

SS7 和 PRI 信令呼叫流程说明



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关于本文档

本文档主要简单介绍 SS7 和 PRI 信令呼叫流程。

适用对象

本手册适合下列人员阅读：

- 安装维护工程师
- 技术支持工程师
- 相关技术和市场人员

修订记录

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修正说明	

1 PRI 呼叫流程

Pri 呼叫信令交互流程如下图：



关键信令：

- PRA Send Msg: MT_SETUP** /*发出呼叫请求*/
- PRA Got Msg: MT_CALL_PROCEEDING** /*收到呼叫进行*/
- PRA Got Msg: MT_ALERTING** /*收到振铃*/
- PRA Got Msg: MT_CONNECT** /*收到接通*/
- PRA Got Msg: MT_DISCONNECT** /*收到拆线，挂机/

设备呼叫测试日志流程如下：

```
CC(ccb:29) <<== CC_ST_SETUP, cr:53, calling:888888, longNum:888888, dial:15112272039, num_ok:1, trunkGrpId:255, profileId:255
```

```
[IP2Tel]Match Route Succ! Index:511(888888) /*呼叫方向，index 路由编号 */
```

```
CC(ccb:29) ==>> CC_ST_SETUP
```

```
PRA(ccb:29) <<== CC_ST_SETUP, calling:61919966, long:61919966, dial:15112272039, send_ok:1
```

```
PRA(ccb:29) ==>> CC_SETUP_REQ, index:54, if:65535, trunkGrp:0, calling:61919966, called:15112272039, presentId:0, trans: /*送出去  
的号码*/
```

```
PRA Send Msg: MT_SETUP /*发出呼叫请求*/
```

```
PRA(ccb:29) <<== CC_PROCEEDING_IND,, cause:0(OK)
```

```
PRA Got Msg: MT_CALL_PROCEEDING /*对端响应呼叫进行中 */
```

```
PRA(ccb:29) <<== CC_PROCEEDING_IND,, cause:0(OK)
```

```
CC(ccb:29) <<== CC_ST_SETUP_ACK
```

```
PRA Got Msg: MT_ALERTING /*回铃*/
```

```
PRA(ccb:29) <<== CC_ALERTING_IND,, cause:0(OK)
```

```
CC(ccb:29) <<== CC_ST_ALERTING
```

```
PRA Got Msg: MT_CONNECT /*接通*/
```

PRA Send Msg: MT_CONNECT_ACKNOWLEDGE
PRA(ccb:29) <<== CC_SETUP_CFM,, cause:0(OK)
CC(ccb:29) <<== CC_ST_CONNECT
CC(ccb:29) <<== CC_ST_CONNECT_ACK

PRA Got Msg: MT_DISCONNECT /*收到拆线，下方为原因值*/
PRA(ccb:29) <<== CC_DISCONNECT_IND,, cause:144(Normal call clearing)
PRA Send Msg: MT_RELEASE
PRA Got Msg: MT_RELEASE_COMPLETE
PRA(ccb:29) <<== CC_RELEASE_CFM,, cause:0(OK)
CC(ccb:29) <<== CC_ST_REL_COMP, cause:1(CCS_NORM_CLEAR)), state:7
CC(ccb:29) <<== CC_ST_REL_COMP, cause:0(CCS_NONE)), state:9

2 SS7 呼叫流程

SS7 呼叫信令交互流程如下图:

SS7呼叫简图



SS7 呼叫流程关键信令：

SS7 Send Msg: ISUP_IAM. /*SS7 发送呼叫请求*/
 SS7 Got Msg: ISUP_ACM. /*SS7 收到呼叫接续，一般携带振铃*/
 SS7 Got Msg: ISUP_ANM. /*接通*/
 SS7 Got Msg: ISUP_REL. /*收到拆线，被叫挂机*/

设备呼叫信令日志详解：

```
CC(ccb:20) <<== CC_ST_SETUP, cr:38, calling:888888, longNum:888888, dial:15112272039, num_ok:1, trunkGrpId:255, profileId:255
[IP2Tel]Match Route Succ! Index:511(888888◆◆◆◆)
```

```
CC(ccb:20) ==>> CC_ST_SETUP
```

```
SS7(ccb:20) <<== CC_ST_SETUP, calling:61919966, long:61919966, dial:15112272039, send_ok:1
```

```
SS7(ccb:20) ==>> CC_SETUP_REQ, index:39, if:65535, trunkGrp:0, calling:61919966, called:15112272039, presentId:0, trans:
```

```
SS7 Send Msg: ISUP_IAM. /*SS7 发送呼叫请求*/
```

```
SS7(ccb:20) <<== CC_PROCEEDING_IND,, cause:0(OK)
```

```
SS7 Got Msg: ISUP_ACM. /*SS7 收到呼叫接续，一般携带振铃*/
```

```
SS7(ccb:20) <<== CC_ALERTING_IND,, cause:0(OK)
```

```
CC(ccb:20) <<== CC_ST_SETUP_ACK
```

```
CC(ccb:20) <<== CC_ST_ALERTING /*振铃*/
```

```
SS7 Got Msg: ISUP_ANM. /*接通*/
```

```
SS7(ccb:20) <<== CC_SETUP_CFM,, cause:0(OK)
```

```
CC(ccb:20) <<== CC_ST_CONNECT
```

```
CC(ccb:20) <<== CC_ST_CONNECT_ACK
```

SS7 Got Msg: ISUP_REL. /*收到拆线，被叫挂机*/
SS7 Send Msg: ISUP_RLC.
SS7(ccb:20) <<== CC_DISCONNECT_IND,, cause:16(Normal call clearing)
SS7(ccb:20) <<== CC_RELEASE_CFM,, cause:16(Normal call clearing)
CC(ccb:20) <<== CC_ST_REL_COMP, cause:1(CCS_NORM_CLEAR)), state:7
CC(ccb:20) <<== CC_ST_REL_COMP, cause:0(CCS_NONE)), state:9