Technische Universität München
Lehrstuhl für Netzarchitekturen und Netzdienste
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Intelligent Distributed Metering

motivation

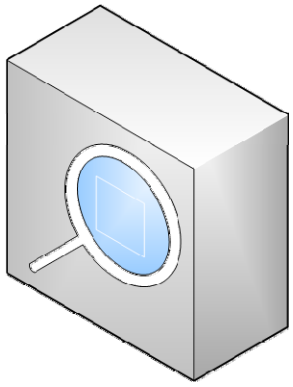
Autonomic control and management is useful to help administrators to manage networked sites - especially when the administrators do not have “administrator knowledge” but are normal residents of a house.
An autonomous system can only decide upon the base of the data available to it. As our platform connects all devices inside a home, many metering points emerge.

work description

This work focuses on identifying, specifying and implementing use cases where metering can optimize or protect a network. The applications are manifold from passive control if devices are properly configured over identifying devices that should not be part of the network to detecting malicious behavior, caused by viruses for instance, etc.

In the first part of the work a look at existing metering, optimization and healing solutions should be taken. Also the new possibilities that arise by having all nodes and therefore metering subnets connected should be respected.

Then appropriate use cases for our scenario should be identified. They should be related to our network scenarios as well as take into account the possibilities of our platform. Already existing approaches for metering, collecting and evaluating of network data should be regarded, especially those used at our chair already.



In the third phase a specification for putting the scenarios into action should be made. If possible this specification should lead to a highly reconfigurable and versatile metering infrastructure inside the network.

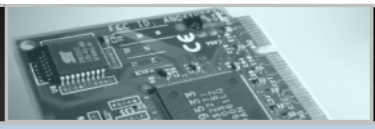
The fourth phase deals with the implementation. The generic metering subpart of the platform should be implemented. The result should be presentable in a demo. The use cases should be identified according to this goal.

The fifth part evaluates the approach by running some tests to verify the scenarios detect what they should.

The work concludes with the conclusion and the outlook.

requirements

Interest in metering, Java, joy to work in a group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