GIGABIT ETHERNET EXTENDER

OUTREACH™
LITE GXT

Application | Tough case allows Ethernet extenders to be used externally in airports and stations

OUTDOOR EXTENDER

Tough outdoor, gigabit Ethernet network range extender

OUTREACH Lite GXT is designed to double the reach of external gigabit Ethernet network connections, without using a separately powered network switch.

| IP66/67 Nema 4X/6P tough enclosure for external installation

| Instantly doubles gigabit cable range to 200 metres

| Extend an additional 100 metres per unit with multiple units

| Powered by POE (Power over Ethernet)

| Easy to fit cable seals for cables with existing RJ45 plugs

| Universal 10/100/1000 compatibility

| Secure wall mounting with detachable bracket

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OUTREACH Lite GXT is a weather proof gigabit Ethernet extender for external use

An OUTREACH Lite GXT is ideal for doubling the reach of outdoor wired gigabit Ethernet links to locally powered devices or to extend a gigabit network from one building to another.

Ethernet is the ubiquitous technology for Local Area Network (LAN) installation, and gigabit connections are now common.

However, many security installations demand network connections that exceed the maximum 100 metres (328 feet) distance limit for wired Ethernet.

OUTREACH Lite GXT provides an instant solution to this restriction. Simply connect an OUTREACH Lite GXT in line with the network cable – adding a Power over Ethernet (POE) injector if required – to double the available range to 200 metres (656 feet).

Simple installation
OUTREACH Lite GXT takes advantage of the universal 802.3af/at/bt POE standards, so it can draw its own power from the network connection. No local power is required, so OUTREACH Lite GXT can be located exactly where needed.

If your gigabit network switch has POE, simply connect OUTREACH Lite GXT up to 100 metres from the switch, and it will deliver another 100 metres' reach over regular Cat5e or similar cable (Diagram 1). If POE is not available, the link can easily be upgraded using a low-cost POE injector such as Veracity's OUTSOURCE (Diagram 2) which is gigabit compatible.

No set-up or network configuration is required, as OUTREACH Lite GXT automatically sets up network speed, duplex and crossover on connection, and does not require an IP or MAC address.

Go further
If a network extension beyond 200 metres (656 feet) is required, Veracity's OUTREACH Max GXT may be installed to extend Ethernet and POE to OUTREACH Lite GXT. For example, a 300 metre (984 feet) connection

between a gigabit POE switch and another network device can be achieved by fitting an OUTREACH Max GXT at 100 metres along the cable, followed by 100m then an OUTREACH Lite GXT, and up to 100m to the non POE networked end-point device (such as another switch or a Wireless Access Point).
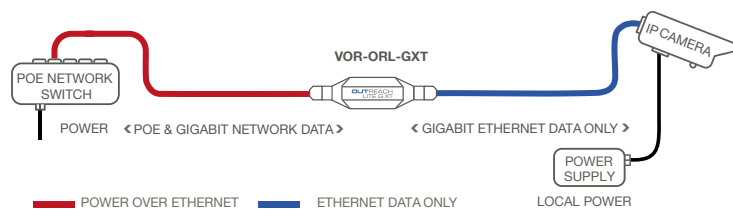
For longer Ethernet runs, Veracity recommends LONGSPAN long distance point-to-point devices, which can achieve 100Base-TX connections with POE at up to 820m (2,690ft).
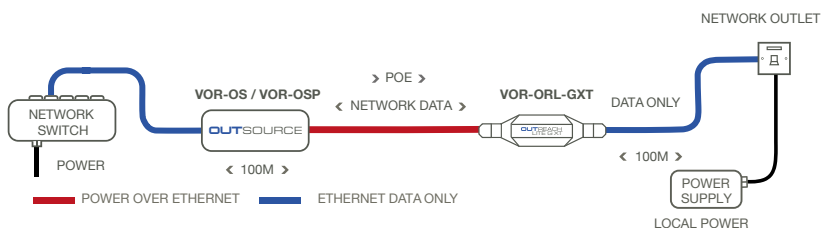
No restrictions
Because OUTREACH Max GXT and OUTREACH Lite GXT simply restore the network connection every 100 metres, full gigabit bandwidth Ethernet is maintained across the entire link. This maximises performance and transparency, with no risk of a reduced or unpredictable bandwidth, even at distances of several hundred metres or more.

OUTREACH Lite GXT APPLICATION DIAGRAMS

Diagram 1. OUTREACH Lite GXT is powered by POE, so it can double gigabit Ethernet range without requiring local power.

POE NETWORK SWITCH   VOR-ORL-GXT   IP CAMERA
POWER   ‹ POE & GIGABIT NETWORK DATA ›   ‹ GIGABIT ETHERNET DATA ONLY ›
POWER SUPPLY — LOCAL POWER

— POWER OVER ETHERNET   — ETHERNET DATA ONLY

NETWORK OUTLET

Diagram 2. If there is no POE available, upgrade the link with Veracity's low cost POE injector OUTSOURCE.

NETWORK SWITCH   VOR-OS / VOR-OSP   › POE ›   VOR-ORL-GXT   DATA ONLY
OUTSOURCE   ‹ NETWORK DATA ›
POWER   ‹ 100M ›   ‹ 100M ›
POWER SUPPLY — LOCAL POWER

— POWER OVER ETHERNET   — ETHERNET DATA ONLY

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For more information, read Veracity's 'Long range Ethernet extension' white paper on the Veracity website

Which type of OUTREACH do I need?

Choosing between **OUTREACH** models is straightforward using the information below.

ETHERNET ONLY	POE FORWARDING	EXTERNAL UNITS	GIGABIT OPTION
If Ethernet extension only is required, use OUTREACH Lite models. Lite models extend Ethernet only and do not forward POE.	If POE forwarding is also required, use OUTREACH Max models. Max models support all standards of POE forwarding.	For outdoor Ethernet extension, use OUTREACH XT models with IP67 / Nema 4X/6P standard enclosures and connections.	If Gigabit Ethernet extension is required, use OUTREACH G models as these support full gigabit data rates.

EXTENSION TYPE	APPLICATION		NETWORK SPEED
	INDOOR	OUTDOOR	
Ethernet extension only	OUTREACH Lite	OUTREACH Lite XT	100Base-TX Ethernet
Ethernet extension with POE	OUTREACH Max	OUTREACH Max XT	100Base-TX Ethernet
Ethernet extension only	OUTREACH Lite G	OUTREACH Lite GXT	Gigabit Ethernet
Ethernet extension with POE	OUTREACH Max G	OUTREACH Max GXT	Gigabit Ethernet

OUTREACH devices are ideal for Ethernet extension to 200m or 300m. The POE power source required will depend on the distance to the powered device (e.g. IP camera) and the power requirement of that device. As shown in this table.

POE SOURCE	MAXIMUM POE POWER	
	at 200m	at 300m
POE Switch (15W)	12W	9W
OUTSOURCE (20W)	12W	12W
OUTSOURCE Plus (30W)	25W	20W
IEEE 802.3bt / Custom injector (90W)	71W	43W

The power levels quoted above assume the use of high quality Cat6 Ethernet cabling. Smaller gauges may results in higher losses and reduced power delivery.

Beyond 300m, it is possible to daisy-chain further OUTREACH devices to achieve distances up to 700m or beyond, but we recommend the use of Veracity's LONGSPAN long distance point-to-point solution for such applications. LONGSPAN can span up to 820m with full 100Base-TX data rates and 15W of POE delivery or 25W at 600m.

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TECHNICAL **SPECIFICATION**

OUTREACH™ LITE GXT

POWER	
Power consumption	1.3 watts via POE

POE STANDARDS	IEEE 802.3af POE (802.3at and 802.3bt compatible, but not required) Class 2 powered device No POE forwarding

ETHERNET INTERFACE	Two independently auto-configuring 10/100/1000 ports (10Base-T/100Base-TX/1000Base-T, half/full-duplex) Patch or crossover cables supported

LEDs	
Status indicators	Green LED - shows POE Power good Yellow LED - shows Ethernet link/activity

PHYSICAL/ENVIRONMENTAL	
Dimensions	L 183mm W 50mm H 30mm
Weight	104g [3.7oz], 126g [4.5oz] including plate
Mounting	2 or 4, 7mm mounting holes on 50/60mm centres
Operating temperature	-40ºC to 70ºC [-40ºF to 158ºF]
Relative humidity	Up to 85%, non-condensing
Compliance	CE, FCC, RoHS,
Environmental	IP66/IP67, Nema 4X/6P

PRODUCT CODES		
VOR-ORM	OUTREACH Max	Ethernet and POE extender
VOR-ORL	OUTREACH Lite	Ethernet extender
VOR-ORM-XT	OUTREACH Max XT	Outdoor Ethernet & POE extender
VOR-ORL-XT	OUTREACH Lite XT	Outdoor Ethernet extender
VOR-ORM-G	OUTREACH Max G	Gigabit Ethernet and POE extender
VOR-ORL-G	OUTREACH Lite G	Gigabit Ethernet extender
VOR-ORM-GXT	OUTREACH Max GXT	Outdoor gigabit Ethernet and POE extender
VOR-ORL-GXT	**OUTREACH Lite GXT**	**Outdoor gigabit Ethernet extender**
VOR-OS	OUTSOURCE	POE injector
VOR-OSP	OUTSOURCE Plus	POE Plus injector

Surge Protection
All Veracity products have been independently tested to verify their resilience to the stringent immunity levels of international standards. Users should note that no electronic equipment can be guaranteed to be completely protected at levels beyond the defined standard; therefore product warranty cannot include damage to products which has been caused by surges exceeding those of the standards specified, for example lighting strike activity.

It is the user's responsibility to implement relevant surge protection measures, as appropriate to the installation. This may include the fitting of additional surge protection devices where required.