# SILVERNET

Wireless Application Setups

PRO RANGE

- Operates at the 5GHz RF band

- Practical data-rate : **95 Mbit/Sec** of user data throughput. Duplex

- Gigabit interface **240/500/1000 Mbit/Sec** of user data throughput

- Point-To-Point up to 1KM, 2KM, 6KM, and 60KM

- Compact design

- Weatherproof

- High quality lightweight mounting brackets supplied

- Power over Ethernet

- Up to 256 AES Security

Mounting Bracket Set

Gigabit PoE Injector

Secure Transmission
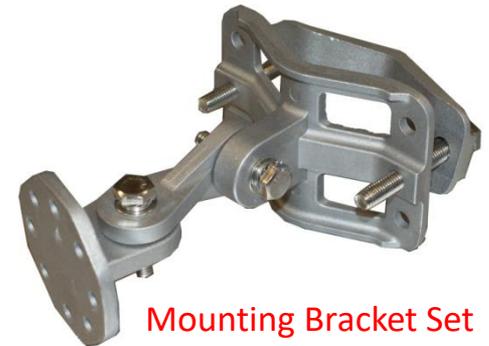
Point To Point Advantages

Maximum Bandwidth
Highest Stability

PRO RANGE – 95Mbps

PICO – 1KM

- 12dBi Built in Dual Antenna
- 95Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

MICRO – 2KM

- 15dBi Built in Dual Antenna
- 95Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

LITE – 6KM

- 18dBi Built in Dual Antenna
- 95Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

MAX – 60KM

- 23dBi Built in Dual Antenna
- 95Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

PRO RANGE – 240Mbps

MICRO 240 – 2KM

- 15dBi Built in Dual Antenna
- **240**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

LITE 240 – 6KM

- 18dBi Built in Dual Antenna
- **240**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

MAX 240 – 60KM

- Dual 23dBi Built in Dual Antenna
- **240**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

PRO RANGE – 500Mbps

LITE 500 – 6KM

- 18dBi Built in Dual Antenna
- **500**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

MAX 500 – 60KM

- Dual 23dBi Built in Dual Antenna
- **500**Mbps
- Point-to-Point
- Equipped with POE
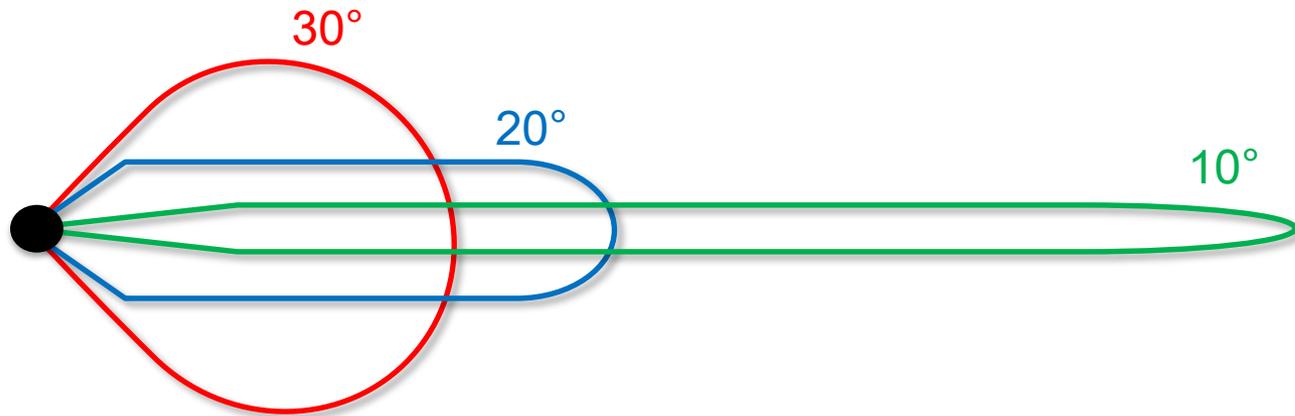- WEP, WPA, WPA2
- WEB Management

PRO RANGE – 1000Mbps

MAX 1000 – 20KM

- TRI 18dBi Built in Antenna
- **1000**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

Point to Point System Antenna Beamwidths

30°

20°

10°

2KM
MICRO

6KM
LITE

60 KM
MAX

● = Radio

Antenna Alignment is Important

Radio

RF Signal

Building

NOT ALIGNED = Poor Signal
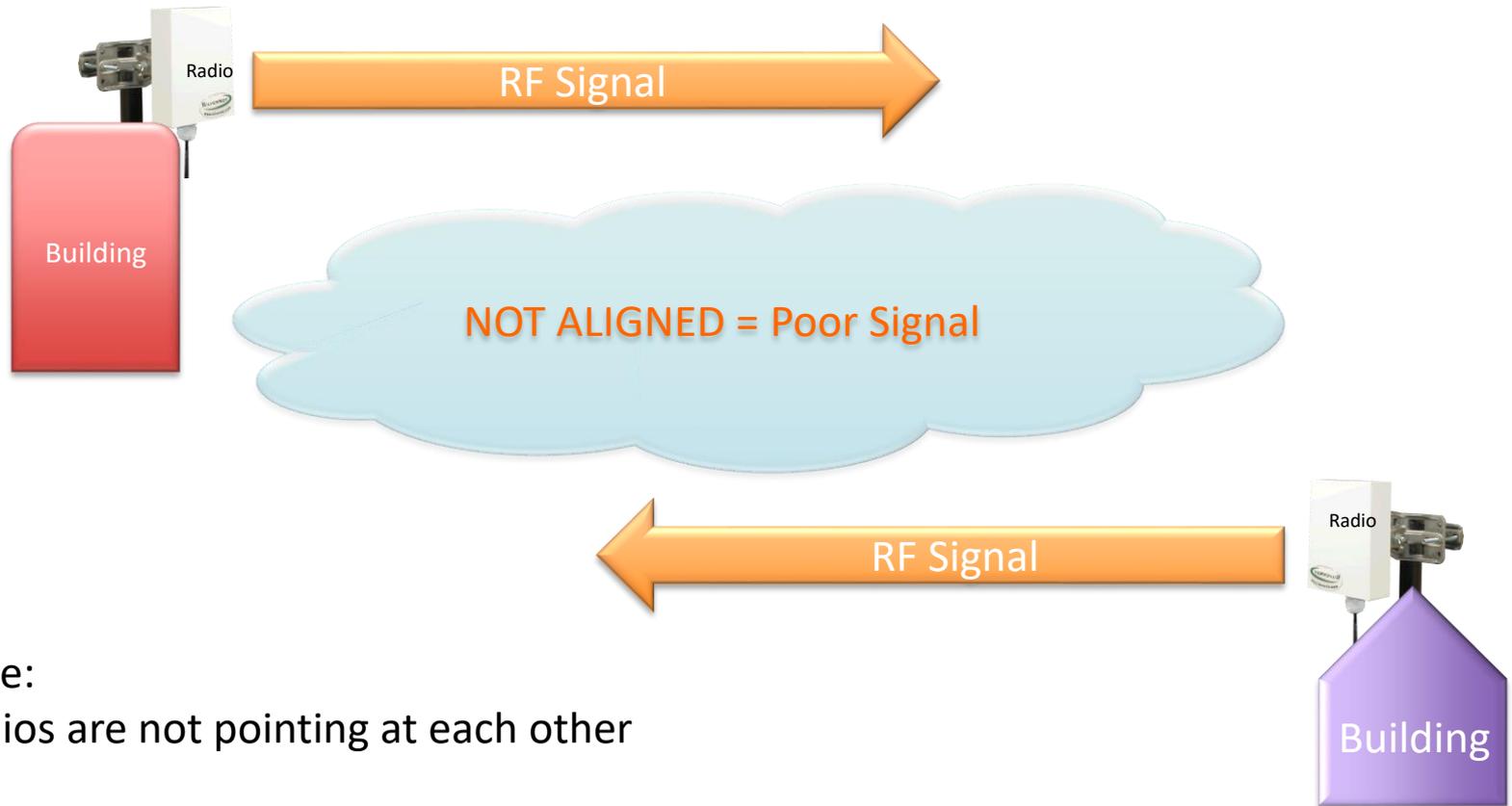
Radio

RF Signal

Note:
Radios are not pointing at each other

Building

Antenna Alignment is Important

Radio

Building

ALIGNED = Good signal

RF Signal

RF Signal

Radio

Building

Antenna Alignment is Important
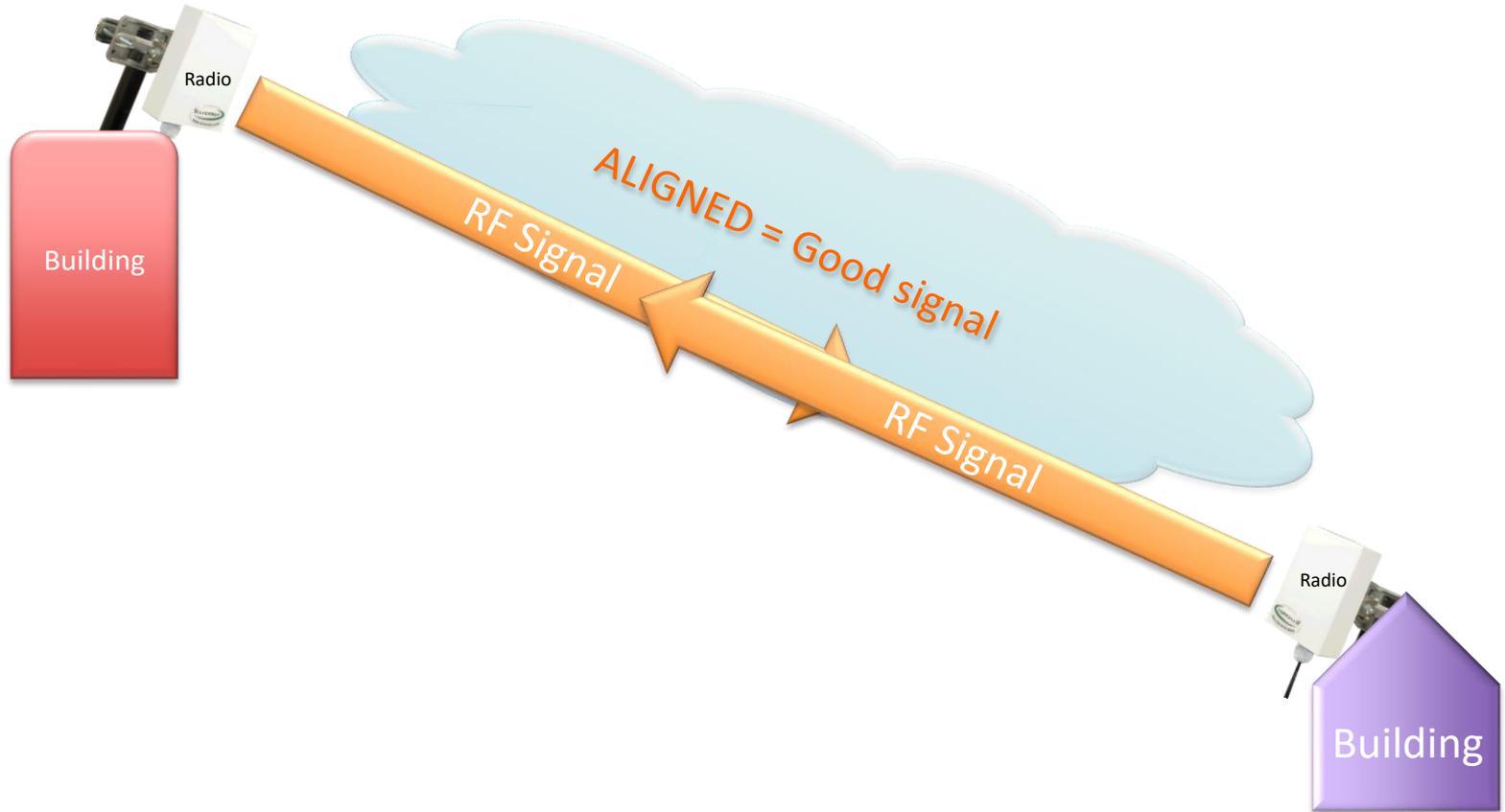
Radio

Building

RF Signal

Signal
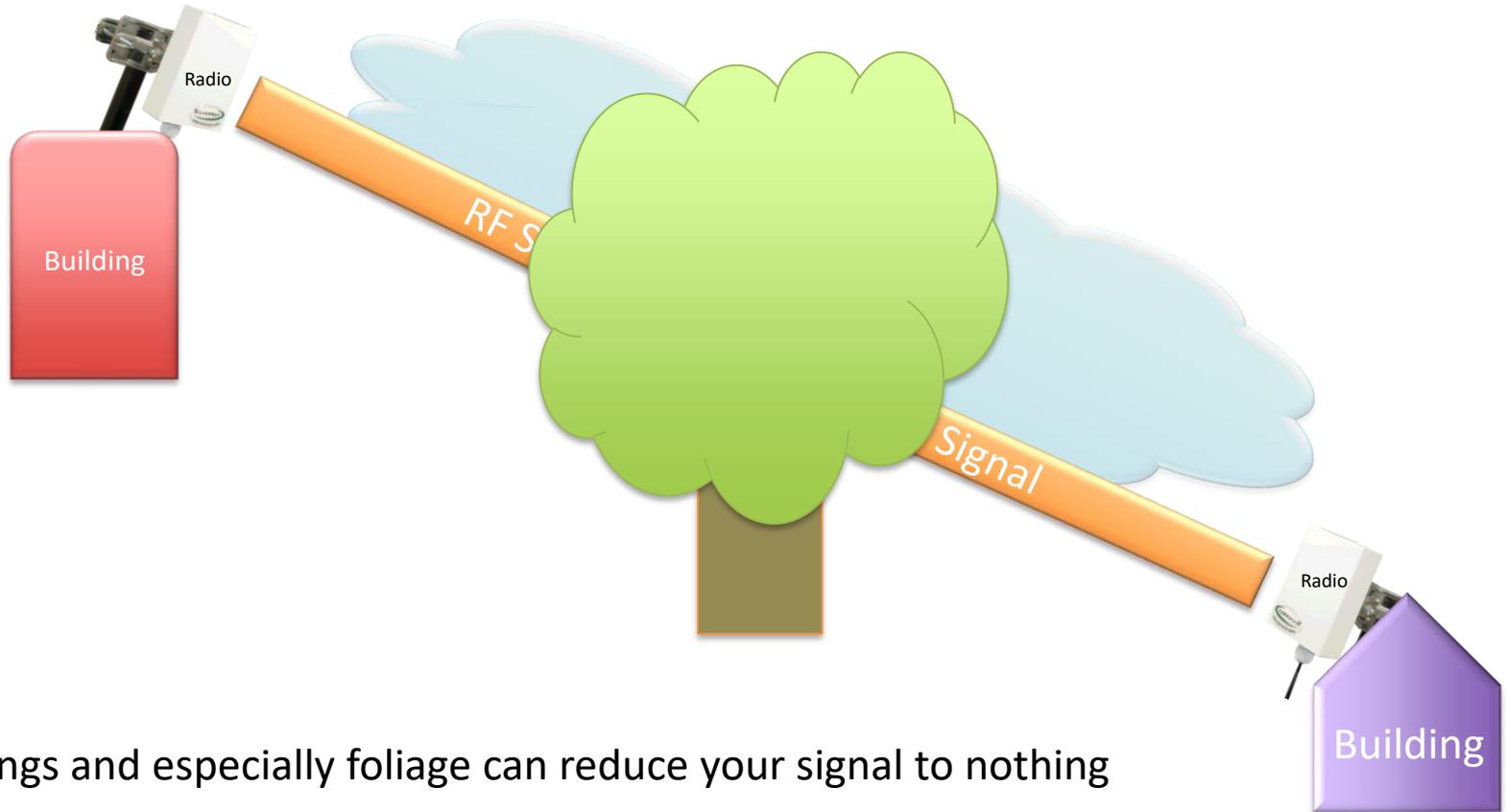
Radio

Building

Note:
Buildings and especially foliage can reduce your signal to nothing

Point to Point Wireless Link
for a Network

NETWORK —CAT6— PoE Injector

Power

PoE Cable
SILDLC20M

Radio

Radio

PoE Cable
SILDLC20M

PoE Injector —CAT6— NETWORK
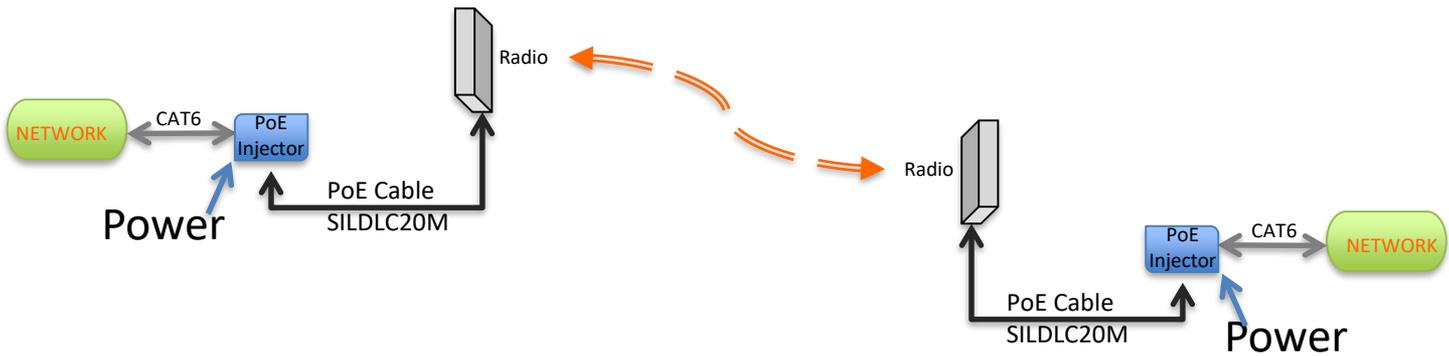
Power

Note: Maximum Cable length to a network device from the radio is 100m
The PoE injector can be fitted anywhere within this length it only adds power to the cable for the radio.
Radios can be powered from a PoE switch, 100m maximum network cable length rules still apply.

Point to Point wireless Link
Single analogue camera via ip encoder and decoder
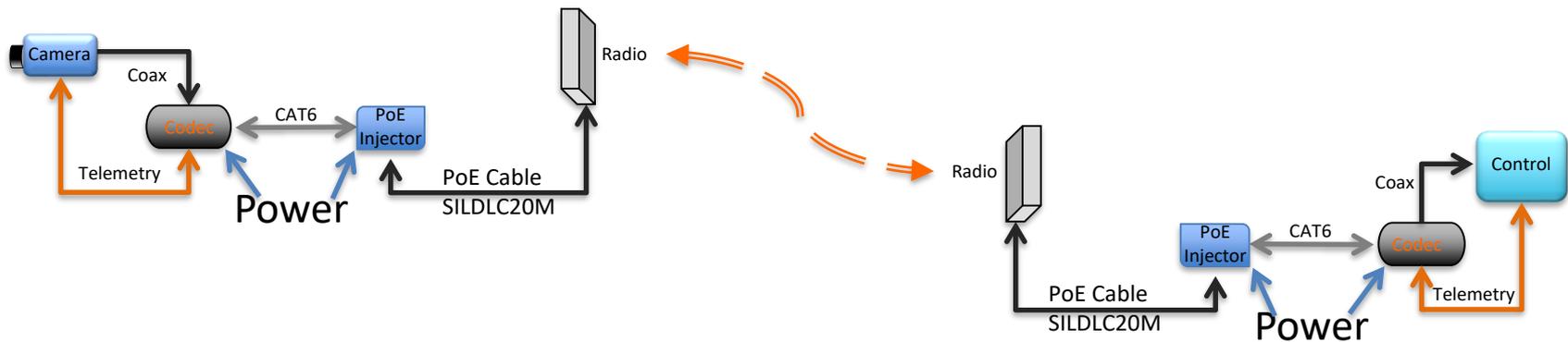
Note for IP cameras :
- The codec is not required at the camera end
- Usually the Control is IP so no codec is required here either
- Telemetry will pass seamlessly

Point to Point Wireless Link Multiple analogue cameras via IP encoder and decoder

Camera — Coax — Codec — Telemetry — Power

Camera — Coax — Codec — Telemetry — Power

Camera — Coax — Codec — Telemetry — Power

Camera — Coax — Codec — Telemetry — Power

Power — PoE Injector

NETWORK Switch

CAT6

Power

PoE Cable SILDLC20M

Radio

Radio

PoE Cable SILDLC20M

Power — PoE Injector

CAT6

NETWORK Switch

Power

Control — Coax — Codec — Telemetry — Power

Control — Coax — Codec — Telemetry — Power

Control — Coax — Codec — Telemetry — Power

Control — Coax — Codec — Telemetry — Power

Many Video codecs can be added until the available bandwidth is exhausted

This Diagram is for illustration purposes only

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Point to Point Wireless Link with Multiple IP cameras
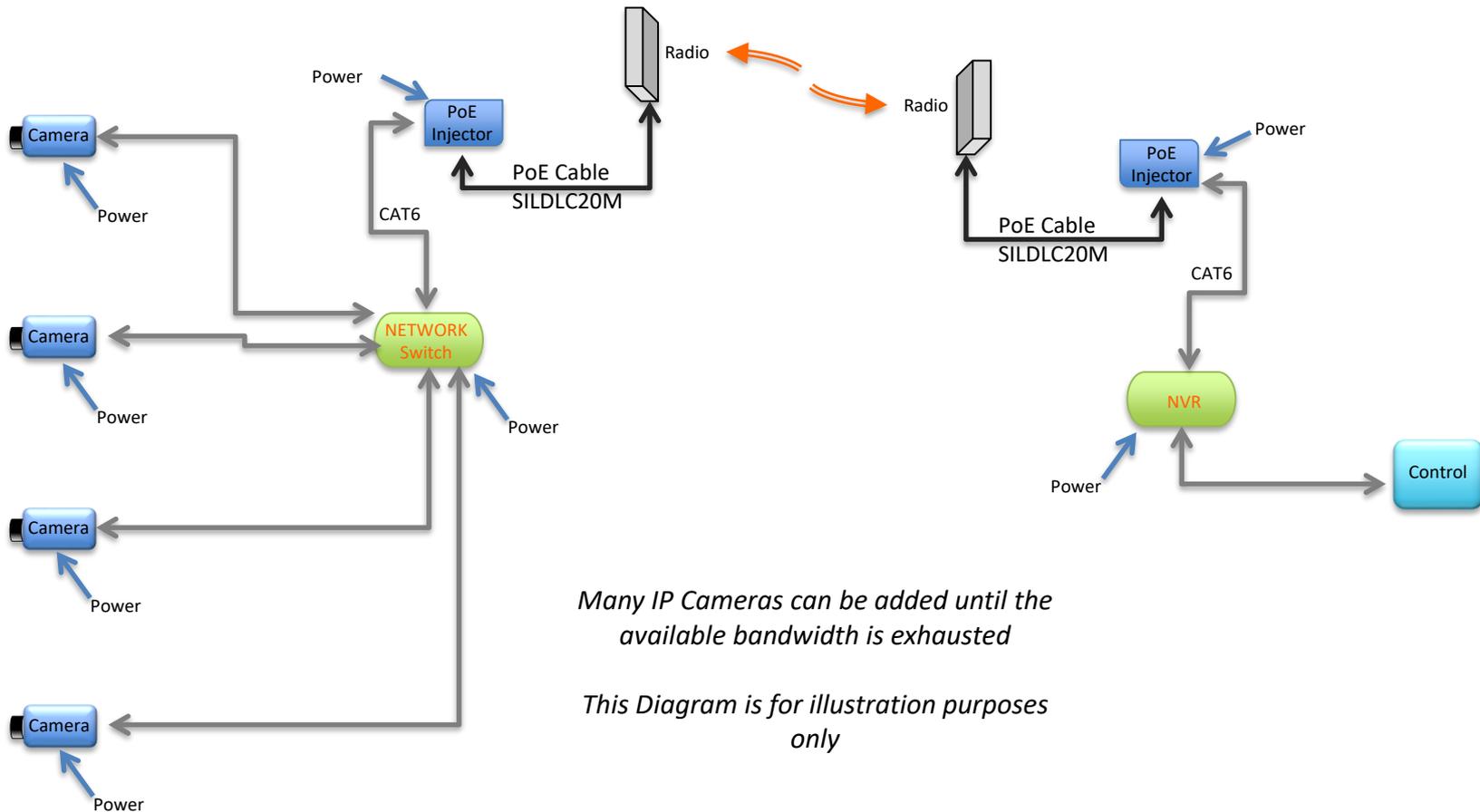
Many IP Cameras can be added until the available bandwidth is exhausted

This Diagram is for illustration purposes only

Point to point Wireless Link Repeater for a Network

Radio

Link1

Radio

NETWORK —CAT6— PoE Injector

Power

PoE Cable SILDLC20M

PoE Injector —CAT6—

Power

NETWORK

Radio

Link2

Radio

PoE Injector —CAT6—

Power

PoE Cable SILDLC20M

NETWORK —CAT6— PoE Injector

Power

PoE Cable SILDLC20M

PoE Cable SILDLC20M

Note: You will need to configure each **radio** with a different IP address and each **link** with a different wireless name.

For example:
Link1 IP addresses 192.168.0.200 / 201 and SSID = LINK1
Link2 IP addresses 192.168.0.202 / 203 and SSID = LINK2
and so on. You can do this via quick config in our SilverView software or the web gui of each radio.

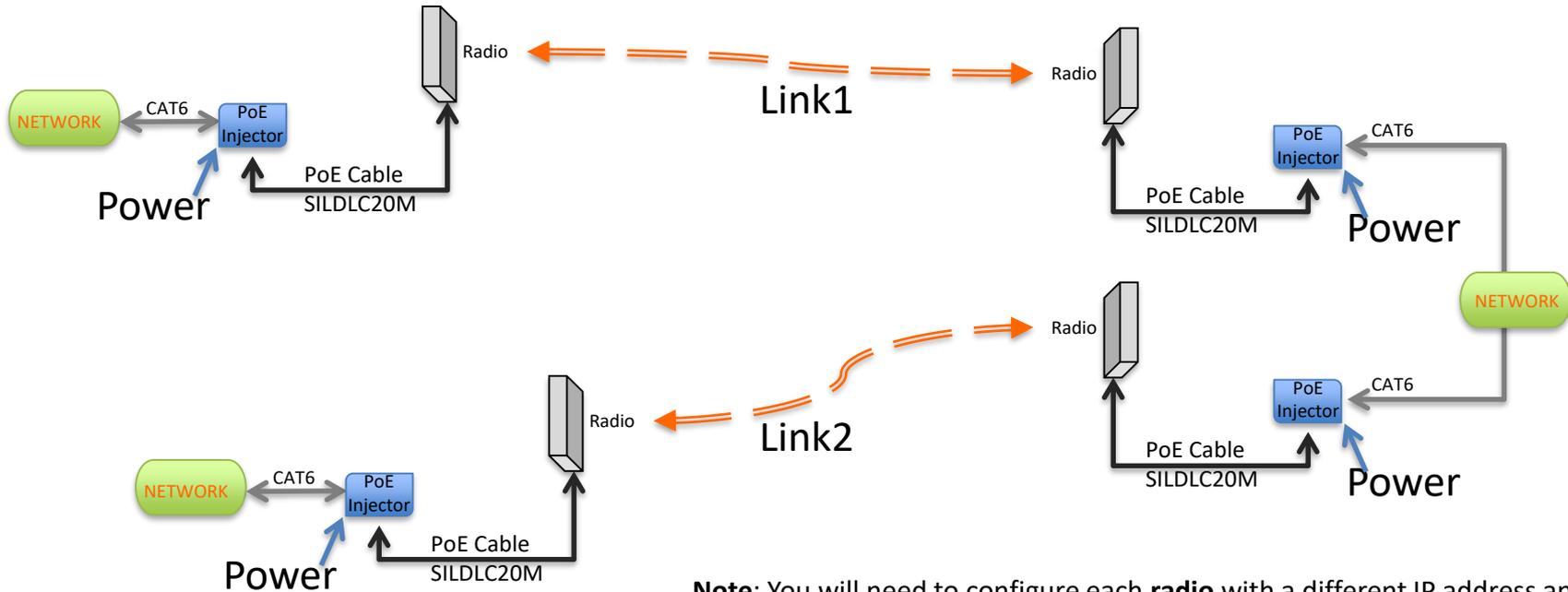# Point to Point wireless link Repeater Single analogue camera via IP encoder and decoder

Many Video codecs can be added until the available bandwidth is exhausted Each Video encoder/decoder will need an individual IP address

This Diagram is for illustration purposes only
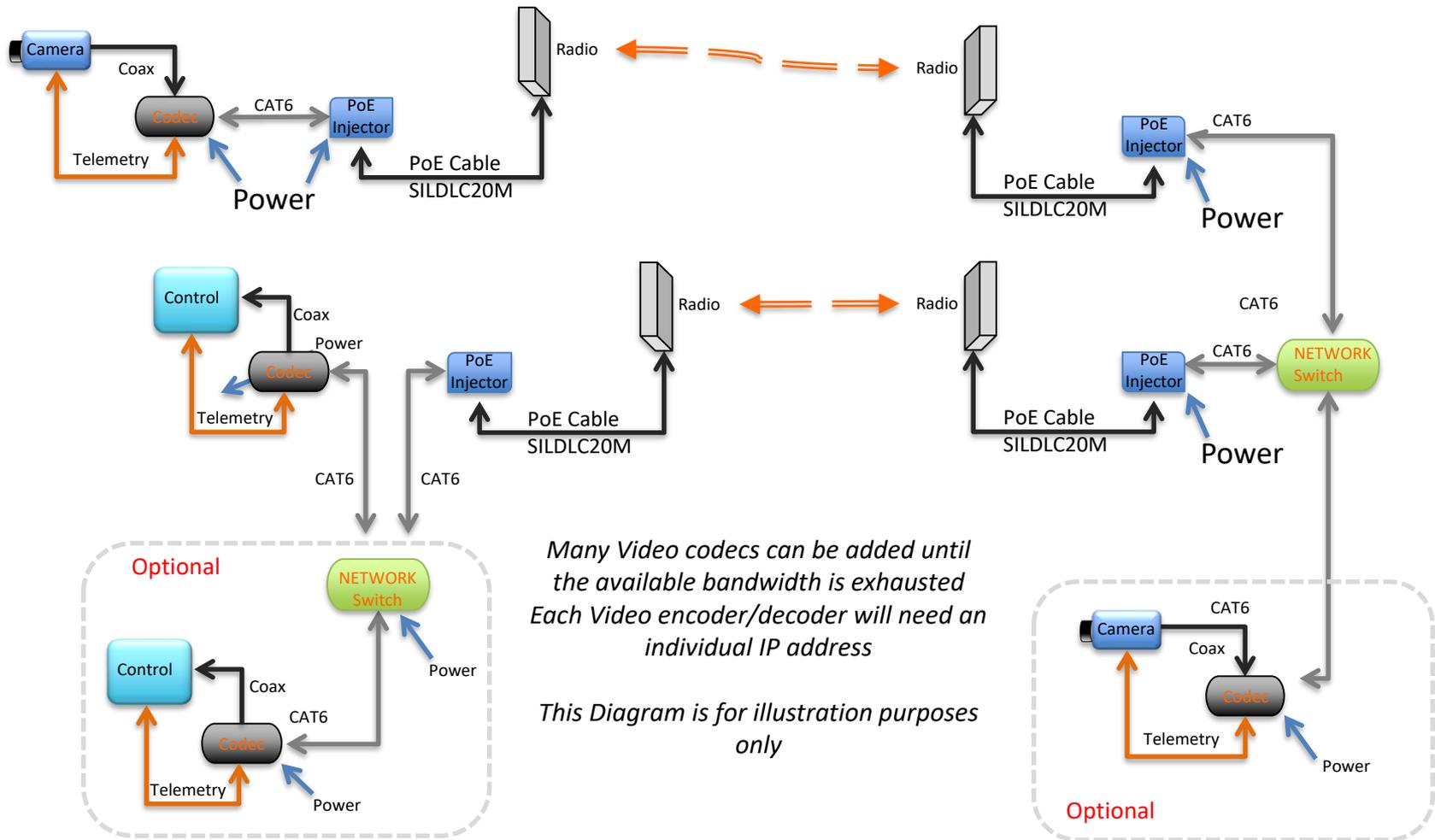
SilverNet Hardware

What's in the box?

- LINK – PICO, MICRO, LITE , MAX
    - 2 x Radios (Built in Antennas)
    - 2 x PoE Injectors (Gigabit for 240, 500 ,1000)
    - 2 x Mounting Brackets

Ordering a Point to Point Link

PICO 95	up to 1KM, 95Mbps	SIL PICO 95-PCP
MICRO 95	up to 2KM, 95Mbps	SIL MICRO 95-PCP
MICRO 240	up to 2KM, 240Mbps	SIL MICRO 240-PCP
LITE 95	up to 6KM, 95Mbps	SIL LITE 95-PCP
LITE 240	up to 6KM, 240Mbps	SIL LITE 240-PCP
LITE 500	up to 6KM, 500Mbps	SIL LITE 500-PCP
MAX 95	up to 60KM, 95Mbps	SIL MAX 95-PCP
MAX 240	up to 60KM, 240Mbps	SIL MAX 240-PCP
MAX 500	up to 60KM, 500Mbps	SIL MAX 500-PCP

Now Add:

10, 20, 50, 90 m Downlink cable – SIL DLCXXM

*1 Per Radio

Purchase SilverNet products Via our Distribution Agents

For further details about your nearest distributor please contact us for a list of approved SilverNet Distributors

Point To Multipoint Advantages

Reduced Cost
Shared Bandwidth

PRO RANGE – 500Mbps

BASE 500 90 – 2KM

- 90° Sector Antenna
- **500**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

BASE 500 360 – 1KM

- 360° Sector Antenna
- **500**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

BASE 500 – MP

- Dual Ntype Ports for external Antenna
- **500**Mbps
- Point-to-Point
- Equipped with POE
- WEP, WPA, WPA2
- WEB Management

SilverNet Hardware

BASE 500 Optional Antenna

- 360° Omni Antenna – Up To 1500m CLOS
- 90° Sector Antenna- Up To 5Km CLOS
- 120° Sector antenna – Up To 5Km CLOS

Sector
Antenna

Omni
Antenna

Antenna connectors

CLOS - Clear Line of Sight

BASE 500 Antenna Beamwidth and Range

120°
Sector
Antenna

360°
Omni
Antenna

1.5KM

Radius

5KM

Range

90°
Sector
Antenna
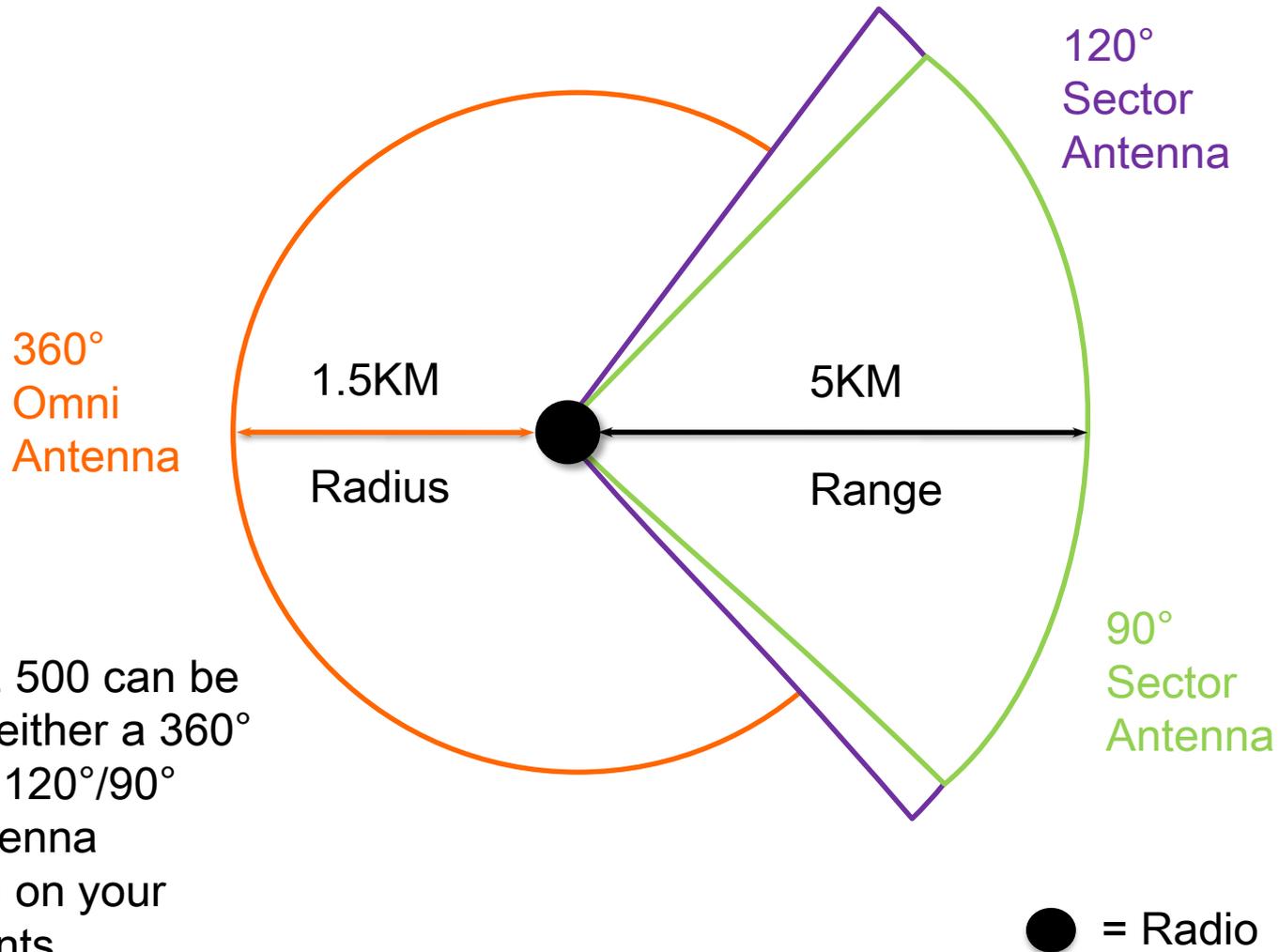
The BASE 500 can be fitted with either a 360° Omni or a 120°/90° Sector antenna depending on your requirements.

● = Radio

Multipoint System Omni Antenna

360°
Omni
Antenna

1.5KM

Radius

NOT ALIGNED = Poor Signal

RF Signal

Radio

Building
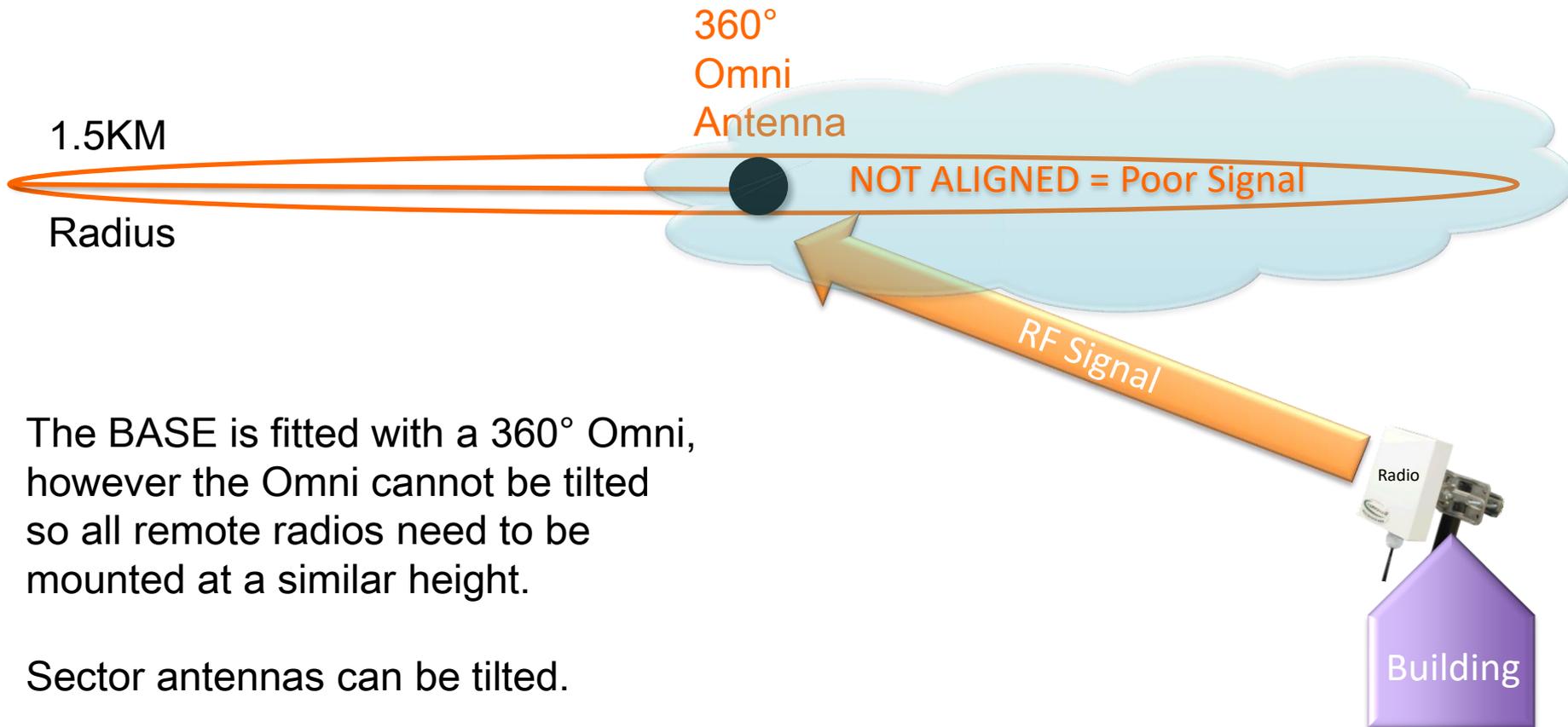
The BASE is fitted with a 360° Omni, however the Omni cannot be tilted so all remote radios need to be mounted at a similar height.

Sector antennas can be tilted.

● = Radio

Point to Multipoint Wireless Link For a Network

A Multipoint BASE Radio has external antenna ports to fit an external Omni 360°
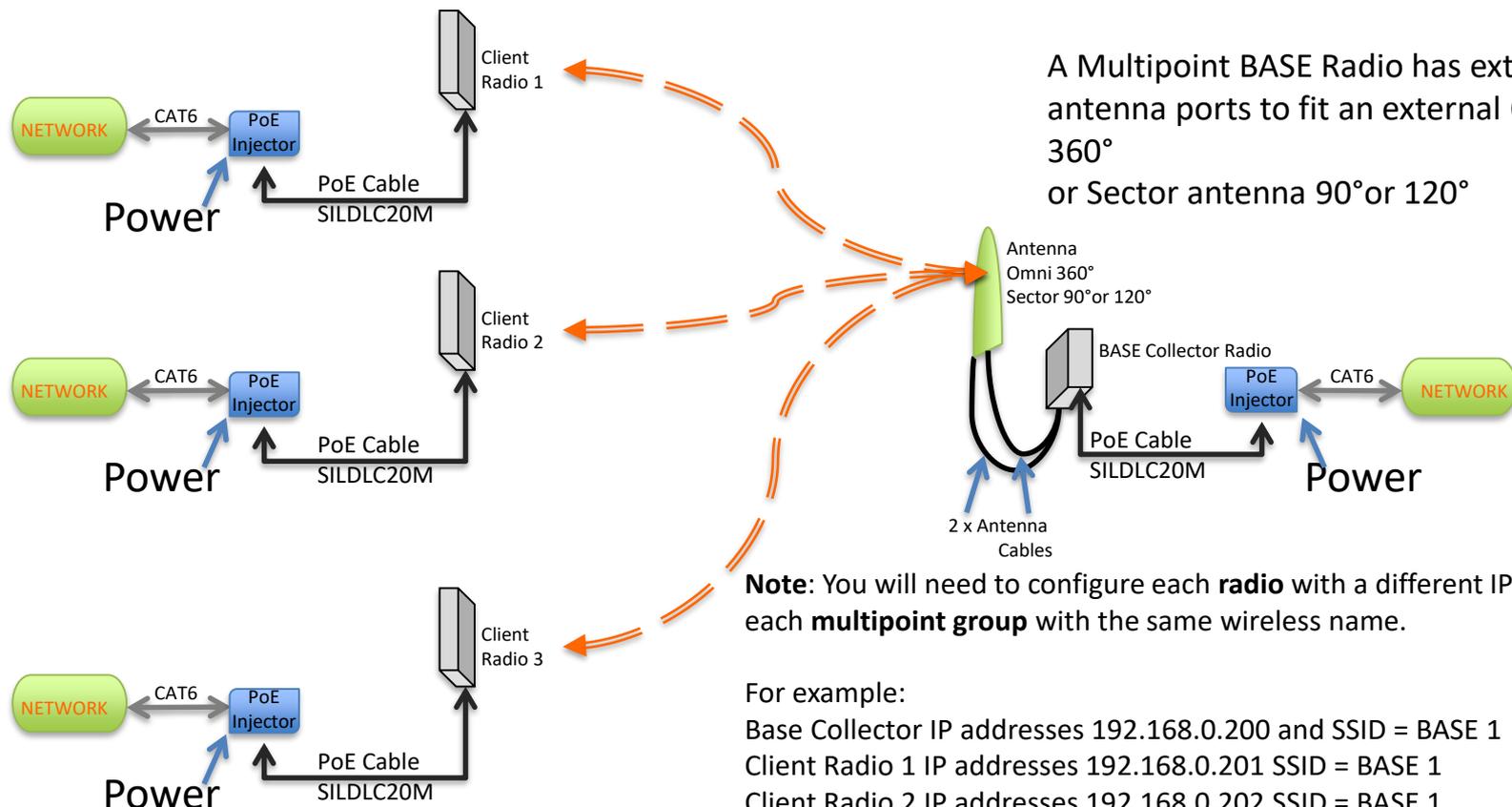or Sector antenna 90°or 120°

Note: You will need to configure each **radio** with a different IP address and each **multipoint group** with the same wireless name.

For example:
Base Collector IP addresses 192.168.0.200 and SSID = BASE 1
Client Radio 1 IP addresses 192.168.0.201 SSID = BASE 1
Client Radio 2 IP addresses 192.168.0.202 SSID = BASE 1
and so on.

You can do this via quick Config in our SilverView software or the web gui of each radio.

Point to Multipoint wireless Link Multiple analogue cameras via ip encoder and decoder

Antenna
Omni 360°
Sector 90°or 120°

BASE Radio

Client Radio

Camera

Coax

CAT6

PoE Injector

Codec

Telemetry

Power

PoE Cable
SILDLC20M

PoE Cable
SILDLC20M

2 x Antenna Cables

Power

PoE Injector

CAT6

Coax

Control

Codec

Telemetry

Power

NETWORK Switch

Power

Coax

Control

Codec

Telemetry

Power

Coax

Control

Codec

Telemetry

Power

Many Video codecs can be added until the available bandwidth is exhausted
BASE radio bandwidth is shared between the Remote radio

This Diagram is for illustration purposes only

SilverNet Hardware

What's in the box?

- BASE 500 90
  - 1 x Radio with integrated 90° Sector antenna
  - 1 x PoE Injector (Gigabit)
  - 1 x Mounting Brackets Set

- BASE 500 360
  - 1 x Radio with integrated 360° Sector antenna
  - 1 x PoE Injector (Gigabit)
  - 1 x Mounting Brackets Set

SilverNet Hardware

What's in the box?

- BASE 500
  - 1 x Radio (Antenna Required)
  - 1 x PoE Injector (Gigabit)
  - 1 x Mounting Brackets Set

Options
- 360° Omni Antenna
- 90° Sector Antenna
- 120° Sector Antenna
- 2, 4, 8 m Antenna cable x 2
- 10, 20, 50, 90m Downlink cable

Ordering a
Point to Multipoint AP/BASE

BASE 500	External Antenna, 500Mbps	SIL BASE 500
BASE 500 90	90° Sector Antenna, 500Mbps	SIL BASE 500 90
BASE 500 360	360° Omni Antenna, 500Mbps	SIL BASE 500 360

BASE 500 options:

A. 2, 4, 8 meter Antenna cable (2 req) – SIL4CABXM

B. 10, 20, 50, 90 meter Downlink cable – SIL DLCXXM

C. 360° Omni Antenna - SIL OAN 5812

    90° Sector Antenna – SIL SAN 5820-90

    120° Sector Antenna - SIL SAN 5819-120

Ordering a
Point to Multipoint CLIENT

MICRO 95	up to 2KM, 95Mbps	SIL MICRO 95
MICRO 240	up to 2KM, 240Mbps	SIL MICRO 240
LITE 240	up to 6KM, 240Mbps	SIL LITE 240
LITE 500	up to 6KM, 500Mbps	SIL LITE 500

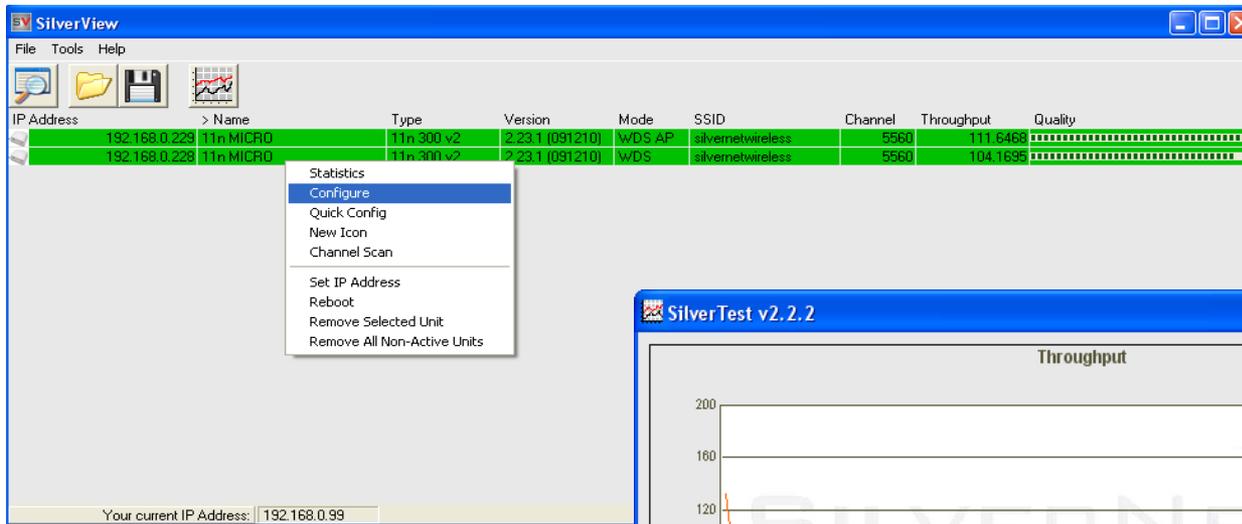Remove - PCP from the part code for a single radio

Now Add:

10, 20, 50, 90 m Downlink cable – SIL DLCXXM

*1 Per Radio

Monitoring Software
Download for FREE from our website Download Centre

SilverView

Makes easy, even easier!

- **Real Time Monitoring**
  - See Throughput
  - Link Quality
  - See your IP address
- **Built in Data tester**
  - Throughput test your link
  - Test multiple data streams
  - Test tcp, udp and multicast traffic

Need Help?

Defaults:
Wireless SSID   silvernetwireless
Wireless Encryption key: silvernetwireless
Wireless Encryption type: AES

IP Address of Device 1 :   192.168.0.228
IP Address of Device 2 :   192.168.0.229
Subnet Mask of Devices :   255.255.255.0

Admin Username :   admin
Admin Password :   password

If you need any further assistance go to our website download centre:
www.silvernet.com/downloadcentre/

1. Read the easy as 1-2-3 setup guide

2. View our troubleshooting guide:
www.silvernet.com/support/FAQ.php

3. Read the Manual:
www.silvernet.com/downloadcentre/Userguides/11n-Manual.pdf

4. use our online ticket support:
www.silvernet.com/support/

5. email us at support@silvernet.com

6. call our support team on 08712233067

Note:
More information and SilverView NMS please go to our website download centre:
www.silvernet.com/downloadcentre/

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