Make Your Services whole-home-ready!

How to distribute Wi-Fi optimally in your customers' home


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The challenge: Wi-Fi exactly where your customer needs it.

Excellent service quality in unknown territory – your customers‘ home.

As an operator or Service Provider, it is probably one of your goals to provide your customers the best service quality possible. Why? Because satisfied customers will enable you to reach all of your other goals. But to get and keep satisfied customers, it is important to ensure that the service distribution within customers' homes works smoothly and reliably.

Nowadays, operator technicians often don't 'install' your services at customers homes anymore, but you’ll send out devices to enable the connection and distribution of your services within your customers' homes. These devices were tested based on specific scenarios – but tests and scenarios can only reflect a fraction of the characteristics of customers’ homes.

The successful distribution of the internet signal, often via Wi-Fi, is influenced by certain characteristics of the home: Is it a detached house or an apartment in a multi-story building? Which materials are the walls made of? Where is the signal entry point into the home, and how is the router positioned? And maybe most importantly: Which method and which devices are used to distribute the internet signal within the home?

Taking a look into the ‚home network‘ black box

This eBook takes a peek into customers' homes and their networks, and shows examples of how to overcome common home network obstacles at your customers’ site.

On the following pages, we would like to demonstrate how to enable your customers to set up reliable home network easily by themselves, and at the same time make sure that your services get delivered into every corner of your customers' homes.

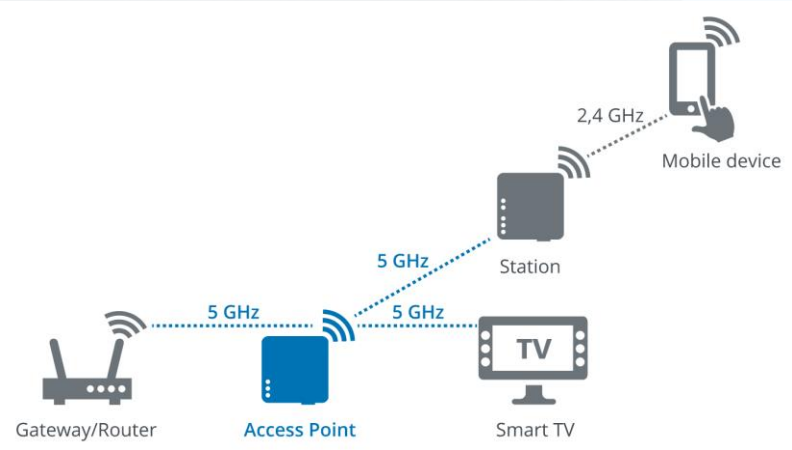
Focus of the shown solutions are ease of use, coverage, stability and scalability of the solutions – because these factors strongly influence customer satisfaction.

Smooth IPTV distribution via Wi-Fi

Use Case Scenario 1 – Smooth IPTV distribution via Wi-Fi

In this scenario, we have a small- to mid-sized appartment. Your signal gets into the apartment in the storage room. The customer would like to stream it the into living room to watch IPTV on a Smart TV, but also wants to have full internet bandwith in the kitchen and the bedroom to surf the internet.

By connecting an OS WiFi Bridge Access Point to the gateway/router in the storage room, and placing it in the hallway, the IPTV signal will be transferred smoothly and reliably via a 5 GHz Wi-Fi network to the Smart TV. By adding an OS WiFi Bridge Station into the kitchen, the internet signal will be repeated by the Access Point in the hallway, and received by the Station in the kitchen. The Access Point acts like a high-perfomance 5 GHz Repeater. Surfing the internet over the 2.4 GHz band that the Station also provides ensures that the connec-tion between Router, Access Point and Station will be optimal.

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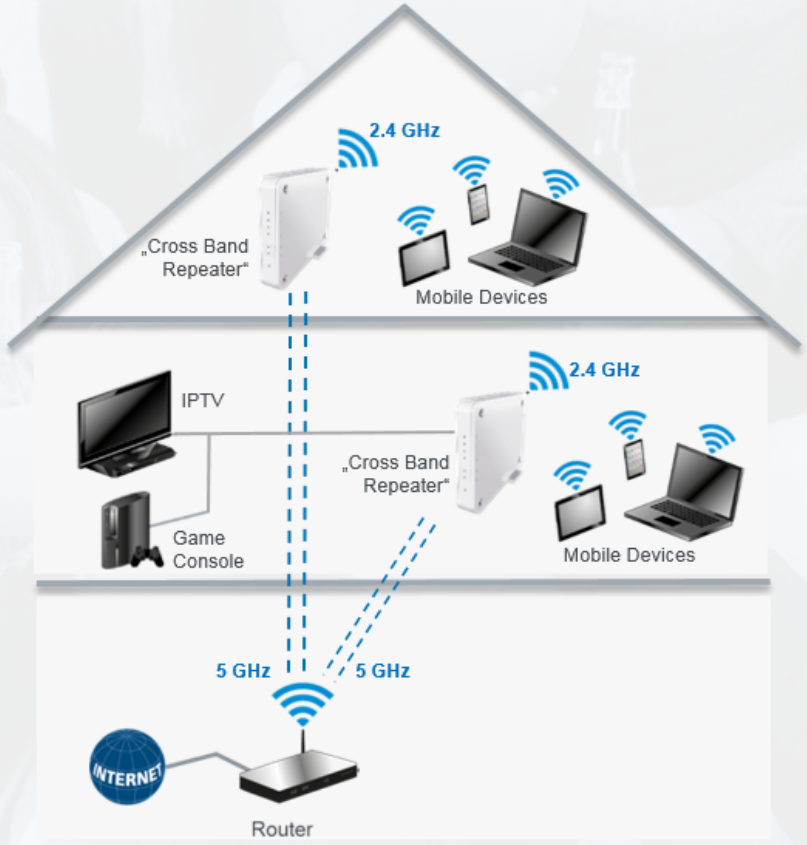
Multi-room IPTV and
best Wi-Fi coverage

Use Case Scenario 2 – Multi-room IPTV and best Wi-Fi coverage

When looking at multi-level detached houses, the scenario is a bit different. While the internet signal enters the house on the ground floor, the Smart TV is based in the living room on the second floor.

The living room is one of the main digital hubs/hotspots within the house: Here, your customers play online games with a video console, stream movies over Netflix, but also surf the internet on their smartphones and tablets. While the children might play in the living room, their dad will work in his home office on the third floor, which means that he, too, would need a reliable and high-performance connection.

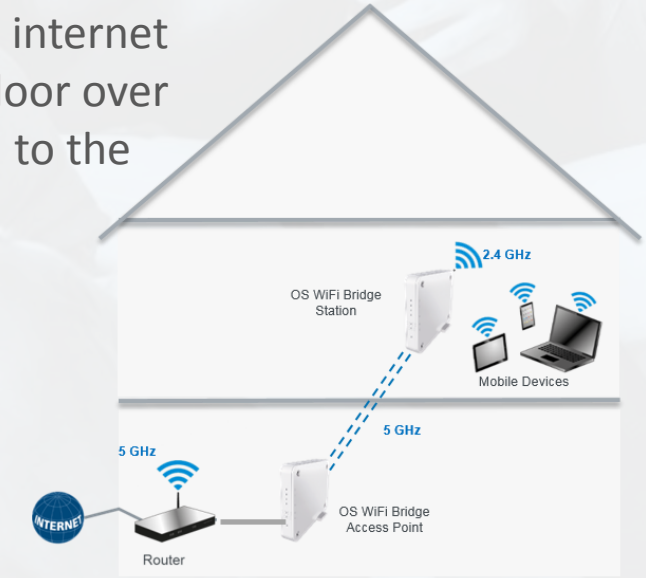


Use Case Scenario 2 – Multi-room IPTV and best Wi-Fi coverage

In this case, two OS WiFi Bridge Stations can be used as Crossband Repeaters. One Station will be placed in the living room, and one in the home office, both connected to the router on the ground floor via a 5 GHz WiFi band. Smart TV, game console, and other devices can be connected to the Station via LAN. To make sure the CPE devices don't interfere with the 5 GHz stream, smartphones and tablets will access the internet through the 2.4 GHz network that the Station also provides.

The same setup will be realized in the home office: The internet signal will be transported from the router to the third floor over a second 5 GHz band, mobile devices will be connected to the Station through a 2.4 GHz network.

Aside from the above discussed cross-band repeating scenario, Access Point and Station are also available as pre-paired ‚OS WiFi Bridge' solution. For more information about this scenario, please refer to eBook I ‚The Wi-FiUtopia' (downloadable here).

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Opening up the last corner of your customers‘ home

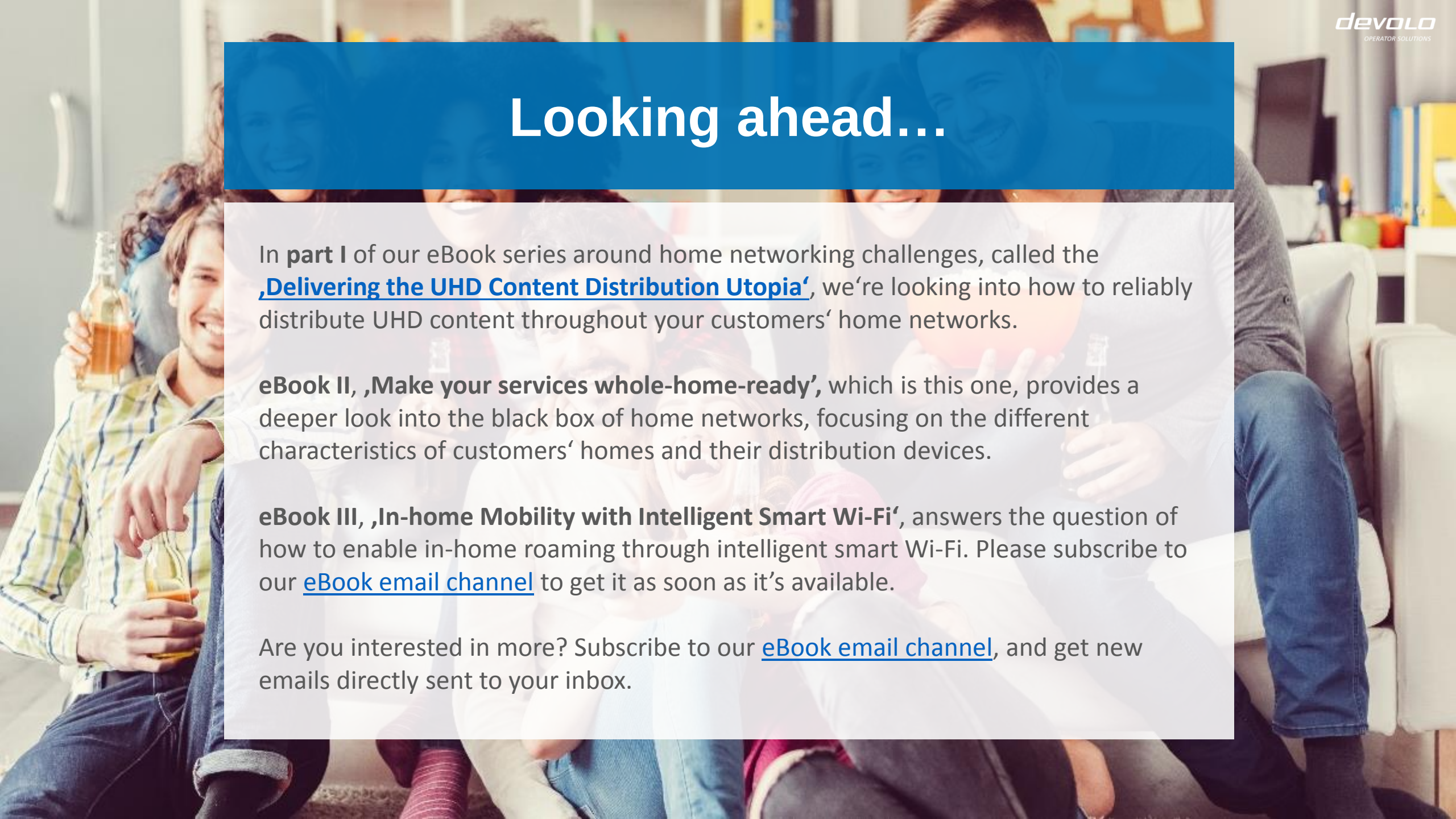
Use Case Scenario 3 – The distributed approach via powerline

But what to do when Wi-Fi signals interfere in big condominiums, walls are metal-layered or the layout of apartments or houses is just too complex to get covered by one or even more repeaters?

With the distributed approach using the powerline as a backbone for Wi-Fi applications, your customers will be able to enjoy your services even in these kind of difficult home network environments.

The Wi-Fi challenges can be overruled by transporting the internet signal over the powerline where coverage problems exist. Within certain rooms, additional Wi-Fi hotspots can be provided - without loosing bandwidth or coverage.

The setup is simple: A powerline adapter will be connected to home gateway/router, and an additional adapter will be placed in each room where the service is wanted. Smart TVs or game consoles can be connected through LAN. By using PLC adapters with an integrated Wi-Fi hotspot, such as the PLC 1200+ WiFi ac, mobile devices can access the internet over Wi-Fi.



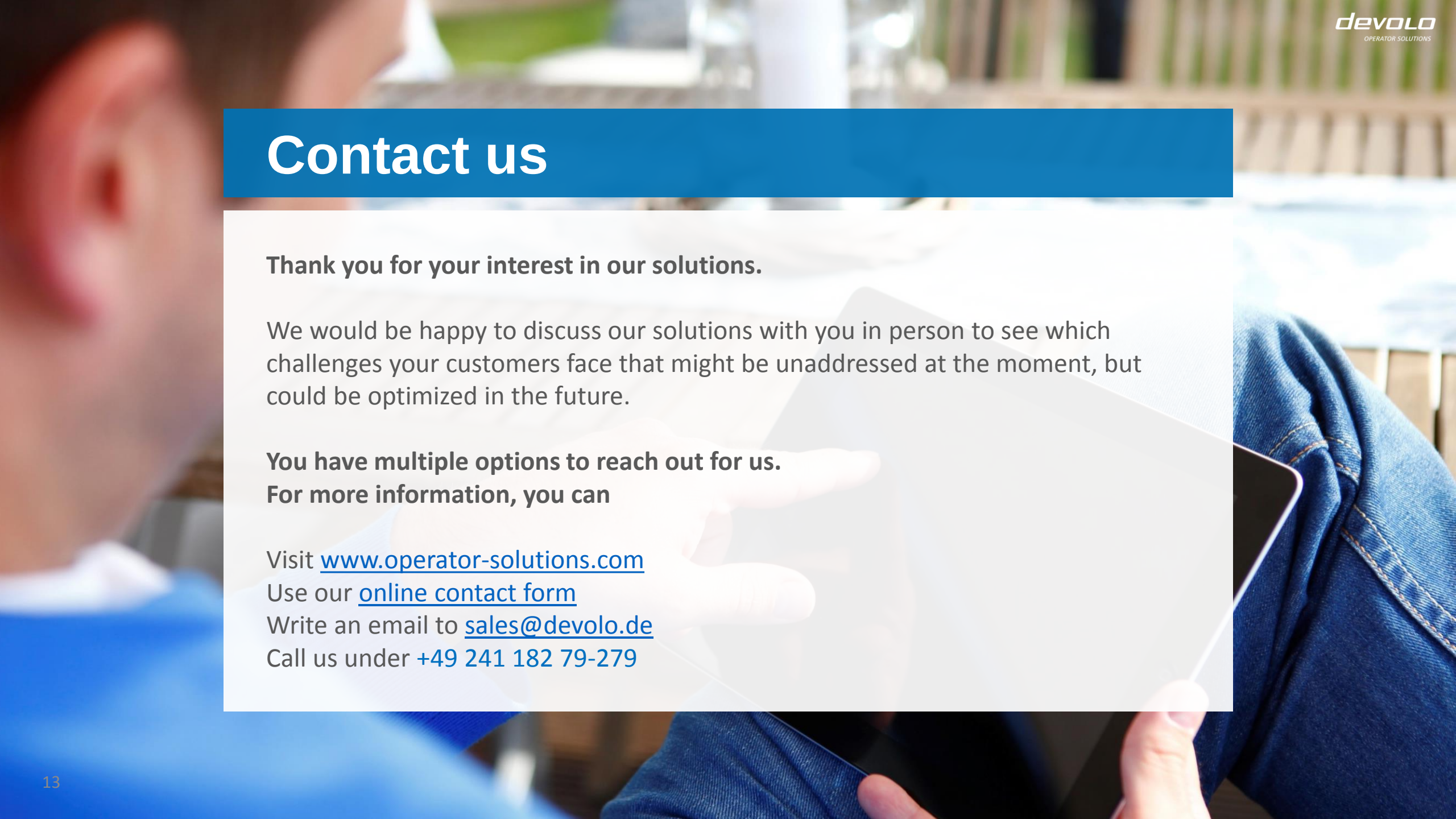
Looking ahead…

In **part I** of our eBook series around home networking challenges, called the **‚Delivering the UHD Content Distribution Utopia‘**, we‘re looking into how to reliably distribute UHD content throughout your customers‘ home networks.

eBook II, **‚Make your services whole-home-ready’,** which is this one, provides a deeper look into the black box of home networks, focusing on the different characteristics of customers‘ homes and their distribution devices.

eBook III, **‚In-home Mobility with Intelligent Smart Wi-Fi‘**, answers the question of how to enable in-home roaming through intelligent smart Wi-Fi. Please subscribe to our eBook email channel to get it as soon as it’s available.

Are you interested in more? Subscribe to our eBook email channel, and get new emails directly sent to your inbox.



Contact us

Thank you for your interest in our solutions.

We would be happy to discuss our solutions with you in person to see which challenges your customers face that might be unaddressed at the moment, but could be optimized in the future.

You have multiple options to reach out for us.
For more information, you can

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