With VoIP and cloud communications being fast developed and widely used, enterprises are able to deploy the telephone solution based on distributed PBX communications or cloud/hosted communications networks at a lower cost. To prevent the interruption of calling and call-related services when headquarters server or cloud/hosted server disconnects, Redstone EGW series border appliances are designed to be deployed at local offices or branches to handle the calls instead of the disconnected server. After connection recovers, the calling services will be switched to the headquarters server or cloud/hosted server again.

Available models of EGW series border appliances offer analog (FXO/FXS) interfaces to meet the needs of varies companies with employees ranging from 20 to 50.

EGW20
4FXO, 2FXS/FXO
20 SIP clients, 24 SIP trunks
4G USB dongle

EGW50
8FXO, 4FXS/4FXO, 6FXS/2FXO
50 SIP clients, 62 SIP trunks
Built in 4G/5G module

Advantages

- Connection to PSTN by FXO ports, or connection to IP trunk by 4G/5G
- PSTN failover upon network or network failure
- Rich local voice features: call recording, high speed fax, video call, 3-way calling
- Enhanced security: TLS/SRTP encryption, white/black list, brute force login prevention etc.
- Configuration and management with Web GUI or network management system

Applications

Cloud/Hosted IP-PBX

- Users' legacy lines connect to cloud PBX
- Obtain survivability from Redstone border appliance when cloud PBX is down
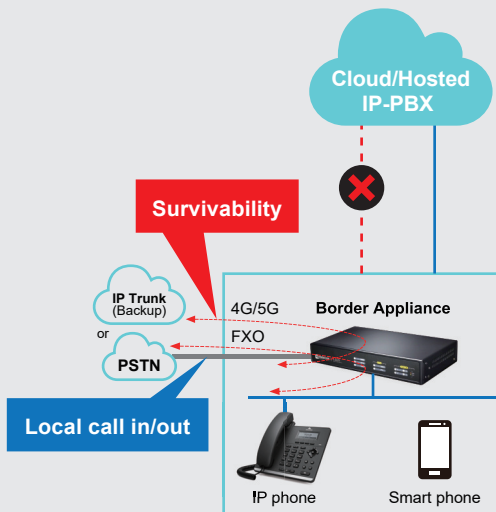
Headquarters & Branches

- Branches' local PSTN trunks can be used by users in the headquarters, turning a long distance call to a local call
- Branches obtain survivability from Redstone border appliance when disconnected with headquarters PBX
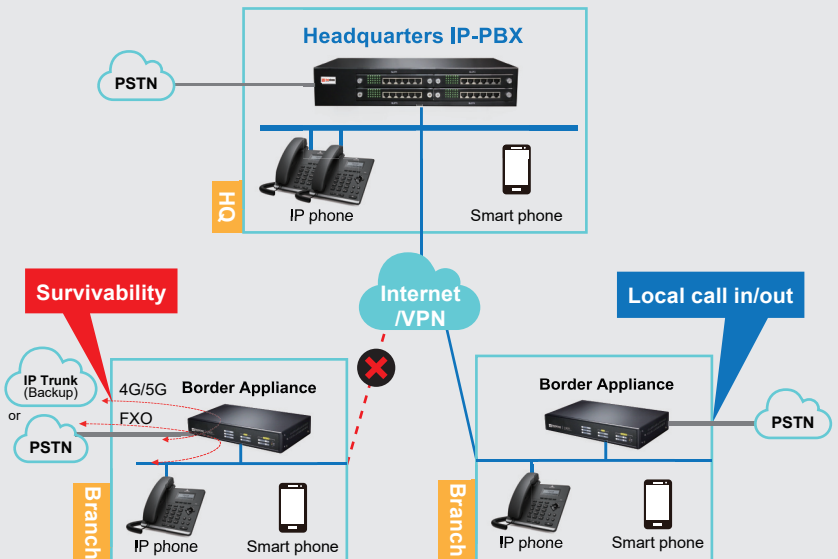
Cloud/Hosted PBX connected: both the Redstone border appliance and headquaters IP-PBX handle calls

Cloud/Hosted PBX disconnected: the Redstone border appliance handles all calls

Specifications

Protocols

Call control	SIP/UDP and SIP/TCP (RFC3261)
Network	HTTP, DHCP server, DHCP client, PPPoE client, DNS client (A/SRV record), RTP/RTCP, STUN/NTP client

Media Processing

Codecs	G.711 (a/μ), G.729a
DTMF	In-band audio, RFC2833, SIP-INFO
Fax	G.711 pass-through, T.38
	T.38 compliant Group 3 Fax Relay
	Maximum fax rate of 33,600 bps (pass-through/T.38 V3)

Voice

Calling	Outbound/inbound calling of IP terminals
Call barring	Internal, local, domestic, international, prohibited
Call forwarding	Unconditional, on busy, or no answer
Call transfer	Blind, or consultant
Auto switchboard	Auto attendant, greeting, background music
DID to hunt group	Sequential order, Round-robin order or simultaneous ringing; queue

Security

Encryption	HTTPS, SSH, TLS/SRTP
VPN client	L2TP, OpenVPN

Local Survivability

Voice proxy	Be able to set two proxy servers with UDP/TCP/TLS transmission
OPTIONS heartbeat detection	Be able to set a detection interval
Emergency call	Maximum 4 numbers
Call authentication	Prevent unregistered users to make calls

Remote management

Device management	Redstone Remote Device Management System, third-party element management systems (SNMP, TR-069, TR-104 and TR-106)
Auto provisioning	Download configuration file via TFTP/FTP/HTTP/HTTPS; Obtain ACS address via DHCP option 66 or redirection
Configuration	Bulk import/export
Version upgrade	Remote upgrade via Web
Administration and maintenance	Telnet, SSH