

Technical Bulletin CS-17-03

# Installing and Using Distinctive Ring Tones with 84-Series Handsets

This document describes how to install and use custom ring tones on 84-series devices. These additional ring tones can be initiated by nurse-call systems using a Alert-Info header within the SIP telephony signaling. This allows a nurse-call system to play distinct and different ring tones. These customs ring tones need to be installed into the 84-series device prior to use.

Many nurse-call systems use an integrated SIP server (commonly Brekeke) to communicate with mobile end-points. SIP makes it easy for nurse-call systems to support many different endpoints without custom integration. The nurse-call system generates phone calls to the nurse's wireless telephone whereby the caller ID string provides the alert and location information, and the custom ring tone allows the nurse to audibly identify the priority of the alert.

<u>Note</u>: It is common practice to configure a second line registration on the 84-series device directly to the nurse-call system's SIP server (e.g. Brekeke) so that the Brekeke SIP signaling is received intact using the second line at the wireless telephone.

What we have found when an 84-series device is only registered to the main/corporate SIP server, and the nurse-call system uses a SIP trunk from the Brekeke to the the corporate SIP server, the corporate SIP server often strips the special SIP alert-info header containing the ring-tone information. And so the wireless telephone does not receive (i.e. play) the alert-info instruction.

# Installing New Ring Tones

To install additional ring tones into an 84-series device, the new ring tones need to be put on an provisioning server, and additional configuration parameters need to be set to ensure the 84-series device downloads these tones at start-up. The tones are loaded into the handset's volatile memory, so they are lost when a handset is powered off, and thus need to be left on the provisioning server.

<u>Note</u>: The new WAV files should be less than 300 KB, in the WAVE file format and either mono 8 kHz G.711 u-Law, or G.711 A-Law.

To configure a handset to download new ring tones, use the saf.x parameter in the configuration file. Typically x is 4 to 10. For example:

<sampled\_audio

```
saf.4 ="ftp://192.168.1.11/example.wav"
```

/>

In the above example, saf.4 directs the handset to use FTP to retrieve example.wav from the specified FTP server IP address. Note the 84-series will use the the FTP provisioning server credentials set elsewhere, i.e. during initial provisioning via QNC).

<u>Note</u>: You can verify the ringtone is installed into the handset, by checking the ringtone (it should appears around number 14) under the Notification Profiles: setting->basic->notification->normal-> ringing->calls->ring pattern

For more information on 84-series configuration parameters and syntax please refer to the "Default Ring Tones and Alert Tones" section of the 84-Series administration guide document.

# Setting the Alert-Info Rule

Once the ring-tones are configured and downloaded to the 84-series device, the nurse-call call-server (e.g. Brekeke) can use these tones as ring tones by adding an Alert-Info header directive (e.g. "Alert-Info =  $< \frac{ftp:}{localhost/example.wav}$ ") to a dial plan rule in the Brekeke call-server. An example of dial plan rule example is below, where "example.wav" can be substituted with one of the other WAV files above:

```
$request = ^INVITE
To = sip:(8.+)@
From = Code
Alert-Info = <ftp://localhost/example.wav>
```

<u>Note</u>, the case is important on setting up the dial plan rules in the Brekeke, for example, SIP must be lowercase not a mixed case (i.e. "sip" not "Sip".

Below is an exerpt from a brekeke SIP server, showing a few simplistic dial plan examples. For more general information on Dial Plan Rules and Pattern Matching please refer to the appropriate nurse-call or Brekeke documentation.

💽 🗢 🎦 http://127.0.0.1:18080/sip/gate	• ٩	🗟 🖅 🔀 🔂 Brekeke SIP Server Administr 🗙	
e Edit View Favorites Tools Help	Rules Prelimina	ry History Import/Export	
SIP Server	Rules		
SIP SERVER	Hide Disabled Rule		
Registered Clients Active Sessions	New Rule	3	
User Authentication	Pri Name	Matching Patterns	Deploy Patterns
Dial Plan Aliases	1 Spec Code	<mark>\$request</mark> = ^INVITE To = sip:(6.+)@ From = .*Blue.*	Alert-Info = <ftp: codeblue.wav="" localhost=""></ftp:>
∟ogs Push Notification Domains	2 Spec Staff Assist	<pre>\$request = ^INVITE To = sip:(6.+)@ From = .*Staff.*</pre>	Alert-Info = <ftp: fastdingding.wav="" localhost=""></ftp:>
Configuration	3 Spectralink SIP	<pre>\$request = ^INVITE To = sip:(6.+)@</pre>	<b>To</b> = sip:%1@172.16.17.60
SYSTEM -			
Status Block List Redundancy Tools Diagnostics			

Once the Brekeke SIP server is setup, and assuming a nurse-call alert is generated that meets the configured dial plan rule, the Brekeke should send SIP signaling with an Alert-Information header. This can be verified using Wireshark to analyze the SIP signaling. In the example below you see an alert-info for a warble.wav.

Die jest yew Go Cyntue Anylor Bankins Telephory Ionis Internal Byde         Die jest yew Go Cyntue Anylor Bankins Telephory Ionis Internal Byde         Die Go Collegie Status Sta
The:         Depression.         Clear         Apply         Save           No.         Savec         Defination         Proce         Legination           9855         50.3534/3010.3.0.2.204         10.41.217.10         STP         55/5 Status: 501 Not Implemented             9855         50.3534/6710.3.0.2.204         10.41.217.120         STP         55/5 Status: 501 Not Implemented             2067         11.073054010.3.0.2.204         10.41.217.120         STP/SDF         SSE Request: INVITE Sip1485801.0.41.217.120             2068         11.05748010.3.0.2.204         10.41.217.110         STP/SDF         SSE Request: INVITE Sip1485801.0.41.217.120             2072         11.105748010.3.0.2.204         10.41.217.111         STP/SDF         SSE Request: INVITE Sip1485801.0.41.217.121             2072         11.105744010.3.0.2.204         10.41.217.126         STP/SDF         SSE Request: INVITE Sip1485801.0.41.217.126             2082         11.156437010.3.0.2.204         10.41.217.126         STP/SDF         SSE Request: INVITE Sip1485801.0.41.217.126             2082         11.156437010.3.0.2.204         10.41.217.126         STP/SDF         SSE Request: INVITE Sip1485801.0.41.217.126             2082         Stp1.354701.0.0.2.204         10.41.217.126         Stp1/SDF         Stp1/SDF         Stp1/SDF <tr< th=""></tr<>
No.         The source         Destination         Proof A Length Met           995b 9035/91010.41.27/119         510.01.20.41         517
9985 50.358/901.04.12/119         10.40.2.204         51P         64/ Status: 50L Not Implemented             9857 50.358/901.03.2.204         10.41.217.105         STP         555 Status: 50L Not Implemented             9858 50.3544801.03.0.2.204         10.41.217.105         STP         555 Status: 50L Not Implemented             2067 11.073641.01.30.2.204         10.41.217.118         STP/S0F 962 Request: INVITE s1p:456981.04.127.118             2072 11.1204801.03.0.2.204         10.41.217.117         STP/S0F 963 Request: INVITE s1p:4549810.41.217.118             2073 11.1204901.03.0.2.204         10.41.217.117         STP/S0F 963 Request: INVITE s1p:4549810.41.217.117             2085 11.1583701.03.0.2.204         10.41.217.120         STP/S0F 963 Request: INVITE s1p:4549810.41.217.117             2085 11.1583701.03.0.2.204         10.41.217.120         STP/S0F 963 Request: INVITE s1p:4548810.41.217.120             2085 11.1583701.03.0.2.204         10.41.217.120         STP/S0F 963 Request: INVITE s1p:458810.41.217.120             2085 11.1583701.03.0.2.204         10.41.217.120         STP/S0F 963 Request: INVITE s1p:458810.41.217.120             9 Frame 2067: 962 bytes on wire (7666 bits), 962 bytes captured (766 bits) on interface 0         Internet structure s1p:458810.41.217.120 SIP/S0F 963 Request: INVITE s1p:458810.41.217.120             9 Exession Initiation Protocol (Sver Port: 5060 (5060), sol: 204.1.217.120           Session 10.41.217.120           Session 11.21.
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2067 11.0730540 10.30.2.204       10.41.217.120       STP/SDF 962 Request: INVITE sip:4858010.41.217.120         2068 11.0632500 10.30.2.204       10.41.217.118       STP/SDF 963 Request: INVITE sip:4859010.41.217.119         2078 11.12309310 10.30.2.204       10.41.217.117       STP/SDF 963 Request: INVITE sip:4849810.41.217.121         2085 11.1387440 10.30.2.204       10.41.217.17       STP/SDF 962 Request: INVITE sip:4845801.41.217.122         2085 11.1584370 10.30.2.204       10.41.217.17       STP/SDF 962 Request: INVITE sip:4845801.41.217.120         2085 11.1584370 10.30.2.204       10.41.217.17       STP/SDF 962 Request: INVITE sip:4845801.41.217.120         4343 20.7548740 10.30.2.204       10.41.217.118       STP/SDF 963 Request: INVITE sip:485801.41.217.120         4313 20.7703401 10.30.2.204       10.41.217.118       STP/SDF 963 Request: INVITE sip:485801.41.217.120         10       Frame 2067: 962 bytes on wire (7696 bits), 962 bytes captured (7695 bits) on interface 0       Internet II, src: Dellnc.a6:31:bf (00:21:9b:a6:31:bf), bst: 1:6:127.120 (0:41.217.120)         10       Internet II, src: bellnc.a6:31:bf (00:21:9b:a6:31:bf), bst: 0:61.27.120       Internet Signed Addet Add
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<pre>2085 11.156437010.30.2.204 10.41.217.176 STP/SDF 962 Request: INVTTE sip:4898910.41.217.176  4495 20.754874010.30.2.204 10.41.217.120 STP/SDF 963 Request: INVTTE sip:48580810.41.217.120  4453 20.770304010.30.2.204 10.41.217.118 STP/SDF 963 Request: INVTTE sip:48580810.41.217.120  4535 20.770304010.30.2.204 10.41.217.118 STP/SDF 963 Request: INVTTE sip:48580810.41.217.120  455 20.770304010.30.2.204 10.41.217.118 STP/SDF 963 Request: INVTTE sip:48580810.41.217.120  455 20.770304010.30.2.204 10.40.21.951645.41.217.120  455 20.770304010.30.2.204 10.30.2.204 (10.30.2.204), DSt: 10.41.217.120 (10.41.217.120  455 20.204), DSt: 10.41.217.120 (10.41.217</pre>
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4 133 20.770304010.30.2.204       10.41.217.118       STP/SDE 963 Declinest: TNVTTE sin:4850810.41.217.118         ✓       m         ○       Frame 2067: 962 bytes on wire (7696 bits), 962 bytes captured (7696 bits) on interface 0         □       Ethernet II, Src: DellInc.a6:a1:bf (00:21:9b:a6:a1:bf), Dst: ciscolnc.32:07080 (a8:b1:d4:32:f0:80)         □       Internet Protocol version 4, Src: 10.30.2.204 (L0:30.2.204), Dst: 10.41.217.120 (10.41.27.120)         □       Sees Datagram Protocol, Src Port: 5060 (5060), Dst Port: 5060 (5060)         □       Sees Datagram Protocol, Src Port: 5060 (5060)         □       Sees Datagram Protocol (NVTE)         □       Request-Line: INVTE sip:4558810.41.217.120 SIP/2.0         □       Message Header         □       From: "NrCU4002_1 code Blue Infant" <sip:403*4002*1810.30.2.204>;tag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c         □       C csip:4585810.30.2.204&gt;         c cli 1 INUTE       Sip:00/12.16.0.1:5060;pront;branch=29hc4bx2cfef18764d+-30-183af1         □       via: SIP/2.0/UUP 103.0.2.204:5060;pront;branch=29hc4bxc16c57c-6636ef-c57c6a8;port=5060         Max-Forwards: 69       Supported: timer         □       Contact: <cjp:435*4002*1810.30.2.204:5060>         Session Lexing       Session Lexing         ■       Max-Forwards: 69         Supported: timer       Image: Sip:10.30.2.204:5060&gt;</cjp:435*4002*1810.30.2.204:5060></sip:403*4002*1810.30.2.204>
<pre>""""""""""""""""""""""""""""""""""""</pre>
<pre>bithernet II, src: bellInc.46:a1:bf (00:21:9b:a6:a1:bf), bst: ciscoInc.32:(f0:80 (a8:b1:d4:32:f0:80) bithernet Protocol version 4, src: 10.30.2:204 (10.30.2:204), bst: 10.41.217.120 bitser batagnam Protocol, src Port: 5060 (5060), bst Port: 5060 (5060) bitser batagnam Protocol (INWITE) bitser batagnam Prot</pre>
<pre> ■ Ethernet II, Src: pellInc_46:a1:bf (00:21:9b:a6:a1:bf), Dst: ciscolc_22:f0:80 (a8:b1:d4:32:f0:80) ■ Internet Protocol version 4, Src: 10.30.2.204 (D1:30.2.204), DSt: 10.41.217.120 ■ User Datagram Protocol, Src Port: 5060 (5060), Dst Port: 5060 (5060) ■ Session Initiation Protocol (INVITE) ■ Request-Line: INVITE spir4858810.41.217.120 SIP/2.0 ■ Message Header ■ From: "NtcU4002_1 code Blue Infant" <sip:403*4002*1810.30.2.204>;tag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c ■ To: <sip:4858810.30.2.204> ■ Call Call Call Call Call Call Call Cal</sip:4858810.30.2.204></sip:403*4002*1810.30.2.204></pre>
<pre>image: Internet Protocol version 4, src: 10.30.2.204 (10.30.2.204), bst: 10.41.217.120 (10.41.217.120) image: User Datagram Protocol, src Port: 5060 (5060) image: Version 1 = Versio</pre>
<pre>Bession Initiation Protocol (INVITE) Bequest-Line: INVITE sip:4858010.41.217.120 SIP/2.0 Bequest-Line: INVITE sip:4858010.41.217.120 SIP/2.0 From: "NICU4002_1 code Blue Infant" <sip:403*4002*1010.30.2.204>;tag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c To: <sip:4858010.30.2.204> call-ID: d0d77a8-10010ac-13c4-55022-18c57c-6544ccc5-18c57c Value I INVITE Value I INVITE Value I INVITE Value I INVITE Output I I I III I III I III I III I III I III I</sip:4858010.30.2.204></sip:403*4002*1010.30.2.204></pre>
B Request-Line: INVITE sip:4858010.41.217.120 SIP/2.0 ■ Ressage Header B From: "NICU4002_1 code Blue Infant" <sip:403*4002*1010.30.2.204;tag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c< p=""> Call-D1: d0d77a8-10010ac-13c4-55022-18c57c-6544ccc5-18c57c Call-D1: d0d77a8-10010ac-13c4-55022-18c57c-6544ccc5-18c57c B Konder Content - Start -</sip:403*4002*1010.30.2.204;tag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c<>
<pre>Message Header Wessage Body Wessage Body Wessage Body Message Body Message</pre>
<pre>     From: "NrCU4002_1 code Blue Infant" <sip:403*4002*1810.30.2.204>     From: "NrCU4002_1 code Blue Infant" <sip:438*4002*1810.30.2.204>     call-TD: d0d73a=10010ac-13c4-55022-18c57c-6544ccc5-18c57c     Gesq: 1 INVITE     Via: SIP/2.0/U0P 10.3.0.2.204:5060; prort; branch=29hG4bK2cfef187f8d4=30-183af1     via: SIP/2.0/U0P 172.16.0.1:5060; branch=29hG4bK2cfef187f8d4=30-183af1     via: SIP/2.0/U0P 172.16.0.1:5060; branch=29hG4bK-18c57c-60c36e6f-c57c6a8; rport=5060     Max-Forwards: 69     Supported: timer     orat: csip:438*4002*100.30.2.204:5060&gt;     Session-Expires: 1800     Min-SE: 90     Alert=Inf0: <tp: localhost="" warble.wav="">     B Record-Route: <sip:10.30.2.204:5060; ftag="d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;" lr="">     Content-Type: application/sdp     content-Length: 188     Message Body     Session Description Protocol </sip:10.30.2.204:5060;></tp:></sip:438*4002*1810.30.2.204></sip:403*4002*1810.30.2.204></pre>
<pre>     To: <stp:4858810.30.2.204>     Call-To: dd077a8-10010ac-13c4-55022-18c57c-6544ccc5-18c57c     Geq: 1 INVITE     Via: SIP/2.0/UDP 172.16.0.1:5060;branch=z9hG4bk2cfef187f8d4-30-183af1     Via: SIP/2.0/UDP 172.16.0.1:5060;branch=z9hG4bk-18c57c-60c36e6f-c57c6a8;rport=5060     Max-Forwards: 69     Supported: timer     Contact: <stp:403-4002*1@10.30.2.204:5060>     Session-Expires: 1800     Min-sE: 90     Alert-Info: <dtp: localhost="" wachle.wav="">     B Record-Route: <stp:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr>     Content-Type: application/sdp     Content-Length: 188     Message Body     Session Description Protocol </stp:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></dtp:></stp:403-4002*1@10.30.2.204:5060></stp:4858810.30.2.204></pre>
<pre>call-rD: d0d77a8-10010ac-12c4-55022-18c57c-6544ccc5-18c57c @ Ceqet 1 NNTE @ Via: 51P/2.0/UDP 10.30.2.204:5060;prort;branch=29hG4bx2cfef187f8d4-30-183af1 @ Via: 51P/2.0/UDP 172.16.0.1:5060;branch=29hG4bx-18c57c-6036e6f-c57c6a8;rport=5060 Max-Forwards: 69 Supported: time @ contact: <ipit403*4002*1@10.30.2.204:5060> Session-skpires: 1800 Min-55: 90 Alert=Inf0; <ftp: localhost="" warble.wav=""> @ Alert=Inf0; <ftp: localhost="" warble.wav=""> @ Record-Route: <spip10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr> Content-Length: 188 @ Message Body @ Session Description Protocol</spip10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></ftp:></ftp:></ipit403*4002*1@10.30.2.204:5060></pre>
<pre>     Cseq: 1 INVTE     Stp/2.0/UpP 10.30.2.204:5060;rport;branch=29hG4bK2cfef187f8d4-30-183af1     Via: SIP/2.0/UpP 172.16.0.1:5060;branch=29hG4bK-18c57c-60c36e6f-c57c6a8;rport=5060     Max-Forwards: 69     Supported: timer     Contact: <ip:403*4002*1&10.30.2.204:5060>     Session=Expires: 1800     Min-SE: 90     Alert=Inf0: <itp: localhost="" warble.wav="">     Record=Route: <sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr>     Content-Type: application/sdp     Content_Length: 188     Message Body     Session Description Protocol </sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></itp:></ip:403*4002*1&10.30.2.204:5060></pre>
□       Via: stp/2.0/UDP 10.30.2.204:5060; rport; branch=z9hG4bk2cfef187f8d4-30-183af1         □       Via: stp/2.0/UDP 172.16.0.1:5060; branch=z9hG4bk-18c57c-60c36e6f-c57c6a8; rport=5060         Max-Forwards:       69         Supported:       timer         □       contact:       cipit403*4002*1810.30.2.204:5060>         Session-Expires:       1800         Min-Sc:       90         Alert=_timer       0         □       Record-Route:       cipit405t/localhost/warblcs.wav>         □       Record-Route:       cipit0.30.2.204:5060; ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c; lr>         Content-Type:       application/sdp       content-tength:         □       Rescage Body       □       Session Description Protocol
<pre> 9 Via: stp/2.0/UDP 172.16.0.1:5060;branch=z9hG4bk-18c57c-60c36e6f-c57c6a8;rport=5060 Max-Forwards: 69 Supported: timer 10 Contact: <ip:r403*4002*101.0.3.2.204:5060> Session=Expires: 1800 Min-5E: 90 Alert=Info: <itp: localhost="" warble.wav=""> 10 Record=Route: <sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr> Content-Type: application/sdp Content-Length: 188 □ Message Body □ Session Description Protocol </sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></itp:></ip:r403*4002*101.0.3.2.204:5060></pre>
Max-Forwards: 69         Supported: timer         © contact: <sip:403*4002*1010.30.2.204;5060>         Session-Expires: 1800         Win-SE: 90         Alerc=Info: <tps: localhost="" warble.wav="">         © Record-Route: <sip:10.30.2.204;5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr>         Content-Type: application/sdp         Content-Length: 188         © Message Body         © Session Description Protocol</sip:10.30.2.204;5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></tps:></sip:403*4002*1010.30.2.204;5060>
Supported: timer © contact: <sip:403*4002*1010.30.2.204:5060> Session-Expires: 1800 Min-5E: 90 Alert-Info: <tp: localhost="" warble.wa=""> © Record-Route: <sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr> Content-Length: 188 © Message Body © Session Description Protocol</sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></tp:></sip:403*4002*1010.30.2.204:5060>
<pre>     [] Contact: cs/p:403*4002*1@10.30.2.204:5060&gt;     Session=Expires: 1800     Win-SE: 90     Alert=Info: cftp://localmost/warble.wav&gt;     @ Record=Route: <sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr>     Content-Type: application/sdp     Content-Length: 188     Message Body     Session Description Protocol </sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></pre>
<pre>Win-SE: 90 Alert-Info: <tp: localhost="" warble.wav=""> @ Record-Route: <sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr> Content-Type: application/sdp Content-Length: 188 @ Message Body @ Session Description Protocol</sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></tp:></pre>
Alert-Info: <ftp: localhost="" warble.wav=""> @ Record-Route: <sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr> Content-Type: application/sdp Content-Length: 188 @ Message Body © Session Description Protocol</sip:10.30.2.204:5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr></ftp:>
□ Record-Route: <\$ip:10.30.2.204;5060;ftag=d0badf0-10010ac-13c4-55022-18c57c-26fe613b-18c57c;lr> Content-Type: application/sdp Content-Length: 188 □ Message Body □ Session Description Protocol
Content-Type: application/sdp Content-Length: 188 Message Body E Session Description Protocol
Contert-Length: 188 ⊡ Message Body □ Session Description Protocol
⊟ Message Body ⊟ Session Description Protocol
🛛 Session Description Protocol
Session Description Protocol Version (v): 0
Owner/(reator, Session Id (o): Ros_out 2890844526 2890844526 IN IP4 10.30.2.204
Session Name (s): Annunciation
B connection Information (c): IN IP4 10.30.2.204     Connection (c): IN IP4 10.30.204     Connection (c): IN IP4 10.30.204     Connection (c): IN IP4 10.30.204     Connection (c): IN
⊞ Time Description, active time (t): 0 0
⊞ Media Description, name and address (m): audio 10064 RTP/AVP 101 0
⊞ Media Attribute (a): rtpmap:0 PCMU/8000
🗄 Media Attribute (a): rtpmap:101 telephone-event/8000
0240 3a 20 39 30 0d 0a 41 6c 65 72 74 2d 49 6e 66 6f ; 9001 ert-info 0250 5a 20 3c 66 74 70 3a 2f 2f 6c 6f 63 61 6c 68 6f i cftp://localho
0250 3a 20 3c 66 74 70 3a 2f 2f 6c 6f 63 61 6c 68 6f ; <ftp; localho<br="">0260 73 74 2f 77 61 7 26 2c 65 2e 77 61 76 3e 00 da st/warb) est/warb.</ftp;>
0250 3a 20 3c 66 74 70 3a 2f 2f 6c 6f 63 61 6c 68 6f : <ftp: localho<br="">0260 73 74 2f 77 61 72 62 6c 65 2e 77 61 76 3e 04 0a st/warbl e.wav&gt; 0270 52 65 63 6f 72 64 72 52 6f 75 74 65 3a 20 3c 73</ftp:>
0250 3a 20 3c 66 74 70 3a 2f 2f 6c 6f 63 61 6c 68 6f ; <すtp://localho 0260 73 72 47 77 61 72 62 6c 65 2c 77 61 76 3e 00 0a st/warb) e,wav>

If the specified WAV file is not installed or present on the wireless telephone, then the specified WAV file will not play. If after configuration of both 84-series and Brekeke SIP server and the 84-series still does not play the custom ring tone as expected, one approach is to use an Open Source software tool called SIP inspector to inject Alert-Info SIP signaling to the wireless telephone. If using SIP Inspector the custom ringtone plays, then it suggests the problem is at the Brekeke call-server, and a Wireshark trace may be helpful.

<u>Note</u>: If you continue have difficulties, Spectralink Support may be able to assist troubleshooting the system (possibly at a billable rate). However Brekeke call-server configuration is generally outside of Spectralink Support expertise.

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