



Deltapath® Noise Cancellation Gateway

Hear and Be Heard

Companies are no longer just discussing what the right office environment is for good audio quality. Today, the discussion also focuses on how to offer good audio quality to employees who work and attend meetings outside of the office and how to impact sales metrics by ensuring prospects and customers can clearly hear employees and employees can clearly hear them.

Key Fact:

The matter of noise control has been on the minds of people for decades. Paul Lueg, a doctor of philosophy and medicine, submitted the first patent on the principle of noise cancellation back in the 1930s.

Similarly, in today's customer centric age, more and more companies are harnessing customer intelligence and the power of artificial intelligence to compete and drive smarter marketing and business strategies. However, the integrity of the data collected depends on the amount of background noise experienced at the time of collection.

Companies can continue to embrace the new work trend that is redefining the workplace and customer intelligence by using Deltapath Noise Cancellation Gateway. The gateway is a high-performance, affordable solution for the noisiest situations encountered.

Don't Lose Customers Over Background Noise

Customer experience is a major driving force behind a company's revenue and it is not limited to just customer service. In fact, it is important to integrate customer experience into every area of business to prevent losing a sale or even a loyal customer over one negative experience. Not being able to hear a customer or a customer not being able to hear a company employee during a phone call can be the trigger for poor customer experience.

Background noise is an age-old problem that has been polluting conversations and data for years.

EXPERIENCE AMAZING AUDIO

Deltapath Noise Cancellation Gateway helps companies solve their prospect, customer, and employee problems all at once. The gateway filters noise on both ends of a call because background noise is not unidirectional.



No matter how noisy a customer's environment is, your employee will hear the customer.



Prospects, customers, and company employees can all make outbound calls or answer inbound calls from a noisy environment.

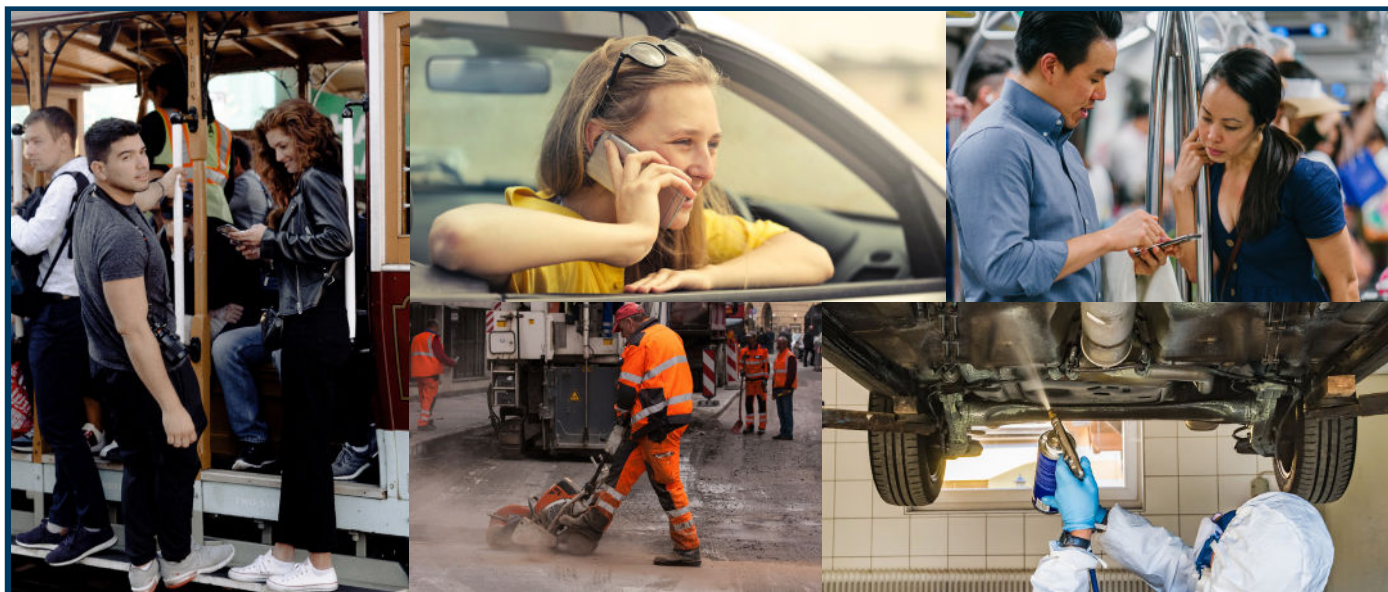


No matter how noisy your company environment is, no one will have trouble hearing your employees.

Elevate sales, productivity, and communication to new levels with the elimination of background noise

Communication and Collaboration Never Sounded Better

Take your next call on a train, in an airport, or in front of a construction site and experience the difference Deltapath's noise cancellation gateway makes. With noise filtered on both ends, everyone is left with crystal-clear audio, which makes it possible for employees from any industry or company to impact business no matter where they are and how noisy it is.



Harness the Power of Customer Intelligence

Shape the future of your products and drive business outcomes with valuable customer insights derived from call data. For companies already fueling their artificial intelligence (AI) work with the capture of large amounts of voice data, you may have already discovered that data integrity is directly impacted by the amount of background noise experienced during voice input. In general, when background noise interferes with the collection of data, it is likely to impact your AI engine's accuracy rate when interpreting and analyzing the data. Whether your AI engine is analyzing voice input, interpreting voice commands, transcribing audio into meaningful text, or interpreting peoples' emotions through their tone of voice, Deltapath Noise Cancellation Gateway can ensure you capture high quality audio and boost your AI engine's accuracy rate by filtering nonhuman noise pollution.



Enhance Your IVR

Companies using speech recognition can also get more from Deltapath's noise cancellation gateway. AI is already offering tremendous value to companies like banks and postal services that use Interactive Voice Response (IVR) systems to deliver faster service and improve customer experience. However, when an IVR system cannot interpret customers' voice commands as a result of background noise, customers do not experience the results they want. The Deltapath Noise Cancellation Gateway can ensure background noise is filtered, opening the way for customers' commands to be captured correctly.

Empower Your Voice Assistants

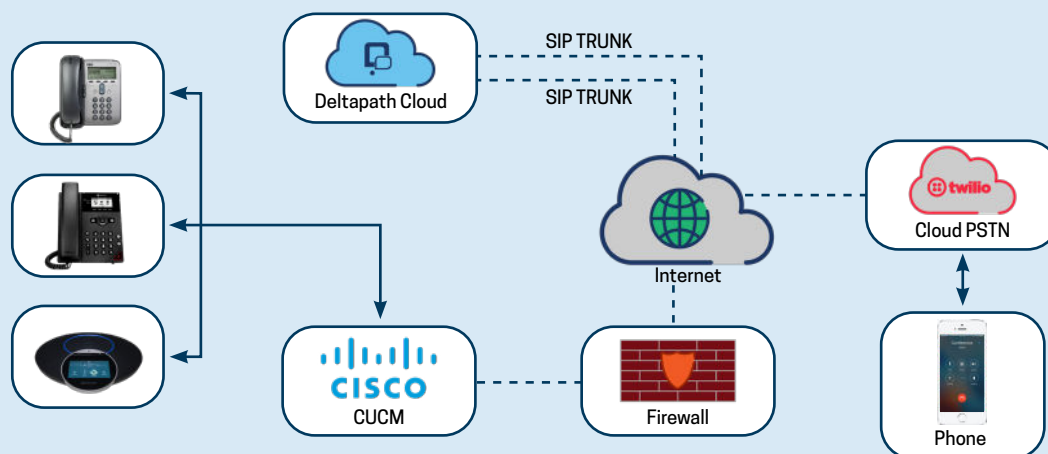
Digital assistants are fast becoming a way of life. Devices like Siri and Alexa rely on voice input and AI to execute a number of tasks from accessing current traffic conditions to scheduling calendar events. Since a user's voice command is recorded and sent to a cloud-based service for review and interpretation, background noise can interfere in this process resulting in the digital device sending an irrelevant response to the user. Adding the noise cancellation gateway to this process will help ensure the correct response is sent to a user.

No Impact to Your Infrastructure

Deltapath Noise Cancellation Gateway fits perfectly into your voice or AI infrastructure. The gateway is easy to configure and manage.

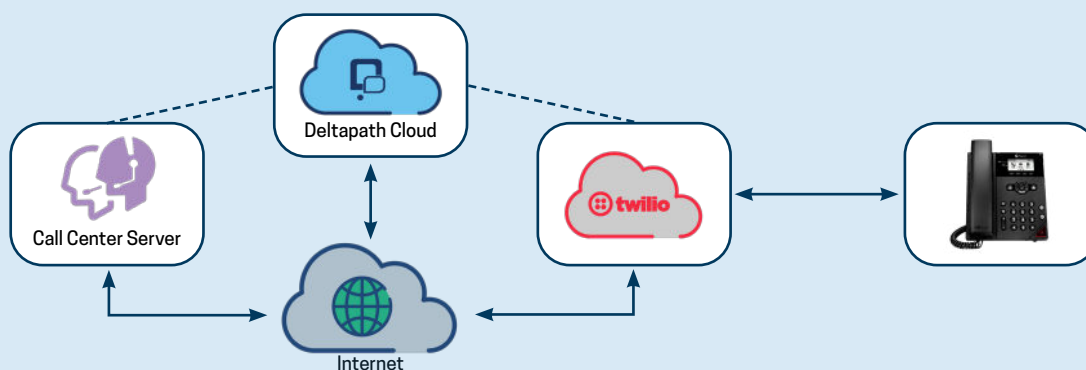
EXAMPLE ONE

CONFIGURATION FOR CLOUD PSTN TO YOUR ON-PREmise PBX



EXAMPLE TWO

CONFIGURATION FOR YOUR CLOUD CONTACT CENTER

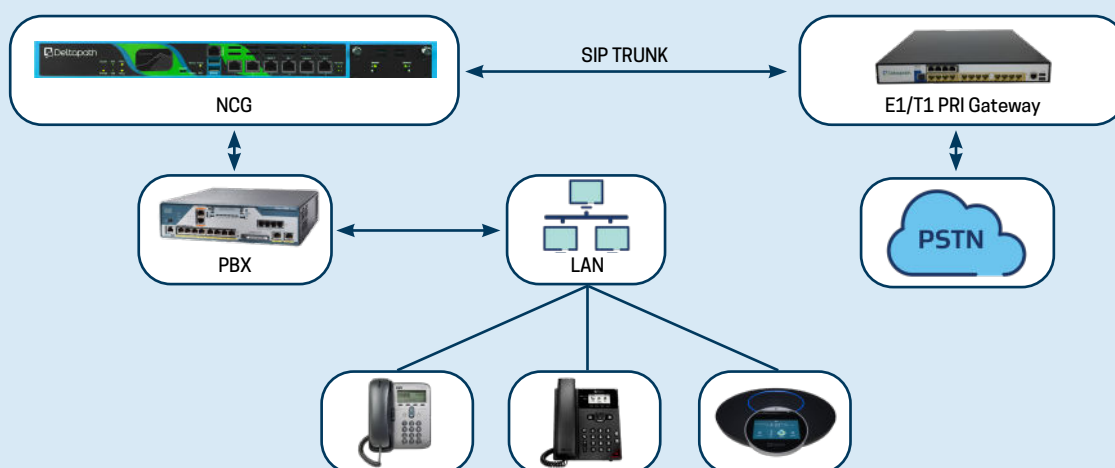


IT'S TIME TO ELIMINATE BACKGROUND NOISE

Don't let background noise hijack your phone calls

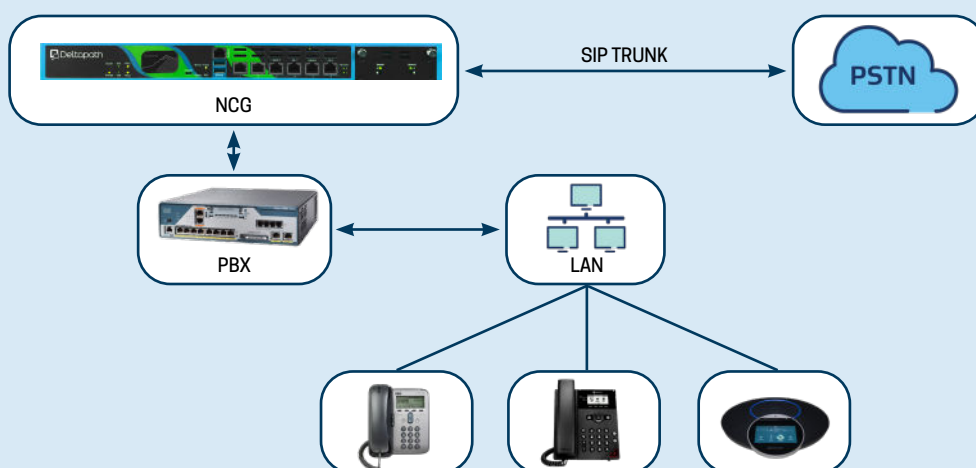
EXAMPLE THREE

CONFIGURATION FOR PRI



EXAMPLE FOUR

CONFIGURATION FOR SIP TRUNK



Datasheet for Deltapath Noise Cancellation Gateway

Voice and Acoustics

» Adjusts to accommodate voice and acoustic variations -- soft and distant voices

Voice Suppression Algorithms are designed for the following types of noises:



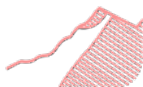
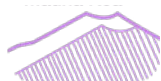
- » Stationary/constant noise
- » Non-stationary noise sources
- » Impulsive/time-varying noise sources
- » Non-speech noise
- » Speech-like noise suppression

Voice Suppression is comprised of the following:

- » Noise Estimation
 - Estimates the noise in the room in the presence of talkers
- » Noise Suppression
 - Calculates suppression gains while minimizing the impact on speech
- » Nuisance Rejection
 - Rejects no-speech distracting noises
- » Suppression Gain Smoothing
 - Smooths the suppression gains to minimize artefacts
- » Voice Activity Detection
 - Acts as a gate to determine whether to transmit the microphone signal

SPECIFICATIONS

Deltapath Models

	 Fuji Edition	 Kilimanjaro Edition	 Everest Edition	 Mauna Kea Edition
Physical	<ul style="list-style-type: none"> ▪ 19' Rack Mountable ▪ 1 U High ▪ 443 (W) x 406.8 (D) x 44 (H) mm 	<ul style="list-style-type: none"> ▪ 19' Rack Mountable ▪ 1U High ▪ 443 (W) x 406.8 (D) x 44 (H) mm 	<ul style="list-style-type: none"> ▪ 19' Rack Mountable ▪ 1U High ▪ 443 (W) x 406.8 (D) x 44 (H) mm 	<ul style="list-style-type: none"> ▪ 19' Rack Mountable ▪ 1U High ▪ 434 (W) x 606.5 (D) x 42.8 (H) mm
Power Supply	Nonredundant	Redundant 1 + 1 Hot Swappable Power Supply Modules	Redundant 1 + 1 Hot Swappable Power Supply Modules	Redundant 1 + 1 Hot Swappable Power Supply Modules
Power Consumption	AC-Input Rating: 100V-240V Input Current: 2.5A-1.5A Output Power: 150 W (MAX)	AC-Input Rating: 100V-240V Input Current: 5A-2.5A Output Power: 300W (MAX)	AC-Input Rating: 100V-240V Input Current: 5A-2.5A Output Power: 300W (MAX)	AC-Input Rating: 100V-240V Input Current: 7.4A-3.7A Output Power: 550W (MAX)
Data Storage	Internal Solid State Drive	Customer Accessible Solid State Drive with Raid 1	Customer Accessible Solid State Drive with Raid 1	7.2 K RPM NLSAS Hard Drive with RAID 1
Cooling System	3 Autosensing Fans	4 Autosensing Fans	4 Autosensing Fans	5 Autosensing Fans
Status and Alerts	8 Status LEDs	14 Status LEDs + 1 Audio Alert	14 Status LEDs + 1 Audio Alert	1 Status LED + 1 Audio Alert
Mean time Between Critical Failures	109,500 Hrs.	142,900 Hrs.	142,900 Hrs.	142,900 Hrs.
Total Number of Concurrent Calls	32	256	460	1024
Busy Hour Call Completion	6000	100,000	200,000	200,000
Ethernet Interface	6 x RJ45 Connectors supporting 10/100/1000 Half/Full Duplex	6 x RJ45 Connectors supporting 10/100/1000 Half/Full Duplex	6 x RJ45 Connectors supporting 10/100/1000 Half/Full Duplex	2 x RJ45 Connectors supporting 10/100/1000 Half/Full Duplex + 2 x RJ45 Connectors supporting 1000/10000 Half/Full Duplex

Unified Communications Switch

Signaling & Routing Engine and Protocol	<ul style="list-style-type: none"> ▪ High Performance Multi-Threaded Core Signaling Engine ▪ Multi-Task Handling Engine ▪ Session Initiated Protocol (TCP & UDP) (RFC3261 Compliant) ▪ Intelligent Call Routing Engine
Operating Platform	64-bit Embedded Linux platform on flash memory powered by Intel® Processors
Quality of Service	<ul style="list-style-type: none"> ▪ Type of Service ▪ Class of Service ▪ Differentiated Services Code Point
Availability	99.999%
Disaster Recovery	Optional USB flash for system backup and recovery
Session Border Controller	Built-in
Clustering	Local Cluster: <ul style="list-style-type: none"> ▪ Active/Hot Standby (IP takeover: The two servers must have a physical connection) Geographically Separated Cluster: <ul style="list-style-type: none"> ▪ Active Active (Able to be two different subnet)
Codecs	Auto Codec Negotiation Supporting: <ul style="list-style-type: none"> ▪ G722 ▪ G711A ▪ G711U ▪ iLBC ▪ H.264 (Video) ▪ DVC-2
RTP	Configurable RTP Paths (Through Server or End to End)
DTMF	Inband and RFC2833
Fax	T.38 and G.711 Transport with built-in fax receiver
10BASE-T Cable Support	EIA Categories 3, 4, or 5 unshielded twisted-pair (UTP) (2 or 4 pair) up to 328 ft (100m)
100BASE-TX Cable Support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)
Console	RJ45 and Micro USB
Electrical Input Voltage & Frequency	Autosensing 100~240 VAC 50-60 Hz
Storage Temperature	-25 °C ~ 70°C
Operating Temperature	0° ~ 40° C
Operating Humidity	20%~90% relative humidity, non-condensing
Non-operating Shock (2 ms) with Original Packing	350G
Certification and Compliance	<ul style="list-style-type: none"> ▪ CE ▪ FCC ▪ BSMI ▪ CCC ▪ CB ▪ UL

Gateway (PRI/BRI/FXO/FXS)																		
Form Factor	19" Rack Mountable 1U High, except MP11X Series																	
Dimensions	<ul style="list-style-type: none">M800 Series: 320 (W) x 345 (D) x 45 (H) mmMP11X Series: 220 (W) x 172 (D) x 42 (H) mm																	
Codecs	Auto Codec Negotiation Supporting <ul style="list-style-type: none">G711AG711UG729A																	
Fax Support	<ul style="list-style-type: none">T.38 compliant (real time fax)Automatic bypass to PCM																	
Trunks	<ul style="list-style-type: none">MP Series: Choice of 4, 8 FXO Ports for CO Trunks or 4, 24 FXS Ports for Analogue DevicesM800 B Series: 4 BRI S/T portsM800 ET Series: Choice of 1 (30 channels) or 2 (60 channels) T1/E1/PRI Spans with 4 FXS Ports for Analogue Devices																	
PSTN Coding	<ul style="list-style-type: none">E1 A-lawT1 μ-law																	
Echo Cancellation	Enhanced (Carrier Grade) Echo Cancellation: G.165 and G168-2002, with 32, 64 or 128 msec tailsize																	
PRI Signaling Protocols (M800 ET Series) Analogue Signaling (MP Series)	<ul style="list-style-type: none">ETSI/Euro ISDN, ANSI NI2 AND OTHER VARIANTS (DMS100, 5ESS), VN3, VN4, VN6Loop Start, Reverse Battery, Battery Disconnect																	
Switching	VoIP to circuit, and circuit to circuit (Tandem/TDM) switching																	
Maximum Call Rate	<ul style="list-style-type: none">MP Series: 1,800 Calls / Hour / GatewayM800 B Series: 7,500 Calls / Hour / GatewayM800 ET Series: 7,500 Calls / Hour / Gateway																	
LAN Interface	<ul style="list-style-type: none">MP Series: 10/100 BASE-TX, RJ45M800 Series: 10/100/1000 BASE-TX, RJ45																	
Quality of Service	DiffServ, TOS, 802.1 p/Q VLAN tagging																	
Models Available	<table><tr><td>37501-M800-V-1ET4S</td><td>1 Port E1/T1 with 4 FXS Voice Gateway</td></tr><tr><td>37501-M800-V-2ET4S</td><td>2 Port E1/T1 with 4 FXS Voice Gateway</td></tr><tr><td>37501-M800-V-4B-12L-P</td><td>4 Port BRI Gateway</td></tr><tr><td>37501-MP114/40</td><td>4 Port FXO Analogue Gateway (Non Rack Mountable)</td></tr><tr><td>37501-MP118/80</td><td>8 Port FXO Analogue Gateway</td></tr><tr><td>37501-MP112/2S</td><td>2 Port FXS Analogue Gateway (Non Rack Mountable)</td></tr><tr><td>37501-MP114/4S</td><td>4 Port FXS Analogue Gateway (Non Rack Mountable)</td></tr><tr><td>37501-MP124/24S</td><td>24 Port FXS Analogue Gateway w/24 Port Patch Panel & RJ21 Cable</td></tr></table>		37501-M800-V-1ET4S	1 Port E1/T1 with 4 FXS Voice Gateway	37501-M800-V-2ET4S	2 Port E1/T1 with 4 FXS Voice Gateway	37501-M800-V-4B-12L-P	4 Port BRI Gateway	37501-MP114/40	4 Port FXO Analogue Gateway (Non Rack Mountable)	37501-MP118/80	8 Port FXO Analogue Gateway	37501-MP112/2S	2 Port FXS Analogue Gateway (Non Rack Mountable)	37501-MP114/4S	4 Port FXS Analogue Gateway (Non Rack Mountable)	37501-MP124/24S	24 Port FXS Analogue Gateway w/24 Port Patch Panel & RJ21 Cable
37501-M800-V-1ET4S	1 Port E1/T1 with 4 FXS Voice Gateway																	
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About Deltapath

Deltapath liberates organizations from the barriers that prevent effective communication and revolutionizes the way organizations communicate through innovative technologies that meet the needs and the wants of organizations.

We specialize in solutions that unite different communication platforms, audio and video equipment, telephones, desktops, and mobile devices to make communication accessible and intuitive.

It is our belief that every solution should embody simplicity and offer users the right form of communication for the right occasion, right at their fingertips.

Ordering Information

For more information about Deltapath Noise Cancellation Gateway, please contact your nearest Deltapath sales representative.



USA	+ 1 408 707 3299
NZ	+ 64 9 886 9799
HK	+ 852 3678 9999
JP	+ 81 3 3527 7899
TW	+ 886 2 7728 3099
PH	+ 63 2 8790 0295

www.deltapath.com