

0521-1

# CERTIFICATE

## 用户证明

Date: Sept. 5th, 2005

日期: 9月5日, 2005

ZTE CORPORATION  
ZTE Plaza, Keji Road South,  
High Industrial Park  
Nanshan District,  
Shenzhen 518057  
P.R.China

To whom it may concern,  
兹证明

We, China Unicom Quanzhou Branch hereby certifies that ZTE Corporation has supplied its All-IP CDMA2000 BSS infrastructures including All-IP BSC(ZXC10 BSCB), All-IP BTS for our CDMA cellular networks in Quanzhou City, which interconnect with S12 CDMA Mobile Switch System from ShangHai Bell company since Feb. 2003. After 3-term network expansions, the capacity of ZTE CDMA2000 1X All-IP infrastructures in our network is up to 1,923 Er1 with more than 45, 000 commercial subscribers by the end of April 2005. The Current All-IP equipment provided by ZTE is described as following:

- 1 set of ZXC10-BSCB
- 37 sets of ZXC10-BTS including ZXC10 BTSA, BTSB I1, BTSB I2, BTSB CBTS, BTSAE, MBTS.

我们, 中国联通泉州分公司证明 ZTE 中兴从 2003 年 2 月起为我公司的 800Mhz CDMA 移动网络提供其 CDMA All-IP BSS 设备, 包括 All-IP BSC(ZXC10 BSCB), All-IP BTS 等, 中兴的 All-IP BSS 设备统一接入到上海贝尔的 S12 移动交换系统设备。到 2005 年 9 月份, 经过多次扩容, 中兴设备的无线容量容量达到 1,923 Er1, 用户达到 4.5 万。ZTE 中兴提供的现网 All-IP BSS 设备如下:

- 1 套 ZXC10-BSCB
- 37 套 ZXC10-BTS 包括 ZXC10 BTSA, BTSB I1, BTSB I2, BTSB CBTS, BTSAE, MBTS 等机型。

The list of interoperability test items refers to the **Appendix**.

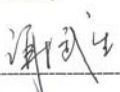
互联互通测试项目见附件。

We are pleased with ZTE's All-IP products and services, including project management, training, network planning and optimization, system design & manufacture, installation & commissioning, warranty and maintenance, and the reliability and good performance of its CDMA system.

Your kind consideration for this certification will be highly appreciated.

我们非常满意中兴 All-IP 产品和相关服务, 包括工程、培训、无线规划、网络优化、系统设计、安装调试、维修保养。中兴 CDMA 设备稳定和有良好的性能使我们期待和中兴的长期合作。

Yours Sincerely

  
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**Appendix 附件**

List of Interoperability Test Items 兼容性测试项目列表

No	Test Item	Test Result
1	Mobile originated voice call setup — Mobile Protocol version >=6, slotted mode, no authentication 移动台始发的语音呼叫建立——移动台协议版本>=6, 时隙模式, 无鉴权	Pass 通过
2	MS originated voice call setup — Mobile Protocol version <6, slotted mode, no authentication 移动台始发的语音呼叫建立——移动台协议版本<6, 时隙模式, 无鉴权	Pass 通过
3	MS originated voice call setup — Slotted mode, with authentication 移动台始发的语音呼叫建立——时隙模式, 带鉴权功能	Pass 通过
4	MS originated voice call setup — Non-slotted mode 移动台始发的语音呼叫建立——非时隙模式	Pass 通过
5	Emergency call — Normal user 紧急呼叫——正常用户	Pass 通过
6	MS terminated voice call setup — Mobile protocol version >=6, Non-slotted mode, no authentication 移动台终止的语音呼叫建立——移动协议版本>=6, 非时隙模式, 无鉴权	Pass 通过
7	MS terminated voice call setup — Mobile protocol version <6, Non-slotted mode, no authentication 移动台终止的语音呼叫建立——移动协议版本<6, 时隙模式, 无鉴权	Pass 通过
8	MS terminated voice call setup — Slotted mode, with authentication 移动台终止的语音呼叫建立——时隙模式, 带鉴权功能	Pass 通过
9	MS terminated voice call setup — IMSI and ESN mismatching 移动台终止的语音呼叫建立——IMSI 和 ESN 不匹配	Pass 通过
10	MS terminated voice call setup — MS has no paging response 移动台终止的语音呼叫建立——移动台无寻呼响应	Pass 通过
11	Voice call clearing initiated by the MS — MS hangs up MS 发起的语音呼叫的清除——MS 挂机	Pass 通过
12	Voice call clearing initiated by the MS — MS Shuts down MS 发起的语音呼叫的清除——MS 关机	Pass 通过
13	Voice call clearing initiated by the MSC — MS initiates call, after conversation, the called party hangs up MSC 发起的语音呼叫的清除——MS 主叫, 通话后, 被叫挂机	Pass 通过
14	Voice call clearing initiated by the MSC — MS is the called party, after ringing, the calling party hangs up MSC 发起的语音呼叫的清除——MS 被叫, 振铃后, 主叫挂机	Pass 通过
15	Voice call clearing initiated by the MSC — MS is the called party, T301 expires MSC 发起的语音呼叫的清除——MS 被叫, T301 超时	Pass 通过
16	Voice call clearing initiated by the BS — No signal of MS BS 发起的语音呼叫的清除——无 MS 的信号	Pass 通过
17	Idle MS activates authorized CFU service 空闲 MS 激活已授权的 CFU 业务	Pass 通过
18	Idle MS inactivates CFU service 空闲 MS 去激活 CFU 业务	Pass 通过
19	MS activates authorized CFU service in conversation 通话过程中 MS 激活已授权的 CFU 业务	Pass 通过
20	MS inactivates CFU service in conversation	Pass

	通话过程中 MS 去激活 CFU 业务	通过
21	The third party hangs up in call waiting 呼叫等待过程中第三方挂机	Pass 通过
22	Inactivate once call waiting 单次去激活呼叫等待	Pass 通过
23	Three parties call setup 三方通话的建立	Pass 通过
24	Resume call with kept party when third party no answering 第三方无应答时, 恢复与被保持方的通话	Pass 通过
25	Cancel three parties call 三方通话的取消处理	Pass 通过
26	Idle MS receives short message on page channel— Non-slotted mode 空闲状态下移动台在寻呼信道接收短消息——非时隙模式	Pass 通过
27	Idle MS receives short message on page channel— Slotted mode 空闲状态下移动台在寻呼信道接收短消息——时隙模式	Pass 通过
28	Idle MS receives short message — On traffic channel 空闲状态下移动台接收短消息——业务信道	Pass 通过
29	MS receives short message in conversation status 通话状态下移动台接收短消息	Pass 通过
30	Idle MS sends short message — On access channel 空闲状态下移动台发送短消息——接入信道	Pass 通过
31	Idle MS sends short message — On traffic channel 空闲状态下移动台发送短消息——业务信道	Pass 通过
32	MS sends short message in conversation status 通话状态下移动台发送短消息	Pass 通过
33	Intra-BTS softer handoff BTS 内的更软切换	Pass 通过
34	Intra-BSC/inter-BTS soft handoff BSC 内、BTS 间的软切换	Pass 通过
35	Intra-MSC/inter-BSC hard handoff MSC 内、BSC 间的硬切换	Pass 通过
36	Intra-MSC/inter-BSC hard handoff — Target BSC returns handoff failure MSC 内、BSC 间的硬切换——目标 BSC 返回切换失败	Pass 通过
37	Power up registration — MS protocol version >=6 开机登记——移动台协议版本>=6	Pass 通过
38	Power up registration — MS protocol version <6 开机登记——移动台协议版本<6	Pass 通过
39	Power down registration — MS protocol version >=6 关机登记——移动台协议版本>=6	Pass 通过
40	Power down registration — MS protocol version <6 关机登记——移动台协议版本<6	Pass 通过
41	Registration failure — IMSI and ESN mismatching 登记失败——ESN 和 IMSI 不匹配	Pass 通过
42	SSD update — Successful operation SSD 更新——成功操作	Pass 通过
43	SSD update — Failing operation SSD 更新——失败操作	Pass 通过
44	Global challenge during registration — Success 登记期间的统一查询——成功	Pass 通过
45	Global challenge during registration — Failure 登记期间的统一查询——失败	Pass 通过

46	Global challenge during call initiated by the MS — Failure 移动台始呼期间的统一查询——失败	Pass 通过
47	Global challenge during call terminated by the MS — Failure 移动台被呼期间的统一查询——失败	Pass 通过
48	Unique challenge when MS in idle status — Success 移动台空闲状态下的独特查询——成功	Pass 通过
49	Unique challenge when MS in idle status — Failure 移动台空闲状态下的独特查询——失败	Pass 通过
50	Unique challenge when MS in conversation state — Success 移动台通话状态下的独特查询——成功	Pass 通过
51	BS blocks single terrestrial circuit — No Voice Call BS 阻塞单个电路——无语音呼叫	Pass 通过
52	BS blocks multi-circuits — No Voice Call (optional) BS 阻塞多个电路——无语音呼叫 (可选)	Pass 通过
53	BS blocks single terrestrial circuit — With associated Voice Call BS 阻塞单个电路——有语音呼叫	Pass 通过
54	BS blocks multi-circuits — With associated Voice Calls (optional) BS 阻塞多个电路——有语音呼叫 (可选)	Pass 通过
55	BS block terrestrial circuit — T1 expires BS 阻塞电路——T1 超时	Pass 通过
56	BS block all terrestrial circuits (optional) BS 阻塞所有电路 (可选)	Pass 通过
57	BS unblocks single terrestrial circuit BS 解闭单个电路	Pass 通过
58	BS unblocks multi-circuits (optional) BS 解闭多个电路 (可选)	Pass 通过
59	BS unblocks all terrestrial circuits (optional) BS 解闭所有电路 (可选)	Pass 通过
60	BS initiated single circuit Reset BS 发起的单个电路复位	Pass 通过
61	BS initiated circuit cluster reset — No voice call (optional) BS 发起的电路群复位——无语音呼叫 (可选)	Pass 通过
62	BS initiated circuit cluster reset — With associated voice calls (optional) BS 发起的电路群复位——有语音呼叫 (可选)	Pass 通过
63	MSC initiated single circuit reset MSC 发起的单个电路复位	Pass 通过
64	MSC initiated single circuit reset — BS return block message MSC 发起的单个电路复位——BS 返回阻塞消息	Pass 通过
65	BS initiated global system reset BS 发起的全局复位	Pass 通过

