

“We don’t make cars – we make cars awesome”

Until recently, the closest an operator got to a car was through a hands-free set. Today, as **Hans Dahlberg, Vice President of Global Internet of Things (IoT) Services at TeliaSonera**, explains, the IoT can put operators in the driving seat across industries – **but only if they’re ready for it.**

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Machine-to-machine (M2M) and the Internet of Things (IoT) are some of the most hyped concepts in the ICT industry today. But is the buzz actually translating into business?

I think the hype cycle can be a useful asset when we engage with potential IoT customers – but only up to a certain point. The publicity means that many customers are aware of the concept and are saying: “we need to do something with the IoT”. That’s positive for us, of course, but it’s really only the very start of the discussion.

For the customer, the key step is to identify where this technology should be applied, and even more importantly, to embrace the transformation it entails. Bringing the IoT into a business can – and indeed should – radically disrupt everything from offerings, strategies and go-to-market models. It’s not something that a company can simply bolt on before continuing in exactly the same way as before.

Helping customers understand this dynamic – and offering both the technology and business reengineering competences required – therefore has to be a priority for anybody with ambitions of leadership within the IoT. The engagement and deployment process will obviously move at different speeds with different customers – some know exactly how they want to change, while others are still coming to terms with the fact that change is necessary.

But overall, more and more companies are recognizing that the IoT can be a very powerful tool to drive efficiencies and business growth. The momentum is really building, to the extent that we at TeliaSonera are predicting that the



five biggest communication breakthroughs in the next five years will not involve human beings.

Does this mean that realizing the full potential of the IoT is now largely a question of finding the right business models?

I wish that were true! However, we can’t deny that there are some major issues beyond business models that still need to be addressed.

Technology is one of these. Many things are moving in the right direction – for example, sensors are much smaller and more power-efficient

today compared with just a few years ago, which makes many more IoT use cases possible. Perhaps even more importantly, the cost of technology continues to go down.

But on the other hand, battery life remains an issue for many applications. In addition, the continued absence of standards creates serious interoperability issues that can restrict the benefits of the IoT for users. The formal standards process is moving fairly slowly, which creates a gap that some companies are trying to fill with de facto standards built on market share. And this leads us to the biggest outstanding hurdle to full IoT deployment, which is the lack of strong ecosystems.

Why are ecosystems so important for the IoT?

The brutal truth is that when it comes to the IoT, nobody can do it by themselves. Some operators have been particularly slow to accept this, perhaps because of a historical mindset that is used to controlling every part of the value chain. But stovepipe thinking in the IoT goes beyond these operators – you can see it in many parts of the industry.

Just look at today's connected home solutions, which have turned out to be even more fragmented than anybody could imagine. Utilities, alarm companies and OTT players are all pushing separate offerings into the market, which is confusing for the user and completely unsustainable from a long-term business point of view. Opex and capex levels are too high, and it's difficult to move fast enough in responding to new opportunities. The potential of the IoT covers a huge range of vertical sectors, but how can you address these if you need to build from the bottom up every time?

That being said, ecosystems are definitely moving to the top of the IoT agenda. At the recent M2M World Congress event everybody was talking about them, whereas a few years ago at the same event nobody seemed very interested. I think the practical experience of trying to do everything is proving a difficult one for many companies, and this has taught them that strong partnerships are instead the way to go.

Wild things

- ▶ The Economist – 95 percent of C-suite executives expect to use IoT solutions in three years' time; 61 percent believe companies slow to integrate IoT into their business will fall behind the competition
- ▶ Gartner – the IoT's total economic value-add will be USD 1.9 trillion in 2020
- ▶ General Electric – utilizing the IoT in industrial applications could benefit 46 percent of the global economy
- ▶ McKinsey Global Institute – the IoT has a total potential economic impact of up to USD 11.1 trillion a year by 2025

Background check

NAME: Hans Dahlberg
POSITION: Vice President, Global IoT Services, TeliaSonera
PREVIOUS POSITIONS: Over 25 years of experience in telecom, management and business development, including senior management positions at TeliaSonera and Ericsson
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What is TeliaSonera's strategy for the IoT?

We are taking both a horizontal and vertical approach. TeliaSonera's heritage lies in connectivity, and this is the foundation of our IoT offering. Our ambition is to provide a reliable and robust mobile network for IoT applications, with excellent coverage indoors and outdoors, and in both urban and remote rural locations.

On top of this connectivity offering, we provide IoT services that aim to create value across sectors. We have a wide network of industry and operator partners, which enables us to deliver everything from IT consultancy to software development and security. One service to which customers have responded particularly well is the M2M in a Box cloud package, which includes sensors that connect everything from buildings and shops to vehicles and machinery. You manage everything through a web user interface, and the idea is to enable more businesses to explore IoT opportunities by simplifying the entry process.

At the same time as these horizontal efforts, we are making bets in three vertical IoT sectors – health care, connected homes and smart buildings, and automotive. In the latter area, we just launched a service called Telia Sense, which basically makes any car a connected car. As a car owner, all you need is an app and a telematics unit plugged into your car's OBD-II port to get access to real-time diagnostics and monitoring. This creates a platform for partners to offer even more innovative services – for example, we're already working with a major Swedish insurance company that sees Telia Sense as an opportunity to provide usage-based car insurance.

Just a few years ago, the suggestion that TeliaSonera might have something to contribute to automotive would not have been credible. But for operators like us, the IoT is rapidly opening doors to sectors that were previously off-limits. Today, we can actually say: "We don't make cars: we make cars awesome" – and that's so exciting.

Looking at the full value chain, more value is created by solving a particular business need than by delivering one component in an overall solution. On the other hand, increased specialization usually leads to smaller volumes. How will TeliaSonera balance this trade-off in your IoT business?

We're in the relatively early stages of our strat-

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egy execution, and that means we're still building up our capabilities. But in the medium to long term, our aim is to go into new verticals by reusing as many existing competences as possible. I don't see any reason why 70 percent of an IoT solution in one vertical couldn't be applied to another vertical.

The market is global, and the ability to replicate and scale will be decisive – we just need to work out what we can standardize on a horizontal level before building specific capacities on top of it.

Why is an operator the right partner for IoT customers? The network is obviously a valuable asset, but is it enough?

In my view, the IoT is a chance for operators to think big. Of course, the network represents a great foundation, because it gives us unique capabilities to provide security and privacy and SLAs on the level that IoT applications require.

In addition, the network enables us to solve an IoT-related problem that is becoming increasingly urgent – access to global coverage. To take just one example, some connected cars consume up to 1.6GB of data a month, and this means that local tariffs (instead of high roaming charges) are required to make driving between countries feasible from a user cost perspective. Addressing this issue is one of the reasons why TeliaSonera is a founding member of the Global M2M Association (GMA), which is a group of international operators that work together to enhance roaming and optimize interoperability.

So we really shouldn't underestimate the value of the network. But this is where the big thinking should come in – rather than being content with providing connectivity, how can operators create and enable additional value on top? When we can answer that question in a compelling way, everything else will hopefully fall into place.

I'm convinced that the answer lies in ecosystems, platforms and above all data. Aggregating, analyzing and acting on the vast amount of information generated by IoT applications can create real, lasting value. In a world where connectivity is becoming increasingly commoditized, data competences are what we need to offer as an operator.

Getting there is another matter, of course. It's an organizational question, naturally, but the mindset is also critical. As an industry, we are sometimes held captive by old ways of thinking. It's essential that we stop seeing a connected car, for instance, simply as an opportunity to push out another SIM card. There's no long-term business for us that way – data prices are going down, and in the meantime someone else will build on the connectivity and take all the value. In other words, we'll be looking at the smartphone story all over again.



TELIASONERA

For us and our peers, succeeding in the IoT will require very different ways of doing things. Just as we talk about the need for other companies to reengineer their business in order to benefit from the IoT, the same is probably true of operators as well.

How is this reengineering process playing out at TeliaSonera? What learnings can you share?

First of all, our IoT business is run by a dedicated unit with its own budget and targets. The ambition level is high – we have said that our revenues in this area should be four times higher by December 2018 than they were in December 2014.

The decision to spin out the business was initially driven by the need to bring together IoT skills from across the organization into a single competence center, since it's hard enough to find the talent we need without adding internal competition into the mix. Data analytics and business consulting are just two of the skills on which we are focusing, together with expertise in specific industry verticals. At the same time, we are making investments that can help accelerate our strategy execution, such as our recent investment in the Swedish company Springworks, who develop smart human interfaces for IoT solutions.

But as well as competence, we saw that it made sense, both financially and operationally, to centralize our IoT product portfolio, marketing and innovation too. Throughout this process, we have learnt that there's a delicate balance between leveraging the strengths of a global organization while creating space to explore and innovate. We need the sales channels, the customer relationships and the resources of the wider business – but we also need new offerings, new business models and new thinking. In many ways it's about

Dahlberg on... leadership

"I try to set a positive example both to my organization and customers by thinking outside the box and taking decisions quickly".

Dahlberg on... inspiration

"I really enjoy getting results –there's no better feeling than working on a new business model that delivers value for a customer".

Sense of direction

Telia Sense is a cloud-based solution with a hardware module that connects to a car's onboard computer using the OBD-II port (available in most cars since 2001). It enables users to

interact with their cars via an easy-to-use mobile app, and includes the main components of a full connected car solution. Telia Sense provides a 4G Wi-Fi hotspot and car remote control,

and helps the user monitor the health of the car and its environmental impact. The user can choose to add a multitude of partner services such as insurance, car repair shops and parking.

trial and error, but on the whole, I think we can say: so far, so good.

We've really learnt that reengineering is an attitude, as well as a process. The IoT is a new game, and that means new rules. We have to be comfortable with change and understand that things are going to work differently than before. For example, the transformational aspect of the IoT means that we are increasingly competing with management consultants and systems integrators – but sometimes we are partnering with them instead. The lines are blurring, and it's never been more important to be able to handle ecosystem complexity, both at an organizational and also at an individual level.

Even if many businesses are now aware of the IoT, are they moving fast enough?

Business change on any level often takes time. For larger companies in particular, even starting an internal project or field trial can be a challenge. And given that the IoT represents such a transformational concept, this process necessarily becomes even more complicated.

For instance, put yourself in the position of an insurance company. The insurance industry has basically had the same business and operating model for over 100 years, built on specific (and also

limited) information flows between customers, authorities and insurance companies. Now, all of a sudden, connected cars offer data at a level of detail that was previously unimaginable. For an insurance business, this means rethinking just about everything – and that doesn't happen overnight.

In fact, I believe a major factor behind the success of Tesla Motors is the way in which they have built their offerings on connectivity right from the start. More established automotive companies, on the other hand, are looking for ways to add connectivity onto existing models, and this has left them playing catch-up, despite their theoretically superior resources.

There is an important lesson here for all businesses, which is that the IoT is about more than finding savings or efficiencies. These are, of course, very important. But the story is really about how to grow and thrive in the future. Things are changing, and we're all in the reengineering game. It may be time-consuming, and it may even be painful. But when we look back – whether as operators or customers – embracing the IoT might just be the best thing we ever did. ●

INTERVIEW BY NICHOLAS SMITH

“Reengineering is an attitude, as well as a process”