

# VoIP Gateway Series

FXO Service Features  
(Clear-Down-Tone)



**AddPac**

AddPac Technology

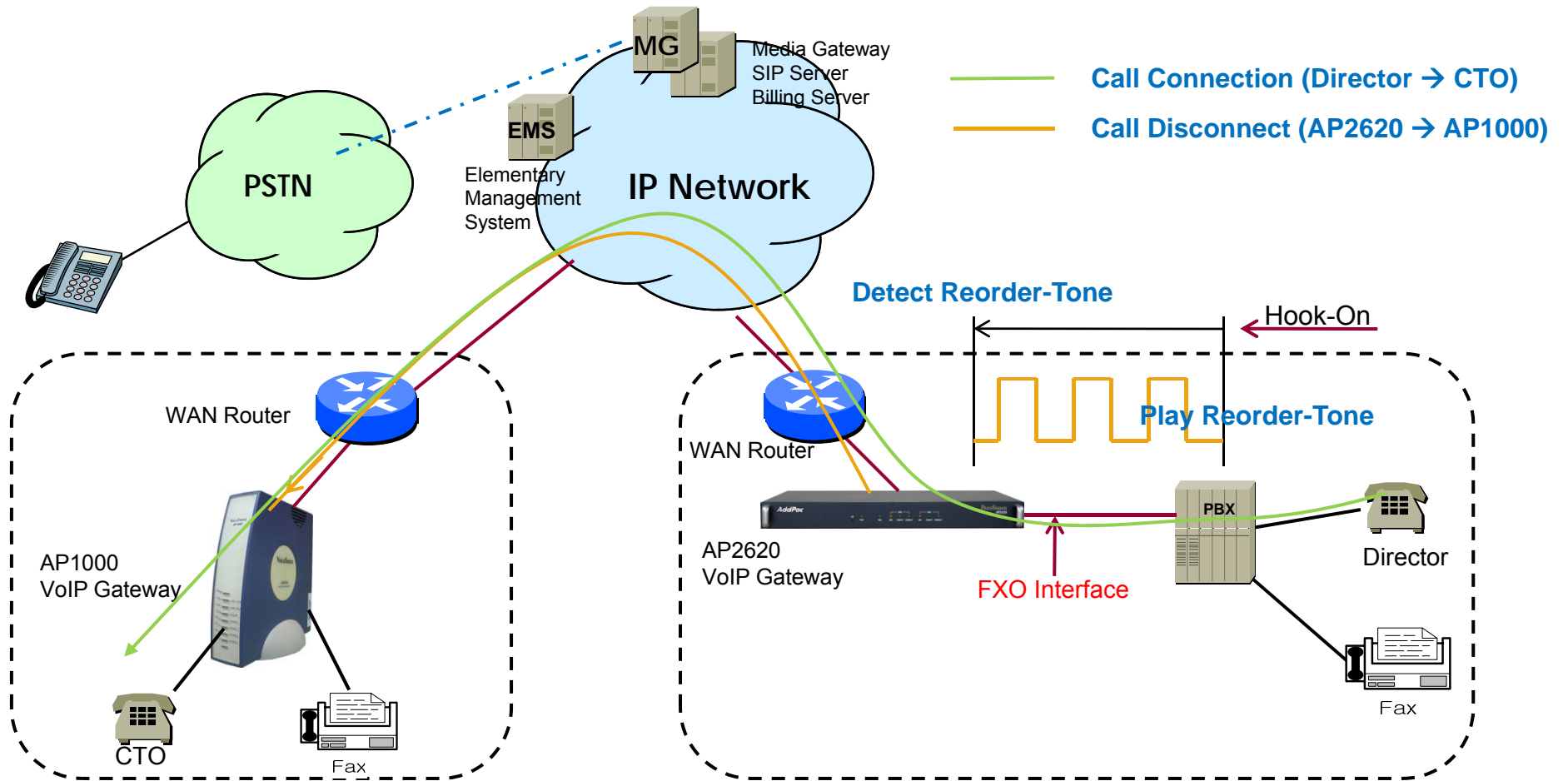
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# Clear-Down-Tone Detection Network Diagram



# Clear-Down-Tone Overview

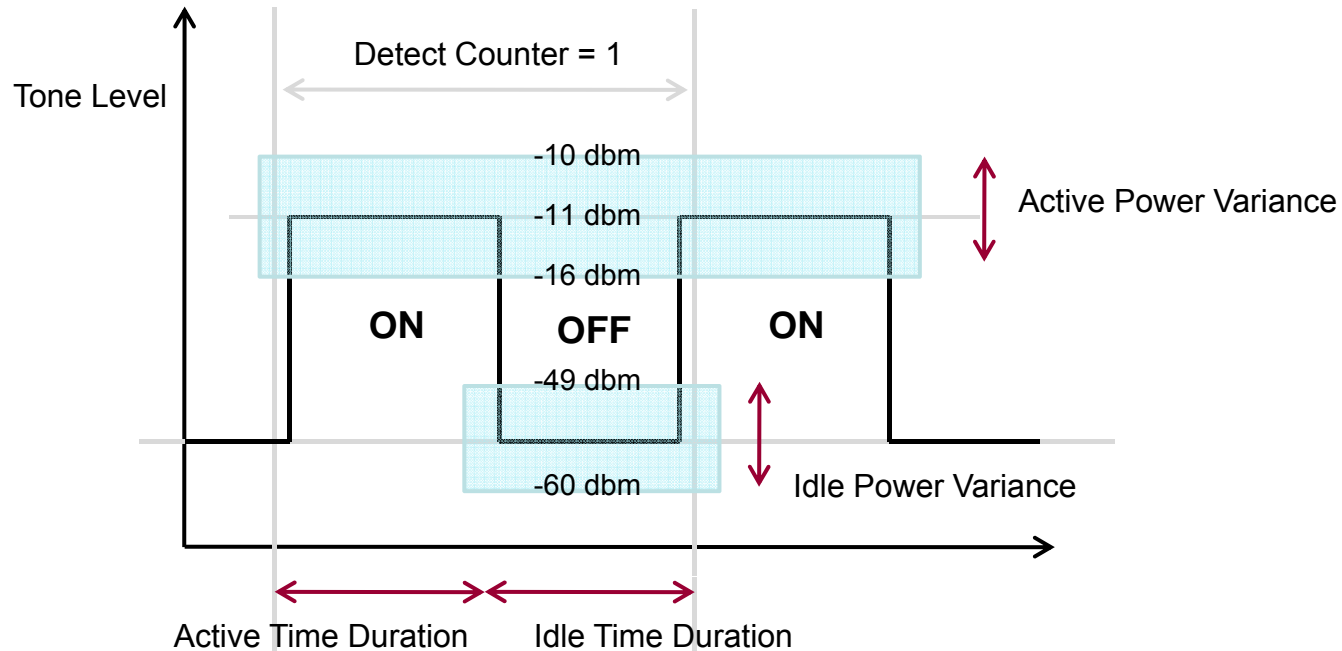
- Clear-Down-Tone
  - Playing tone types for FXO call clear(disconnect) between PBX(or Keyphone) and VoIP Gateway
    - Line Busy Tone
    - Reorder Tone
    - Line Lock Tone
    - User Defined Clear Down Tone
  - If user know about tone frequency and cadence of PBX clear-down-tone, AddPac VoIP gateway provide the call clear function by easy configuration via CLI

Tag	Low(Hz)	High(Hz)	On1(ms)	Off1(ms)	On2(ms)	Off2(ms)	dBm	Description
-	350	440	10000	0	0	0	-18	Dial tone
-	440	480	1000	2000	0	0	-12	RingBack tone
-	480	620	500	500	0	0	-12	LineBusy tone
-	480	620	300	200	0	0	-12	Reorder tone
-	1400	2060	100	100	0	0	0	LineLock tone

# Clear-Down-Tone Trouble Shooting

- Clear-Down-Tone
  - Clear-Down-Cadence
    - Usage : If FXO interface of VoIP gateway does not detect or recognize Clear-Down-Tone incoming from PBX side, VoIP Gateway can not perform Call Release procedure even though end user terminal in PBX is already hook on.  
This function detect Clear-Down-Tone by tone level not frequency , and clear call pending of FXO interface.
  - Force-Clear-Down
    - Usage : FXO call clear using Voice Mute Detect Function.  
If tone level is lower than a specific value for some time in FXO interface, perform call clear procedure.

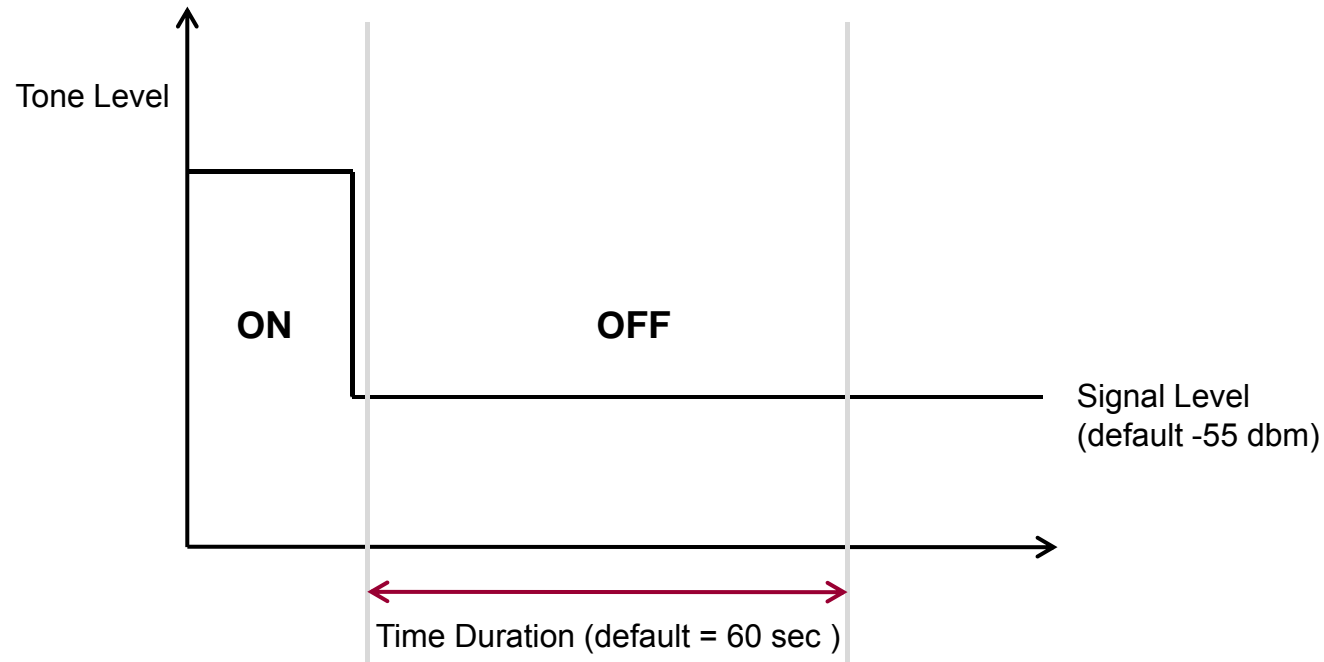
# Clear-Down-Cadence Feature



- **Clear-Down-Cadence**

- Detect and analyze clear-down-tone incoming from PBX
- Using detected clear-down-tone data, Active / Idle Time Duration and Active / Idle Power Variance information is applied to Clear-Down-Cadence parameter.
- And then, Call Clear is possible by Clear-Down-Cadence Parameter.
- Clear-down-cadence detection is performed more accurately using Detect Counter parameter (1,2,3, etc) for Call Clear.

# Force-Clear-Down Feature



- Force-Clear-Down
  - If FXO port call is not cleared or disconnected by Clear-Down-Tone and Clear-Down-Cadence configuration, this Force-Clear-Down function can be used.
  - If tone level is lower than a specific value for some time in FXO interface after hook on, perform call clear procedure.



# Thank you!

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