

知 MSR路由器VPDN接入场景IMSI-SN绑定案例

PPP L2TP VPN 王科 2023-11-16 发表

组网及说明

普通5G接入可以直接通过核心网将固定IP地址分配给某个IMSI号的SIM卡（通过IMSI绑定IP地址）；VPDN的组网可通过LNS根据APN认证用户名（或IMSI-SN多元绑定）分配固定IP地址。本次介绍IMSI-SN绑定案例：

配置步骤

客户端:

```
#
apn-profile test
apn static ybj.sjtd.nmapn
authentication-mode chap user test1@ybj.sjtd.nmapn password simple 123456
attach-format imsi-sn split # //可选，在需要进行imsi-sn绑定的VPDN环境时配置
```

```
#
interface Eth-channel1/0:0
dialer circular enable
dialer-group 1
dialer timer idle 0
dialer timer wait-carrier 10
dialer timer autodial 5
dialer number *99# autodial
ip address cellular-alloc
tcp mss 1280
apn-profile apply test
```

LNS设备配置（本地认证方式）：

```
#
ip pool 1 192.168.100.2 192.168.100.200
#
interface Virtual-Template1
ppp authentication-mode chap domain ybj.sjtd.nmapn
remote address pool 1
ppp account-statistics enable
ip address 192.168.100.1 255.255.255.0
#
domain name ybj.sjtd.nmapn
accounting start-fail offline
authentication ppp local
authorization ppp local
accounting ppp local
#//本地认证也可实现IMSI-SN绑定，配置较复杂，用户名还需要满足“IMSI#SN#用户名”（其中“#”是分隔符，根据需要来配置指定任何字符，不能和IMSI、SN、用户名中的字符冲突）拼接要求，比如配置“460070000000034#210231UNIS020400005#test1”的用户名来实现。
#
local-user test1 class network
password simple 123456
service-type ppp
authorization-attribute user-role network-operator
authorization-attribute ip 192.168.100.100
#
l2tp-group 1 mode lns
allow l2tp virtual-template 1 remote lac
undo tunnel authentication
tunnel name lns
#
l2tp enable
#
```

本地认证方式可提供简单的VPDN接入配置方案，也可用在远程认证前的连通性测试，想要更高的安全性需要配置AAA远程认证。可以使用iMC服务器来实现AAA远程认证，可支持IMSI-SN绑定来实现更高的安全性，iMC网管可实现统一的、可视化管理要求，具体可参考AAA认证和iMC相关手册。

配置关键点

本地认证举例:

[h3c]dis ce

Cellular1/0:

Modem State:

Hardware Information:

Model: U9300C DGNC

Manufacturer: LONGSUNG

Modem Firmware Version: QB32301.1.0.MX11(0125_3.0.1_L0817)

International Mobile Equipment Identity (IMEI): xx

International Mobile Subscriber Identity (IMSI): xx

Mobile Equipment Identifier (MEID): xx

Hardware Version: 10000

Factory Serial Number (FSN): xx

Modem Status: Online

Modem Status: IPv4 Unknown.

Modem Status: IPv6 Unknown.

Profile Information:

Profile index: 1

PDP Type: IPv4v6

Header Compression: Off

Data Compression: Off

Access Point Name (APN): xzjhfwc.vpdn.xz

Authentication: CHAP

Username: **460111130159149#210231A6C55238P0000T#123@xzjhfwc.vpdn.xz**

#

local-user **460111130159149#210231A6C55238P0000T#123** class network

password cipher \$c\$3\$32Gwqgrrh8zaL3HzEO60r8WrN2a8/w==

service-type ppp

authorization-attribute user-role network-operator

authorization-attribute ip 182.178.248.138

