

BROADBAND: DRIVING RECOVERY?

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Single 'smart' technology standard on horizon



The first step to create a new single industry standard for smart homes and grids capable of offering energy savings and health monitoring is set to be made in Tokyo next month, EurActiv has been told.

In an interview at the World Mobile Congress in Barcelona, a representative of the China Standards Authority – Huawei's Richard Brennan – told EurActiv that he expects a large consortium of companies and standards agencies to sign preliminary papers with a view to creating the standard.

"The name for this initiative is "one m-to-m" and the papers should be signed in Tokyo at the end of March," Huawei's Richard Brennan told EurActiv.

Many 'apps' in smart home of the future

The many hundreds of applications that would go into governing the technology of a smart home have individual standards, Brennan said, and the idea is to create a service standard that they can all feed

into and be controlled by.

The move reunites standards authorities which worked on a single standard for 3G technology, but also many industry bodies since the aim is to create a single service standard capable of controlling all applications within smart homes.

"This is the first step to try to tie together, and to get our arms around, this global movement of billions of devices that are all going to be 'addressable' [in smart homes], and to marshal them into what users want," Brennan added.

The initiative is designed comes as smart home technology is gearing up to launch into the real market, where the scope for business is huge, according to Brennan.

Massive market for energy saving homes

He said it would benefit wealthier countries, where consumers wanted to save money using energy conservation sensors in their homes, but also poorer ones, where such sensors

could strictly monitor rationed supplies of electricity.

He also confirmed that industry is in dialogue with the insurance and health sectors to see how smart technology could allow the health regimes of individuals to be monitored at home.

"You will not have the motivation to put in medical monitoring but your insurance company – if you start to have a condition – they will want that monitoring as a condition of the insurance, because it will reduce their total cost of healthcare," Brennan said.

The regulatory battle raging in both the US and Europe over technology and privacy is however hampering the development of the industry since it creates uncertainty, Brennan said.

He said: "In the US it is 'freedom of speech', in the EU it is all about constitutional privacy: those are opposing forces that cannot be balanced. I think there are concerns generally about these two different models... They need to be balanced."

EU on track to miss super-fast internet roll-out targets

Europe's broadband internet coverage is close to 100%, but super-fast connections remain marginal and well behind the EU's official target despite the rhetoric surrounding the benefits of the digital economy.

European Commission figures show that 95.3% of EU households live in areas covered by broadband – walking distance from the 100% coverage the bloc aims to achieve by 2013.

Some countries – the UK, Belgium, France, Luxembourg, Cyprus and Denmark – are ahead of the pack and have already reached the 100% objective.

Broadband allows fast internet and offers a range of services only available at higher speeds, such as watching streaming music or playing online videogames.

Total coverage is considered important to avoiding the so-called "digital divide" but here statistics are less encouraging, with only one-quarter of European households having a broadband subscription.

In the first half of 2011, the broadband penetration rate was 27.2% of the EU population – some 500 million – but recorded the lowest growth rate since 2003, the Commission said.

"The slowdown is a cause for concern, because the EU is still far from saturation," the Commission noted in a statement.

Super-fast internet pipe dream

With such a low penetration of conventional broadband, Europe's official objective of reaching widespread coverage of ultra high-speed internet by the end of the decade appears like a

pipe dream.

By 2020, the EU executive indeed wants to have 100% coverage for high-speed connections (30 megabytes per second) and hopes to see half of European households subscribing to at least 100 Mbps, which is the measure of super-fast internet.

However, closing the gap appears difficult as only 6.5% of broadband connections work on 30 Mbps speed, and just 0.9% of them rely on 100 Mbps.

"Figures on super-fast internet are far from comforting," an EU official acknowledged, admitting that the target is likely to be missed without a serious step change.

A matter of fibre

So far in Europe people access the internet at low speed mainly through copper networks which account for three quarters of existing connections. Another 16.8% is provided by cable services, which have been significantly deployed only in a few countries, notably Belgium, the Netherlands, Portugal, Malta and Hungary.

Mobile broadband is growing sharply but represents mainly a complementing service rather than a stand-alone product, because the technology does not allow for too many users to use it simultaneously.

This leaves optical fibre as the key technology on which Europe is expected to rely to close the gap.

But here, the take-up has been extremely slow, with only 2% of internet connections in Europe based on fibre.

Large incumbent operators

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Europe lagging broadband benefits

Broadband technology is boosting GDP globally - especially in the developing world - but Europe remains the only continent where telecommunications business is running at a loss, according to speakers at the Mobile World Congress.

Speaking at a forum on the future of broadband in Barcelona on 26 February, Indonesian Telecoms Minister Tifatul Sembiring said that - despite concerns in Indonesia about the impact of the financial crisis in the US and Europe - growth in broadband was central to optimism that the country's buoyant economy can be maintained. Indonesia's economy grew by 6.5% of GDP during 2011.

Broadband can open up the potential of Africa

such as Deutsche Telekom or Telefonica in Spain are dragging their feet in deploying fibre networks as they fear losing customers in the transition from copper.

They have called on regulators to allow charging higher prices for granting competitor's access to their networks, saying higher margins will facilitate investment in fibre. Cutting the copper access price, like the Commission has recommended, will only delay investments and "prolong access to cheaper copper which will further delay migration to fibre," argues Luigi Gambardella of ETNO, Europe's main lobby of top telecoms operators.

Smaller operators are instead pushing for making the copper market less profitable. This should create an incentive for bigger operators to migrate to fibre, they argue.

Another big quarrel relates to the extent of fibre deployment. The Commission favours direct connection to households - or fibre-to-the-home (FTTH) in industry jargon, a line supported by new entrants.

But bigger operators have argued in favour of connecting the fibre cables to a 'cabinet' (FTTC) situated in the neighborhood, from where connections should start. This would decrease cost of deployment and spread the financial burden among operators, but it is also likely to slow down the take-up of fibre.

The Commission seems so far to favour the approach of new entrants but no binding decision has been made yet to force a

"When broadband coverage reached 6.5% of the population in Indonesia, this resulted in a twofold increase in sales of 13.5%. Broadband is first and foremost an economic priority," said Sembiring.

In markets such as Nigeria, where broadband is currently available to only 1% of the population, each 10% increase in usage would create a corresponding 1.2% increase in GDP growth, Edward Deng, vice president of Huawei, told delegates.

"In broadband, the [Indian] government will create 'anchor' demand and then there will be serendipitous commercial developments," said Vijay Kelkar, an economist who chairs the board of the Forum Federations in India and formerly headed the country's Finance Commission.

European broadband costs too low

Europe is the only world region where telecommunications companies are making losses, Luigi Gambardella, a board member of the European Telecommunications Network Operators' federation (ETNO) - told delegates.

He said that although telecommunications companies averaged growth of 10% worldwide last year according to industry estimates, they suffered a corresponding 10% loss in Europe.

Gabardella blamed low prices for European broadband, but he added that problems faced by data overload would soon start to affect even broadband-penetrated markets.

Broadband provision should be liberalised

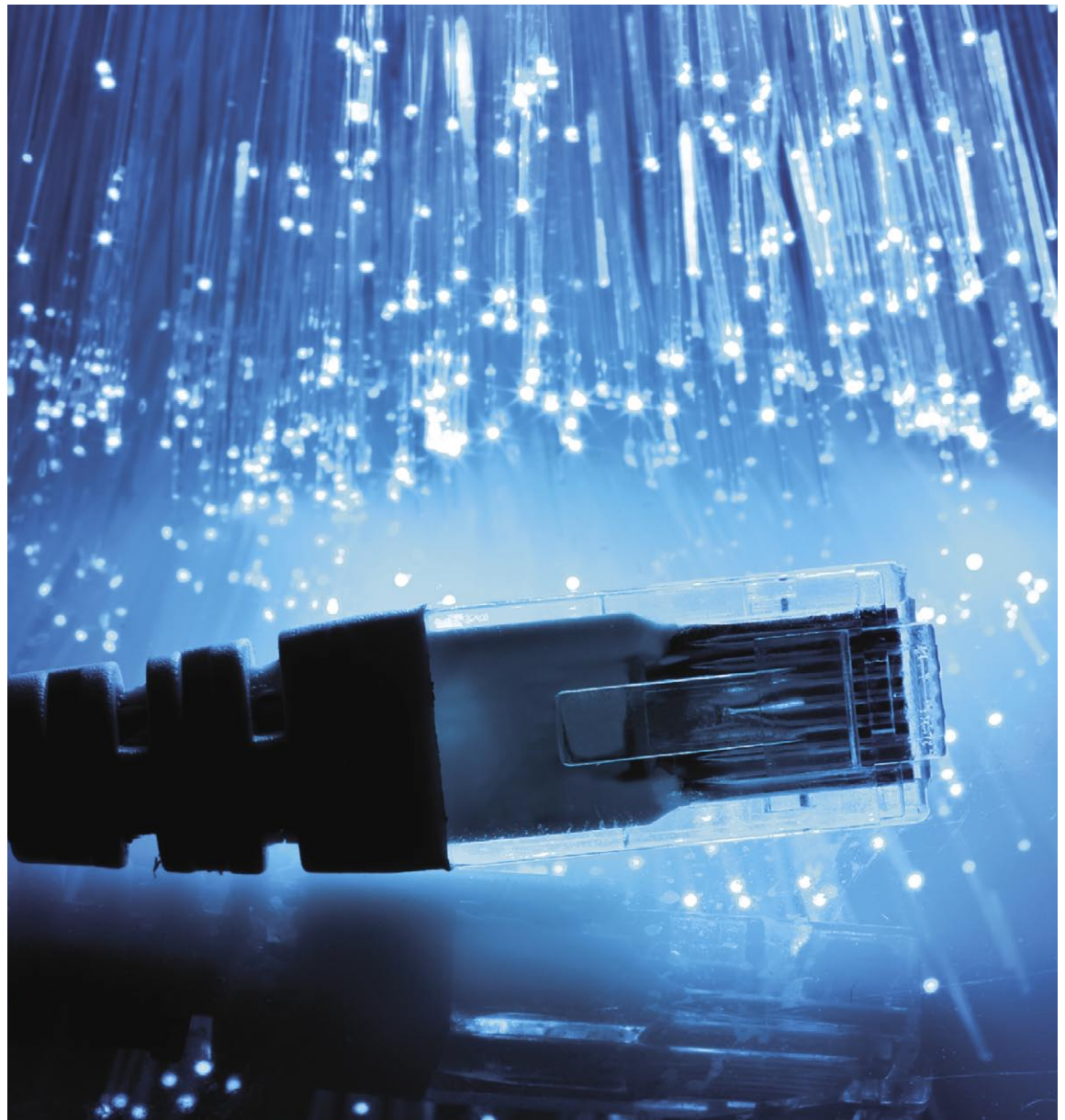
Finding solutions to this problem offered European companies a chance to discover

innovative new solutions for growth, he said.

China views broadband no less strategically than tangible infrastructure projects such as roads and shipping, the country's former chief negotiator in its accession talks to the World Trade Organisation told the forum.

Long Yongtu, who is now a member of the influential Chinese think tank Boao Forum for Asia, said the Chinese government was committing \$300 billion to broadband over the next five years because of the benefits to the poor through improvement to health, education and "social harmony".

He added that trade policy on broadband provision should be liberalised within the ambit of the World Trade Organisation.



Europe, US lag developing world in eHealth



Despite Europe's huge broadband coverage and smartphone use compared to the developing world, the continent is lagging in eHealth solutions because costing models do not encourage innovation, the leading global telecoms conference heard yesterday (27 February).

The findings emerged from a key session on health at the Mobile World Congress in Barcelona – the telecommunications industry's largest annual gathering.

Experts on provision of eHealth solutions using smartphone applications said that they tried and tested their

products in the developing world because billing for eHealth services directly using mobile payments is something better suited to those markets.

Silicon Valley is gone with the wind

"True innovation in mobile healthcare comes from emerging markets, whereas it used to be Silicon Valley, because real need is driving it, and telecommunications companies in emerging markets are really proving that," George Held, the director of products at the telecoms company Etisalat, told delegates.

His Abu Dhabi-based company operates in 18 emerging markets with 170 million customers.

Don Jones, a vice president responsible for the Wireless Health market at Qualcomm Labs, said the need for eHealth solutions in the West was now pronounced, with pressure on European governments'

unsustainable healthcare costs, and consumers more receptive to mobile phone services.

But he added that the traditional model of healthcare in the US and Europe, in which either the state or insurance companies pay for the provision of services to the medical community, provided less fertile ground for development of eHealth.

In India, Pakistan, Bangladesh and other developing countries, consumers are more willing to self-pay for medical services using mobiles.

eHealth on the verge of breakthroughs, not in Europe

Panellists said the telecoms industry in developed countries, where consumers are reimbursed or costs are paid directly by an insurer, face questions over their business models.

Mobile health solutions are on the verge of huge breakthroughs. Sailesh Chutani,

chief executive of wireless health company Mobisant, told the panel that his company's smartphone app – the first mobile-phone ultrasound app to be approved by the US Food and Drug Administration – is radically cutting infant mortality in Tanzania by enabling phone swipes to assess the safety of pregnancies.

Chutani told the panel that in the near future there would be an inexorable move toward home-based births presided over by lower-paid medical assistants – a system that could radically reduce mortality in developing countries. But the devices are more likely to find markets and innovations in the developing world, he said.

Richard Moore, an executive with the UK's National Health Service – a purely state-funded model – confirmed that although the UK is looking to develop its mobile health services, it would not consider direct mobile payments to health professionals.

Industry accepts responsibility for security fears over cloud

Threats to cyber security and privacy are real and must be addressed by industry as cloud computing pushes technology into a hyper-connected phase, senior telecommunications executives warned at the Mobile World Congress.

In a session on cloud computing at the Barcelona conference on Tuesday (28 February) senior executives said the cloud was unleashing a new phase of technological development that would usher a 'hyper-connected world' and the so-called Internet of Things.

The Internet of Things describes a future in which every object and the minute details of people's lives are tracked, enabling huge efficiencies of organisation and energy.

Speed of technological development in constant flux

As a result of the cloud, the telecommunications industry is moving with such speed that the business 'reflection point', which used to happen every seven years, is now over and companies must 'reinvent constantly', Cisco chairman and



chief executive John Chambers told the conference.

"Cloud is front and centre of every service provider but also applications to other devices. Broadband and wireless brought in jobs but cloud takes it further. The connected world is a dinosaur, it's now a hyper-connected world," Chambers said.

This new model is posing serious cyber risks, for which the industry must take its share of responsibility and act, the panellists said.

"We are collectively not on top of the issue. It is bigger and more important than we give credit for. We are waiting

for a problem to happen," Ben Verwaayen, chief executive of Alcatel-Lucent, told delegates.

He said that if businesses have a problem with regulators, it's due to "our inability to get to the hearts of minds of the customer because the regulators reflect where the market thinks we are."

Business should step in, or regulators will

René Obermann, chairman and chief executive of Deutsche Telekom, said that cyber security challenges were costing the industry \$1 trillion a year

and that this figure was growing and these were conservative estimates.

"Industry has to lead the politicians, and we have to sustain a high level of data protection," Obermann said. "I think it's good and helps industry because we will have a massive problem if we do not have standards."

Obermann said there had been major breakdowns in the networks as a result of cyber security problems in Asia, although they did not make headlines. Companies must make security "a design principle," he said.

Cisco's Chambers said there had been a perception in the industry that young people were carefree with giving their information on-line, but he warned this was changing fast.

He cited recent surveys showed that only 25% of young people in Europe and 28% in Asia are happy to commit information online without reservations.

"Companies must give consumers an 'opt in' to use on-line services, rather than 'opt out', the regulators will step in otherwise," Chambers said.

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