# FM6320 Profiles

[Main Page](#) > [EOL Products](#) > [FM6320](#) > [FM6320 Manual](#) > **FM6320 Profiles**

Introduction to profiles

FM6320 has 4 profiles saved in Flash memory of the module. Every profile has a list of parameters, which enables FM6320 to operate in different modes while using different profiles. The easiest way to understand what is a profile is to compare it to a list of instructions that are written for different cases. You are allowed to setup up to 4 different module behaviours. Global parameters contain settings that are common for all 4 profiles. This means that if FM6320 is set to call to predefined number, you will be able to call it while using any profile. Profile 3 is default profile for FM6320. It is always loaded on the very first start-up and further profile switching is proceeded after operator scan or I/O element changes. Switching between profiles (changing behaviour) can be performed by GSM Operator (mostly used for roaming applications), or by Profile switching depending on I/O Event (on I/O value changing).

Profile switching

Basic scheme of Global parameters, external devices and profiles is shown below.
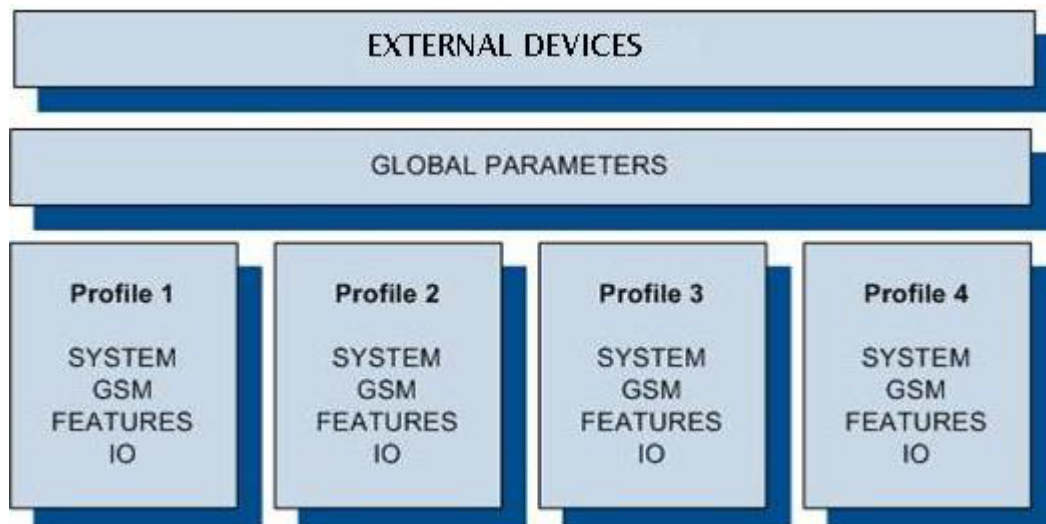
Switching between profiles (changing behaviour) can be performed by Profile switch depending on GSM operator code (mostly used for roaming applications), or by Profile switch depending on I/O event (on I/O value changing).

Profile 3 is default profile for FM6320. It is always loaded on the very first start-up and further profile switching is proceeded after operator scan or I/O element changes (although device remembers which profile it used after that).

- **Profile Switching dependence on GSM Operator**

GSM Operator code profile switching is mostly used in roaming applications, when the purpose is to have information from module both from Home and Roaming operator network for a reasonable price. This method allows you to define different module behaviour in Home network, Roaming
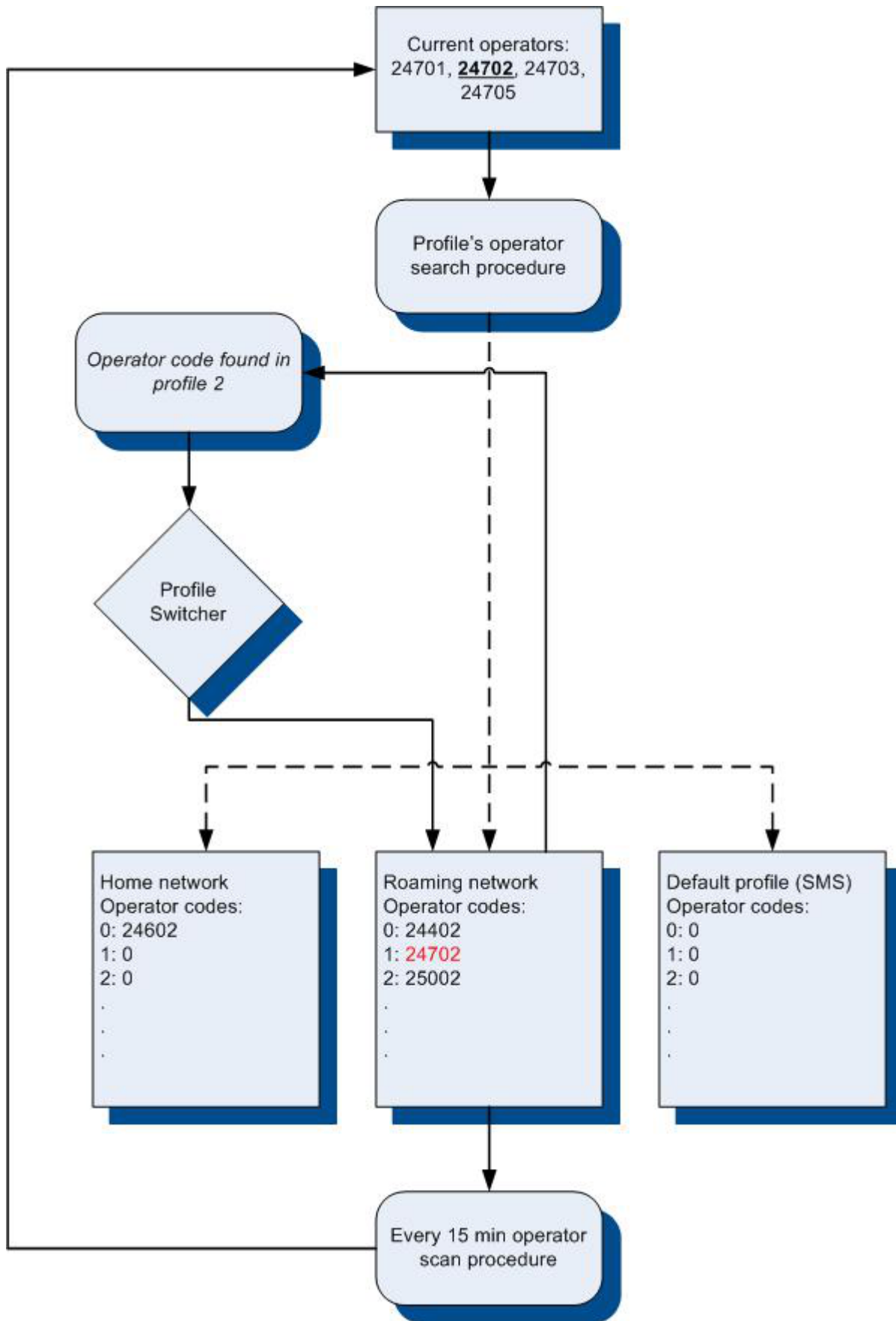
network and unknown operator areas. Profile 1 is configured for home network. Data acquisition and send intervals are quite frequent here. To make profile use effective, it is wise to set more optimized parameters in roaming profile (Profile 2) – this usually includes larger coordinate recording intervals, packets with greater number of coordinates sending, and in some cases GPRS context available only for a certain time interval. Profile 3 can either contain operator codes (rarely used) or have an empty list. Profile 4 is not used (profile 4 can only be used when FM6320 encounters a 'panic' priority event

In the example below FM6320 connects to operator with code 24702. It checks profile 1 operator list, but there is only one operator code entered which does not mach. Then it checks profile 2 operators list. This code is entered there, so FM6320 switches to profile 2.

If there are no operator codes entered in all profiles after operator search task FM6320 will check all 3 profiles and won't find any operators in any list. In such a case, FM6320 will switch to profile 3. Note that before switching to profile 3, the device closes the GPRS session.

 Operator search is performed every 15 minutes. If no operators are entered in any profile it can have influence on GPRS sessions. IF GPRS sessions are attaching/detaching every 15 minutes it means configuration of FM6320 is performed incorrectly.

GSM Operator code profile switching algorithm:

```
          ┌──────────────────────┐
          │   Current operators:  │
          │  24701, 24702, 24703, │
          │         24705         │
          └──────────────────────┘
                     │
                     ▼
          ┌──────────────────────┐
          │   Profile's operator  │
          │    search procedure   │
          └──────────────────────┘

┌──────────────────────┐
│ Operator code found in│
│       profile 2       │
└──────────────────────┘
           │
           ▼
        ╱ Profile ╲
       ⟨  Switcher  ⟩
        ╲         ╱
```

Home network	Roaming network	Default profile (SMS)
Operator codes:	Operator codes:	Operator codes:
0: 24602	0: 24402	0: 0
1: 0	1: 24702	1: 0
2: 0	2: 25002	2: 0
.	.	.
.	.	.
.	.	.

```
          ┌──────────────────────┐
          │  Every 15 min operator│
          │     scan procedure    │
          └──────────────────────┘
```

- **Profile switching dependence on I/O event**

Another profile switch method is based on I/O event. Events happen when the value of enabled I/O intersects thresholds (enter, exit, on both, hysteresis) predefined by High and Low level thresholds. SW21, SW22, SW23, SW24 stands for "Switch to profile no. X". After an event happens, FM6320

switches to a defined profile. Using profile switching you can create smart applications. SW2X actions can be performed only if "Profile change on event" is enabled in Global parameters. Pictures below illustrate profile switching depending on digital events:

Configuration of Profile1 to switch to Profile2 on DIN1 value change from 0 to 1:

Configuration of Profile2 to switch to Profile1 on DIN1 value change from 1 to 0: