More than 45% of international calls terminate on mobile networks. 2009 was estimated to be the first year that more international calls would be destined for mobile than fixed lines. VoIP now accounts for more than 20% of global traffic and 70% of international VoIP calls are estimated to be routed via SIM boxes.

International gateway bypass is a growing problem for mobile operators and is one of the most severe threats to revenue and quality of service. The Telenor Global SIM Box Detection service aims to detect the fraud related MSISDNs and prevent them from being used for further bypass activity.

Who does this concern?
The effects of international gateway bypass are felt by both mobile operators and their end users.

Financial loss
The clear financial loser is the mobile operator terminating the call. International calls are being terminated at local retail rates, which together with high traffic volumes results in heavy revenue losses.

Quality loss
1. Poor Quality of Service (QoS)
SIM boxes redirect calls over inadequate, highly compressed IP connections. This results in poor voice quality and call setup times being too long.

2. Caller ID
The caller ID (CLI) is usually missing or incorrect, which means calls may not be accepted, or customers cannot return “missed calls.”

3. Undermining roaming services
Roaming quality is being disrupted. Both in-bound and outbound roamers suffer because of poor quality and lack of access to voicemail and other value added services.

Benefits of connecting to the Global SIM Box Detection service
By connecting to the Telenor Global SIM Box Detection service you get access to an online web tool that enables you to detect, defend and deter bypass activity.

The detection is done by using a sophisticated test call application which can simulate international calls from around the world. The results are traced via a probe installed in the client’s network, and immediate analysis of results is reported back to the client.

The client can defend itself from the MSISDNs identified on its network by blocking them, thus preventing them from continued use for bypass activities.

The service is designed to continuously monitor the fraudsters’ actions and will adapt detection methods to eventually deter SIM box operations.

Overview:
- SIM boxes are used to avoid paying international termination rates to the destination mobile operators network
- Detection of fraud related MSISDNs - prevent them from being used for further bypass activity
- Mobile operators lose important international call termination revenues due to poor quality
- Global losses due to telecommunications fraud is $35-$49 billion annually
- Fraud is growing at 11%-25% annually whilst the telecom industry is only growing at 3%-8%
- Normal quality standards are denied to customers

About Telenor ASA:
- Among the largest mobile operators in the world
- Telecom operations in the Nordic region, Central and Eastern Europe and Asia
- Telenor Global Services is a wholesale operator owned by Telenor ASA