



# Hugin used for mobile network troubleshooting

The Danish company Wirtek has chosen Hugin as the core technology in their new automation product Wirtek TheCure<sup>™</sup>, to be used for troubleshooting in mobile networks.

# Background

New 3G and IP-based wireless access technologies are continuously increasing the complexity of operator networks. This increase in complexity has a significant impact on the OPEX (Operational Expenditure). The Communication Service Providers experience a sharp rise in the cost of maintaining their networks – particularly in the area of troubleshooting.

# Intelligent Troubleshooting

Wirtek TheCure<sup>TM</sup> is an advanced diagnostics tool for use in the international telecom sector. It enables automated troubleshooting in mobile networks, and will significantly decrease the resources needed for troubleshooting. By utilizing Bayesian Network Technology the tool not only determines that a fault is present, but it also provides an accurate diagnosis - which is what distinguishes Wirtek TheCure<sup>TM</sup> from other troubleshooting solutions. France Telecom and Telefonica, leading operators in France and Spain, respectively, have actively participated in the development and validation of Wirtek TheCure<sup>TM</sup>.

Traditionally, troubleshooting systems rely on human involvement in the diagnostic process. With Wirtek TheCure<sup>TM</sup> both the Fault Detection and Diagnosis Creation tasks are automated. By automating a substantial part of the troubleshooting process, operators will experience a 25-50% saving on resources – see figure below.



Figure 1 : Increased level of automation with Wirtek TheCure<sup>™</sup>.

#### A must-have for operators of the future

The operator using Wirtek TheCure<sup>TM</sup> will be in a position of strength – not only when selling traditional phone subscriptions to the consumer market, but also new network products to completely new markets. The bandwidth capacity of networks will be purchased by MVNOs and MVNEs. New services and applications will run on the basis of these networks.

To meet the needs of this situation, the operator needs to have strong and mature maintenance processes in place.

Wirtek TheCure<sup>™</sup> is the future-proof solution for supporting the operator troubleshooting process.



Figure 2: Wirtek TheCure<sup>™</sup> speeds up the maintenance process

# Why Bayesian Networks and Hugin Expert?

"We have chosen Hugin Expert A/S as our provider of Bayesian network software because they have a high-quality product, they have exceptionally fast customer support, and they always provide us with qualified answers to technical questions about the Bayesian network technology" says Lars Moltsen from Wirtek.

#### About Wirtek

Wirtek is a software development house with core competencies within embedded software, applications, and infrastructure for mobile telecommunications. Strong competencies in software development and project leadership, a thorough knowledge of the telecommunications sector, and a flexible business model that makes both insourcing and different forms of outsourcing possible, secure Wirtek core customer relationships based on a high level of trust and customer satisfaction.

Wirtek was founded in 2001 by former Nokia employees with deep insight into the mobile world and its technologies. Among its clients are international companies such as Nokia, Motorola, End2End and Texas Instruments.

Hugin Expert A/S Gasværksvej 5 DK-9000 Aalborg Denmark Tel: +45 96550790 Fax: +45 96550799



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