Customer Spotlight -

Building Mittnät's network infrastructure

Mittnät is a co-operation between 9 city carriers in Sweden, mainly operating in Värmland County. Using the latest automation technology, they have created a workflow that supports their business objectives of building and operating FTTH networks quickly and error-free, to serve customers with affordable and high quality services despite the small size of the networks.

How they do it

As each of the 9 city carriers that form Mittnät build their passive backbone network infrastructure, they store "homes passed" in a GIS system to recognise future potential delivery addresses. Access devices are also installed in sites as preparation for new customers.

The active network is built and operated by Mittnät, but each of the individual city carriers' personnel install the active infrastructure. Thanks to the zero-touch capabilities of BECS, the installation team's only task is to connect the cables. The rest is taken care of by BECS to bring the devices into operation.

When a customer signs up to a fibre service, their data is imported from a GIS system to Mittnät's BBE BSS system in a "not active" state. After the planning process is complete, the last mile is then built and a CPE is installed at the customer's home or premise. This process is simplified using an installation portal. The portal shows the address where the installer is supposed to be to make sure that any patching has been done correctly. The installer also documents installation test results within the portal. The CPE is connected to the network and configured using BECS's Zero-Touch functionality.

When the passive and active network installation is complete, the fibre connection is marked "ready" in the portal and BECS removes the installation portal service from the customer port. As the last step of the installation process the BBE system changes the customer status to "active" to indicate that it is ready for commercial services.

Wholesale service delivery at Mittnät

Once a network build-out is complete, Mittnät take over responsibility for the service delivery. As the business model is based on open access/wholesale models, there is usually a complex matrix mediating multiple service provider's services to end-customers across the 9 networks.

> "Customers can order services via a self-service portal or by contacting a service provider directly"

Customers can order their desired services via a self-service portal or by contacting a service provider directly who can, in turn, activate services via Hubory's mediation platform or directly in BBE by logging into the system or by using APIs.

The BBE then stores the service activation, including commercial terms & conditions like binding and renewal terms, and creates a billing record entry.

Once a month, Mittnät's BBE billing records are sent to each city carrier. They use this information to invoice service providers for their network usage, who then invoice end-customers for the services.

Active network orchestration

Mittnät has two interconnection points in the core of their net-work for service providers to access all 9 city carriers – making it easy for the service providers to deliver their services. At the same time each city carrier has their own service router that is capable to run as BNGs, which allows them to terminate their co-operation with Mittnät if and when they choose to do so.

BBE activates the services by sending an order to BECS. BECS then configures the right BNG and any other devices that need to be configured to make sure the service delivery path is created through the network between the service provider's entry point and the customer's CPE.

City carriers use a dual-vendor strategy in different network layers, such as access and CPEs, to secure supply and to maintain competition between vendors. BECS makes the use of multiple hardware platforms seamless, meaning the service activation process is the same independent of the underlaying network.

Supporting our customers

In larger planned or unplanned network outages, Mittnät can identify the affected customers using BBE and an SMS can then be sent to customers informing them about the situation and the expected resolution time. If individual customers experience problems, their single-point-of-contact is the service provider who investigates whether the problem is in their network. They can also troubleshoot connectivity in Mittnät's network using BBE's troubleshooting tools that show the network status from the core network down to the customer's devices. In case of an identified problem, the service provider can also undertake action to resolve the problem without contacting Mittnät. If needed, they can raise a trouble ticket and pass that on.

To further decrease the need for personnel, Mittnät uses a partner that operate and troubleshoot the network during nights and weekends. Due to the high level of automation provided by BECS and BBE, together with the capabilities of network monitoring tools (Icinga and Grafana), these tasks can be done remotely.

Learn more about the impact of automation at Mittnät by **visiting our webpage.**
To learn more about PacketFront Solutions please **get in touch.**
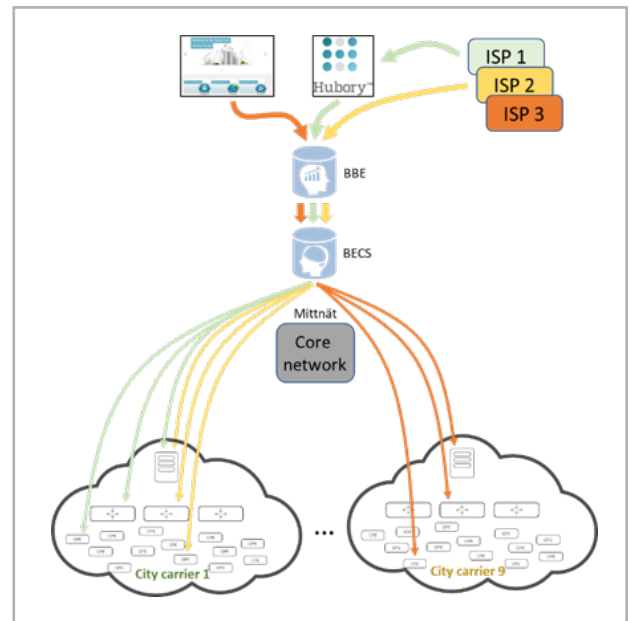
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