# **Getting your own Virtual Mobile Network** – with the MVNO SIP Product

# Get full control over the calls

The MVNO SIP Product is an improved version of our traditional mobile resale product that provides you with the full control of how calls are handled. This ability empowers mobile service providers to offer more innovative and rich mobile products such as unified communications and convergence products to their clients.

# Your own Virtual Mobile Network

The MVNO SIP Product includes a connection to Telenor's mobile network that allows you to create a virtual mobile network for your customers. Settlement of the traffic on this connection is made on a monthly basis. Each hour we provide you with information of every single call so you can keep track of the activity of your customers.

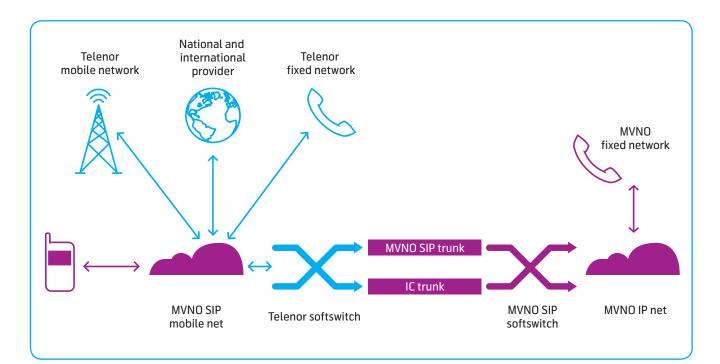
# How it works

All calls to and from a mobile device associated with the MVNO SIP Product will be forwarded to your softswitch through the SIP protocol. This way you can integrate mobile and fixed line services and basically make the two networks melt together.

### Requirements

To use the MVNO SIP Product you must have a softswitch that can distribute traffic between the mobile network and interconnect link. It is also on this platform that you can develop your own services and solutions. You are responsible for obtaining the number series at the Danish Telecom Agency. You must also make and appointment with OCH (Operators Clearing House) and install ICH (Internal Clearing House). Telenor will however assist you with the SIM cards.

#### See the technical specifications on the next page



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# **Technical specification MVNO SIP Product**

# **Telecommunication systems**

The product is built around the latest switching technology and connects you to our robust and scalable network of softswitches. We have equipment installed in both the eastern and western parts of Denmark, making the network fully redundant. The geographical redundancy ensures your customers the best possible service and uptime. Because the SIP is an open protocol, we also offer a variety of connectivity options that support all the renowned suppliers of softswitch solutions.

# Interconnect (IC)

The MVNO SIP Product also includes an interconnect link that provides access to all national and international operators. Both in terms of sent and received traffic to and from your mobile and fixed customers. Settlement of this traffic is made on a monthly basis.

#### Number series

We implement your mobile and fixed number ranges both nationally and internationally.

#### **Functionalities**

We provide the following services available on our mobile network:

- Speech
- Mobile Broadband
- SMS
- Multimedia
- Voicemail
- Access to content premium rate services
- Consumption Control

Additionally, we offer a service called the status interface. This is a service that enables you to gather specific single-user information for use in client or receptionist software. Currently, we offer this status information:

- Phone status (available/busy)
- Private Number (on/off)
- Cell ID (location)
- Roaming status (PLMN ID)
- GPRS APN Attach (on/off)

#### Administration systems

We provide all the administration systems necessary to create, cancel, import and settle customers. The administration systems all have open interfaces that can be combined and offers an automated communication between the individual systems.

#### Access

The connections between the respective networks is established through our Nordic Connect Product – an IP VPN with QoS that is installed with the required bandwidth to match your specific needs. Alternatively, it is possible to exchange traffic through a redundant Nordic Connect connection or the public Internet.

#### Housing

As a service, we provide the facilities for you to install your technical equipment. These facilities are located in both East and West Denmark, giving you the opportunity to utilize the geographical redundancy we have in our network. You can also choose one of the independent point of interconnects in Denmark, where Telenor are present.

# If you want to know more about the MVNO SIP Product please contact wholesale@telenor.dk

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