

Interview
with Timo Bauer
SVP & GM Americas



The Future of Cloud



A Roadmap of Technology, Product,
and Service Innovations for Telecoms

Thorsten Claus
Daniel Kellmerit
Yasmin Narielvala

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NewBay

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NewBay is a privately owned Irish company for digital lifestyle services, enabling telecom subscribers to create, store, manage, view, and share user content across screens of PCs, mobiles, TVs, and in-car entertainment systems. With offices in Seattle, Palo Alto, London, and Dusseldorf NewBay is successfully winning clients across the continents and industries - from telecoms like T-Mobile, Telefonica O2, Orange, or AT&T to consumer electronics manufacturers like LG Electronics.

In July 2010 Detecon's Thorsten Claus had the craic with Timo Bauer, Senior Vice President and General Manager for the Americas at NewBay. Timo shared NewBay's vision and insights on one of the largest consumer-facing telecom cloud solutions; and how Cloud is more than just about operational efficiency or cost savings, but can increase a telecom's ARPU, drive messaging and data traffic, strengthen customer loyalty, and build mobile communities and social networks based on user generated content.

THORSTEN: *[Laughter]* It's funny that we always meet in Irish pubs. What a cliché.

TIMO: We also have a CEO named Paddy. But no sheep.

THORSTEN: So why don't you tell us a bit about what NewBay does and what you are currently working on?

TIMO: Sure. NewBay provides a Cloud-based User Content Ecosystem to Service Providers and OEMs. We call our white label platform LifeCache and it enables our customers to offer user generated content solutions like Social Networking, Digital Vaults and Network Address Book services. NewBay has major installations across the world with many Tier 1 carriers and OEMs.

THORSTEN: Hunting Tier 1 telecom elephants is quite time consuming. Did NewBay start out with that vision from the beginning?

TIMO: In the early days we provided end to end solutions to our customers but realized that we need to provide customers with more flexibility and also let 3rd parties innovate against our technology. Driven by this demand we developed an extremely well defined and executed set of APIs. Today many leading design agencies and major OEMs are developing against our APIs. This has been a great success for us and places us at the core of user content systems globally.

We always believed that the telecoms will play a role in consumer Digital Lifestyles. We started in 2002 when carriers did not realize the true potential and strategic opportunity they had to drive their subscribers' digital lifestyle. In the last two years, User Generated Content is finally becoming strategic to carriers and is now part of C-Level discussions. These days carriers are cooperating with but also competing with companies like Google, Apple and Facebook. NewBay enables them to do that.

THORSTEN: That's interesting – these are big companies to compete with, with a strong Cloud vision and strategy. How is that going to play out? How are Cloud markets going to develop?

TIMO: Obviously there are several segments of cloud offerings. Talking about the Digital Lifestyle of the consumer I would like to focus on the consumer cloud. The consumer cloud from NewBay's point of view consists of a Premium Cloud and a User Generated Content Cloud. Whereas the Premium Cloud got most of the attention in the past (Ringtones, Music, etc.), the opportunities surrounding the User Generated Content Cloud are now being recognized due to the media hype around MySpace initially and then YouTube, Facebook and Twitter. Service Providers slowly realize that they cannot just be a dumb pipe. I do not really like this analogy. But in reality, carriers need to differentiate to be competitive and differentiation through voice pricing plans will obviously not last much longer.

NewBay's LifeCache Solutions utilize both cloud types. Even though we are not a content provider or aggregator, we are interested in the metadata around premium content. For example, music playlists, ratings, or the fact that my best friend likes a certain movie. All this metadata around premium content is important for carriers to store and maintain for data analytics, semantic engines etc... There are lots of opportunities for carriers to use that data, such as targeted advertising, social profiling etc. This helps carriers to compete and properly co-operate with companies like Google. It even gives them a huge advantage that they hopefully realize to use. NewBay is working hard with several carriers to make this reality and I think the carrier's are getting more and more excited about this opportunity.

Another obvious example is the Converged Carrier Cloud. Carriers like DT, Orange, AT&T, and Verizon have the opportunity to offer Cloud services across many screens which makes those companies a crucial part of the subscribers' Digital Lifestyle. The fact that I can manage my content seamlessly through my PC, Mobile Phone, Tablet and TV at home is a good customer proposition. Bundled with the trusted brand and proper customer support, carriers can provide a great subscriber offering and experience.

We call this the Converged Consumer Content Cloud, the 4C's. *[Laughter]* And we believe strongly that carriers as well as OEMs have a great opportunity to be major contributors and even to be the main drivers in this space.

THORSTEN: Carriers get a lot of face-time with on-deck solutions. If something like the Converged Consumer Content Cloud becomes ubiquitous, what impact does that have on how we use or consume Cloud? And what are the most common but yet most commonly unanticipated pitfalls when planning, rolling out, and using Cloud services?

TIMO: I think the consumers are just slowly realizing what the consumer cloud means and really enables for them. Today most people think about how to get content onto certain devices. The "Sync" paradigm is all over the place. We think that the "sync" paradigm is actually "anti the cloud". It is not about "syncing" content rather about enabling easy "Access" to content that sits in the cloud. To me that means that the cloud is not really understood and it may still be a bit early. An example: I have around 10 thousand family photos. I want those to sit in a secure cloud that is automatically backed up. Basically, a safe place. Even today I have actual copies of the photos on many devices and drives due to access limitations and sync offerings.

This will change with the availability of high speed, always on networks that are coming soon.

Again, I think this is a huge opportunity for carriers. I personally am more than happy and even prefer to use a trusted Tier 1 carrier brand to do that for me rather than a Web Service with questionable [terms and conditions]. Who do I trust to manage my personal content for the next 30 years? There are not many companies with the right intentions and capabilities to do that.

THORSTEN: An interesting comment about intentions of companies. What are key success factors for telecoms in a highly competitive ecosystem with many good services to choose from?

TIMO: NewBay started about 8 years ago and it took us a long time and many lessons learned to be able to provide Carrier-grade systems. We are talking geo-redundant five-nines solutions. There are not many companies in the world that can do that.

THORSTEN: Most Web-based consumer-facing companies promise a 99.95% availability in their [terms and conditions]. That's a good eight hours of downtime per year. Some companies also boast with a 99.999% – five-nines – available due to “unplanned” downtime. So who knows about their planned downtime...

TIMO: Good point. But coming back to the “access the cloud” paradigm, it is crucial that the Cloud is available at all times. Downtime is a major issue and as long as the Cloud is not backed by a stable and scalable environment, consumers

feel forced to keep their content on several devices. For carriers this is a major challenge as they will get bombarded with customer care calls which obviously increase costs.

THORSTEN: But how can telecoms improve their speed of innovation to compete with companies whose core business are consumer-facing Cloud services? What roles could telecoms play?

TIMO: I would like to give you another example. Let's call it “Cloud Enablers”. We believe these areas will be one of the most strategic areas for carriers. Today you see more and more carriers eliminating their “real” unlimited data plans. Obviously heavy smartphone data services are a major challenge for the carrier network infrastructure. One of the biggest issues for the carriers is that they have limited control over how applications interact with the Internet. The constant polling of social networking updates not only causes grief for network capacity



planning but also results in a poor user experience due to decreasing battery life. There is plenty of room to optimize data services and I believe the Carrier needs to step up and guide the community.

Our LifeCache Social Networking Gateway for example is used by many carriers and OEMs to provide a social networking service via clients and WAP. It allows third parties to develop services based on our aggregated social networking feeds using our SNG API's. Over the last years we put a lot of effort into our Developer Support Program that provides a sandbox environment and developer resources to use our APIs in the most efficient manner. The initial intent was to provide third parties with flexibility in terms of UI design, but we quickly learned that a huge emphasis is to educate the community on how to use the APIs and create call flows/UI scenarios in the most efficient way to reduce network traffic whilst providing a strong user experience. In fact we have current deployments with major carriers where we provide our SNG as a Multi Service Enabler. The carriers will demand OEMs and other third parties to use our APIs to develop Social Networking Applications. This gives them the control to make sure to optimize all efforts to keep network utilization optimal.

More exciting than this – I consider this exciting...

[Laughter]

... is that this enables the carriers to store all the meta data as the traffic goes through the carrier gateways powered by NewBay. As briefly mentioned before, this presents a huge opportunity for carriers to utilize the data for many services. Obviously, looking at recent Facebook Privacy issues, carriers need to be careful how they play this hand, but I am convinced that they will do it right. This is really how I see the carriers in 10 years from now. You can call this a Smart User Content Ecosystem, or a “Smart Pipe” which it is sometimes referred to in the Industry. I see this as the re-birth of the carriers as a Service Provider.

THORSTEN: But before you said that consumers want the stability and reliability of a carrier brand – five-nines. Now you want to provide enablers that would not be customer-facing anymore. So why are enablers important or even relevant to the consumer?

TIMO: Consider this, today millions of people share content across many sites without even reading and knowing the [terms and conditions]. The Facebook privacy discussion is just the beginning in this regard. So why not provide a technology platform to carriers that allows them to share all the user generated data with third parties, BUT also allows them technically as well as policy driven to retrieve the data back. The carrier will act as your trusted partner in this case and I believe no one in the value chain is better suited to do this better than the carrier. Of course NewBay is more than happy to help and make it happen.

THORSTEN: *[Laughter]* Is there anything – technology, service, product, standards, ... – you wish you would get from a carrier or you could see carriers providing to you? And what do you think are current roadblocks or challenges that we don't see these things yet?

TIMO: Well, we are driving the industry to use our API's and make them the de facto standard for the User Content Ecosystem. Today Samsung, LG, Nokia and other major OEMs are developing solutions against our APIs. You have major Tier 1 carriers using our solutions and APIs globally. I give you another example that our LifeCache Social Networking Gateway (SNG) API is basically a de facto standard already. LG for example uses our LifeCache SNG for their Android Social Networking applications. These are the same APIs other OEMs and carriers are using. Already some carriers have asked the OEMs to use the NewBay carrier SNG vs the NewBay OEM SNG so they have better control over the activity and also can start storing the metadata around the Social Networking activity. As the APIs are the same, all the OEMs have to do is to route the API calls and queries towards the carrier SNG Platform. OEMs are not interested in storing or managing data around the usage and optimizing the network. They want to sell hardware ...

THORSTEN: ... for the moment. But they won't shy away from drinking the carrier's pint if they come too late to the party ...

TIMO: ... true, but on the other hand, carriers want to own the Gateways for several reasons. This makes life so much easier for all parties.

There are obviously standards and initiatives we are closely following like LTE, IMS/SIP and other related initiatives. We are network agnostic in what we do though, however we need to make sure our platform supports all standards.

THORSTEN: You mentioned LTE – how important is the network? What is “network” in the future of Cloud?

TIMO: We talked about Access already. It is critical to have an always-on environment. The network is the backbone for this. So it is a critical component. No network, no Cloud. Simple as that.

In an all-IP-based environment you will see a vast range of IP-enabled devices accessing the Cloud. I am sure we will see more devices that are more like screens and we will see more applications in the Cloud versus locally stored on the device. Traffic patterns and network usage will change. As opposed to sharing actual content, you will just share the reference of the content. Twitter and TinyUrls introduced the concept but we will see it on a way bigger scale providing a better user experience. Companies have started to invest billions in data centers to be ready for this. Again, this is a great opportunity for carriers.

THORSTEN: If you say that Twitter and TinyUrls only introduced the concept, how will interactions and transactions with and within Cloud look like in 10 years? Will that be different for emerging carriers and mature carriers?

TIMO: I usually differentiate between Tier 1 and Tier 2 carriers. Obviously the subscriber base plays a role here but generally Tier 1's are converged carriers that offer services across major screens. Back in consulting we called it Quadruple Play.

Tier 2 Carriers usually do not have this ability and focus on Wireless only.

To power a Cloud-based platform you need a decent size budget and Tier 2's usually do not have that. So we will probably see different paths for those carriers.

Today we offer solutions to both Tier 1 & Tier 2 carriers. However Tier 1's go in the direction of enabling platforms and let third parties innovate against it. I am not sure how Tier 2's will be able to do that. Perhaps we will see consolidation as well as more partnering in this space to be able to do the same. Either way we provide the technology and add value in both scenarios.

THORSTEN: But what are we going to talk about in 10 to 15 years? What is the next major evolutionary step in Cloud, how will we know that it happened – what's the next "sonic boom" in Cloud?



TIMO: That is quite far out considering what we talked about 15 years ago. Again there are several segments in the Cloud. The consumer Cloud as defined before already exists and Carriers today are offering Cloud-based solutions. The "sonic boom" though, if even that big, is the burden that people need to understand the access paradigm versus the syncing paradigm. They need to trust the Cloud and that is not quite the case yet, I think. As long as this will happen and we have a solid network and Cloud-based infrastructure, the consumer Cloud will dominate and set the new standard for how we manage our content on a daily basis.

We invested significant amounts of time and resources in system and software engineering to develop platforms that provide and enable those requirements. In fact we are going to launch the biggest Converged Consumer Cloud with [a Tier 1 carrier] later this year.

THORSTEN: it's going to be interesting to see how fast the consumer mindset will change with [a major Tier 1 carrier], having access to so many consumers across so many screens and digital lifestyle properties. Thank you for sharing your thoughts and insights.

TIMO: Thanks so much for inviting me and I hope I gave you a good perspective how we think the consumer content cloud will develop and the importance of the carriers.



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