister.co.uk/2009/06/19/att_playing_favorites/) a US Congressional investigation (http://www.theregister.co.uk/2009/06/16/exclusivity_debate/) into whether such deals are good for consumers.

This looks like it may be the first time since the collapse of the Internet bubble in 2001 that the revenues of an incumbent in the USA have taken a hit. But why get hot and bothered one might ask?

I would answer that since ATT and Verizon management are unable to recognize that technology change is rendering their voice business superfluous, they are relying on political manipulation in congress and the FCC to milk the last penny out of their monopolies. But suddenly they aren't doing so well. Not only with consumers but also with enterprises.

Consider the following: July 27 2009 AT&T, Verizon: Business Segment Suffers Worse than Consumer

"AT&T also reported that the deepest economic impacts in the second quarter came in the business services segment.

AT&T CFO Richard Lindner likewise says total business revenues, including enterprise, wholesale, small and mid-sized customers, were down 5.6 percent year over year. Excluding equipment sales, business revenues were down 4.3 percent, Lindner says."

Regrettably we still consider basic communications service something to be milked for shareholder profit rather than the utility model where tighter regulation tends to look at telecommunications as a basic platform that enables and supports the rest of the economy.

I contend that OFFCom did the economy of the UK a significant favor when a few years ago it divested BT into a loop co (Open Reach) and a services company (BT).

This article traces the most recent stages in the evolution of BT into an open platform based services company. If ATT and Verizon continue to wear their blinders and never look beyond bunkered walls of their local monopolies with a little luck Google will be giving voice service away and

BT Global services will be selling the service platforms that Martin Geddes describes to American enterprises.

Here is a key strategy question for the next two or three years. Because of its good fortune of not having a local loop monopoly nor a spectrum based wireless monopoly BT is actually forced to think about what it can do to provide real benefits to its customers. In this sense it looks positioned to become the most innovative carrier in the world.

Catching Up with BT Design

On July 26th, 2009 I interviewed Martin Geddes, the co founder of Telco 2.0 and visionary whom JP Rangaswami had hired during the winter to help push things forward at BT Design.   During our talk Martin informed me that BT Design was now called BT Innovate and Design. I decided I better find out what had happened. The results are encouraging, and to someone who has known JP Rangaswami since June 2005 make perfect sense. Therefore before getting into the formal interview with Martin let me recapitulate the story using material gleaned from Google spliced together with my own knowledge.

Our last look at BT was based up a presentation by JP and a separate interview at the March 2008 Cook-in and was published in the June 2008 *COOK Report*. But in the meantime in Feb 2008 *Light Reading* had asked: So what's BT doing?

The answer was that it had made its service development kit (SDK) available to developers both inside and outside BT. Since July 2007 it had been downloaded from a public Website about 8,000 times, with half of those downloads being made within the U.K. At the time of the Light Reading article, 20 commercial applications had been developed, some by BT developers and some by independent developers. One is BT Tradespace, a directory and contact Web portal for small businesses. In addition a "couple of thousand" applications were being tested in the Sandbox environment set up by Microsoft Corp. (Nasdaq: MSFT). (See Microsoft Unveils Sandbox and Mashup Wins Competition.)

To quote Light Reading: "All that development to date has been at arm's length. Now, though, BT is ready to take things to the next level and open up its service delivery platform -- or the Innovation Platform, as BT calls it -- to those developers, to allow them access to existing service code as it's made avail-

able, work on new applications, and test them to see how they would perform on the BT network."
http://www.lightreading.com/document.asp?doc_id=145324

The Service Delivery Platform (SDP)

Now for information on service delivery platform fast forward to March 2009

http://www.alanquayle.com/blog/2009/03/service-delivery-platform-virt.html

Service Delivery Platform Virtualization

By Alan Quayle on March 19, 2009 3:57 PM

"Virtualization is a hot topic, made more so by IBM's potential acquisition of Sun; two leading proponents of virtualization and cloud computing. From an enterprise perspective the drivers for virtualization are saving cost; and improving employee efficiency, manageability of IT and enterprise security. Take for example desktop virtualization, e.g Sun Ray thin clients, it's your standard PC experience except its running in the cloud so you can use any client as your own, no boot-up time, screen as you left it the night before, and the data is kept within the

enterprise. Other virtualization examples include Salesforce.com, a leading light in Software as a Service (SaaS), virtualizating the CRM (Customer Relationship Management) application."

"Virtualization can be applied across a number of aspects, e.g. data center, server, application, service, desktop, database, storage, mobile device, network, and the focus of this paper **the service delivery platform (SDP.)** By the way, I'm going to look at the opportunities and threats virtualization presents to telcos in another article coming soon."

"These virtualizations fall into two broad categories, SaaS and IaaS (Infrastructure as a Service). The SaaS model is being extended to include **Platform as a Service, e.g. BT Ribbit's (communications focused)** and Sun's Zembly (social network focused) which provide development environments. The distinction between SaaS and PaaS is more marketing, e.g. Salesforce.com has Appexchange for developers to create new applications, so could claim to be a PaaS; hence I'll use SaaS and PaaS interchangeably until someone points out the error of my ways."

"We're seeing operators deploy SDPs as a traditional licensed product running on

servers within their IT infra-structure.   But what does SDP virtualization mean to operators?   Are the cloud based SDPs a threat or a complement?"

"There are two main func-tions of the SDP: Service Fac-tory (e.g. iPhone SDK) and Service Shop (e.g. iTunes). The Service Shop can sell to a number of customers, e.g. consumers, enterprises or developers, though the de-veloper shop is really more of a factory store. The Service Factory provides the tools to ensure the application works on and can use capabilities being exposed by the device and/or network/factory. Now within the SDP there are functions such as policy, identity, security, charging, cataloguing, sand-box, etc. Looking at how the cloud SDPs are monetizing them-selves: BT Ribbit's, charge for communication APIs, e.g. seats, calling, texting, tran-scription, etc."

COOK Report: so much then for a somewhat technical summary of the concepts of virtualization and service platforms. In the conversa-tion with Martin Geddes that follows we shall see that BT's intriguing model for the fu-ture looks shaped by a desire to be your service platform company.

JP Discusses Innovation in the Financial Services Industry.

On May 27 2009 JP Rangas-wami sat for a 30 minute video interview with computing.co.uk. www.computing.co.uk/compu ting/video/2242954/interview -jp-rangaswami-bt - I have transcribed the most salient parts:

"When you look at the history of innovation I think you will see that it seems to survive and thrive the most during a period of economic downturn. There is a sense of necessity as the mother of invention taking place. When you are constrained in funds and con-strained in time.   When it is actually harder to do things -- you have to find smarter ways of doing them.   An analogy would be how open source techniques came out of adoption in what was East-ern Europe much more read-ily than in Western Europe because in the East they didn't have any other alterna-tive.   When you are really constrained on resources and budgets, you tend to look for more innovative ways of ac-complishing your goals . . . . A recession is the best time to figure out new ways of do-ing things. We need to learn better ways. I think at BT we are spending quite some time working on how we can pro-

vide virtual ways of solving this problem. . . . ."

"In telecoms what happened historically is that the telco lost control of the device. 40 years ago you could only rent a telephone in any color just so long as it was black, sud-denly you could rent it in other colors, and then you can actually buy it from the phone company and then you could buy it from them, and now your phone is your com-puter and your computer is your phone. A great deal changed in the area of lack of control of the device. And that meant that services had to be changed dramatically so that they could still be deliv-ered to the customer regard-less of where he was, and what he was doing at any point in time."

"The same thing is taking place in computing and in the converged network IT world, in that the customer has con-trol of the device and not the vendor. That means that the locked down desktops of the past are going to be shifted away. Enterprises are going to say that their employees' personal computing device is a matter of their own choice. Under these conditions the device will have to be sup-ported regardless of the memory size, the operating system used, the kind of software that's on it. We are going to have less and less capacity as an IT department

or for that matter as an industry. It is the equivalent of my trying to tell you what standards your pen should have. The device has become personal rather than corporate. **Thus the industry as well as the vendors and that industry have to figure out smarter ways of delivering platform agnostic services. . . . .”**

“Innovation is not about which the innovator does; it is actually about what the customer does. But it no innovation exists unless there is adoption. Innovation cannot be and should not be about an ivory tower.”

BT Innovate & Design

On July 1, 2009 BT made the following announcement: “BT has combined BT Design and BT Innovate to create a new organisation called BT Innovate & Design, which combines network and platform development with long-term technology strategy and research.

BT Innovate & Design aims to improve speed to market, reduce development costs and, above all, enhance the end-to-end customer experience. Its dedicated professionals provide the technology foundation for BT Group's transformation into a global networked IT services com-
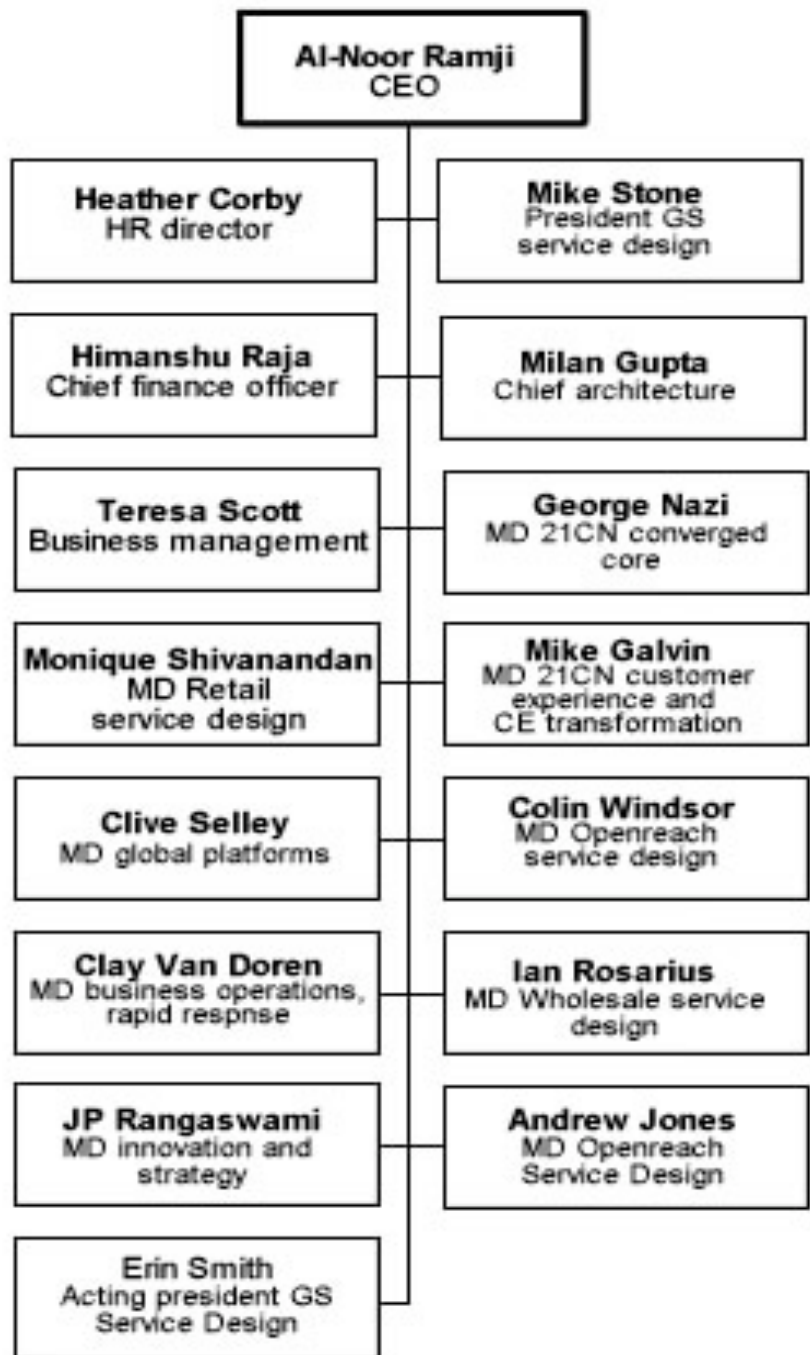
pany while working to create a zero touch, self-service, real-time world for BT's customers.

It also delivers strategic innovation and technology vision for BT through effective

and coherent engagement with other parts of the BT organisation.

BT Innovate & Design's IT professionals have a strong track record in the delivery and development of systems

BT Innovate & Design business structure

Al-Noor Ramji
CEO

Heather Corby
HR director

Mike Stone
President GS
service design

Himanshu Raja
Chief finance officer

Milan Gupta
Chief architecture

Teresa Scott
Business management

George Nazi
MD 21CN converged
core

Monique Shivanandan
MD Retail
service design

Mike Galvin
MD 21CN customer
experience and
CE transformation

Clive Selley
MD global platforms

Colin Windsor
MD Openreach
service design

Clay Van Doren
MD business operations,
rapid respnse

Ian Rosarius
MD Wholesale service
design

JP Rangaswami
MD innovation and
strategy

Andrew Jones
MD Openreach
Service Design

Erin Smith
Acting president GS
Service Design

and solutions, and in managing a secure and resilient infrastructure. The innovations developed at BT's laboratories at Adastral Park near Ipswich, UK, provide BT with a world-class science and engineering base for the design and delivery of next-generation converged networks and services."
http://www.btplc.com/Thegroup/Ourcompany/Companyprofile/Groupbusinesses/BTInnovateandDesign/index.htm

COOK Report: In effect BT made a very sound and obvious decision that in an open source and hardware commoditized world, having a CTO whose duties included heading up the BT equivalent of Bell Labs and being BTs' emissary to the network research community of Dante, Geant, Internet 2 and the like made no sense – especially not after the 21 CN IP network design was finished and in place.

With the July 1 announcement of BT Innovate and Design the corporate CTO of BT and CEO of BT Innovate, Matt Bross was effectively re-orged out of a position.   On July 20th. Martyn Warwick announced that Bross has resigned effective August 1. In a post at Telecom TV
http://www.telecomtv.com/comspace_newsDetail.aspx?n=45253&id=e9381817-0593-417a-8639-c4c53e2a2a10#]
Warwick leapt to the follow-

ing unwarranted conclusion: "Word is that he won't be replaced. So, remarkably, BT now faces an increasingly uncertain future without a CTO. That would be strange enough at any time but as the carrier has so firmly nailed its technology colours to the mast and so endlessly saluted them in recent years, the decision is little short of bizarre."

COOK Report: A telco without a CTO? Shocking to Mr. Warwick, but to those who understand the strategy future – rather inevitable.

On July 20 at

http://www.heavyreading.com/document.asp?doc_id=179368 Ray Le Maistre, International News Editor, Light Reading wrote:

"So who's now in charge of BT's technology research strategy? The answer appears to be Al-Noor Ramji, the carrier's chief information officer (CIO), who joined the carrier in 2004, and who is already responsible for the carrier's network and application implementation. . . . .

But on July 1, BT Innovate was merged with BT Design (the division set up in April 2007 to design and develop new services and run the 21CN transformation program) to create, logically enough, BT Innovate & De-

sign. . . . .
In effect, the new division has combined the role of BT Innovate and the tasks previously undertaken by the Group CTO office, with the design and delivery activity undertaken by BT Design, making it the home of technology research and innovation as well as day-to-day 21CN implementation.

BT Innovate & Design is headed by Ramji, who has a team of 15 business and technology executives reporting to him. Those executives include George Nazi (managing director of 21CN converged core) and JP Rangaswami (managing director of innovation and strategy).

The BT spokeswoman assures Light Reading that the reorganization was not the catalyst for Bross's departure, but she confirms that Ramji, who has been running the 21CN implementation program for the past two years, will be taking on some of the forward-looking responsibilities previously held by the CTO.

BT's decision to make its CIO the key technology executive is an interesting one that will likely be replicated by other carriers in the coming years, says Heavy Reading chief analyst Graham Finnie.

He says that while "the CTO still has the upper hand in most telcos" in terms of taking technology decisions and driving the network strategy, "the power is shifting towards the CIO... as the center of gravity in telcos shifts towards IT. This move looks like a reflection of BT's strategy to position itself as a company that's providing the network as a service, using next-generation OSS and opening up its network to third parties."

COOK Report: In his report quoted above in *Heavy Reading*, Ray Le Maistre has nailed it. None of these conclusions are surprising – especially in light of JP Rangaswami's May 27th 2009 interview on innovation and IT in the financial services industry. What we see in the excerpts that we quoted above, is that as the vendors, first, lost control of the device (the phone) and then lost control of the computer, and as the technology has at the same time become commoditized, generic, and dependent on open source, the primacy of technology declines. It becomes a generic platform that, while dependent on standards and interoperability, is not that difficult to deploy.

The current relationship at BT with JP reporting to Al-Noor Ramji becomes easier to understand if one is aware that in 2001 both men were at Dresdner Kleinwort where Ramji was CIO and JP reported to him. Al-Noor left and JP then became the new CIO. The most critical role of the IT executive at Dresdner and again at BT where JP again reports to Al-Noor is to ensure that the enterprise customers have the information they need served quickly and in just the particular way that they need it. Given the information explosion brought on by the Internet, this is the new challenge. It is for very good reason that JP subtitles his blog: a blog about information. http://confusedofcalcutta.com/

The move to CIO and jettisoning of the CTO also makes clear sense when one recalls that the CIO Al-Noor Ramji said on June 9 2006 at the Gigaworld IT conference in Lisbon: "We see Google as our biggest threat," Ramji said. "They don't mean to...it's almost incidental." He acknowledged that Google comes from a "different world" but suggested that it had "morphed" into a different company and warned that Google could do anything BT could do in the consumer arena. However, while conceding that he did not know the endgame, Ramji claimed that BT "can do anything Google can do" if it moves beyond its traditional role as a supplier of telecommunications services.

"I've learned that technology is the easiest thing to do. The transformation of the company is most important," he said. See: http://www.zdnetasia.com/news/communications/0,39044192,39365963,00.htm

Since he had not yet hired JP, this was something that people found hard to grasp. But more than three years later the statement about Google still holds true and the reasoning behind it will be even more clear by the time you finish reading this.

JP also makes a very telling point about hard times spurring innovation. The need is to do more with less. When at Dresdner in 2002 his big innovation was the introduction of open source and collaborative tools like wikis, he sees the opportunity during this down-turn as cloud computing which he explains can be provided in various levels of increasing capability and security and of course expense. But the possibility is there for the financial services firm to save money by buying only the amount of services it actually needs and uses and by shifting its network expense from CAPex to OPex.

A stance like this forces the services provider to put itself in the shoes of its customers and to concentrate on providing the kinds of platform

Voice built on obsolete assumptions
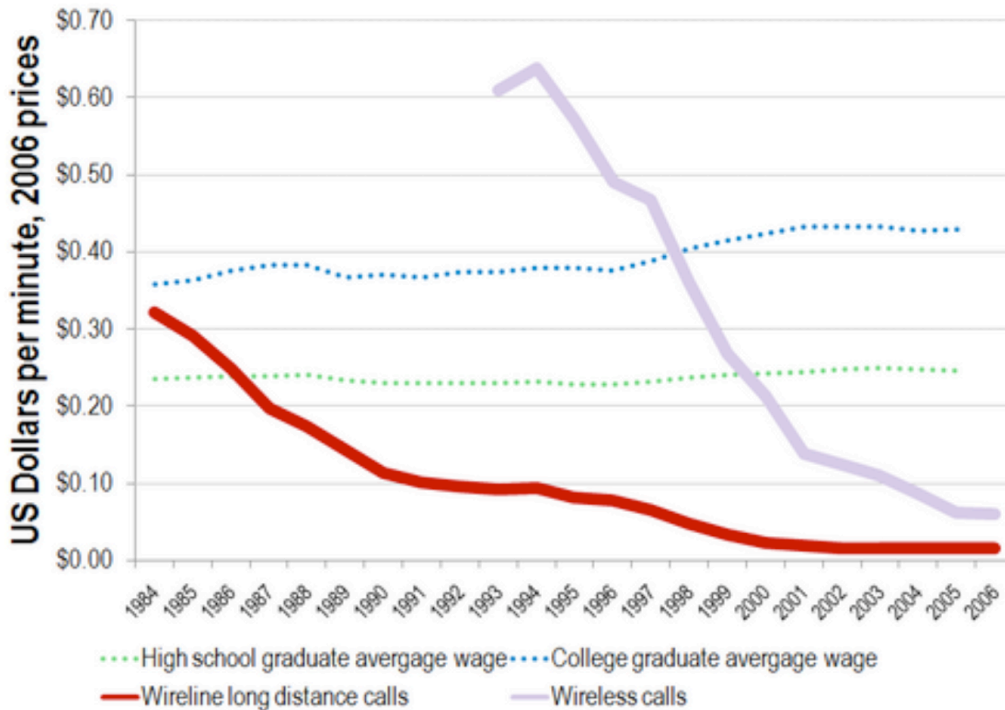
based services that custom-ers will pay serious money for because they increase the customer's earning capability rather than bind the cus-tomer down with restricted services designed to increase billable events.

Living in this new world re-quires men like Ramji and Rangaswami to understand in some detail where the evolv-ing technology capabilities of the Internet are taking possi-ble business models.   This where Martin Geddes comes in.   After leaving Sprint not long after the dot com crash,

he established the Telepoca-lypse blog.   Next in 2006 he became of co-founder (through STL partners) of Telco 2.0 which ever since has run twice yearly "industry brainstorms" that invited car-riers to attend and recompute their business models.   JP hired Martin as Director of Strategy in January 2009 and when I asked Martin what I should look at before we talked he pointed me to

http://www.telco2.net/blog/2 008/06/vodafone_too_much_ data_not_eno.html

The Analytical Background

"Telephony is built on false assumptions. The chart below (from our recently published Consumer Voice & Messaging 2.0 Report) compares the cost of telephony and labour. We show the per-minute cost in the USA of using a tele-phone (fixed or mobile), along with hiring someone (high school or college graduate). **What it tells us is that the 'scarcity' used to be in the telephone network, and now it is in our time and attention."**

"Only a decade ago, it was worth paying a graduate for an hour if it would have saved you from making an hour's worth of mobile phone call."

"Today, we barely factor in the cost of calling into our lives. Yet we are buried in voice messages, missed calls, emails and texts. Delivering ever more data to the user is not the same as creating ever more value. The value comes from brokering the right relationships, helping interactions occur at the right time and medium, eliminating unwanted intrusions, automating flows of information, and making users productive."

snip

Voice: One Product, Many Business Models

As with all telcos, there are three inter-linked business models that Vodafone needs to support. These require very different features.

The first is its retail offer. This takes hardware from the network equipment providers, plus software from various innovators, and packages it up as the core bundle offer or as an add-on value-added service. This supply chain is slow, costly and inflexible today, and their Betavine effort is only a small step towards

what's really needed.

There's still plenty of mileage though in selling conveniently packaged communications. We're not yet at the point where "if it's software, it must be given away for free". The users see the benefit to themselves, and are willing to pay for it. A good example at the moment is SpinVox, who offer a voicemail to text transcription service. Note how their own marketing copy says: "SpinVox has saved me at least two hours a week [our emphasis] of listening to often irrelevant voicemail." (And contrast this with the primary purpose of most mobile media content products, which is to fill dead time.) We'll dive into the challenges and opportunities for retail products a little more below.

Next up are the wholesale products of the operator. We feel there is a massive hole here in most operators' strategic approach, with a few honourable exceptions. Voice is already becoming just one facet of many applications and products, and operators aren't making it easy to embed it in. Wholesale products need to be broader in scope (e.g. to include voicemail, push to talk, and 3rd party network integration), as well as deeper in integration (e.g. simple 3rd party trouble ticketing, provisioning of offers sold through non-operator channels).

Finally, there are the two-sided markets, which we've written about here. The telephone remains a wonderful way of consumers and enterprises interacting — think of it as 'v-commerce' — but there is a huge amount of friction and inefficiency involved. Whilst so much effort is being expended on entering mobile advertising, hardly any is being lavished on building new revenues on top of freephone numbers, call centres and interactive messaging.

Voice as a Platform, Not a Product

snip

However, there is unlikely to be a one-size-fits-all evolution of the public telephone service. Instead, we move from an era of mass production to one of mass customisation. There are too many innovative applications, too many niches and customer needs, for any one company to address them all. Instead, operators need to take a leaf out of the Telco 2.0 book and focus on two things: providing distribution for these services (and integration with the core offer), as well as enabling a bunch of high-margin value-added services that the upstream partners

pay for, not the downstream end users. If someone is a Facebook fanatic, help that partner get their experience into the user's hands.

snip

Be Proud to Be the Phone Company

"Sometimes it feels like being a phone company is like an embarrassing medical condition nobody wants to admit to having. Voice communication will remain central to the human condition for as long as we're around. Satisfying the need for people to collaborate, chatter, and communicate should be central to every operator strategy. Sadly, it too often ends up being delegated to the network equipment providers or handsets vendors, who tend to lack the skills or incentives to build complete services."

snip

"Our own research found nearly 70 start-ups working on new voice and messaging services. (These are all documented in the report.) We're sure there are more. None are really integrated with the telco platform. The opportunity to exceed the users' expectations is there, and the business model — retail, wholesale and 2-sided platform — will bring in the cash to anyone who cares to

execute on it."

Editor: This URL will take reader to Martin's March 2009 Ecomm address. http://blip.tv/file/1839328/

Lee Dryburgh has also added a transcript of Martin's talk: **Transcript: Martin Geddes (Where's the money in Voice 2.0?).** It is highly recommended reading available here: - http://blog.ecomm.ec/2009/ 08/transcript-martin-geddes- voice20.html

And Finally the Interview

COOK Report: How would you describe what you are doing inside BT Innovate & Design?

Geddes: The main project that I am heading up is Communications as a Service (CaaS). What I am doing is creating the missing link between Ribbit and our Cloud Services work. At the moment I am at a very early embryonic stage of exploring the idea and the opportunity. **The idea is centered on the use of communication tools and products to make interactions between businesses and their customers more effective and efficient**. Traditionally all telecoms products

have been based on trying to serve the needs of end-users directly and trying to sell those users additional services such as call waiting.

The critical idea is that the people who really want to take the cost and latency out of dealing with customers are businesses. But voice communications products are not built for the complex needs of businesses. For example, a simple and useful thing, like being able to directly deposit a voicemail message which can later expire at a predetermined time when the message is no longer relevant, is not possible.

What we are looking at is first of all how to apply the full range of network capabilities we have in BT's network to make our own customer service more efficient and effective. We are at the very beginning of his journey. Right now we are running workshops to identify business processes that are feasible for pilot schemes.

COOK Report: In other words you are identifying what could be the processes within the open platform that you should build?

Geddes: Correct, but before looking at the platform technology enablers, I think we first need to understand the business model and the busi-

ness context into which it fits.

There are all kinds of network enablers - things like presence, location, call pattern history, call plan types - you know you can let your imagination run wild trying to integrate the different modalities of communication. There is no shortage of technology or opportunity. The question is how does this fit into a grand business plan?

What I do see is that Ribbit, for example, is a toolkit for embedding communications capabilities into applications, into business processes. Moreover it provides a toolkit that does not require someone to understand SS7 and IMS and 100 other obscure telecom protocols. Rather, Ribbit democratizes communications capabilities for the mass developer audience. In other words, Ribbit is a tool for turning standardized APIs into communications services with an easily-designed and -built user interface that enables you to build valuable voice services and user experiences around those complex backend voice network capabilities.

COOK Report: And who would do this? Would it be a developer group at BT, other non-BT developers   or the business client itself?

Geddes: It could and should

be the latter two as well as BT. Ribbit is not directly tied to any BT network or single set of network assets. Ribbit is a platform that has a 'bring your own network' philosophy. You can buy minutes and messages from Ribbit directly or get them from someone else, another carrier.   It is a pure software platform. The capabilities Ribbit exposes are those of the standard SS7 for telephony or SMS. But what you cannot do is access the full richness of capabilities and call data records that operators actually have gained through their interactions with their customers.

I think the missing link is to build a platform that supports the communications enabled business processes for automated interaction and contact with customers that can directly tap into the full richness of the underlying telco network.

COOK Report: To do this are you going to have to expand the capabilities of Ribbit?

Geddes: Ribbit is one way to do this but ultimately there will be others.   We need a platform that will expand on the capabilities of the PSTN and SMS and Voicemail and MMS and email to offer a rich suite of interaction capabilities for customers.

Now the big thing that can make this happen is cloud services. Every telco is going to have to confront how to rethink its business model in the context of the cloud. Here the differentiator will be the ability to integrate the network and the computing and storage elements into a package with service level guarantees that can be offered to large enterprises.

The problem is that the infrastructure layer is not where the money is likely to be in the long run.   If you do regard it in that way, you will only ever see a scale-based business and that will be one in which companies like Amazon and Google will have an advantage over national-based telcos.

COOK Report: So if you play at the infrastructure-based level, the advantages are with Amazon and Google. But if you don't play there then you can play at the service level and offer the business process services that you were talking about?

Geddes: Right, and therefore a telco, rather than being focused solely on an operational excellence business model, will need to operate on a customer intimacy business model and to deliver the complete wrapped-up, end-to-end suite of services a

customer needs. This goal may mean aggregating services and infrastructure from multiple suppliers. This might mean moving to a federated cloud, where we can integrate BT assets with Amazon assets with private cloud assets and in doing so get the right combination of security, cost and performance that the customer needs.

But the lesson from history is that even this is not enough. If you look at another industry like container shipping, it wasn't the transport part alone that was revolutionary but rather the supply chain management part combined with the transport element. Maersk is the winner in the container shipping game because it has other services to offer on top of the underlying transport and distribution layer.   As a result of the breadth of their capability, Maersk were able to price basic transport at a level that put out of business other competitors who didn't have those higher levels of capability on offer.

I think that the critical value-added services that are needed on top of the underlying cloud infrastructure are things like advertising, billing and payment and I think that communications as a service has to include such things. This is something that every business needs but it is something that today is rid-

dled with friction and inefficiency.

COOK Report: Is this a plug-in to Doc Searls' Vendor Relationship Management? Has he been spending time in London?

Six Generic Steps in the Customer Relations Life Cycle

Geddes: Yes, all this is related to VRM. Every business in the world has to go through six generic steps in its customer relations life cycle. You identify and authenticate your customer. You market to your customer and this includes advertising. You sell to your customer including e-commerce. You fulfill the order either online or offline. You do billing and payment, and you do customer service.

Now VRM is about changing the balance of power between vendor and customer especially in the buying (e-commerce) phase. VRM focuses on the customer data that is generated from the marketing and e-commerce parts of the customer lifecycle, and empowering the user to access and control their own data, and express their needs. What I am looking at is further down in the chain, the customer service and sales support in the far end. I think the vision for VRM is

actually too narrow and, rather than being only about what a customer buys, it should be more about how a supplier contacts and interacts with that customer as an end user, as a whole, across the whole lifecycle.

COOK Report: And you do it in such a way that you offer the end user tools that he or she can use to get what they want out of the business process?

Geddes: Yes. I think there are two things that need to be done. One is to develop the communications platform to better serve the needs of enterprises who want to contact their customers so that the customer is empowered to take control over how their suppliers deal with them. This is only to the extent that the customers want to have this happen, of course. Some customers will want to have a lot of control, and others won't want any.

It is in the interests of the enterprise for a customer to be empowered because what enterprise would want to spend time and effort chasing the customer on a communications channel which the customer was not using?

The value then is not just in being able to connect with the customer in raw voice minutes or data megabytes, but rather being able to in-

teract and transact with that customer as a partner in facilitating the customer's business process. To go back to the underlying philosophy here of the end-to-end principle of networks, we find that when you can allow the end-to-end principle to be preserved in the underlying transport area as well as in the basic PSTN tools, you can move upwards in the business model and show the customer how you can make business processes more efficient But above all we should combine the tools that are out there to solve this problem. It doesn't matter whether they are vertically integrated or not, as long as the applications can be adapted to solve the needs of customer contact.

COOK Report: You can probably then show your potential customers that even though this platform service will cost you X number of pounds per month, you can obtain X. plus Y. cost savings from using it and therefore it is to your business advantage to put it into use.

Geddes: **Exactly. And it is much easier to sell cost savings than it is to sell some nebulous revenue opportunity.**

So this is the general path on which I am trying to get the company to embark. **The challenge is that the or-**

ganizational structure and business aims are still very much aligned with 'traditional' telco triple play and non-platform business models.

Platform Revenue Figures?

COOK Report: This leads into some other questions that I have been trying to articulate and I wonder if there are any forecast revenue figures around for this new model? And for these kind of services?

Geddes: This is what we spend a lot of time analyzing - namely what in monetary terms does the opportunity looked like? **I think there is a good opportunity for telcos to take friction out of the business processes that are universal across all industries (CRM, customer post-sales support, for example) rather than trying to build vertically integrated entertainment or productivity solutions.**

COOK Report: It sounds like this is a case where you almost have to start from scratch. It's really a different platform as you put it that one needs to build. Because this platform never existed in past it is hard to show what it can do for the bottom line. So is it a leap of faith?

Geddes: No, because there are already plenty of examples of using this multisided market theory to generate revenues in telecoms and similar sectors. **I tend to illustrate this with a simple model of connect, interact and transact.**

What most telecoms services do is merely connect people. The interaction layer is about getting the right people together using the right medium and the right message. And 'transact' is how you complete a particular process.

COOK Report: If you are going to do this, I can imagine how you might have to tier your services. Maybe just the plain twisted pair and then gold silver and bronze, for consumer end-users, small businesses and enterprises for example, each ascending level of service being more expensive and each offering more capabilities?

Geddes: No, and this is part of the mindset change required. It is not about selling gold, silver and bronze levels of service to end-users. With these new platforms what you have to do is reward end users for opting in and sharing some of their private data. Someone else is paying.

COOK Report: Is the assumption then that it will be

Enterprises that will be sharing most economic costs of these platforms?

Geddes: Yes, this is exactly the assumption – and of course there are precedents for this already: 800 (freephone) numbers were a tremendous success when they were first launched, an example of this kind of innovation at the connect layer. Termination fees have been around forever in the telecom industry. Both are examples of how you create forms of multisided markets, between enterprises and customers, or between callers and callees.

Historically telco pricing policies have put the burden on to enterprises, rather than consumer end user customers. What we are doing is continuing the pattern that already existed, but moving up a layer or two in the stack as we do so. The value is in the signaling and the customer data rather than in the minutes. *Which of my customers whom I want to contact are available right now?* It is in getting the right people together at the right time in the rendezvous process in order to complete a transaction.

Ultimately the Competition is Companies like Google – Not Other Telcos

COOK Report: Can you say anything about the general amount of revenues that the business and enterprise customers could wind up providing BT as opposed to the amount provided by the users that are the ultimate consumers of these services?

Geddes: Yes and I think the answer is a bit surprising. In the long run who are we competing against? We are competing against companies like Google, who charge end users nothing. Companies like Google monetize the time and attention of end-users by servicing the needs of the upstream enterprise customers who want to interact and transact with them. Google's business model is today only focused on advertising, with little forays into things like Google checkout for payments.

Now in Google's model, no revenue comes from providing services (for example - search) to end-users. Google is focused on creating a global platform on a massive scale and monetizing the service with revenue from relatively price insensitive advertisers. Once you and I have chosen Google as our search engine, advertisers have no choice but to go through Google to reach us. This is rather like termination fees in telecoms – your telco has to pay my telco for you to call me – but unlike termination fees, Google fees are unregulated.

As an aside, before you saw Google maps being launched in the US, mobile operators thought there would be money to be made in location-based and in mapping services. But these plans disappeared because Google maps was so much better than anything the mobile operators could've come up with on their own.

COOK Report: So in part what you are saying to someone who wants some grasp of what this future might look like with regard to what you are doing at BT Innovate & Design, it would be, to make a vague analogy, to create some of the kinds of services that Google has been creating?

Geddes: Absolutely. And note that from Google's point of view the revenue stream that they are getting – although it is huge – is only from advertising. Sure, they have taken a huge amount of inefficiency out of the advertising process and have been very well rewarded for what they've done. But advertising and marketing is only one part of the six part relationship between business and its customers.

The places where IT-centered organizations are strong is in advertising, e-commerce and order fulfillment. Where tel-

cos are strong are in identity, billing and payments and customer service.

So yes, you could say that Google is a threat to us. **But the biggest threat to us would be if we did nothing and Google started offering free voice and free broadband, with no sales and marketing and billing costs. Users pay in terms of their private personal data and usage records (as with Google search) rather than in money. Doing so would strip away the core of the triple play business model with the Telcos having been unable to set themselves up to execute the next round.**

COOK Report: **Because if telcos themselves don't do what you are describing for their business customers, then all those potential customers will be sitting there wide open to whatever Google might offer?**

Geddes: Yes. Once people adopted Google Voice and Google Voice became a very efficient way for enterprises to get a hold of their customer, and offered very enterprise-friendly features for doing so, then the telecoms industry would be in a real struggle. Remember that 70-80% of global telco revenue still comes from

voice telephony.

If that voice communications product starts to be given away because it has close to zero marginal costs, that is scary.

COOK Report: It seems that BT Innovate & Design has a very fascinating vision. Now what can you say about how you interact with the rest of BT and the rest of the world at large?

Interaction with the Rest of BT

Geddes: I interact on a day-to-day basis with the people that run the strategy departments in all of our other lines of business. In doing this, my objective is to help educate BT people about the nature of the new opportunity.

COOK Report: So within BT your object is to educate other people and sell these ideas?

Geddes: Yes. The imperative for me is business model innovation. For example just before this interview I was in a workshop on applying multisided market theory to the BT Retail organization.

What the merger of BT Innovate with BT Design does it is to place the technology innovation strategies right in

amongst the people who have to run the commercial platforms and offer actual products and services to our customers.

The challenge for us has historically been programs like "right first time" to reduce the level of defects and failure in our basic sales, delivery, fault management and product design processes. This continues to be important. We are also currently heavily focused on reducing 'people intensity' with our core processes and increasing productivity.

Now we are also focused on an (internal) Software Development Kit of software and service components and capabilities that will help us design new systems, products and services quicker, and in a way that also lowers defect rates.

So we have this maturing set of foundation systems, networks and OSS/BSS platforms. Our next challenge is BT Innovate & Design can become a better partner with each of our lines of business in terms of their own commercial and operational objectives. So rather than how many dollars worth of software can we bill from this IT subsidiary, it's how can we enable cash from our end customers to be collected more quickly? If the cus-

tomer hasn't paid their bill why should they not pick up the handset and instead of hearing dial town hear something like "this line is within x days of being cut off for non-payment of the bill. If you would like to be connected to a representative to discuss this matter, press one now."? That kind of innovation requires us to offer sophisticated converged business process management services to our lines of business.

COOK Report: What are the opportunities now for the people in the enterprise business units that market services in competition with companies like France Telecom or Deutsche Telekom or Verizon for example? Can your folks who market service programs to enterprises who are now your customers say to them: "look let's sit down to the kind of tools that we can make and then put your hands that will help you to maintain your customer base and make sales to other enterprises served by the less innovative carriers."

Needed a Cooperative Eco-System

Geddes: Yes. Look at what BT already does as the "Telco's telco". For example, BT Wholesale does the backhaul for UK mobile operators. CaaS is a new suite of network services targeted at

customer interaction. We can use our relationships with global carriers and existing transaction networks to aggregate these network capabilities – presence, location, voicemail, customer data, etc. These enablers are necessary to make customer contact more efficient and effective. We can then package the enablers in a service that embeds them into business processes like automated bill payment reminders. These business process services can then be offered to enterprises through Global Services and BT Business, as well as channel partners.

The goal is the creation of an ecosystem where BT does not try to own and operate and control the entire network service environment, but rather where BT brings together the capabilities that others need to solve their business problems.

COOK Report: I like this. Can you expand a bit on what you mean by the ecosystem terminology?

Geddes: Sure. Let's take an example that says enterprises would like to be able to leave voicemail messages for their customers as part of their sales or customer service functions. Today the user might receive a voice message that says "please call us back on the phone number

800 123 4567" and on calling back the customer finds the call center is closed. In future, these voice mail messages might actually be Voice XML documents that have an IVR message embedded in them. The customer could get a voicemail message requesting some basic credit card details in order to keep their account active, and where the customer can enter the necessary digits right into the IVR there on the voicemail system. No human contact required.

Now, lots of telcos will have bought voicemail systems from Converse but for this scenario to happen there is currently no API that permits you to deposit Voice XML documents into those systems. But suppose we partner with Converse to make that possible and where potentially Converse would not need to directly charge telcos using their voicemail system for that capability. The money comes from enterprises using BT's ecosystem to reach their customers, and BT would pay Converse. Some of the revenue could be shared with those telcos too.

So BT would have relationships with various distribution partners, one of which might be BT Global Services. Or they could be IBM, Accenture and Avaya. We might play an aggregator role or be an enabler in such an ecosystem.

We would not – and could not expect to – own the whole thing. Furthermore we may find that we have to compete against other ecosystem operators in the same general arena – such as Google.

COOK Report: I remember that in your talk in March that you said that a lot of players in this market need to cooperate with each other in building the tools that will transform voice service delivery in such a way that enterprise users and upstream customers will benefit.

Geddes: Absolutely. What I do is represent BT externally and promote these ideas by going to conferences where I encourage entrepreneurs to climb on board the effort. A lot of what's needed is an educational process and it will take a long time between sowing the seeds and reaping the harvest.

COOK Report: Shifting topics somewhat and more towards the more traditional parts of the company outside of BT Innovate & Design, how we shall explain what is going on when the company does something like the use of Phorm in tracking what its customers?

Geddes: The Phorm trial was about business model innovation. It was about taking pain and friction out of a common business process (advertising insertion), and servicing the needs of 'upstream' customers (advertisers). The retail telco (BT in this case) has a lot of knowledge about the end-user. The lesson from Phorm is that for us to use this data there has to be first value to the end user: second, transparency so the user understands what is happening to their data, and third rewards for participating.

Communications as a Service is analogous: using network capabilities and user data to enhance customer contact, rather than advertising insertion. The value to the end user is clearer than with advertising: less frustration in dealing with enterprises.

COOK Report: Is BT Innovate and Design trying to educate everyone involved in these transactions what the norms and expectations of behavior are?

Geddes: The task of the new BT Innovate & Design organization is about how to help the company address these new business model opportunities and be more than simply a supplier of technology strategy and technology research. We now have the ability to advise and counsel our business sales units in such a way that they can demonstrate to their actual and potential customers a better understanding of the benefits that these new approaches can offer them.

There are a lot of activities going on already in a company like BT that are already highlighting these new business models around multisided markets.   BT has BT Tradespace as an e-commerce platform. We have Ribbit. We have UrU as an identity service. [http://www.bttradespace.com/ www.ribbit.com http://www.uru.co.uk/] These are not all very new, but they illustrate the bigger picture that is starting to emerge.

So What Exactly is BT?

COOK Report: For outsiders who are trying to comprehend it, how might one conclude what this BT animal is?

You are a Telco, and one that's doing probably a much better job of modernizing than its traditional competitors. This type of thing is not coming out of the American incumbents nor out of KPN nor France Telecom and certainly not out of Deutsche Telekom.

Geddes: **To understand BT is necessary to understand the forces acting upon us. First of all we are not burdened by the need to amortize licensed spectrum – but also don't**

benefit directly from the barriers to entry such spectrum provides. Secondly the local loop is in the hands of Openreach. An 'equivalence' regulatory regime to ensure that the rest of BT does not have an unfair advantage compared to rival service providers. Therefore the rest of BT (other than Openreach) does not have exclusive control or a duopoly position over the access bottleneck. Almost every other incumbent telco in the world does have a bottleneck – fixed or wireless or both – that they can monetize at the retail services level. Consequently we have to look elsewhere to differentiate ourselves and make a profit.

Our clearly stated goal is to be #1 for customer service. Communications as a Service is an enabler for that.   We strive to reach high levels of automation in customer contact - for example allowing the expiration of a voice mail when it is no longer relevant to the customer situation. Ensuring that the customer is able to specify which channels of communication he or she prefers. Enabling the customer to change those channels with ease....... etc.

Once we accomplish this we can focus human resources on creating real differentia-

tion and benefit. The lessons from saving costs internally can then be turned into a revenue opportunity, so every business benefits from the highest possible level of automated customer contact using the most advanced technology enablers.

COOK Report: These conditions should make the rest of the company more receptive to what BT Innovate & Design is saying?

Geddes: Absolutely. So with Global Services we can be a 'digital logistics' business where we integrate BT assets and third-party network assets and add IT services on top of that integration in order to deliver services to enterprises.   We are a hybrid telco-IT company, and our challenge is to figure out how to integrate business models from the IT world into the facilities-based telecoms sphere and to do that intelligently.

The past was about creating vertically integrated end-to-end services to completely manage a customer, with telephony, SMS and IPTV being best examples. The future is about becoming the keystone in an ecosystem. This requires us to have the best platform for doing business, not just the best products.

A Postscript on 21 CN

I wanted to get a more focused picture on the role

played by the famed BT 21 CN all IP network and asked Joe Kelly, Director of Communication for BT Wholesale, the arm of BT that looks after the needs of other Communications Providers from a sales, marketing and service perspective, for a summary. Joe wrote: "The vision that Martin Geddes paints for the future was partially (but clearly not fully) understood when BT announced its plans to build 21CN in 2004. 21CN was designed to provide the underlying infrastructure to support software driven services, effectively services created as applications, and to have the flexibility to allow other communications providers not only to access the new capabilities 21CN would deliver but to influence how this would happen too."

"As a result, BT created Consult21, a programme of interaction and discussion between BT and other UK communications providers (CPs) to ensure that what BT developed, insofar as this was possible given often conflicting requirements, met with the evolving needs of other CPs."

Googling for 21 Consult I found   "What is 21CN and Consult 21?"   The page includes a downloadable 21 CN overview.
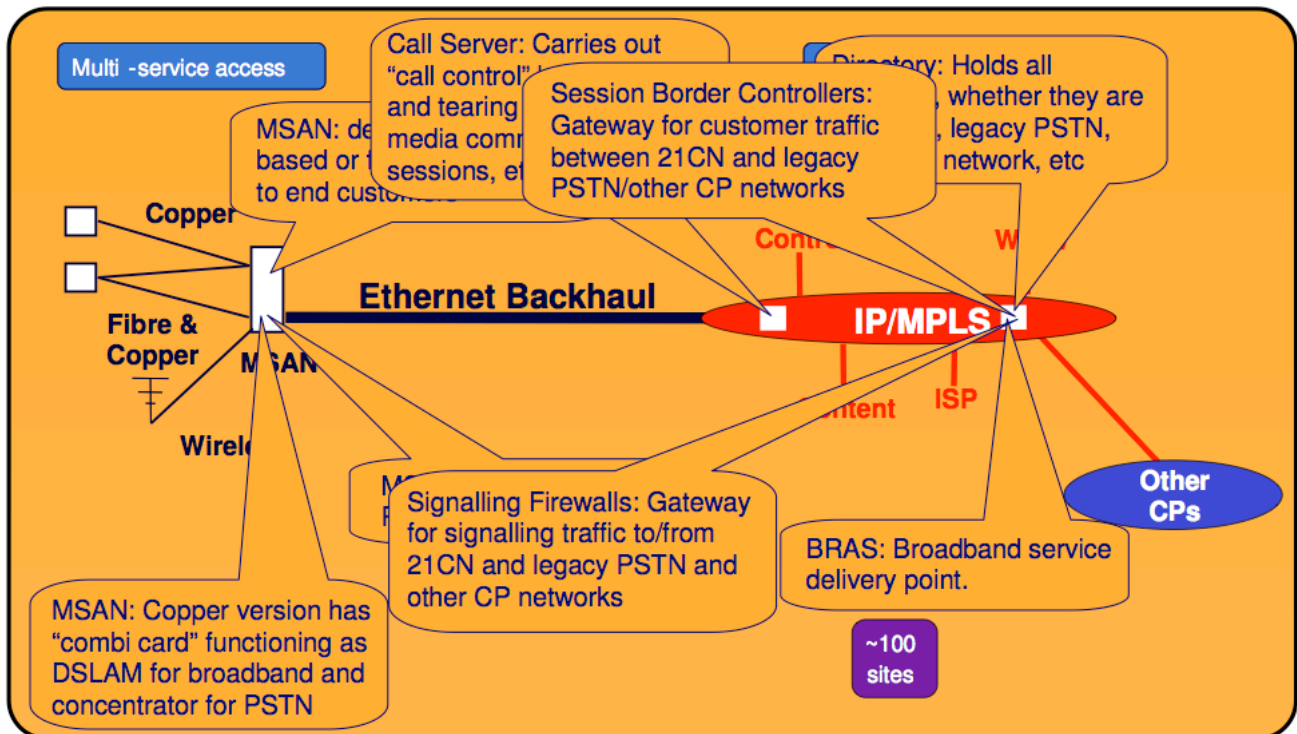http://www.btwholesale.com/pages/static/Community/21_Century_Network_Community/What_is_21_CN.html

21CN evolution
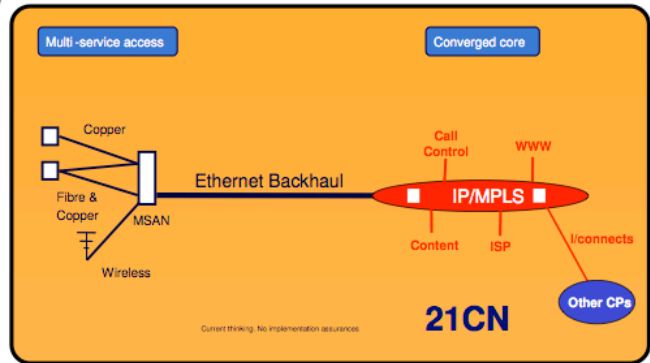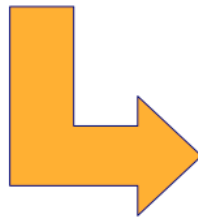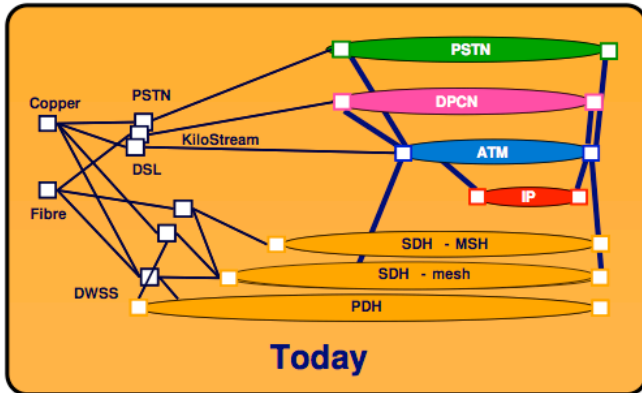
Massive network simplification

21CN network architecture

Software-expandable services

21CN in short provides a common infrastructure foundation for the service creation capabilities described by Martin in his interview. As Joe said: "It's not impossible to offer the services over a TDM infrastructure, but it's more expensive and can be slower to achieve in the longer term. Communications as a service is service or connectivity type agnostic (so irrelevant whether the end user wants to use voice or broadband, fixed or mobile to access the service, for example) which can be more difficult and more costly to achieve across multiple platforms as opposed to across a single IP

platform layer. That's one of the key benefits of an all IP approach, and a key part of the logic behind 21CN."

A Note from Tim Cowen on the History and Reach of BT Global Services

Editor's Note: Tim Cowen was General Counsel and Commercial Director from 2000-2009. Prior to that he as Chief Counsel Competition law and Public Policy advising on group-wide competition and regulatory matters. He is currently Visiting Professor at City University School of Law in London & Visiting Fellow of the British Institute of International and

Comparative law. He is also setting up a think tank dealing with legal issues for the IT/Telecoms sector, with the working title of "The Open Computing Alliance". He is looking at a range of issues that affect the development of the IT and telecoms sector, with particular reference to Cloud Computing and at the effect and benefits of regulatory interventions in these markets.

In response to my question: "Now my understanding of what BT Innovate and Design is doing is developing open ended platform services to provide BT enterprise customers with tailor-made, business life cycle, productivity improvements. In other words

business processes that will not be free but will be more cost effective for BT customers than anything they could do for themselves or get elsewhere on the market.

These business process platforms can be provisioned by BT Global Services to enterprise customers in any of the more than 150 nations in which the 21 CN IP network enables global services to do business. Bottom line is that if AT&T doesn't wake up it could loose many of its enterprise customers to BT global services?"

On August 21, Tim wrote: As a matter of public record it may be interesting for you and those on the list to recall that the global platform goes back over 20 years and its development through all the waves of technological change, has been driven by customer requirements. To this extent it has been funded by customer requirements and is the opposite of "we will build it they will come" or "Field of Dreams" approach. Substantial traffic originates and terminates in each country and a proportion is trans-border. As an integrated worldwide "thing", including the UK, how it is accounted for is a matter for others to argue about.

When I joined BT in the early 1990's, in addition to the UK business, BT had a coast to coast US data network, sec-

ond only to Sprint. That had been built out by others and acquired by BT during the 1980s. Outsourcing allowed this to be built while being driven by customer revenues. One of the earliest deals was BT's outsource deal with McDonnell Douglas in 1989, which gave BT an overlay data network accross many countries.

Originally called the GMP, or global managed platform, from a regulatory perspective it took advantage of the exemption from regulation by being a Value Added Data service or a Value Added Network or Private Voice or Information Service, depending on which national regulatory regime you were looking at. I joined BT from private practice, and after doing the regulatory advice that said such a worldwide offering was legally feasible, was given the job of getting the clearances and making it happen.

The platform was expanded through a series of on-off deals, for example the original Concert deal with MCI expanded the platform and up-graded its capability such that public international voice was added to data (and the deal helped drive deregulation of international voice).

With the Worldcom acquisition of MCI, we unwound the BT/MCI Concert deal and got the non-US platform back, while MCI became a distributor for

the US. At that stage BT had a thin US platform.

When the AT+T/BT Concert deal was done, Concert, and the global platform, was strengthened and both BT and AT+T contributed submarine cable assets and public voice services were provided over the platform. In the late 1990s, the platform was upgraded and became MPLS based. The AT+T/BT deal famously went south when AT+T did its deal with IBM (for the SNA based IBM global platform), which was incompatible with the Concert deal, and I unwound the Concert deal and BT secured all of Concert's business and its worldwide platform, substantially upgraded and with AT+T at the US end.

The Concert unwind with AT+T took until 2002-3 to complete and was followed by BT creating Global Services and taking on the worldwide network under Andy Green, through outsourcing Unilever's network, and most significantly, the acquisition of Reuters' worldwide network and the Radiance business, itself a substantial platform for the financial services sector worldwide. Finally, I think the most significant addition to the platform recently was the acquisition of Infonet and its worldwide private network. After the purchase of Comsat, with its mutliple city fibre rings in Latin America, the coverage is about 175 countries worldwide.

I have outlined the above because this was all happening based on a vision of an integrated worldwide platform serving the needs of increasingly 'globalised' multinational customers. This vision of an integrated suite of services capable of being provided everywhere was held back by regulation which prevented a full suite of services being offered everywhere. However, partly through my team's lobbying efforts, and partly through upgrading to meet customer requirements, the capability of the platform was gradually upgraded and broadened.

Originally it was a leased lines network based on X25, then Frame Relay then ATM and later MPLS being at the core of the network. With public international voice being de-regulated that went over the platform and it was then built as a carrier for VOIP, meeting the International Virtual Private Network needs of multinationals.

The worldwide platform was in many ways ahead of the domestic UK business and the need for integration helped push Andy Green to make the case for Design and Operate. Important to know that Andy had been head of strategy in BT from the mid 1990s and recruited people such as Roel Louwhoff (ex Accenture) and George Nazi (ex Level 3), as well as JP Ragaswami and Al

Norr Ramji from CTO positions in other carriers and banks. They are now running Design and Operate, or at least were until very recently.

These guys had started by building the worldwide platform for Global Services, have since been given the responsibility of building it out in the UK and integrating it together with the worldwide platform. JP Ragaswami and I served on the same Global Services board together and it may be important to realise that the Design and Operate teams are worldwide organizations, they are not just a UK based.

One piece of the regulatory jigsaw was the creation of Openreach, which allowed all the upstream (legacy) access to be managed in one place, while the downstream platform could be integrated to meet customer requirements. You may have seen a deal announced in the press this week getting Carillion to run Openreach's basic UK access network. JP might be encouraged to add to the above picture from his perspective lurking on the list; I hope this provokes him to respond.

To your question below, I would have thought enterprise customer revenues, given they are on longer term contracts than consumer revenues, would be more resilient than consumer. Also, revenues in India and other

parts of the world are likely to be up and in line with GDP growth. It would make sense for AT+T to be down in line with the US market as a whole though. Whether that is an opportunity for BT or anyone else, when AT+T and Verizon can control and leverage local access, both from a price and service quality perspective, is, I think, moot. Even with a fantastic BT global platform, local US access would be a major impediment.

I have seen recent reports in the IT sector, from Gartner and others, suggesting that decisions on further IT network upgrades are being delayed, as a way of conserving cash and cost controls, but in general, across all sectors of the market I don't follow why existing business revenues should be down more than consumer; is this a rate of expansion reduction or an actual fall out of line with the consumer market?

It may reflect falling activity in sectors such as financial services, which would make sense given what has happened there. I can readily appreciate that comms revenues tend to go up and down with GDP but it would be interesting if consumer (and presumably mobile?) spending is ahead of general business worldwide on all sectors. Is there evidence of this?

Kevin Marks Joins BT via Ribbit

JP's talent shopping continued with an August 6 press release that Kevin Marks **has joined as Vice President of Web Services, reporting to [JP Rangaswami](), Managing Director of Service Design. Kevin will be focused on open communications and the "open web", working with the [Ribbit]() team at our headquarters here in Mountain View.**

http://www.ribbit.com/blog/welcome-kevin-marks-to-btribbit/

"At Google, Marks was best known as "developer advocate" for OpenSocial, the company's effort to bring an open standard to social media platforms (in many ways, its response to Facebook's massive success in the area). Marks also promoted OAuth, Open ID and Portable Contacts, all efforts to for open, Web-based standards around the key areas of authentication and identity.

While the telecom industry has its own efforts in this area – centered around the core value of the telephone number or, in the IP world, SIP identifiers – bringing together the Web and telecom worlds in these areas would pay big dividends for users and open up many new kinds of applications, said Marks.

Telecom and the Web "have kind of been approaching the same ideas but from opposite directions," Marks said. "The real-time Web is just becoming a reality, while obviously telephony has always been real-time. With the Web, you are much more able to create a history of transactions and spread things over time, rather than have to respond to things immediately. These ideas are starting to converge."

Some ideas already being enabled by the open social concepts Marks has backed include more portable address book directories and the idea of activity streams, which drive Web properties like Twitter and Facebook. It's "an important opportunity" to bring those idea further into the realm of telecom, he contended.

According to Marks, the success of Web standards like Open ID has been that they were built quickly and out in the open. That "agile development model" for Web standards stands in contrast to telecom standards, which are usually more formal and consensus-driven, requiring much more time to grow into something useful, he said.

"There's a different model for standards definition on the Web that has been very successful and has the potential to move into other industries as well," he said. Overall, Marks lauded the vision of Rangaswami and other BT executives who are underpinning their network strategies on IP protocols and are now actively working to bring application-level expertise into the company to further drive their IP strategy." http://telephonyonline.com/service_delivery/news/google-marks-ribbit-0810/

Kevin: "**Connecting the mobile and web worlds through an open platform, and making sense of them through social software and open initiatives is an exciting prospect. I look forward to working with BT and Ribbit to help further their vision of open global communications.**" http://www.ribbit.com/blog/welcome-kevin-marks-to-btribbit/

Symposium Discussion - July 17 - August 17, 2009

FTTH Versus Cable - Thoughts on the Strategic Direction

Goldstein on July 17: A few comments on this thread in general...

Cable is evolving closer towards FTTH, with fewer and fewer homes per node. This still leaves a little coax, simplifying the CPE, but it's pretty clear that FTTH is the end state, and already reasonable on a greenfield build. Today's HFC architecture has no coax amplifiers ("node+0") so the ones who still play with amps are obsolete (the classic John Malone style).

Video can be carried two ways. The cable guys are probably leaning towards RFoG, which is basically HFC analog glass extended to the home (think FiOS). IPTV in contrast pleases the IP bigots, and is becoming practical even for linear channels. I have one client about to do a fairly sizable overbuild using IPTV over FTTH, their own architecture. Once you have a gigabit to play with, you can put a lot of linear channels onto it in broadcast mode and not have to do Switched Digital Video except for "on demand" programming. But unlike RFoG, this does require cable boxes at every set.

Rood: This is already a station passed. TV-set manufacturers have started selling their big screens with integrated Ethernet and WiFi doing Over-the-top delay TV and other on-demand programming. Settop boxes are on their way out and are mainly today's interim solution to hook up the old TV-sets.

Goldstein: Fortunately, the boxes are cheap.

Rood: And thus cheap enough to integrate with the more expensive screen.

Goldstein: Upstream is a much bigger problem in the US than in Europe. Our cable has upstream to 42 MHz, downstream from 54. This is a legacy from an old FCC rule (probably obsolete in the DTV era) that a TV station could demand to be carried "on channel", and since Channel 2 is 54-60 MHz, that had to be downstream. Plus, who needed much upstream 15 years ago? (Yeah, I know.) EuroDOCSIS has up to 68 MHz for upstream, so it can

live a lot longer, or handle more homes/node. That's effectively more than twice as much (68-20 vs. 42-20).

Rood: With fibre in HFC moving closer to the curb, ingress noise levels go down and separation improves, which allows even to clean up and free up from 5 MHz or even lower. The typical European upstream HFC in a retrofited HFC runs from 5 MHz to about 65 - 70 MHz (above that you cannot deploy well, as the filters needed to separate FM downstream from upstream also create a phase-shift which crunches digital QPSK-QAM-coding of the upstream channel near the filter.

Most cable operators in Europe also did deploy VHF I channels 2 and 4 for TV, but they vacated them in the last decade to free them up for upstream. In some older not yet retrofited CATV-networks in the Netherlands you still encounter the same limits as in the USA (e.g. upstream stops at 42 MHz), but that is a management decision of the MSO and not a regulatory feature.

Goldstein: Cable and ILEC are separate because they used to be incompatible technologies. The FCC presciently prohibited ILECs from owning cable in urban markets, thus allowing a duopoly instead of monopoly. But FTTH can do both. The correct approach is to have a neutral LoopCo pull wholesale FTTH and let any service provider use it -- cable, ISP or telephone. The aggregated demand would finance it much faster than the demand of either telco or cable. I think this is what the Ozzies have figured out. It is still totally outside of the realm of policy-maker thinking in Washington, though I'd like to think that the new FCC could at least begin to get it.

Tim Poulus: Paul Budde has written a very eloquent piece on the FTTH/HFC debate.

Editor: Here are the beginnings of Paul's comment referenced by Tim. "I recently followed an interesting international discussion on FttH vs. cable. With the fiber to the home (FttH) debate hotting up, driven by the possibility of using FttH as the new infrastructure for the digital economy, the cable companies are putting up a stiff fight, both in Europe (Netherlands) and the USA, claiming FttH is not necessary, and that DOCSIS 3.0 can do the job just as well."

"In these debates the longer-term national interest is often disregarded. The debate is confined to the technology—what it can and cannot do—and it also concentrates on a rather short-term timeframe, say of the next five years."

Poulus: I have been talking to a number of cable execs myself recently, and my attempt at The Truth is something like this: **The Medium.** In general, the shortcomings of HFC networks include limited downstream (where Docsis and other technologies help out), even more limited upstream (where channel bonding options are more limited), the medium itself (which is much less 'transparent' for signals than fiber, which is why HFC operators need several amplifiers in their access networks) and the fact that it is a shared access network (just like wireless). **The Upgrades**. HCF operators have a choice of many technologies and techniques (I counted 14!) to upgrade their networks. The trouble is, some do not apply for practical reasons, some are still embryonic and others may prove costly. **End-game.** Even if HFC operators manage to do node splits to 1 per 20 homes and fiber deep to reduce the access network to 50 meters, expand the spectrum to 3,000 GHz and apply 256-QAM, questions remain: how much does it cost, and is it

enough? **Access network.** In the above case, a 50 meter access network could in practice not be too different from an in-home network based on copper or coax in most FTTH networks. **Non-linear video.** The big threat is a migration away from linear TV to non-linear HD video, in both the uplink and the downlink. Here it is important to note that people tend to overestimate the short-term and underestimate the long-term. In other words: yes, upgrading will allow HFC operators to compete for several years; and no, it may not be enough and a full FTTH migration may be necessary.

http://telcommunicator.blogspot.com/2009/07/ftth-versus-hfc-short-and-long-term.html

Budde: Thanks, Tim much appreciated.

You can also directly link to my site - then I get the hits J http://www.buddeblog.com.au/the-ftth-versus-cable-debate-misses-the-point/ And while you're at my site. I mentioned to you that last week our Minister for Broadband and the Digital Economy launched the Australian government's report on the Digital Economy and here are my comments, I think they do have a universal appeal. http://www.buddeblog.com.au/kick-starting-the-digital-economy/

Two New Papers from Carlota Perez

COOK Report: - and meanwhile

Hi Gordon. Nice to hear from you. No book yet (too much other work) but there two new articles on-line.

One is in Open Democracy, a web based magazine http://www.opendemocracy.net/article/economics/email/how-to-make-economic-crisis-creative They have a problem with the version to print and the pdf so I am attaching it.

The other in the *Cambridge Journal of Economics*. It is available from my website and: Revised version in the journal (for subscribers or paying) http://cje.oxfordjournals.org/cgi/content/abstract/33/4/779 A version before the final revision (free download) is CERF WORKING PAPER No. 31 http://www-cfap.jbs.cam.ac.uk/publications.php?category=4 But do send me anything you publish or discuss in relation to my work. Best wishes, Carlota

Does the Meltdown Create an Opportunity for Real Change as Opposed to Obama's Business as Usual?

Here is the final paragraph in Carlotta's open democracy piece:

"Ultimately, the length and depth of the global recession (perhaps depression) will depend, not on the financial rescue packages but, to a much greater extent, on whether the wider measures taken are capable of moving the world economy towards a viable investment route with high innovation potential. The technological transformation that occurred during the past few decades has already provided the means for unleashing a sustainable global golden age. The environmental threats offer an explicit directionality for using that creative potential across the globe in a viable manner. *The major financial collapse has generated the political conditions to take full advantage of this unparalleled opportunity. It is everybody's responsibility to make sure this possibility is not missed."*

COOK Report: Someone needs to sit President Obama down and read this to him until he gets it.

Erik Cecil Explains Why Getting the Broadband Stimulus Right is of Major Importance

Savage: I think on this one [the actions of NTIA I more or less line up with Bob Atkinson. Federal policy makers have a lot of stuff on their plates right now, and the various issues and opportunities that those of us who live and breath bits and connectivity are just not going to be as salient to them as they are to us. Nobody is storming any barricades over lack of FTTH, and nobody will be any time soon.

Cecil: This is addressed to the zeitgeist of DC Politics and politics as normal, not you personally, but hearing echoes of the DC Zeitgeist in your words, then let these tiny little arrows prick your soul and consciousness stirring them to greater things.

Lincoln said it best, albeit in another context (modified slightly here for continuity of context):

"If we could first know where we are, and whither we are tending, we could better judge what to do, and how to do it. We are now far into the thirteenth year since a policy was initiated with the avowed object, and confident prom-

ise, of putting an end to monopoly. Under the operation of that policy, that agitation has not only not ceased, but has constantly augmented. In my opinion, it will not cease, until a crisis shall have been reached and passed. "A house divided against itself cannot stand." I believe this Internet cannot endure permanently half incumbent and half competitive. I do not expect the Internet to be dissolved -- I do not expect the house to fall -- but I do expect it will cease to be divided. It will become all one thing, or all the other.

Either the opponents of monopoly control will arrest the further spread of it, and place it where the public mind shall rest in the belief that it is in the course of ultimate extinction; or its advocates will push it forward, till it shall become alike lawful in all the States, old as well as new -- Network layer as well as Software. Here's the real thing.
http://www.historyplace.com/lincoln/divided.htm

Lincoln's real enemy was incrementalism, not slavery. Slavery was the manifesta-

tion (and evil one at that); but incrementalism was the means whose effects are far subtler and vastly more powerful precisely because of their subtlety and the tremendous energy required to overcome the human mind's resistance to change. So, too, accomplishing "little things" is incrementalism. So too, "regulators whose plates are full" is incrementalism. It is how we got here.

There never has been and never will be a time when "plates are NOT full" or "little things are NOT easier to accomplish than big ones." So too, there never has been and never will be a time when "people are storming the gates" for transformational change. These things are the permanent state of humanity, not some temporary condition astute and responsible politicians monitor in order to know when to adjust policy.

So too, fiber optics is to networks what asphalt is to roads. It's the stuff we build with; it's not some magic, wonderful, new, or different or expensive thing. What's expensive,

what's bleeding us to death is the continued indulgence in the illusion that the means -politics as usual - will deliver us anything or to anywhere than the same. This system will not last for much longer. It is unsustainable to pretend to charge the public, to tax the public, to inhibit growth, stymie innovation, serve monopoly, and ossify markets in the name of perpetuating the very means that created this result. It will fall just as surely as a house divided cannot stand.

This is as simple, and as small, and as obvious as the unquantifiable benefits of fiber optic infrastructure over our continuing indulgence in the illusion that taxing ourselves to fund regulators and politicians to intermediate amongst perpetually warring factions of closed copper, coax and wireless produces anything other than the expense, delay and profligate waste of interminable internecine technological warfare. It is patently insane to continue to support that system or pretend that it is anything other than a failed model, no matter how rational and comfortable old explanations seem. Either we change course and reach escape velocity or again enjoy acceleration to terminal velocity. Both are disruptive, both are movement; only one, however, is desirable. The result

is not doubtful. We shall not fail -- if we stand firm, we shall not fail. Wise counsels may accelerate, or mistakes delay it, but, sooner or later, the [_____] is sure to come.

So here's the small thing: fill in the blank. Pick the destination b/c if you don't, someone or something will.

Savage: Erik,

Lincoln said it well, but Sun Tzu said it better:

In discussing positioning for battle, he said:

The strategic arts are, first, measurements; second, estimates; third, analysis; fourth, balancing; fifth, triumph. The situation gives rise to measurements. Measurements give rise to estimates. Estimates give rise to balancing. Balance gives rise to triumph.

In other words, you have to be totally honest with yourself about where things stand - for you, for your adversary, and in the environment - or you are going to get hosed. Leading up to this discussion he said: In ancient times, those who were skilled in conflict put themselves beyond defeat and awaited their opponent's reach for triumph. To secure against defeat depends on oneself; the opportunity for triumph depends on one's opponent. Therefore,

those who are skilled in conflict can secure themselves against defeat, but it is their opponent who provides the opportunity for triumph. Hence it is said, "One may know how to triumph and yet not know how to manage it." Those who cannot triumph should defend; those who can triumph may attack. Defend when there are inadequacies; attack when there is surplus.

In other words, you can know exactly what you need to do to win, and yet not be in a situation in which you can do that thing. In which case you have to wait. Just a bit of situational consideration here: Suppose one were convinced that the best way to deliver high-capacity connectivity were municipal ownership of passive home-run fiber between each residence in a town and some set of central locations where one could connect to the 'net.

Today right now connectivity to those residences is provided by cable, telco, or both. (Or in some cases neither but I'm not going to worry about them). To get to municipal ownership from that situation requires either (a) buying out the incumbents, for which, at present, nobody has the money even if the political will existed, or (b) building out a third pipe owned by the public to compete with (and ultimately eliminate) the

separate telco/cable facilities. The latter path is health care "public option" on steroids, and would generate the same kind of pushback from the private sector, except more so due to the express purpose of running the incumbents out on a rail. And even if that approach made perfect sense, the notion that the federal administration would distract itself from health care (and other things) to push a public option for broadband (or fund a "single payer" version for broadband) at this point in time is far-fetched.

Hence, it is said, "One may know how to triumph and yet not know how to manage it." The analysis is slightly different, but not fundamentally so, if one's objective is a FredG-like heavily regulated, probably divested "LoopCo." I will leave the details as an exercise for the reader. So, what's a would-be bandwidth revolutionary to do? Much as it sucks, the answer is: bide your time. When opportunities, mostly small, occasionally large, present themselves to move things in the right direction, perhaps a little closer to a situation in which triumph can be managed, take them. Then reassess the situation and bide your time some more.

Cecil: First, no Sun Tzu can't come close to what Lincoln said or meant in that context

and at that moment. Lincoln saw true injustice, true suffering, and truly a bunch of folks unwilling to look the obvious in the eye and do something about it. Lincoln was miles above Sun Tzu and saw with the eyes of Loa Tzu:

When the Way is forgotten Duty and justice appear; Then knowledge and wisdom are born Along with hypocrisy.

When harmonious relationships dissolve Then respect and devotion arise; When a nation falls to chaos Then loyalty and patriotism are born.

Second, Bob, with all due respect, your argument is a tautology. You basically argue labels without meeting the substance of the charge, and then assume battle. Assuming battle, you assume that there is something to be lost. Assuming something to be lost you urge caution, embracing, as did Mr. Savage, Sun Tzu. Unwittingly, in action, not substance, of word both you demonstrate we've already achieved the state of "catastrophic defeat."

Case in point: the "National Broadband Plan", it is (a) "national"; (b) "broadband" and (c) a plan in name only. It is nothing more than heaving $7 billion over the wall to the incumbents. No even remotely innovative player will

taste a whiff of that cash, and it's hardly a drop of water for the thirsty entrance of the parched soil of innovation. Nothing more than politics as usual and some hefty consulting fees in the meantime, which is the story of telecommunications in this country for a very long time. (Though Mr. Savage, at least, has acknowledged the relative meaninglessness of this exercise).

In a way, however, I understand what you are saying because honestly, the house is no longer divided. It fell, but it is no longer divided. But call me on your iPhone sometime, OK? We'll do some battle careful "battle" "planning" about the "Broadband" plan, "Net Neutrality" and other important pressing policy matters b/c avoiding catastrophic loss while we rack up some "small victories" here and there, is a good thing ... meaningless, but sure, it helps one sleep at night.

Fundamentals can be ignored. But they cannot be avoided. This too, therefore, shall pass.

St Julien: I share the sense that the most effective actual "building" will be local in the near run in the US. But that does NOT mean that furious activity should not be pursued at the levels of national and state government. If the

local option is to have any legs it must have enabling national legislation. First and foremost it must be possible. Federal legislation that blocks states from simply forbidding municipal builds is crucial and needs to be full-throated support. It must forbid unequal state-level constraints on operation, something that is even more common than simply outlawing the option. Sometime soon after that is needed legislation that opens opening backhaul to the larger net on a rationally regulated basis.

Current community broadband projects are also at a huge structural disadvantage. It's not only the backhaul, though in some places that is crucial. It is also simple size. Cablecos and Telecos can afford to throw their newest technologies at local competitors at prices that they –the MSOs - could not sustain if they were forced to repeat the same package across the country. Laws exist in at least some states that mandate that phone service be charged at the same rate across a market or a state. This works to help small local competitors by forcing the cost of undercutting their prices locally on a much larger region...we need more such laws.

I'd like to hear ideas from the list on other "potentiating" possibilities for action.

It is not enough to wait for the spring and hope that good things will sprout. The ground has to be prepared now.

Cecil: I agree with you. As to Sun Tzu, he'd counsel never to fight any battles. The superior warrior defines the terms of battle before entering it; in so doing, he wins. My simple example - and one I've used in litigation and in avoiding litigation on these sorts of issues - is to pull what I call a "Captain Kirk". Recall from the show Star Trek that Captain Kirk was the only starfleet captain ever to win the "unwinnable scenario". Why did he win? Because he snuck in the night before and reprogrammed the computer. While I don't advocate burglary or computer hacking, I do strongly advocate hacking the regulatory meme; turning it's strengths into weaknesses and your weaknesses into strengths.

In this regard, relying on state or federal regulators to do anything other than what they've always done is the unwinnable scenario. Instead, you attack precisely where they cannot defend (and there are some soft spots - very powerful soft spots, precisely because there is no law in this country; there is only political and monetary compromise), **and when you attack you**

attack from the highest in heaven. As applied here the highest in heaven is the greatest, highest, most beneficial public good; it is integrity of purpose, of technology, and of service. Serving all, universally and without discrimination, is the highest good.

But you cannot be in and of this system. In order to succeed and not get caught up in it, you must work with and within it but never, ever be of it. You can never serve monopoly impulse, whether directly or indirectly. You must be able to build out local fiber and provide to any and all - and make money - without excusing yourself because the rest of the system is corrupt. One does not transcend a corrupt system by acting only partly in complicity with it. One transcends it by transcending it. Period.

July 26 **Tim Cowen**: One thing that should not be forgotten is the statement made in Common Sense, by Thomas Paine: "In England the King is the law, in America, the Law is King"..or something very similar. This was influential in shaping thinking behind the US constitution, the importance of institutions and the system of checks and balances.

Without the Rule of Law you taught us that democracy

fails and despots prevail. There is a real issue here: comparisons between nations on the World Bank rule of law index correlates strongly with GDP growth. Zimbabwe is near bottom of the table.

Getting everyone to act in the overall public interest is a challenge but the steps to economic, social and political decline are swift and easy to take. The US has slipped in the world rankings in recent years and supporting institutions governed by an effective Rule of law is critical to development. This is even more important at a time of economic fragility.

To have an effective Rule of Law requires a number of things, one is simple and predictable laws; too much complexity is too difficult for markets to deal with.

One of the central reasons that South Africa has not gone to hell in a hand cart is the importance of the institutions that protect the constitution and ensure there is a Rule of Law. Ex president FW de Klerk is very compelling on this point, and he did get a Nobel prize for the deal that brought South Africa into the modern world.

Telecoms regulation is at the cutting edge of the boundary between the market and the state and it is important to bear in mind these basic issues when looking at how things work.

Budde: If we first agree on a national vision - and the Obama Team was well an truly on the right way here - than we can develop strategies on how to make that happen and that can take into account local circumstances, local opportunities, local initiatives, geographic issues, different technologies, and so on. That would also fit in Obama's grass roots approach. **I am happy to judge the broadband stimulus on issues such as that it started to build that vision and it introduced open networks. But if every single little battle is going to cost us $7 billion just to score some incremental changes than I am not sure about such a strategy.**

Cecil: For a city of such power, you will find few more fear-driven than Washington, D.C.

As to goals, there are none, save one statement of the universally obvious: Fiber optic is a naturally abundant resource delivering near limitless capacity for near zero marginal cost.

That's it.

Erik

P.S. The seven billion was not even a battle. Like the telecom act and every other reform in this country, core outcomes were determined long before the rule's ink had dried. DoA has already shipped hundreds of millions into the hands of entities playing good old fashioned politics - writing checks with taxpayer money to local high schools and making other "charitable contributions" in rural areas / communities where they want to deploy, or at least I've learned from a few first hand accounts. I don''t know for certain whether this is replicated. But big picture, it is a familiar story and one not much different in my mind than how telecom has always worked in this country. It's a money game and you have to ante up and go big if you want to play with the big boys. It's just how it is. The cost of the technology is, and always has been peanuts compared to the political and legal costs because that's where the money has always been made and will likely be made for awhile to come.

Failing Municipal Networks in USA?

Budde: The Liberal Opposition here in Australia has seized on the failure of a municipally owned wholesale FTTP network in the US as a warning that the proposed Australian NBN model could be commercially unviable. The municipal fibre network in Provo, Utah - passing some 36,000 homes - was sold to a greenfields FTTP provider, heralding the end of its life as a wholesale-only proposition. New owners Broadweave Networks intended to scrap the wholesale model to make it economic.

As reported in US telco website *Telephony Online*, Broadweave laid the blame for the network's underperformance on a lack of integration between service provider operations and network operations, delaying service activation and troubleshooting.

Meanwhile, Dr. Timothy Nulty, former GM of a retail municipal fibre network in Burlington, Vermont, dismissed the wholesale fibre model "a recipe for financial failure" - noting that wholesalers often ended up having to beg service providers to participate in order to meet the debts racked up by building the networks in the first place.

The American free market think tank the Heartland Institute also says that municipal and other government owned broadband networks in the US have been a financial failure. Senior fellow Steven Titch said "Analysis of the total track record of muni systems shows that 77 percent of the time they don't pay their way. The government-aided networks use their funding advantage to drive out more efficient private-sector competitors."

"When faced with strong competition from the private sector, most government-run networks have resorted to predatory pricing to achieve fiscal solvency. Of those in our sample that reported their earnings in 2004, 69 percent priced their services below cost, recklessly undercutting incumbent providers in hopes of forcing them to capitulate and leave the marketplace."

I am especially interested in the reactions from our US colleagues on this.

Baller: Paul, please poke around the community broadband page of our website for a wealth of information about municipal broad-band projects in the US, including numerous responses to Titch, Heartland, Reason Foundation, etc. www.baller.com. I've been involved in most of these projects and would be glad to talk to you about them in detail off-list.

Bottom line: Municipal fiber projects that provide retail service and have been operating for at least four years are just doing fine, some spectacularly so. At the same time, several wholesale-only fiber projects have struggled -- such as those in Utah and other states that effectively prohibit municipal retail services. See http://tinyurl.com/cnt7no These facts may be inconvenient for advocates of the wholesale-only model, but they cannot be ignored.

John St Julien: It's probably worth separating your query into two parts: 1) Does Heartland and their hangers-on have anything worth seriously trying to understand and 2) Does the US experience with municipal wholesale-only networks have much to say about Australia's project.

The easy answers are NO, and NO.

Heartland and especially Titch are are so disreputable that they should provide you with fodder. The problem for most readers is that telecom policy is distant and unfamiliar to most so hired guns like Bast and Titch can sound convincing by mixing up a stew of straight-on lies, technojargon, and ideology. It sounds, particularly if you are right-wing to start with, suspiciously like it might be true. It isn't even remotely sensible, of course. The Heartland Institute is so brazen that it overplays its hand by applying the same twisted logic to anything a corporation will pay them to say--even stuff people _do_ understand.

Try reading the Heartland "research" minimizing the risks of smoking-the thing was shredded by some folks with a real understanding of science and public health. Titch runs a side business called "Expert Opinions" which boasts of placing "expert" editorials in local newspapers. (Sadly, it worked in Lafayette. Twice.) In Lafayette they hired a local editor to write an anti-muni fiber article for one of the Heartland Institute's newsletters...the man suddenly developed an interest in attacking the project locally. Pair their name with Astroturf and Google will give you plenty of fodder. There are much more subtly kept

men. You are lucky to have one of America's easiest targets; run it down your local naysayers throats.

Jim Baller's remarks on the special conditions in the US that make it unwise for municipal fiber builders to cede the income and more importantly the relationship with their own community to outside media moguls by moving to a wholesale-only model are right on target. US muni networks are tiny in comparison to the incumbents and have little to no practical regulatory protection from predatory corporations other than the loyalty of their community. The Australian situation you have so ably promoted is in no way comparable.

Bill St Arnaud: Jim's analysis is bang on. He has convinced me of his thinking. But I have gone further and have concluded it is very difficult to develop a business case for wholesale or retail business case for broadband Internet networks whether municipal or private sector. Most private sector projects can only be justified on restrictions to open access like Verizon Fios or abuses of network neutrality.

I argue that broadband Internet instead should be used as "loss leader" bundled with resell of energy. There is a lot more money to be made

with reselling energy than there ever will be with broadband

For more thoughts on the subject please see http://free-fiber-to-the-home.blogspot.com/

Baller: Thanks, Bill. Your views are especially important, not only because you are highly respected around the world, but because you did not just idealize the wholesale-only model but personally worked hard, if ultimately unsuccessfully, to make the model a success in practice.

I could not agree more with your current thinking: high capacity **broadband connectivity to the Internet is CRITICAL INFRASTRUCTURE on which everything that important that we need to do in the foreseeable future depends, including energy security, environmental sustainability, economic competitiveness, etc. We need to treat it as such, even if we currently lack the analytical tools to evaluate all of the benefits that it will produce.**

I have taken the liberty of inserting "wholesale-only" into your title, as I don't believe you meant to suggest that ALL public and private networks are doomed to fail.

If you meant otherwise, please do override me.

Budde: Jim if we talk about FttH broadband services then I agree with Bill. None of these networks will be viable in mass markets without that trans-sector approach. And to take that one step further, if you want to use these networks trans-sectoral than you will have to offer them on a wholesale basis as none of the other sectors (healthcare, etc) can afford the rates charged by the vertical integrated telcos.

Sure there will be niche markets where people are prepared to pay the high charges just for telecoms and entertainment, but they typically will not exceed the 10-25% (national) penetration. Of course there will also be situations where certain communities do find other ways of funding what could make a niche (muni) FttH viable , but again they will be exceptions.

Baller: Let's make sure we're using the same terminology. I'm not criticizing "wholesale" per se, just the "wholesale-ONLY" model. Purists often argue that "wholesale-only" is necessary to avoid bias, align incentives appropriately, etc., etc. I respect the ideological underpinnings of the wholesale-only model, but I have yet to see it manifest itself in a workable business model. To me, "trans-sector" encompasses a mix of models running over the same infrastructure - at least at this stage of our evolution of fiber networks. For example, several successful municipal fiber systems in the US offer BOTH wholesale service to high-volume users of various kinds AND retail service to residential consumers and small businesses. **In short, the more different kinds of users simultaneously taking advantage of the same infrastructure, the more sustainable the system will be.**

COOK Report: I have a question. What is the difference between wholesale only and open access? Vesteras Sweden is a muni network that is essentially open access where all sorts of different providers can buy wholesale connections to the lit ip layer and then sell their own specialized services that they deliver by means of their wholesale connection. wholesale is fine. But does wholesale only ban someone from buying lit ip and then running and selling a service over that IP? surely not. If so why would someone try that?

Baller: Bingo, Gordon. You've hit upon one of the biggest issues of the day. Both "wholesale only" and "open access" mean different things to different people, making it easy for us to mis-take on another's meaning, even when we use the same words.

At the risk of oversimplifying both terms, "wholesale only" generally means that the system operator cannot provide service directly to end users, as distinguished from providing service to intermediate entities that provide service to end users. "Wholesale only" differs from "wholesale" in that a provider could conceivably offer wholesale service to some customers and retail service to others. Such a provider would arguably be providing "open access" even though it also provides retail service. Lafayette, Burlington, and many other municipal fiber systems do this.

I caution again that there are many shades of meaning - e.g., Does "open access" refer to bandwidth capacity, network facilities, or both? Does it permit different priorities, prices, or distinctions among data of different kinds, quantities, and qualities, provided over different technologies at different times (spam v. emergency data, quantity discounts vs. quantity premiums, peak v. off-peak, wireless v. wireline, etc.)? These shades of difference have contributed greatly to the heat and divisiveness of the net neutrality debate.

Cecil: Is the highest purpose one where municipality is al-

lowed to provide voice, video, data, Internet access just as any other market participant would?

OR

is it widest possible deployment of the most open, capable, and low cost fiber optic infrastructure possible?

The difference between the two spans chasms as wide as galaxies. They are literally mutually exclusive worlds.

In other words, I agree completely with everything you say below. My concern is that the means don't overtake the ends.

There will always be many paths to the top of the mountain and concessions must be made along the way such that municipality will look more to an industry attorney like any other entity that provides such service whether CLEC, ILEC, CMRS, MSO, whatever, and in other cases something far different, such as the examples in Sweden and other places in the world.

Nevertheless, I'd like to be sure we are all climbing the same mountain AND not unnecessarily kicking boulders down on the heads of fellow travelers. But I think public policy should favor those climbing the higher and faster fiber optic routes too, so a few rocks rolling down

and might not be bad; landslides and multi-ton boulders might result in dead-weight economic loss. Would that seem fair enough?

Baller: Erik, this is a false dichotomy. No municipality wants to provide services just for the sake of doing so, nor is an open, low cost fiber infrastructure the end in itself. These things have value only to the extent that they improve the well-being and quality of life of the community and its residents. In short, it's the trans-sector benefits that are the real goal of municipalities.

August 4 **Cecil**: Jim,

If you cannot agree that low cost, high capacity, ubiquitous fiber is the highest goal, but rather qualify it, then what you say, in effect is no different than what Verizon, AT&T, Comcast, Cox, T-mobile, or another other for profit player says. By definition, you advocate for a world that is of precisely the same dynamic that created the problem and will thus repeat it. **Unlike them, city controls taxpayer funded public right of way. It becomes, therefore, no different than any other private entity charged with providing access to empty space beneath or above dirt to those who'd run facilities and provide services for private profit**. City

shareholders are voters / residents and any beneficiaries of the public tax base. Corporate shareholders are not geographically limited and may or may not include city residents but also anyone anywhere in the world. Both entities are subject to regulation though one is vastly more vulnerable to market forces than the other.

That said, I am all for making money, but municipal participation on carrier terms means municipal should be regulated exactly to the same extent any provider of any service: voice, video, interconnected VoIP, 911, Internet access should bear - all fees, taxes, implicit and explicit subsidies.

Municipality acting as muni-bellco, therefore, is not, in my opinion anywhere near the vision or ideal of trans-sector thinking. By that definition, nothing needs to be changed. Those for-profit carriers, cable MSOs, etc. pay taxes and participate in the economy flowing benefits out in trans-sector ways. This is an incumbent's argument.

I still look forward to the evolution of thinking in this regard and welcome the entry of municipalities into these markets but I think it is fair to push for a full trans-sector model exceeding the boundaries of city participation in for profit markets. By that token,

there is no reason a city should not start building cars, computers, or building and selling electric light bulbs and city street lighting a per lumen basis, or selling cups, faucets, sprinkler systems, bathroom fixtures, soap and thereby take over the work of Bed, Bath and Beyond merely because they own and operate the water system.

When infrastructure provider becomes the billing machine, then the billing machine, not the underlying infrastructure becomes the value. Such is the sin of telecommunications regulation of the past century. Let us learn better this time.

[and later] **Cecil**: Road, water, municipal electric basically involve the provision of commodity input to activities that create vast economic value; there is an enormous multiplier effect.

The deeper question here is whether government should operate as a market player. Once a city provides voice, video, data, and Internet, what's to stop it from going into direct competition with any and all others? ISPs? ASPs? etc.? What's to prevent a city from say taxing Google Voice b/c it is competing with city provided voice services? States, including New Mexico, have sued VoIP providers in federal court for a bigger cut of USF and other monies de-

spite FCC rules on point. Insofar as state PUCs are any longer deeply captured entities, what's to prevent a government entity who not only provides but profits from the service AND controls the public right of way from extracting monopoly rents?

That said, a public, open, co-operative model is going to go a long way towards ameliorating this dynamic.

ONE LAST ENORMOUSLY BASIC POINT: THE NETWORK IS NOT THE VALUE!!!!

THE VALUE IS IN THE INTELLIGENCE IT PROVIDES. THIS IS GOOGLE'S SUCCESS. THEY PROVIDE MORE INTELLIGENCE FOR LOWER COST THAN ANY OTHER ENTITY ON THE PLANET.

DON'T TAX INTELLIGENCE OUT OF EXISTENCE FOR THE SAKE OF PROVIDING THE BASIC COMMODITY INPUTS OF CONNECTIVITY.

St Julien: Eric,

I think you go wrong right off the bat, at #1, and that subsequent mistakes follow from that one. You say:

"1. Entities that provide voice, video, data on the same terms of any other market player (landline, wireless, coax) have incentives to behave in ways that maximize profit."

That simply misses the point. It elides the basic issue of motivation that I tried to raise. I repeat: motivation matters. The purpose with which you engage in an activity, any activity, really does make a difference in what you actually do. **Utilities have, as a matter of their felt identity, law, and long-established normative culture, the purpose of seeking to provide a low-cost, high-quality, reliable product to a community that owns that community. For-profit corporations have, as a matter of their felt identity, law, and long-established normative culture, the purpose of extracting the greatest possible return for their shareholders.**

This results in radically (in the sense of "at root") different behavior. Behavior that is threatening to their for-profit-motivated competitors; behavior which leads those competitors to institute "regulation" which pretends to level the playing field but which is transparently about forcing the public sector to act as if it too were motivated to extract the maximum profit. (This happened in Lousiana and I can go on at some tiresome length about the (un)Fair Competition Act.) Real corporations demonstrably believe that such

motivation is dangerous and they have laws passed wherever they can to force, as nearly as possible, the same behavior on public utilities that they are guided to take due to their motivation.

But that can be construed as just my theory of what is at work, though the panicky reaction of hugely powerful corporations to objectively tiny players like the Lafayette Utilities System convinces me it is not. So here's a real-world example: every last-mile fiber network I know of (and the vast majority of others) operates at a radically underutilized level almost all the time. Within-network bandwidth's marginal cost is so near to zero as to be zero. (arch-econ!) So any well-provisioned network can provide its in-network users with bountiful in-network bandwidth. If they are motivated to do so.

No for-profit network that I know of provides paying customers unconstrained intranet bandwidth even though the immediate cost would be all but free. And why should they? They might conceivably find some (paying!) use for it someday. And they could imagine malign (to their purpose) consequences: In-network customers might decide to just trade data within the spacious local network and not venture outside it. While this might reduce some

costs it would likely mean that the higher priced tiers would not have the same value of relieving the felt scarcity of bandwidth and would lead economically motivated users to drop to the lowest tier...this isn't such an unlikely fear-I understand a dramatic flip to mostly in-network usage occurred in Vesteras after it instituted an open intranet. Any number of fears could be invented, and I'd argue most of them are self-defeating. But the bottom line is that they can't see any (profitable) reason to bother.

But Vasteras provided an intranet to its customers. So has Lafayette. So does any corporation or college campus you care to name. What they all have in common is motivation: they are providing for themselves and see no reason to artificially throttle down their own network for their own use.

Motivation matters.

Cecil: John, I think you extract opposition from the arms of strong support.

Much earlier **Kushnik**: While I agree with much of what Jim B wrote.

[**Baller**) These conditions typically include the following: (1) the communities at issue are relatively small and therefore do not have enough

profit potential for the retailers to be able to cover the public network owner's costs as well as their own costs and profits (at levels >comparable to the incumbents'); etc,]

I've been advocating a different set of next steps for over a decade.

First, Fred and I agree with what should happen -- "The ideal answer is a wholesale LoopCo that begins with the ILEC's business and is prepared to take over the cableco's outside plant business once it's ready. "

Why, because there is really no other choice if we believe in building out the fiber networks. The current situation with, say Verizon and AT&T is ---

a) AT&T isn't rolling out anything useful and is not putting the money back into the ground. - thus, 22 states - _ of the US are being directly harmed… And, as I've pointed out numerous times, customers already have been and continue to pay for network build outs based on state deregulation plans. --- b) Verizon has stolen the utility - and is rolling our FIOS, which is a fiber to the home product but it is NOT open to competition, it will not be ubiquitous, and with current increases, it, as well the cablecos are involved in a deceptive practice of giving

'gimme' rates for a year, then the price goes up about 50%.

Jim is right that the Bells will never do wholesale or anything like that so, unless we separate these companies from the utility and build it out - which is already in every muni in all of the companies' territories, then the utility is simply going to be cannablized.

But, and now we come to the interesting part - There is plenty of data to show that Verizon is stealing the utility and that it is charging customers for building out a 'private, interstate information service'

And the kicker --- is that the remaining utility local phone customers are illegally funding Verizon's FIOS, which Verizon claims is a competitive product.

How do we know this - In New York City, local prices have gone up 90% since 2004! --- and that is because there is no competition to lower rates ---

NY state commission has been playing a seriously flawed game - Verizon, for example, claims there is competition, claims they are losing lines and worse, claims that local service is so unprofitable that it needed immediate rate increases.

Unfortunately, --- a) Verizon's FIOS is pulling out the copper wiring so there are 'line losses to - that's right, Verizon. B) Verizon claims there is competition, yet then how does local prices go up?

Verizon also claims that local service is losing money but on analysis of the data we find that Verizon has been seriously cost-shifting -- taking the revenues from local service to pay for FiOS, but also, when they look at local service they no longer examine the entire bill - they leave out virtually all revenues, from the "FCC Line Charge" adding $6.42 to the bill and it is direct revenue to Verizon and on every local bill, as well as calling features, inside wiring, toll calls or even directory assistance --- And, they are NOT making Verizon's other product lines paying expenses, such as using the networks, or advertising or ---

And, going to the 2008 Verizon annual report we find that wireline service had an EBITDA of 27% --- that's $13 billion in cash - so much for losses.

And then we get to the ultimate slap - while local service, the utility - the one that Seniors, Lifeline, or just regular folks rely on, the state is allowing Verizon to pay for the fiber optic network FiOS

The state wrote --"Nevertheless, there are certain increases in Verizon's costs that have to be recognized. This is especially important given the magnitude of the company's capital investment program, including its massive deployment of fiber optics in New York."

So, instead of everyone trying to do work-arounds of the incumbent, with muni builds… The munis should have sued the incumbent to stop stealing their property, stop raising the rates, and more importantly, build out what was already committed to under state law - which is open, ubiquitous, fiber based, 45mbps or better services.

Conal Henry: I want to pick up on the difference between wholesale and retail models for municipal networks. My company **E|net** is running 94 municipally owned networks here in Ireland and we are running them on a wholesale only basis (I am obliged to do so under the terms of the license granted to me by the Municpailities that own the network)

The structure of the network is not ideal in that they are MANs and not directly connected to homes or businesses which has created a barrier to usage, also each MAN is stand alone and we have had to come up with a backhaul solution for each.

(Stick with me I am leading somewhere). In the early days (2004-2006) the networks were universally reviled as a waste of money and an undue interference in the market. Our biggest supporters would have seen us as an interesting side show as opposed to a key part of anything. Local communities saw us a largely irrelevant.

Since then however we have been working this model, connecting to backhaul, connecting to high value premises and providing a neutral platform for service providers. Today we are providing services to all major operators bar the incumbent (34 in total), allowing them to provide the DSL, cable, mobile and fixed wireless broadband/phone and TV in each of these towns, we estimate that (of a total population coverage of 600,000) 400,000 use the networks daily, most without realising. We have also looked at the location of new Foreign Direct Investment in Ireland (a critical component of economic make up) and we can shown how those towns that have a MAN have increased their share of new FDI from 20% before the networks were built to almost 90% last year.

As yet, however, we have largely failed to come up with any form of viable FTTH solution.

So what does that tell us - here's what I have concluded;

1. Wholesale creates viability - because it is can address existing spend
2. Wholesale leads to slower deployment of cutting edge solutions - because you are generally obliged to provide services that already exist as determined by pre-existing market conditions
3. FTTH is not (today) a social need and we should not lose sight of the benefits that open fibre can bring today around jobs, a competitive market place and the ability to overcome incumbent bottlenecks
4. The (now established) viability of the MANs (our open access carrier neutral model is generates cash and profits, a proportion of which is returned to the municipalities) creates a platform for FTTH that makes it more viable - as and when customers want it.

I would very much welcome your comments.

Savage: How many municipalities (or states) make money on roads? How many are deemed failures because roads lose money?

Van der Woude: In my city the combination of the 19th century roll outs of clean water and sewer networks statistically caused an average

lifespan increase of > 200%

However the profits to the owner, the city government, do not by any means reflect the profits a pharma company would be able to make from even an average 10% life extension.

Conclusion is simple, as the market results, financially, are mediocre if not negative, clean water nor sewer networks should have been there.

NTIA Mis-manages Broadband Stimulus

Harold Feld: Will NTIA Smother BTOP In The Cradle? Why that would be a disaster for policy, and how to fix it. http://www.wetmachine.com/totsf/

Estrada: This is all so very fascinating in a macabre way. I spent most of my day today with a fellow who runs a network in rural remoteville California (Eastern Sierras). We walked through the BIP evaluation criteria and, in the end, realized that it is nigh impossible for him to get enough points to actually win a grant/loan, based on our guesses of expected competition. His network is EXACTLY what the US government SHOULD be funding - unserved folks that no large company will EVER want to serve. But, there really is no way for him to compete successfully with the BIP scoring criteria as they are now. Pretty sad state of affairs.

Lobbyists rule. Consumers drool.

COOK Report: President Obama has pledged an open and transparent government.

Perhaps it is time for the EFF, Moveon, Public Knowledge, the Cook Report - to submit a FOIA on how they did what

they have done. Who decided the broadband definition? We have seen Harold Feld's blog post.

And on July 8 **David Isenberg** wrote**:** "License to Lie"

The Notice of Funds Availability (NOFA) [website here] for the $7.2 billion allocated for broadband by the American Recovery and Reinvestment Act seems, on its face, to be a license to lie.

The NOFA defines broadband in terms of advertised speed (p. 18, lines 384-387):
Broadband means providing two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to end users . . .

The NOFA couches its definitions of "unserved" and "underserved" in terms of availability of the advertised-speed of so-called broadband.

The NOFA (pp. 22-23, lines 476-482) says

Specifically, a proposed funded service area may qualify as underserved for last mile projects, if at least one of the following factors is met, though the presumption

will be that more than one factor is present:
1. no more than 50 percent of the households in the proposed funded service area have access to facilities-based, terrestrial broadband service at greater than the minimum broadband transmission speed (set forth in the definition of broadband above);
2. no fixed or mobile broadband service provider advertises broadband transmission speeds of at least three megabits per second ("mbps") downstream in the proposed funded service area; or
3. the rate of broadband subscribership for the proposed funded service area is 40 percent of households or less.

So if you're an incumbent telco or cableco that doesn't want competition in your territory, you simply advertise that 3 megabit downloads and 200 kilobit uploads are available to all, and poof! all ARRA-funded competition disappears. No new equipment needed. Just run the ad.

Remainder at
http://isen.com/blog/2009/07/license-to-lie.html

What Harold would do to fix it: "Unfortunately, there is a

real limit to what NTIA or RUS can do in the short term. You can't just pull back a NOFA and start over. It's a huge process. Worse, the window to start submitting (applications for less than a million dollars, on paper rather than electronically) has already opened. I'm not sure you can issue an official clarification at this point, given that people have at least theoretically started to submit applications based on the published, unclarified criteria. Besides that, the ferociously fast deadlines is going to make it very difficult for potential applicants who gave up after the NOFA got published to shift gears.

What NTIA can do is get the second NOFA out for public comment ASAP. At a minimum, it should move to get a second NOI on how to do the next NOFA, even if it doesn't have proposed text of its own yet, so that upset folks have a formal way to file constructive comments and compile a real record on why they did or did not apply in the first round. This will not only produce a NOFA much better calculated to get the kind of applications the folks running the program keep saying they actually want, it will create a real record about what prevented potential applicants from applying so that we can make our policy pronouncements on the basis of some sort of actual data not ob-

served effects and guesses. Heck, I might even be wrong, which is something I would want to know, because creating bad policy based on ignorant guess work sucks rocks.

Bottom line: I agree that the outcome of first round NOFA is very disappointing. But I am unwilling to join the mob scene at the Tent of Meeting to demand why Obama/ Moses dragged us into the desert and not to the Land of Milk and Broadband. I also think this is fixable, at lest for round two. **And i also think we better fix it, or we will be living with the negative outcome for a long time to come**.
http://www.wetmachine.com/totsf/

COOK Report: Who would have had to have signed off on this garbage? The staffers at NTIA apparently are mainly Obama loyal lawyers who have a few months government service and therefore no clue. But who higher up at NTIA - really shaped this monstrosity?

Estrada: NTIA is following Congressional orders.

The mapping NOFA reflects the Broadband Data Improvement Act very closely. NTIA is doing what Congress said. And, Congress legislated what Connected Nation told them was proper.

COOK Report: July 28 - http://www.publicknowledge.org/node/2576

Good reporting on mapping by Art Brodsky but this is not the whole story.... Art hints at where some of the skeletons are buried. But be it Levin or Strickling I see no spine. I am thoroughly DISGUSTED.

Art Brodsky: "NTIA Dir. Larry Strickling was quoted by Broadbandcensus.com as saying he hopes carriers will waive confidentiality, and that there are other ways of collecting information.

Check us off as skeptical for the first. Telephone and cable companies have used every excuse to hide their information, up to and including Sept. 11. And on the second, as well. While there may be other ways of collecting information, it will likely take more time than the NTIA has set out, and some, such as the average revenue per user, will only come from carriers.

This is turning out to be a game of chicken, one industry source characterized the developing situation. Will NTIA yield or will the carriers? Does NTIA have the legal authority to compel data? If so, why didn't they use it? The Federal Communications Commission (FCC) has the authority, but hasn't used it effectively. If NTIA starts

turning down mapping proposals from states on confidentiality grounds, it will need a Plan B - perhaps a do-over or extension of time.

So far, they haven't indicated such a course is likely. But that decision won't be made until after Aug. 14, when the mapping proposals come in."

COOK Report: Feet need to be held to the fire.....

Goldstein: I posted this to cybertelecom last week; it reinforces your point:

Subject: Trying hard to not get the answer

One of the big items in the "Broadband Plan" and for that matter the ARRA is broadband mapping. Where is it available? The FCC seems willing to let millions of dollars be spent to indirectly surmise, via third parties if necessary, where broadband services are and are not available.

In the case of cable, it's pretty easy -- a cable company's footprint has uniform service, so if they have cable modems, everyone on the system can get cable modems. Footprint maps are not always available, but they're straightforward when they exist.

ILECs are tougher. They provide DSL where possible, but

it doesn't work beyond a certain distance, or on some cruddy loops, or behind remote terminals that don't contain DSLAMs of their own. They may serve the whole area, but they don't make public where they can or cannot provide DSL. So all sorts of effort goes into figuring this out. The ILEC front group Connected Nation promotes lists by wire center (ignoring the incomplete coverage of their distribution areas), while the FCC has happy-talked the issue by assuming that if one person with a given ZIP code can get it, everyone can.

But the data is just sitting there. Every major ILEC has run loop prequalification systems across their whole footprint, and has a data base of who can and cannot order DSL from them. They also sell this data to their wholesale ISP customers, and, for a fee, they sell collocated CLECs a list of what subscribers are behind which remote terminal, so the CLEC knows who can be served by a CO-mounted DSLAM and who can't.

So we have a huge federal effort to recreate data that the ILECs have, and make available for a small fee. But the ILECs don't want to make this available to the FCC, or the ARRA grant reviewers, since presumably they feel it has some commercial value.

So the feds go through an elaborate and expensive kabuki dance to gather inaccurate information.

It really gives you confidence in our regulatory process.

COOK Report: On July 29 - Christopher Mitchell is the author of the report below. Please read it folks. He will be joining us on arch econ shortly.

Art Brodsky published more yesterday about Connected Nations take over of the mapping program.

The incumbents have staged a coup at NTIA. Ann Neville who managed Rachelle Chong's absurd mapping program in California has been made the mapping tsarina at NTIA.

Between roughly June 4 and June 24 the coup occurred. The sane policy that NTIA was getting ready to implement in mapping was trashed and connected nation and the ILECs given the honey pot... This can be documented in great detail if the person involved decides to go forward. I am fed up and would like to try some coordinated action. Larry Strickling and Blair Levin need to act NOW to clean this up

Christopher Mitchell: HOW NTIA DISMANTLED THE PUBLIC INTEREST PROVISIONS

OF THE BROADBAND STIMU-LUS PACKAGE

On July 2, 2009, the National Telecommunications & Information Administration (NTIA) released the rules for the broadband stimulus program (called the Broadband Technology Opportunities Program or BTOP). While a plain reading of the statute language suggests that NTIA should decide on an individual basis whether a private profit making entity is in the public interest, NTIA instead a priori declared all private companies in the public interest.

It simply acted as though the House legislation had prevailed over the Senate. NTIA justified itself by declaring that the Congress intended to "invite a diverse group of applicants to participate." NTIA thereby accomplishes a sleight-of-hand tactic- declaring that it is complying with the original intent of some in Congress rather than complying with the text actually passed by Congress. If Congress had intended all entities to be eligible on an equal footing, it would have adopted the House eligibility language. **Congress explicitly did not do this. Rather, it chose a higher bar for private companies. They had to be judged to be in the public interest.**

The NTIA ruling did not explain what it meant by "public interest". Nor did it indicate that it would declare ineligible those companies that have violated the public trust previously. Instead, it put global companies driven to maximize profits on a level footing with public and non-profit corporations chartered to maximize benefits to the community. http://www.muninetworks.org/content/how-ntia-dismantled-public-interest-provisions-broadband-stimulus-package>

The Stench at NTIA Continues

[A few days later]

COOK Report: I am not yet allowed to to put all our cards on the table but it seems more likely to happen. And when it does it will be more disgusting proof of what Art Brodsky has been documenting with his continuing commentary of mapping that shows Larry Strickling unable to stand up for the public interest against the demands of the very incumbents who have caused our market failure. This is roads, highways, sewers and electricity folk. It ought to have nothing to do with the lavish salaries of the executives at the incumbents.... and yet they are calling the tune and assuring that any maps will be meaningless.

Congress should rescind the money appropriated because the money buys the public interest zilch. But since congress is not likely to do that Art Brodsky correctly calls for President Obama and his advisories to get some SPINE

Brodsky said: f this mapping exercise is going to be worth even 1/10 of the money Congress appropriated, it's about time for the government to step away from the table with the industry, remind itself of its public interest obligations and quit giving away the store. It doesn't matter if it was a "good deal" or a "bad deal" to make those changes. There was no reason for any deal. Either scrap the program, extend the deadlines and start over, or hold the industry to some meaningful commitments. NTIA has to choose, and these choices to start the gradual surrender process are not at all auspicious.

I think Frank Rich of the *New York Times* http://www.nytimes.com/2009/08/09/opinion/09rich.html has the correct diagnosis of what is at stake. He writes: "The larger fear is that Obama might be just another corporatist, punking voters much as the Republicans do when they claim to be all for the common guy. Rich continues: "It's in this context that Obama can't afford a defeat on health

will be a CAT scan of those powerful Washington interests he campaigned against, revealing which have been removed from the body politic (or at least reduced) and which continue to metastasize." Right now as Reagan did many years ago with David Stockman Barack needs to take Larry Stricking to the woodshed before Strickling's capitulation to the industry as written up by Art is total and totally disgusting. Was is in the mapping money is ONLY metastasized fetid telco cancers. I believed that THIS president was different - I put all my hope in him. But the fat are still getting fatter of the public purse. Read Art's pieces...

Connected Nation's Other Shoe Drops On NTIA

By Art Brodsky on July 30, 2009 –

It seems like only yesterday that we were saying that a game of chicken was likely to develop between the government and the telecom industry over the data that is supposed to be reported under the stimulus broadband mapping program. Actually, it was the day before yesterday. But never mind that, it seems the day after that story was published, a group of telecom executives huddled with Larry Strickling, di-

rector of the National Telecommunications and Information Administration (NTIA) to express their concerns about the data that is supposed to be reported under the stimulus broadband mapping program.

There should be no surprises here. This was the other shoe waiting to drop. Connected Nation, the front group for the big telecom companies, has made it a practice to sign very restrictive non-disclosure agreements to protect its masters. In fact, confidentiality is one of CN's selling points, along with its network of telecom lobbyists. CN tells states that it works successfully with carriers because it protects the carriers' information. That may help the private interest; the public interest, not so much. Now, the companies represented by CN were bringing the message to the government up close and personally.

The industry doesn't like the information NTIA wants to collect. The NTIA said it wants to display publicly in a broadband map: "(a) Geographic areas in which broadband service is available; (b) The technologies used to provide broadband service in such areas; (c) The spectrum used for the provision of wireless broadband service in such areas; (d) The speeds at which broadband service is available in such

areas; and (e) Broadband service availability at public schools, libraries, hospitals, colleges and universities and all public buildings owned or leased by agencies or instrumentalities of the states or municipalities or other subdivisions of the states and their respective agencies or instrumentalities. "The national map will also be searchable by address. To the greatest extent possible, at every address, the type and speed of broadband service will be provided. For providers of wireless broadband service, the spectrum used for the provision of service will be provided."

NTIA also wants data covering average revenue per user and information regarding the "type, technical specification, or location" of infrastructure owned or leased by the company reporting in. However, the announcement of the funds availability is also chock full of confidentiality protections, starting with the one that if a broadband provider doesn't want its identity on the national map, then the map "will simply display an anonymous provider." The carrier's "footprint" service area similarly can be displayed without a carrier name, unless the carrier gives its consent. Similarly, the data on type, specification and location will be withheld. From the Notice of Funds Availability (NOFA):

"Confidential Information. Any information, including trade secrets, or commercial or financial information, submitted under this Program that: 1) identifies the type and technical specification of infrastructure owned, leased, or used by a specific broadband service provider; 2) identifies the average revenue per user (ARPU) for a specific broadband service provider; or 3) explicitly identifies a broadband service provider in relation to its specific Service Area or at a specific Service Location."

So there is no public verifiability of the data, the information will be aggregated and can even be anonymous. Sounds somewhat benign, if not terribly useful. But not according to the telecom carriers. Prior to meeting with Strickling, the industry drafted up a letter outlining their concerns. According to the text, the protections in the NTIA mapping notice are "are limited at best and ephemeral at worst." One problem is that the NTIA activity could interrupt Connected Nation's program: "Indeed, many of our member companies have voluntarily participated in the public/private partnership efforts to map broadband availability that are already completed or under way in several states. Unfortunately, as currently conceived, the Broadband

Mapping NoFA risks undermining these ongoing efforts."

The industry letter complained: "The NoFA proposes to gather granular data that are (i) unrelated to the Congressional goals, (ii) not readily available or maintained in the normal course of business, and (iii) highly sensitive from competition, network security and public safety standpoints. Second, compounding our concerns with the scope of data being sought, the confidentiality commitments in the Broadband Mapping NoFA raise significant questions about whether proprietary, competitively sensitive, and network-security related information will be adequately protected by NTIA and other agencies."

According to a Dow Jones news report, the letter wasn't sent. However, the meeting with Strickling and NTIA Chief of Staff Tom Power was held, with the powers that be from the industry all in attendance. The telephone industry was represented by Walter McCormick, US Telecom president and Jon Banks, US Telecom senior vice president, for law and policy represented the largest trade association, including AT&T and Verizon; Curt Stamp, president of the Independent Telephone and Telecommunications Alliance (ITTA), representing mid-sized compa-

nies; Brian Ford, regulatory counsel of the Organization for the Protection and Advancement of Small Telephone Companies (OPATSCO), representing small commercial companies; and Eric Keber, federal government affairs manager of the Western Telecommunications Alliance. Also Mary Albert, assistant general counsel of Comptel, which represents competitor companies.

The cable industry was also there. Kyle McSlarrow, president of the National Cable and Telecommunications Association (NCTA) attended, accompanied by James Assey, executive vice president, and Steve Morris, associate general counsel. From the wireless world, Steve Largent, president of CTIA the grade group representing AT&T, Verizon, T-Mobile, Sprint and others, was there. He brought along Chris Guttman-McCabe, CTIA vice president for regulatory affairs and K. Dane Snowden, vice president for external and state affairs. Fred Campbell, president of WCAI, representing wireless broadband providers, also attended.

It's not a stretch to assume that even now, industry lobbyists are drafting letters to be signed by influential members of Congress that would descend on the agency as a hail of fire from the heavens if Strickling turns

down the industry and sticks to the already industry-friendly NOFA conditions. Coming as well, in yet another deluge, would be ginned-up letters from the telecom ecosystem of bought-off think tanks and business groups. It will take a lot to stand firm in the face of that pressure. Here is why the agency should draw a line in the sand.

The whole mapping exercise is already on its way to being substantially corrupted as the telecom industry's creation, which exists to prevent data from being public, is collecting mapping contracts right and left through the efforts of their lobbying and influence. There is absolutely no reason for NTIA to concede on the data collection. NTIA and its supporters in the Administration and in Congress should realize that if agency backs down on this assault from the industry, there will be that much less of value worth saving. At the end of the day, somebody is going to be in control of the mapping. It will either be the public, and the public interest, as represented by NTIA, or the industry.

NTIA Losing Game of Data Chicken

By Art Brodsky on August 8, 2009

A week or so ago we posed this choice: "At the end of the day, somebody is going to be in control of the mapping. It will either be the public, and the public interest, as represented by NTIA, or the industry." It appears that may have been, at least in part, a false choice. The NTIA has already started backing off its data-collection notice, in this Federal Register notice. There was no reason to give away much of anything to start.

Certainly, the mapping notice of funds availability (NOFA) had its numerous problems. Fixing it would require a month or so delay to get it right - something some of us requested. NTIA didn't do that. But in the face of the massive industry lobbying, NTIA started making concessions. The biggest one is that it backed off of the detailed speed data. Instead of reporting maximized advertised upstream and download speeds at the address level, NTIA now requires only speeds across service areas or local franchise areas. That change is a monumental mistake, made for no reason. Speeds across such a wide area can very widely. At the address level, it would be

possible to see where and how service is being deployed. At the service area level, it all averages out - the god and the bad, demonstrating nothing at all.

NTIA also lifted restrictions for reporting the crucial "middle mile" connection data, and for the average revenue per user. The second one wasn't going to be reported anyway, because the phone and cable companies weren't going to give it up. The middle mile data may have been more accessible. It certainly wasn't worth surrendering. **If this mapping exercise is going to be worth even 1/10 of the money Congress appropriated, it's about time for the government to step away from the table with the industry, remind itself of its public interest obligations and quit giving away the store. It doesn't matter if it was a "good deal" or a "bad deal" to make those changes. There was no reason for any deal. Either scrap the program, extend the deadlines and start over, or hold the industry to some meaningful commitments. NTIA has to choose, and these choices to start the gradual surrender process are not at all auspicious.**

Bob Atkinson: Art is just as much a non-neutral advocate/lobbyist as

company/trade association rep so you have to give his articles the same skepticism as any inside-the-Beltway rep.

And consider that the opponents of mapping will tie up any data production requirement they don't like with years of litigation. How does NTIA comply with the statutory deadlines for producing the map if the data-gathering is stalled in court??? Congress in it's usual infinite wisdom undercut any leverage that NTIA might have had.

I would like to hear from other list members how NTIA might avoid endless litigation if it tried to satisfy Art Brodsky (and Gordon).

Cooper: The real danger is that the Obama Administration is just the Carter Administration redux -- Intelligent, compassionate, incompetent. Fear of litigation and controversy leads the administration to make bad deals with the devil and try to convince the public it did the best it could. A bad map is worse than no map. Teh RUS program has been totally captured by the rural LECs and the NTIA program is being slowly swallowed by the incumbents. There will be no change if every decision is distorted to avoid a law suit from the LECs.

Aug 10 **Christoper Micthell**: **Quoting Bob Atkinson**: "Art is just as much a non-neutral advocate/lobbyist as company/trade association rep"

Micthell: Agreed - I would consider myself the same. I'm not sure who would be "neutral."

Bob Atkinson: "...so you have to give his articles the same skepticism as any inside-the-Beltway rep."

Micthell: I vehemently disagree. The idea that Art, who is employed by a nonprofit (likely at wages far below what his talents would garner in the for-profit market, or so I like to delude myself about myself) should be given the same deference as a lobbyist who is employed solely to help his company profit (often at the expense of everyone else) is absurd.

You might disagree about whether the views of a public-interest organization are correct or not - but they have fundamentally different aims from industry lobbyists and that shapes the outcomes. As Jim Baller recently noted, muni networks behave differently than absentee owned networks. Different motivations create different outcomes. Someone working in the public interest (again, whether you agree with that vision or not) behaves differ-

ently from someone working for private gain. (Some successfully hide their ties to private gain with claims of public interest).

Art has nothing to gain by making things up whereas industry lobbyists have much to gain directly from promoting their industry. This does not make them bad people, but you have to understand a person's motivations before you figure out how to process what they say.

Bob Atkinson:"And consider that the opponents of mapping will tie up any data production requirement they don't like with years of litigation. How does NTIA comply with the statutory deadlines for producing the map if the data-gathering is stalled in court???"

Micthell: I agree that this is a very real policy problem - one that I think will only get worse the longer we allow these litigation-happy companies to control the debate. I find it dangerous that we should avoid pursuing the public interest because a few companies will sue and tie it up.

The alternative appears to be making an unhelpful map because some telecommunications companies are opposed to a good map. Maybe it would be best to tie it up in court - save the taxpayers

the cost of building a useless map.

As soon as we spend more time talking about how to avoid litigation than what a good map entails, we are surely on the wrong path. This country has a worsening supply problem with broadband. Fixing this problem will require stepping on toes (at the least). The longer we wait, the farther behind we will fall.

Goldstein: Brodsky's point is simple: A map created by Connected Nation is worse than no map at all. It does not provide factual information. You do not want a road map that gets you lost or leads you over a cliff. Likewise, you do not want a map of served vs. underserved vs.

unserved areas that gives erroneous data.

Yes, the incumbents have an interest in keeping secret where they do and do not have service. They all have the data at their fingertips and could turn it over within one day, and it could be mapped almost immediately. But they aren't willing to. The intent of the law is obviously to get that data. Getting substitute wrong data violates the spirit of the law. NTIA's response should not be to publish wrong data (what CN provides). It should be to state that they did not get the requested cooperation from providers x, y, z, etc., and thus could not fill in the map. Congress won't take Larry out back and shoot him for telling them the truth.

Congress might then clarify the law and require the data to be made available. Or it will admit that it doesn't care.

Verizon & Fairpoint and Then ATT and Verizon as Laws unto Themselves

Feld: Verizon initially announced it would deploy FIOS universally in 2005, following deregulation of broadband. At that time, VZ had, I believe, 33 million subscribers.

Since then, VZ has shed its rural lines to drop to approx. 27 million subscribers. Of these, it intends to reach only 17 million with fiber. http://www.publicknowledge.org/node/2170

Cecil: As to shedding rural lines, VT PSC has recently initiated proceedings to revoke Fairpoint Communications' CPCN authorizing them to provide service in the state. Apparently this must make sense up in Vermont, but I'm having trouble seeing reasoning other than "f you don't like the service you are receiving from a company, you kill it." (See http://www.forbes.com/feeds/ap/2009/08/11/ap6764580.html AND http://publicservice.vermont.gov/index.html).

Levine: They may be thinking of arranging a forced sale to someone more competent. They've certainly done that, albeit at smaller scale, over the years. That's how my family got into the telco busi-

ness in the first place in the 1950s.

Cecil: What also perplexes me is the difference between Vermont's approach and New York's. Both see incumbents in trouble because of a down economy. One subsidizes an incumbent providing non-telecommunications services (and receiving many beneficial regulatory exemptions as a result) with revenue from telecommunications services (provided by entities burdened with the very regulations Verizon escapes by providing non-telecommunications services) while the other threatens to revoke the company's authority to provide any service at all, apparently because they want to improve service. Neither action is without harmful practical and market significance.

Goldstein: Fairpoint is an extreme case. They bought Verizon's turf, but did not strike a good deal, and did not get the necessary tools to manage it. Nor did they have their own systems, or the money to do the job right. They then lost a lot of their cash in an unfortunate fund failure during last year's financial turmoil. So service in

their three new states has gone to pot. They no longer have any goodwill, are effectively bankrupt, and the locals want rid of them.

So if they lost the CPCN, my guess is that the assets (working network) would probably be turned over to a receiver, or be auctioned off.

Cecil: John,

Understood and agreed. At the same time, try to buy any system anywhere and make it in this environment. There's a lot more here than meets the eye and a vast majority I fear not only has not met the eye but will not meet the eyes that are looking as they have no interest in seeing, which is evidenced by the nature of action taken. And let's get real here - it's not as if VT has been all that friendly to competition - I seem to recall some fairly regressive rulings on VNXX that were vigorously defended up the appellate chain resulting in all kinds of harm to the Internet. Think also of the scale of forfeiture that will result from the "sale", about who makes money and who just unloaded a lemon and got away with it, cash and all. Compare that to New

York. Look, let's not apologize for actions that deserve no such treatment.

Goldstein: VT is not friendly to competition, overall, though it's much better than, say, South Carolina. They tolerate over builders.

But in any case, the Fairpoint deal was weird in many ways. Financial engineering became the country's core skill in the earlier part of this decade, to the detriment of everything else. In this case Verizon used a trick called the Reverse Morris Trust. This basically moved the assets into a shell and reverse-merged the shell into the acquirer, making it tax free, with the acquirer paying for the deal with no straight (taxable) cash, but by taking on debt put into the shell, and by diluting its own stock so that the acquirer's shareholders end up with the acquiring company's shares. So VZ shareholders (but NOT VZ itself) ended up with 57% ownership of Fairpoint. Which turns out to be roughly 57% of nothing.

But don't worry; if you missed out on this deal, Frontier is planning a Reverse Morris Trust acquisition of about 5M Verizon lines.

Cecil: The only entities making purchases are the extremely cash heavy ICOs who have enormous cash reserv-

ers put into their pockets by none other than state regulators in the first instance, and federal regulators in the second. You won't see the Embarq merger treated in this way. Nor would you see any of the bell mergers get this kind of treatment, even where such penalties, however well documented the violations, are arguably richly deserved. It is NOT the ILECs that have failed us; they've played this game with virtuosity approaching if not exceeding the magnificent.

If we lived in a world where regulation had any rational relationship to market, technology and thereby public interest, these gaps in reason would not be so enormous or harmful. Accordingly, there is really very little to say of positive action by a regulator; very little of it will be of use b/c (a) law is hopelessly out of whack; (b) the state regulators had and have a big hand in making it that way (did you see today's announcements re: VoIP and re: interconnection, particularly in TX?); and (c) I don't see many of them acknowledging either (a) or (b) though fervent defense of the status quo and insistence upon regulatory rectitude approaching the papal infallibility doctrine apparently is in abundant supply. :-)

ATT and Verizon as Laws unto themselves

On cybertelecom: **Cecil**: This is downright alarming. I've contacted Wired because the link to the affidavit mentioned in the article does not work, but thought this was worth getting out to a wider audience - long story short, insofar as I can gather: intercarrier compensation dispute over VoIP leads to complaint leads to FBI raid on a collocation center where they pretty much ripped out everything. "FBI appears to have assumed that all the servers located at Crydon's address belonged to him, and didn't seem to understand the concept of co-location." Duh. Link at the bottom.

<snip>

Mike Faulkner, owner of Crydon, says the seizure has resulted in him losing millions of dollars in revenue. It's also put many of his customers out of business or at risk of closure.

The raids are the result of *complaints filed by AT&T and Verizon about small VoIP service providers whom the telecoms say owe them money for connectivity services.* But instead of focusing the raid on those companies, Faulkner and others say the FBI vacuumed up equipment and data be-

longing to hundreds of unrelated businesses.

In addition to Crydon, the data center of Core IP Networks was raided last week. Customers who went to Core IP to try to retrieve their equipment were threatened with arrest, according to an announcement posted online by the company's CEO <http://sites.google.com/site/mnsclec/index>, Matthew Simpson. According to Simpson, the FBI is investigating a company that purchased services from Core IP in the past but had never co-located equipment at Core IP's address. Simpson reported that 50 businesses lost access to their e-mail and data as a result of the raid. Some of those clients are phone companies, and the loss of their equipment has meant that some of their customers lost emergency 911 access.

"If you run a data center, please be aware that in our great country, the FBI can come into your place of business at any time and take whatever they want, with no reason," Simpson wrote.

Faulkner says the FBI seized about $2.5 million from Simpson's personal bank account. Simpson did not respond to a request for comment.
And *Faulkner says the FBI appears to have assumed that all the servers located at

Crydon's address belonged to him, and didn't seem to understand the concept of co-location.*

http://www.wired.com/threatlevel/2009/04/data-centers-ra/

Goldstein: I saved the warrant/affadavit. Here's a place to find it, on my server: http://www.ionary.com/CoreIPWarrant.pdf

If one is to believe the affadavit, it's a lot more than a routine intercarrier compensation dispute. Just who is responsible for what, however, is unclear.

Cecil: Fred, agreed to appearances. Looking at the affidavit, however, if we take the voip dispute out of this and what's left?

if memory serves, they could not get into the data center without the voip complaint. In other words, allege what you will as the remaining facts do not appear relevant to getting into that data center. And the owner has protested this vociferously at least in what I have read. Remember, the threshold here is alleging stuff on info and belief and reasonableness of the agent's belief. Fourth amendment thresholds, anymore, are quite permissive.

With that, do you think this could happen again given your knowledge and background and history of this industry and/or direction of voip regulation?

Secondly, are we so far gone as a nation of laws that we have to locate gear outside the country to protect our rights? Even if you do go somewhere else, couldn't they just block your packets or is the point to have multiple diverse routes?

Third, why couldn't this happen with a DMCA dispute where prosecutors allege ISP is involved? Would it not be possible for a technically sophisticated entity to make out cases that your usual Joe Caberent state or federal judge might not see through?

Aug 15 **COOK Report:** From a European member comes these very useful links. Worth reading. A swamp and a jungle all rolled into one.

I like Erik's comments.
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http://www.uwwwb.com/reddit.html

Executive Summary

BT's Strategic Direction

If a telco is capable of technology innovation, such a telco is undoubtedly BT. Over the course of the winter JB Rangaswami obtained the services of Telco 2.0 founder Martin Geddes. Consequently, I was eager to see what this portends for the continuing evolution of this national carrier that seems determined to invent a new role for itself as a company that will be something other than a drag on the nation's economy.

BT Design is now named BT Innovate and Design. This is the outcome of a reorganization that saw the departure of Matt Bross as Chief Technical Officer. This was a decision that quite frankly was not surprising in view of the fact that the technology choices for BT's 21CN integrated IP network have been made and the network now is largely in place. It also carries through the logical emphasis that flows from BT's admission that Google may be BT's most important competitor as BT CIO Al Noor Ramji said in June of 2006

Since the telco can no longer count on a monopoly over voice -- what the strategy team of Geddes and Rangaswami seems to be doing at BT is fueling the development of an open-source business services platform. BT will market this platform to enterprises in a way that it will bring them productivity increases and cost savings in their dealings with their customers. Such a business services platform contains voice almost as an afterthought. What it has to offer is primarily capabilities of dealing with the customer-service life-cycle that can be integrated in such a way that BT can create a platform where each enterprise customer can pick, choose, and tailor capabilities obtainable from BT in a fashion that is far more cost-effective than such a company could design for itself.

BT seems to be in a position where it can effectively leverage the open source capabilities that Rangaswami developed at Dresdner in the aftermath of the dot com bubble and can apply them companywide in conjunction with the three or so years of experience in developing potential new telco business models that Martin Geddes has acquired as a part of his experience as a cofounder of Telco 2.0.

Martin clearly understands that it is possible to use the new technologies of Web 2.0 and beyond to develop tailor-made business services platforms that can be both far more malleable and cost effective for enterprises in dealing with their customer relationships than mere voice.

One of Martin's most interesting observations is that he and BT still see Google as a very significant threat three years after its original mention by Al Noor Ramji. Why? Because Google potentially could offer free voice service to enterprises and to many individuals. Martin explains that carriers had better be ready with something better when that happens. It is Martin's objective to ensure that BT is not lacking in these capabilities. He is presently carrying out his work in strategy planning with the various BT business units in efforts aimed at designing these new business tools that could make carriers assets to instead of drains upon their national economies.

Two postscripts in the interview cover first a description

of the 21CN network aimed at understanding how it facilitates the capabilities that Martin explains and second a summary of the development and purpose of BT Global Services by Tim Cowen who was one of the executives principally involved.

Symposium

FTTH vs Cable. p. 24

The technologies are no longer as incompatible as they once were

Goldstein: Cable and ILEC are separate because they used to be incompatible technologies. The FCC presciently prohibited ILECs from owning cable in urban markets, thus allowing a duopoly instead of monopoly. But FTTH can do both. The correct approach is to have a neutral LoopCo pull wholesale FTTH and let any service provider use it -- cable, ISP or telephone.

Paulk Budde: In these debates the longer-term national interest is often disregarded. The debate is confined to the technology—what it can and cannot do—and it also concentrates on a rather short-term timeframe, say of the next five years. Interestingly, even most cable companies admit that ultimately FttH is the best infrastructure

solution. But this message is being diluted as the focus of the debate then moves from the underlying digital economy to HDTV content.

In order to match the flexibility of fibre the cablecos argue that with switched video technology they can actually compensate for most, if not all, of the advantages that fibre has. And there is no doubt that, based on current Internet and entertainment requirements, cable broadband (especially DOCSIS 3.0) can do the job. But and increasing number of applications in both entertainment and other video-based (communication) services require a synchronous use of the infrastructure, and cable does have some severe limitations here.

From Carlota Perez p. 26

A new paper is in Open Democracy, a web based magazine
http://www.opendemocracy.net/article/economics/email/how-to-make-economic-crisis-creative They have a problem with the version to print and the pdf so I am attaching it.

Erik Cecil on Why the Stimulus Must be Gotten Right, p. 27

So too, fiber optics is to networks what asphalt is to roads. It's the stuff we

build with; it's not some magic, wonderful, new, or different or expensive thing. What's expensive, what's bleeding us to death is the continued indulgence in the illusion that the means -politics as usual - will deliver us anything or to anywhere than the same. This system will not last for much longer. It is unsustainable to pretend to charge the public, to tax the public, to inhibit growth, stymie innovation, serve monopoly, and ossify markets in the name of perpetuating the very means that created this result. It will fall just as surely as a house divided cannot stand. [snip]

While I don't advocate burglary or computer hacking, I do strongly advocate hacking the regulatory meme; turning it's strengths into weaknesses and your weaknesses into strengths.

In this regard, relying on state or federal regulators to do anything other than what they've always done is the unwinnable scenario. Instead, you attack precisely where they cannot defend (and there are some soft spots - very powerful soft spots**, precisely because there is no law in this country; there is only political and monetary compromise),** and when you attack you attack from the highest in

heaven. As applied here the highest in heaven is the greatest, highest, most beneficial public good; it is integrity of purpose, of technology, and of service. Serving all, universally and without discrimination, is the highest good.

But you cannot be in and of this system. In order to succeed and not get caught up in it, you must work with and within it but never, ever be of it. You can never serve monopoly impulse, whether directly or indirectly. You must be able to build out local fiber and provide to any and all - and make money - without excusing yourself because the rest of the system is corrupt. One does not transcend a corrupt system by acting only partly in complicity with it. One transcends it by transcending it. Period.

Fiber Failing in Muni networks in USA? p.32

Paul Budde asks about rumors n the Australian press.

Jim Baller: Bottom line: Municipal fiber projects that provide retail service and have been operating for at least four years are just doing fine, some spectacularly so. At the same time, several wholesale-only fiber projects have struggled -- such as

those in Utah and other states that effectively prohibit municipal retail services. See http://tinyurl.com/cnt7no These facts may be inconvenient for advocates of the wholesale-only model, but they cannot be ignored.

John St Julien: It's probably worth separating your query into two parts: 1) Does Heartland and their hangers-on have anything worth seriously trying to understand and 2) Does the US experience with municipal wholesale-only networks have much to say about Australia's project. The easy answers are NO, and NO.

NTIA Mismanages Broadband Stimulus, p.40

Harold Feld: Will NTIA Smother BTOP In The Cradle? Why that would be a disaster for policy, and how to fix it. http://www.wetmachine.com/totsf/

Ready to do the right thing on mapping on June 1, after Strikling's confirmation NTIA lets the Incumbents write the rules and hires Rachelle Chong's mapping administrator to evaluates national level proposals>

Read Art Brodsky's comments: July 30 It seems like only yesterday that we were say-

ing that a game of chicken was likely to develop between the government and the telecom industry over the data that is supposed to be reported under the stimulus broadband mapping program. Actually, it was the day before yesterday. But never mind that, it seems the day after that story was published, a group of telecom executives huddled with Larry Strickling, director of the National Telecommunications and Information Administration (NTIA) to express their concerns about the data that is supposed to be reported under the stimulus broadband mapping program.

There should be no surprises here. This was the other shoe waiting to drop.

snip *The whole mapping exercise is already on its way to being substantially corrupted as the telecom industry's creation, which exists to prevent data from being public, is collecting mapping contracts right and left through the efforts of their lobbying and influence. There is absolutely no reason for NTIA to concede on the data collection. NTIA and its supporters in the Administration and in Congress should realize that if agency backs down on this assault from the industry, there will be that much less of value worth*

saving. At the end of the day, somebody is going to be in control of the mapping. It will either be the public, and the public interest, as represented by NTIA, or the industry.

And Brodsky on August 8: **If this mapping exercise is going to be worth even 1/10 of the money Congress appropriated, it's about time for the government to step away from the table with the industry, remind itself of its public interest obligations and quit giving away the store. It doesn't matter if it was a "good deal" or a "bad deal" to make those changes. There was no reason for any deal. Either scrap the program, extend the deadlines and start over, or hold the industry to some meaningful commitments. NTIA has to choose, and these choices to start the gradual surrender process are not at all auspicious.**

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The Incumbents Do What They Please Including Using FBI as Police Force, p. 49

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Contents

The 21st Century Telco as Business Process Platform Enabler
BT Innovate & Design Crafts Open Platform to Take Friction Out of Multisided Business Processes

Symposium Discussion - July 17 - August 17, 2009

A Note from the Editor on the October 2009 Format and Presentation

This issue leads off with an analysis of BT Innovate and Design - the outcome of BTs decision to rely on a CIO rather than both a CTO and CIO. An interview with Martin Geddes brings us up to date on BT's evolving model of a open service platform for enterprise customers that will be sufficiently attractive to pay for as voice revenues shrink.

Coming in the November 2009 issue - out by September 30th, some personal thoughts on the state of medical care 30 years after my 1979 article on Larry Weeds problem oriented medical information system. There will probably be an interview either with Dr Weed or with David Southwick of PKC Corp.

I have completed an interview with Pavan Shakya that tells how he brought one megabit per second wireless internet direct from Kathmandu to Namche Bazaar Nepal. I intend to publish this either in the November or December issue.

Text, URLs and Executive Summary: I have attempted to identify especially noteworthy text by means of boldface for REALLY good "stuff" . Also the proper Executive Summary in this issue continues. I hope you find it useful. Feedback welcomed. You will also find live URL links and page links in this issue.. (I am also no longer changing British spellings of things like fibre to the American fiber.) Thanks to Sara Wedeman - see www.becgllc.com for assistance with the masthead logo. Captain Cook now charts direction by looking at a compass rosette.

I am omitting the contributors' page since a cumulative list may now be found at
http://www.cookreport.com/index.php?option=com_content&view=article&id=121&Itemid=74