

Dr Anna Wielgoszewska

Bell Labs, Republic of Ireland



Big Role of Small Cells in 5G Enterprise

Abstract: Small cells are perceived as one of the key building blocks of 5G. They have been recognized as an attractive means to boost the network capacity, and have been extensively installed at the enterprises, as well as homes around the world. As the number of network nodes increases, autonomous approaches to network parameter configuration and optimization become desired. This has been realized with Self-Organizing Network (SON) principles, which minimize the time and cost to roll-out and manage networks. Nevertheless, with the growing small cell density and equipment originating from numerous vendors, the complexity of network management grows significantly. This talk will cover the drivers together with new business opportunities of the small cell deployments enabling smart enterprise development. It will then focus on the network management challenge, in particular related to the multi-vendor aspect. Finally, a platform for remote multi-vendor small cell management will be presented and demonstrated.

Biography: Dr Anna Wielgoszewska (nee Zakrzewska) received the M.Sc. Eng. degree in information and communication technology from Wroclaw University of Technology, Poland and the Ph.D. degree from the Technical University of Denmark (DTU) in 2008 and 2014, respectively. Prior to the Ph.D. studies, she was with NTT Communication Science Laboratories in Atsugi, Japan and the European Commission Joint Research Centre in Ispra, Italy. While at DTU, she served also as the vice-chair of the IEEE Student Branch. Anna was recognized as the double finalist of the Google Anita Borg Memorial Scholarship in 2012 and 2013.

Since 2014 Anna has been a Member of Technical Staff at Bell Laboratories, Nokia in Dublin, Ireland. Her research interests span across multi-RAT and heterogeneous networks with the focus on resource management, self-organization and optimization. Her activities in these areas resulted not only in technical papers but also patent applications. She is a recipient of the Best Paper Award at ITU Kaleidoscope 2014 and Bell Labs Alcatel-Lucent Certificate of Outstanding Achievement 2015 for creating and transferring the Motive Small Cell SON Engine.