

# VoIP Gateway Series

FXO Service Features  
(Clear-Down-Tone)



**AddPac**

AddPac Technology

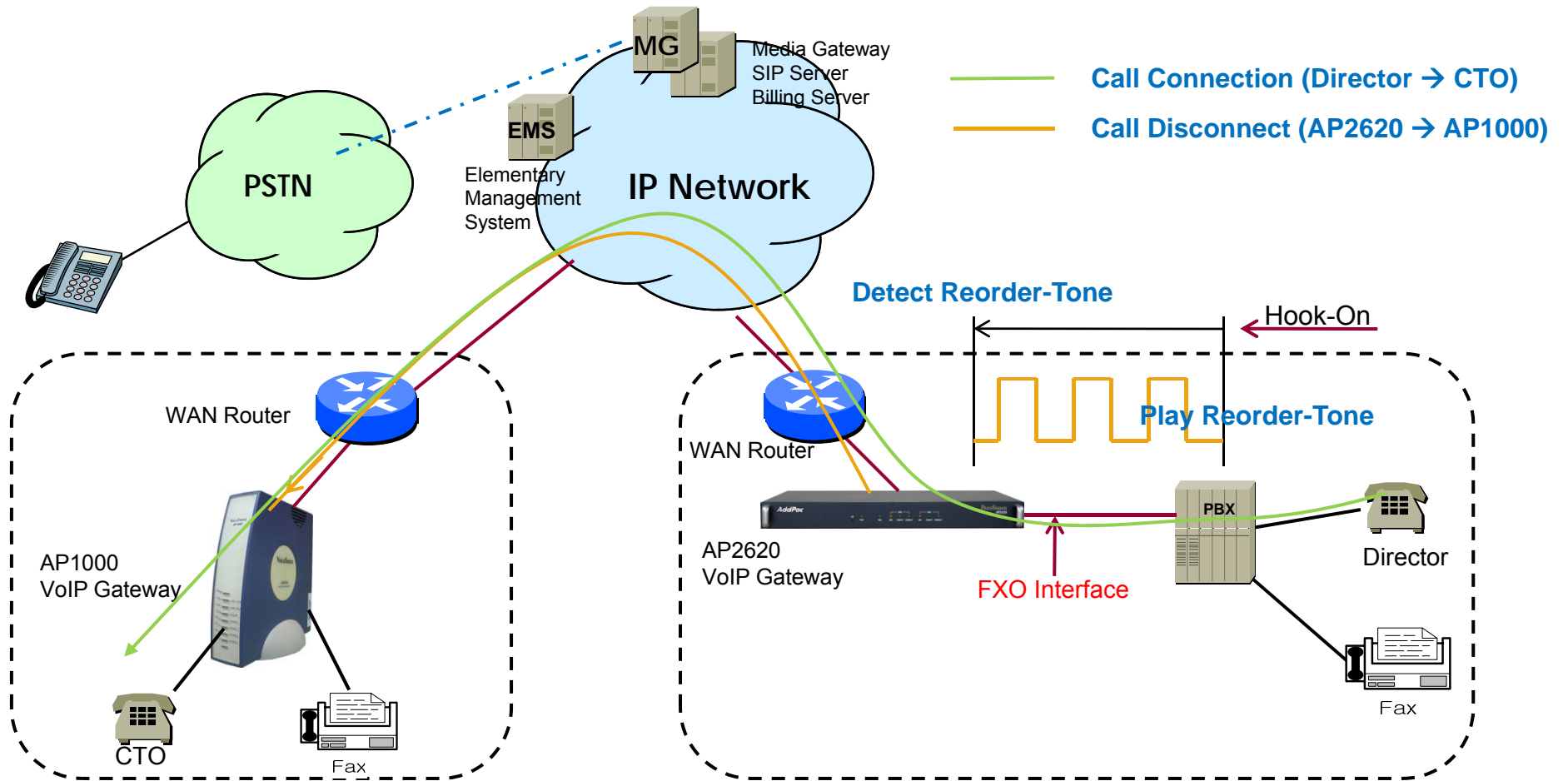
Sales and Marketing

# Contents

- Clear-Down-Tone Detection Network Diagram
- Clear-Down-Tone Overview
- Clear-Down-Tone Trouble Shooting
  - Clear-Down-Cadence Feature
  - Force-Clear-Down Feature



# Clear-Down-Tone Detection Network Diagram



# Clear-Down-Tone Overview

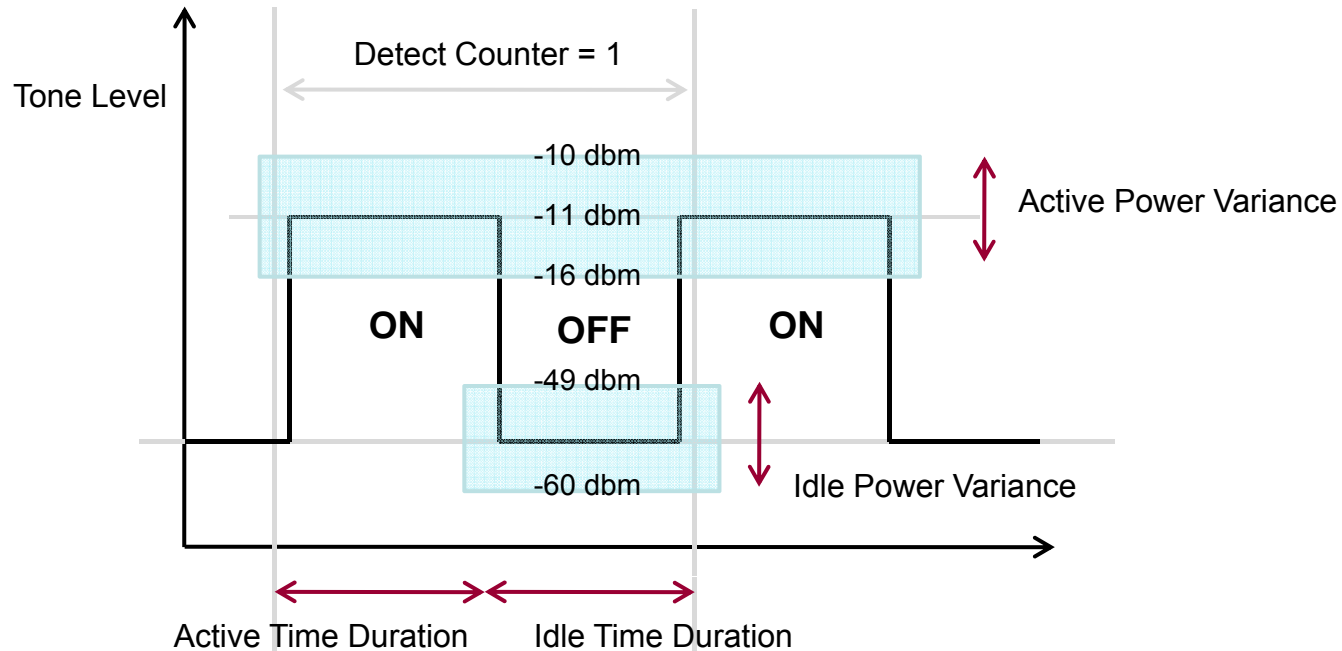
- Clear-Down-Tone
  - Playing tone types for FXO call clear(disconnect) between PBX(or Keyphone) and VoIP Gateway
    - Line Busy Tone
    - Reorder Tone
    - Line Lock Tone
    - User Defined Clear Down Tone
  - If user know about tone frequency and cadence of PBX clear-down-tone, AddPac VoIP gateway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

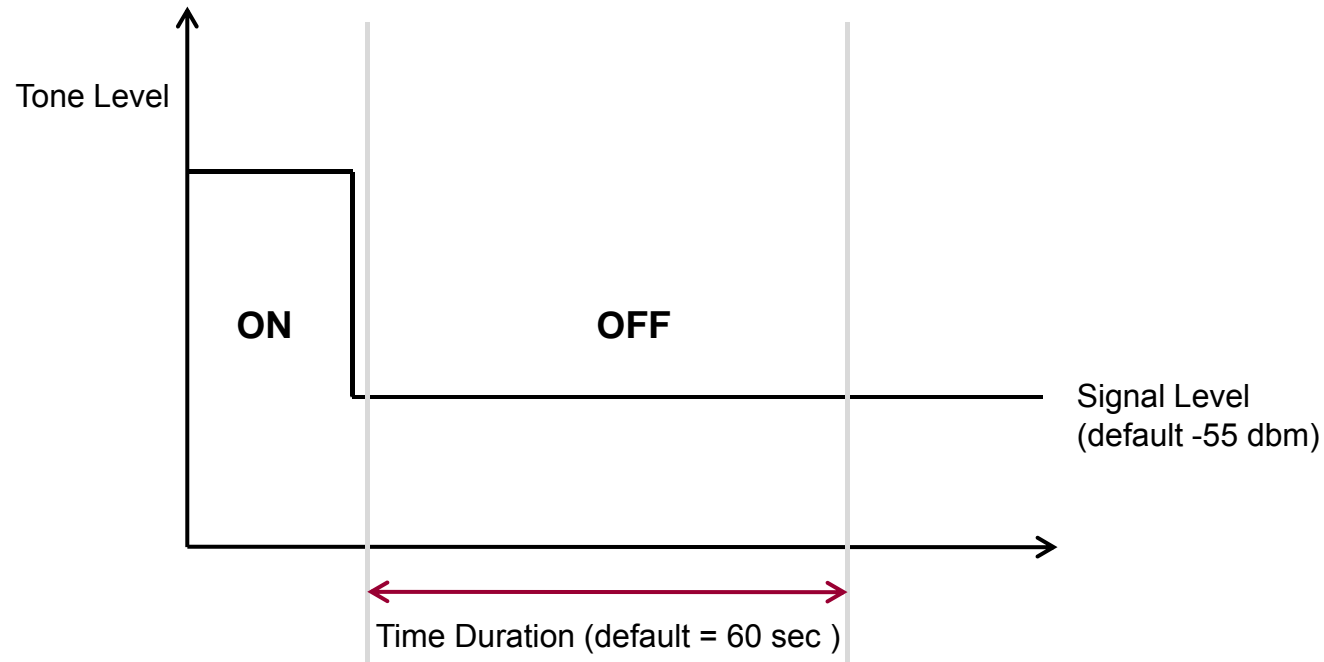
# Clear-Down-Cadence Feature



- **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!

AddPac Technology Co., Ltd.  
Sales and Marketing

Phone +82.2.568.3848 (KOREA)

FAX +82.2.568.3847 (KOREA)

E-mail [sales@addpac.com](mailto:sales@addpac.com)