PRESS RELEASE

For immediate publication!

Great interest in new developments in broadband networks

Security and protection of data networks takes centre stage / Telecommunications ensures growth at Langmatz / Live hacking demonstrates the vulnerability of systems

March 23, 2018 **– "A warm welcome to the 7th Broadband Symposium in Garmisch-Partenkirchen. We would like to thank you very much for your great interest. Once again this year, our Symposium and Open House was booked out within a very short period of time," said Stephan Wulf, CEO of Langmatz, with delight in his opening speech. Over 400 participants from Germany and abroad came to Garmisch-Partenkirchen and enjoyed bright sunshine on 14 and 15 March, eager to learn more about new developments in the construction of broadband networks. In recent years, the event has become one of the most important industry meetings for representatives of local authorities, town councils, public utilities, telecommunications operators, as well as planning and installation companies in Germany.**

The very well-frequented conference centre at the Kurpark was the venue for the first day of the event. High-calibre speakers gave extensive insights into the set-up and operation of broadband networks in their talks. Theo Weirich, President of the BUGLAS Verband e.V. and Managing Director of Wilhelm Tel GmbH in Norderstedt, Germany, presented the digital roadmap for communications companies. Other speakers presented the EU funding programme for setting up public hotspots, as well as concepts for designing PoP buildings (network nodes) and accommodating optical fibre components into underground distribution systems.

Special highlights: Computer Scientist Sebastian Schreiber, Managing Director of Tübingen-based SySS GmbH, described the need for efficient protective measures. He showed the astonished audience in a "live session" how frighteningly easy it is to hack into servers, apps, text messages and other systems, and to manipulate them. Prof. Frank H. P. Fitzek thrilled the audience with his presentation on the contribution of future 5G networks to the connectivity of data sources. He showed that broadband transmission as well as latency times will play an increasingly important role in future applications, such as autonomous driving and communication with robotic systems. Prof. Fitzek is the Chair of the Department for Deutsche Telekom Communications Networks at the Technical University of Dresden.

The popular event was hosted, as in previous years, by Mirja Rasmussen, Baden-Württemberg Sales

Manager at Langmatz. On the second day, together with a total of 24 partner companies, Langmatz presented its latest products for the construction of optical fibre networks at the Oberau site with the slogan “Open House”, and offered various workshops and tours through the plant’s production facilities.

Insights into the company’s history

“We have grown very considerably in the telecommunications sector in recent years,” explained Stephan Wulf. In the past financial year, Langmatz recorded a turnover of over €80 million, with new product developments making a significant contribution. The number of employees has also increased accordingly and has now reached 350. There is also a high number of apprentices, with 40 of them spread across nine apprenticeship professions. Our declared goal is to create jobs in Germany, states Wulf. “The special thing about Langmatz is our high rate of in-house manufacturing – we have all processes on our own premises,” he emphasised in his outline of the company's history, now spanning over fifty years. This has been accompanied by numerous awards for innovative products. Langmatz was recently awarded the Ernst-Pelz Prize in 2017 by Minister of State Ilse Aigner for the development of a sustainable plastic manhole made of WPC with a 45 percent wood content.

Gigabit on air: how Germany will become fit for the future

Theo Weirich, President of the German Association for Optical Fibre Connection (BUGLAS e.V.) and Managing Director of Wilhelm Tel GmbH, showed that optical fibre and broadband expansion is of great significance for Germany as whole, from the perspective of the Norderstedt public utilities company. “This is about developing a digital roadmap for municipal communications companies as they currently are driving forward optical fibre expansion.” Weirich explained how successful value creation systems for a regional market can be established with a 2000 kilometre optical fibre network in Hamburg and Schleswig-Holstein. The response from Norderstedt public utilities: Establishment of an optical fibre-based mobile network, known as “MobyKlick”, an open and closed WLAN with a symmetrical bandwidth of 500 Mbit/s. This mobile internet access includes services, such as MobyMusik (streaming), MobyCloud (storage), MobyTV (television), MobyPenny (clearing), MobyPhone (voice), MobyContact (contact base), MobyHome (smart home), and MOBYWATT (energy).

The car of the future is a 5G base station

“Tactile Internet” was the title of the exciting talk by Prof. Frank H. P. Fitzek, Chair of the “Deutsche Telekom for Communications Networks” Department at the Technical University of Dresden and Coordinator of the “5G LAB Germany”. He referred to the faster 5G mobile network currently being planned as “fuel” for digitisation in Germany. In future, the business models handled by these networks will be more important than the technology itself. Broadband transmission merely plays a secondary role for Fitzek. In future, the shortest latency times will determine the business models in networks.

“Applications for energy regulation, autonomous driving, telemedicine, and communication will merge in the 5G networks in the future,” according to Fitzek. Communication between data sources in these networks will be of great significance.

Technical requirements for a PoP building

After the presentations by the previous speakers on the world of advancing digitisation, Axel Hahn, Managing Director of Betonbau GmbH & Co. KG, demonstrated the requirements of a “PoP station as a building block for public infrastructure” in his pragmatic presentation. A “point of presence” (PoP) is a node point within a communication network that links the connections between participants with the higher-level transport network. Its security is a top priority due to the large volumes of data inter-connected in a PoP. Protection against vandalism can be provided in different protection classes in the design of a PoP. In addition, Hahn informed listeners in detail about the technical and normative basis of the Eurocodes that have been binding since 2012 (formerly DIN standards) for the safety, wind loading, construction and design of buildings to protect them against earthquakes. The presentation was rounded off by a comprehensive overview of the statutory requirements for thermal insulation, fire protection and break-in protection, as well as recommendations for ventilation and air conditioning concepts.

Live hacking: Nothing is safe from hacker attacks any more

Computer Scientist Sebastian Schreiber, Managing Director of SySS GmbH, headquartered in Tübingen, Germany, tests the security of large companies’ data by demonstrating vulnerabilities in networks and systems. With the words “I would like to immerse you in the world of hacking and invite you to see it from the perspective of a hacker” he began an exciting “live hacking session” in the conference building. Schreiber had prepared a wide variety of threat scenarios which he presented to the astonished audience live. Among them was a DOS attack on a server and an online store. He demonstrated the possibility of monitoring a data connection from a wireless keyboard to a PC, as well as communication between a control element and a radio alarm system. The PC and alarm system could easily be tampered with by use of the intercepted data. Another demonstration involved the bypassing of a firewall by employing a virus, forging a text message and "cracking" a password. The participants were able to experience a total of eleven different attacks “live”. Of course, this was done within the bounds of legal regulations. “You should all at least change your passwords regularly, otherwise you might become a victim at some point and someone might empty your bank account,” was the advice from the professional hacker. His conclusion was that nothing is safe from hacking attacks. Schreiber received thunderous applause for his spectacular demonstrations, but also left a few thoughtful faces behind at the end.

Cyber security of business enablers

The focus was also on the central issue of data security during remarks by Nico Werner, Head of Cyber

Security at telent GmbH. Werner showed what “cyber security” means today, based on various threat scenarios. A classic example is the situation where an employee wishes to harm his or her company. “What is the greatest damage that could be caused?” was his question to participants. His response: Someone could buy so much computing power in China on the dark web for only 0.1 bitcoins that they could impact their employer’s network and thus block it. Further threats might arise from employees who introduce malicious data into the company's network on a USB stick. Companies need to permanently focus on security. This should always be a management issue and should represent its mission statement.

WIFI4EU: EU funding programme for the establishment of hotspots

The German Federal Broadband Office is a centre of excellence for transport and digital infrastructure whose task is to advise and inform public authorities on upcoming decisions. Christian Zieske, in his role as Deputy Director of the Federal Broadband Office, presented on legal bases, objectives, access conditions and the group of eligible applicants for the EU funding programme for setting up public hotspots. Zieske described in detail how local authorities can register, how the selection process works, and how the €15,000 funding can be used when granted. Overall, the funding budget amounts to €120 million, to be used to equip 6,000 to 8,000 local authorities within the EU with free, publicly accessible Wi-Fi by 2020.

Langmatz underground systems for FTTx/mobile networks

As the last speaker of the day, Martin Mayr, Product Manager at Langmatz, delved into the question of the important role played by modern underground distribution systems in FTTx and mobile networks. In many cases, historic preservation regulations or structural reasons prevent the use of above-ground outdoor cabinets. Underground distribution systems are installed in these cases, which can include both passive and active technology. Apart from the advantage that the entire equipment disappears underground, but can be accessed whenever necessary, an underground distribution system, based on a polycarbonate manhole offers a broad range of protection: against vandalism, water ingress, and the overheating of active components. Langmatz offers a range of different systems for accommodating FTTx and mobile networks: a passive model with a closed manhole system, a system with air circulation, and one with active ventilation. Langmatz’s underground distribution systems are tailored to the respective situation and are already being used in cities and towns worldwide, says Mayr.

Day Two: Open House in Oberau

On the second day, the “Open House” was held at Langmatz’s Oberau production site, together with 24 partner companies from the same industry sector. Visitors had the opportunity to learn more about all the news on planning, constructing and operating optical fibre networks. Langmatz GmbH presented its latest innovations, including the new central office optical fibre distribution frame, as well as the new compact optical distribution and termination box, which allow modular and cost-efficient expansion of the network.

In various workshops, participants were given current information on optical fibre assembly, optical fibre enclosures and their application, not to mention the routing and laying of protective conduits and fibre microduct bundles. Tours through the Langmatz plant provided detailed insights into the development of optical fibre products.

For more information on the Broadband Symposium and presentations to download, please visit: https://langmatz.de/blog/news-aktuelles/langmatz-breitband-symposium-open-house-vom-14-15-maerz-2018-zum-siebten-mal-in-folge/

Caption:

Stephan Wulf, CEO of Langmatz, welcomes over 400 participants from Germany and abroad to the 7th Broadband Symposium 2018 in Garmisch-Partenkirchen.

In the event of a publication, we would be delighted to receive a copy. Thank you!

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