

Do you care about your services?

InterComms talks to Dr. Stefan Köhler, CEO, Infosim[®] about Infosim[®] StableNet[®] and about Unified Network and Services Management



*Dr. Stefan Köhler,
CEO, Infosim[®]*

Dr. Stefan Köhler has more than 20 years of experience in managing, design, and optimization of IP networks. He studied Physics and Computer Science at the University of Würzburg. He was member of the scientific staff of the computer science department at the University of Würzburg. During this time, he was involved in several research projects with Nortel, Siemens, Deutsche Telekom, and France Telecom. He has contributed several technical publications specifically in the area of IP routing, network optimization, and QoS, and is one of the inventors of some Infosim[®]-owned patents. He founded Infosim GmbH & Co. KG in 2003 and has been the General Manager ever since. Infosim[®] develops and markets StableNet[®], the leading unified software solution for Fault, Performance, and Configuration Management.

Q: Recently, a lot of attention is drawn to services, and service management is in everybody's mouth. Your product's slogan "Unified Network and Services Management" also gives a prominent space to the term services. Could you comment on this?

A: The rapid change in technology and the new communication paradigms introduced in the last years

have indeed led to the fact that services have become more important than ever before. Services and the quality of services are an integral part of our daily life. More and more real-time and cloud services are introduced, and the access to the internet should be available everywhere, all the time, and with a high quality. Given the previous way of operation and management, most tasks were more device- or element-centric than service-centric. This has significantly changed because of the following three reasons:

- From the customers' view, the service with its SLAs is what counts, not how you build it. The service is a constant factor in the communication between a Telco and an end-user. Not the technology (MPLS, SDSL, SDN, etc.) of how you connect the customer is what matters, but the overall service with its SLAs.
- Secondly, there is a clear tendency towards more flexibility and dynamicity in communication networks. Among others, this is initiated by virtualization in general, and by SDN and NFV in particular. This demands faster interaction with the system and more versatile solutions for management and orchestration.
- Thirdly, with the increasing complexity of the communication infrastructure also the business processes around it have an increased complexity. To allow for an efficient management all the way down from the BSS level, through the OSS, to the network and element management systems, there need to be well-defined interfaces for the different layers to interact with each other and to reach optimized workflows. A service-oriented architecture is ideal to support such interfaces.

“ Network technology is getting more and more service-aware. StableNet[®] as a network management system fully supports this development. ”

With our slogan “Unified Network and Services Management”, we are emphasizing the fact that our solution StableNet® is ready for services management. StableNet® offers service-awareness and service-based management through various features. Our particular focus is on the word “Unified”, which refers to our All-in-1 solution, including Fault, Performance, NCCM (Network Change and Configuration Management), as well as a very powerful discovery – all in one single product with one underlying data structure.

Q: As you already partly indicated with your answer, there are different notions of services out there. Those start from End-to-End services on BSS level and go down to particular network services/connections on EMS level. What areas is StableNet® covering?

A: There are a lot of different MANO (management and orchestration) architectures that slightly differ in their wording and terminology. However, a term that is common to most architectures and best describes our particular area is resource management layer or “resource-facing” management and orchestration. Figure 1 illustrates an abstract perspective of the Infosim® StableNet® positioning in a Telco or large Enterprise context. StableNet® covers different areas: Assurance, Performance Management, and NCCM, and in the same time unifies the data structures and consolidates the underlying “zoo of management systems”. On the northbound, we offer various generic interfaces and APIs to integrate with other OSS and BSS systems or CMDBs. Our solution concentrates on the management of the live network, and makes it possible to compare the target state of the services, network, and infrastructure with the actual state.

Q: What is in your opinion important to manage a service?

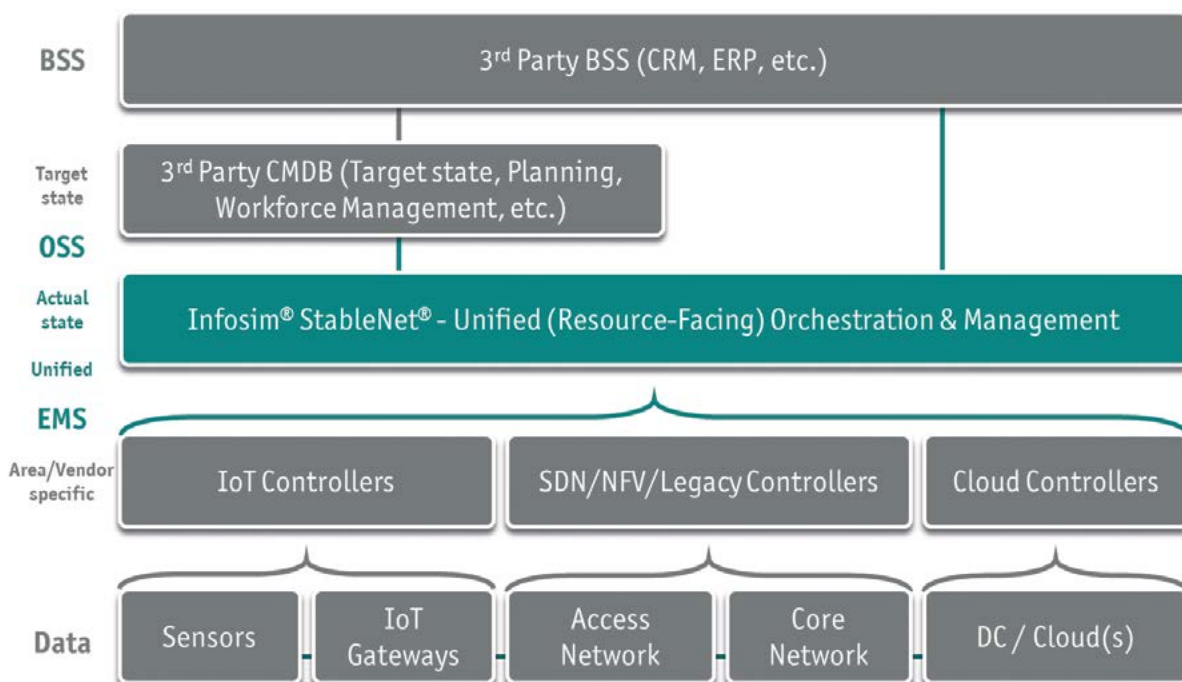
A: End-to-End services are commonly build from a set of sub-services. It is important to build a relationship between technical components, like devices and sub-services, and combine these elements to an End-to-End service. Offering the flexibility of glueing different elements together to an overall service is the challenge for a service-aware network management software. These relationships also have to be taken into account in fault and performance management to deliver the impact of events to a service. In addition, a good visualization is helpful to identify the impact of events or errors on services. This enables you to prioritize tasks in order to fix issues, which reduces the impact to the end-user and it will decrease your network down-time.

Q: Could you elaborate a bit more about on how StableNet® is ready for services management and about what particular features you are offering?

A: As we have a wide variety of features relating to services, I want to focus on two main features that have been added to StableNet® with our release 8.1. Those are **Tagging & Grouping** and **Unified Services Visualization**. Both features get even more powerful when combined with our strength in discovery and automation. So what are those new features about?

Tagging & Grouping addresses a common challenge in management systems. One network management system is used by different user groups with different use cases. Each user group typically needs a different subset of the data, different visualization options, or different functionality. However, all underlying data must stay consistent and universally valid. There is a clear need for a dynamic structure

Figure 1. Infosim® StableNet® Positioning – Abstract Perspective



- ▶ offering an intuitive and automated way for grouping and filtering to adapt to all possible use cases. Automated tagging of all sorts of elements and a powerful grouping and filtering on these tags, allow each group to prepare their particular use cases without impacting the work of other teams.

Our Unified Service Visualization, cross-layer, cross-vendor, cross-services, addresses a second challenge in today's management systems. In commodity NMS solutions, getting an overview on a particular multi-layer service is a very cumbersome and slow task. For this task, often various information sources have to be accessed and only partial visualization of the overall service is available. With StableNet®, Infosim® offers a solution that consolidates, models, and visualizes the data of the services and allows for adequate drill-downs to the particular point of interest. There is no more need for jumping between different solutions to obtain an overview, only StableNet® is necessary to get a full picture.

Two examples of service visualization are given in Figure 2: (1) A hierarchical service-based view, which enables the user to drill-down on one service, and (2) a service topology view, which shows the routing of the service on the topology.

In addition (not shown in the figure), we also offer a device view, which shows the neighborhood of a device in terms of selected service types, e.g. only Ethernet services can be selected, or only the MPLS service type, and so on. Our features Tagging & Grouping as well as Unified Service Visualization provide real service-awareness to network management systems.

Q: Could you comment on what markets/areas you are addressing with your solution? Are there any particular technological scopes like SDN/NFV, IoT, etc.?

A: There is no limitation of StableNet® to any particular "vertical" or technology. From the beginning, we created StableNet® for both addressing the challenges of the

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Enterprise and Telco sector. Now, for almost 15 years our customers have been appreciating the wide range of functionality we are offering and in particular our unified management approach that helps speeding up their workflows so well and getting rid of this “zoo of management systems”. The technology we look at reaches from traditional legacy networks through SDN/NFV up to IoT environments. StableNet® is often used as the “manager of managers” that consolidates data from various data sources and across different domains. Thereby, we are offering a unified management interface for both monitoring and configuration.

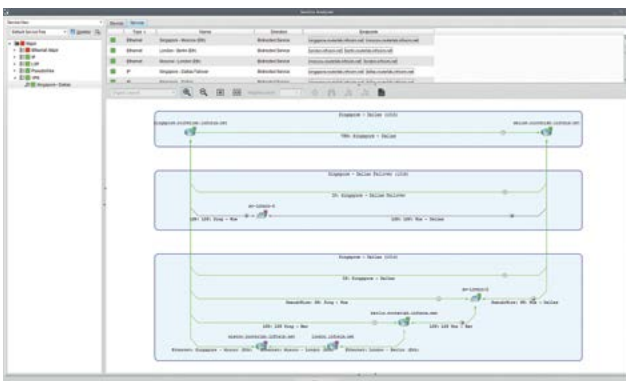
Q: Where can I see this solution in action?

A: We are continuously participating in exhibitions and industry initiatives to leverage the benefits of our solution to different architectures and setups. Among others, these activities include PoCs we have been doing with technology partners like Intel or several TM Forum Catalysts. Of course, we also offer the possibility for individual product demonstrations and PoCs in any company's own infrastructure on demand (you can request a demo using the following link <https://www.infosim.net/support/trial/>). Or take a look at one of our webinars at <https://www.infosim.net/resources/webinars/>.

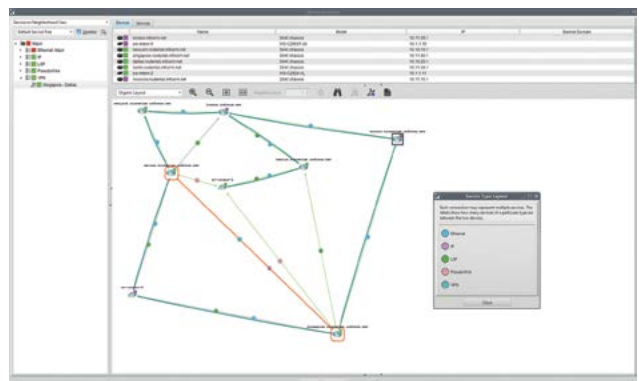
For further information on Infosim® products and services, please visit: www.infosim.net

If you wish to contact us for further solution options and discussions or demonstrations of our products, please email: info@infosim.net

Figure 2. Two examples of unified service visualization in Infosim® StableNet®



(1) Hierarchical service-based view enabling drill-down



(2) Service topology view indicating routing on topology

About Infosim® StableNet®

StableNet® is a 3rd generation highly automated Network Management System. The key differentiation of StableNet® to other legacy type Operational Support Systems (OSS) is that StableNet® is a unified OSS system with three integrated functionalities that focus on Configuration, Fault, and Performance Management, with automated Root Cause Analysis (RCA). StableNet® can be deployed on a multi-tenant, multi-customer or dedicated platform and can be operated in a highly dynamic flex-compute environment.