

## CUSTOMER CASE T-MOBILE

T-Mobile CZ is part of **Deutsche Telekom** with **six million customers**

BaseN enables T-Mobile's **Business Ethernet, VMware and virtual hosting**

BaseN offers transparency for **IP VPN data transmission** service

### Building solid customer trust

### BaseN offers accurate and timely performance feedback to T-Mobile customers

T-Mobile assembles the latest technology ranging from basic voice and data to complex virtual private networks and managed data center services. BaseN provides T-Mobile foundations for performance and status monitoring of data services, of VIP care and of non-telco devices. T-Mobile acquired several companies. During this growth they needed to migrate solutions from multiple companies and systems into one. BaseN created an easy and secure approach for the merger.

T-Mobile Ethernet service helps customers to meet the growing demand for ethernet transport technology in a flexible and cost effective matter. This may be within a metropolitan environment or even where customers are looking to take raw bandwidth between their off-net sites over long distances with Ethernet interfaces instead of traditional Leased Line services.

T-Mobile Virtual Hosting enables organizations to use outsourcing for obtaining computing equipment and maintenance. This allows customers to purchase computing units that fit current needs and that can easily scale in the future. Customers can either have single Virtual Private Servers (VPS) or a whole Virtual Hosting Environment (VHE). VHE contains a pool of above mentioned resources and a number of Virtual Machines. T-Mobile CZ Virtual Hosting relies on the VMWare vSphere solution.

#### WHAT

- Migrating multiple existing solutions from different monitoring systems into one
- Data collection through provider equipment (PE), customer equipment and customer edge (CE)
- Providing real-time measurements of network availability and performance indicators to T-Mobile customers

#### WHY

- Fast incident response and issue management system for the Network Operations Center (NOC)
- Enabling T-Mobile to offer performance monitoring as optional, value-adding service
- Provide T-Mobile with a foundation to develop and launch new services quickly

#### HOW

- BaseN obtains (territorial distribution, flexibility, mission critical, possibility to prototype without impacting production services) data, unifying diverse source in real-time, meaningful information to T-Mobile and their end customers
- Providing an environment to create multiple, secure portals to access afore mentioned information for T-Mobile engineers and/ or their customers
- Rapid and flexible deployment through BaseN's SaaS business model

## High levels of auto-discovery and enriched data

A high level of auto-discovery is expected from BaseN - T-Mobile gives BaseN only the customer IDs.

BaseN builds inventory and checks for changes regularly to discover new monitored devices or services.

The method of retrieving inventory and statistics is via standard protocols such as SNMP, own measurements (ICMP ping) or via API. The APIs, specifically the vSphere API for the statistics, taps into the database (DB).

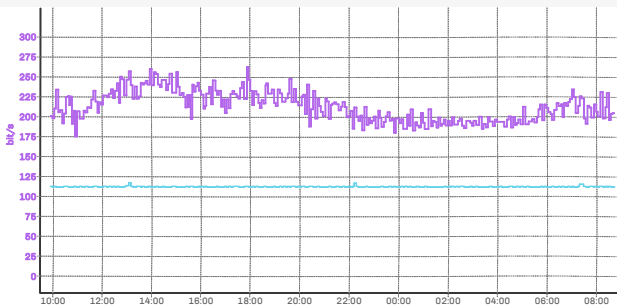
APIs needed are vCloud Director - vCloud API (inventory) and vCenter - vSphere API (statistics) Inventory is created by asking the vCloud Director via vCloud API. The performance statistics of Virtual Machines is obtained from vCenter via vSphere API.

T-Mobile selected BaseN because it is cost-effective, scalable, flexible and the best fit to T-Mobile needs. There is also a strong synergy because T-Mobile end customers already have other services that are monitored by BaseN.

BaseN additionally enriched the monitoring by including other T-Mobile virtual elements like Hosting Center Network Interfaces. VHE network statistics are special to BaseN's implementation at T-Mobile. BaseN system proved to be flexible enough for quick adjusting to heterogeneous reading while giving T-Mobile customers flexible and unified outputs. All that without compromising reliability or scalability.

### Interface traffic

20.02.2020 09:55 - 21.02.2020 09:54 CEST (UTC+0000)



Day Week Month Year Exact < > + Apply to all Reset More...

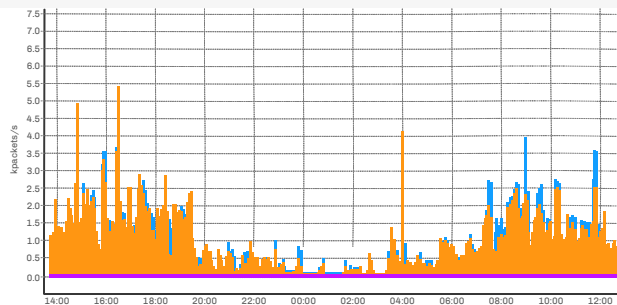
Name	Minimum	Average	Maximum	Last value
in	156	216	298	203
out	108	109	115	109



Summary Interfaces Cpu Storage Processes Protocols

### Protocol distribution

10.01.2020 12:45 - 11.01.2020 12:44 GMT +00:00 (UTC+0000)



Day Week Month Year Exact < > + Apply to all Reset More...

Name	Minimum	Average	Maximum	Last value
ICMP in	0.000206	0.00022	0.000336	0.000229
ICMP out	0.000203	0.00022	0.000336	0.000229
TCP in	0.0551	1.4	7.15	0.947
UDP in	0.00576	0.00928	0.0117	0.0113
UDP out	0.00577	0.00928	0.0117	0.0113



For more information visit [www.basen.net](http://www.basen.net)

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