

SMALL CELL

- Provides fixed capacity
- Backhaul required
- One PCI for each Small Cell
- Small Cells support one service provider
- Provides only one location per sector
- No interference from OTA interface

DAS and Small Cell Comparison

DAS

- Provides consistent even coverage
- PCIs assigned as needed for capacity
- Multi-service provider support
- Capacity dependent on signal source
- OTA signal source or BTS feed
- LBS with integrated Wi-Fi

DAS and Small Cell Comparison

Size and Scale

Small Cell

- Relatively small
- Not scalable
- 5 Watts - < 150k sq ft

DAS

- Head End components
- Additional comm rooms required to scale

Both Require Head End and Connection to Carrier Network

Economic Considerations

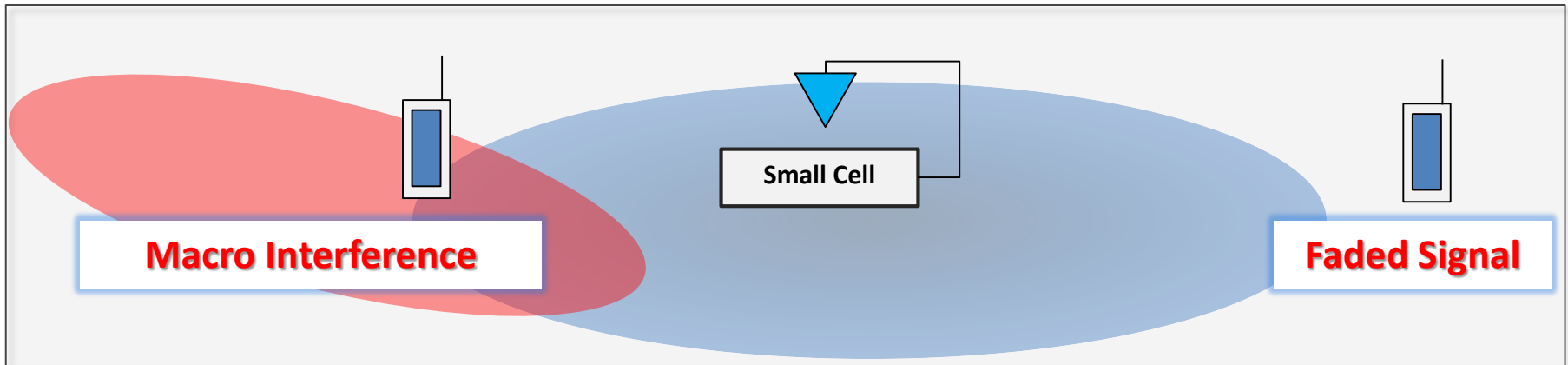
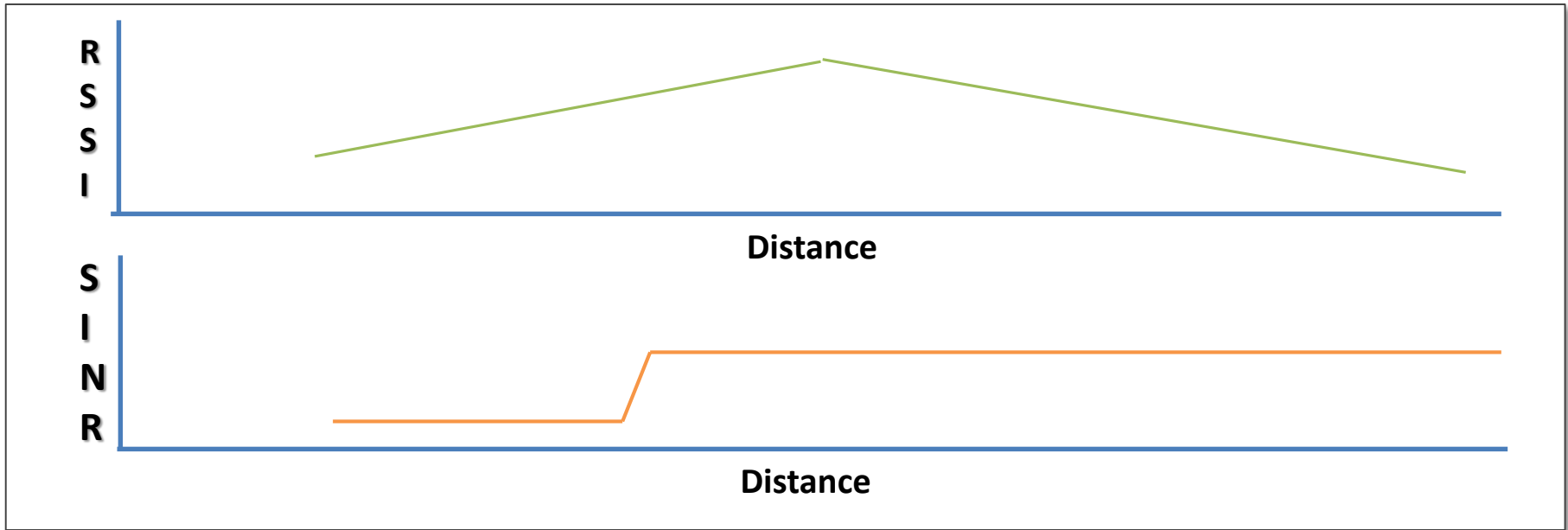
Small Cell

- Lower CapEx
- OpEx for backhaul
- BTS OEM maintenance

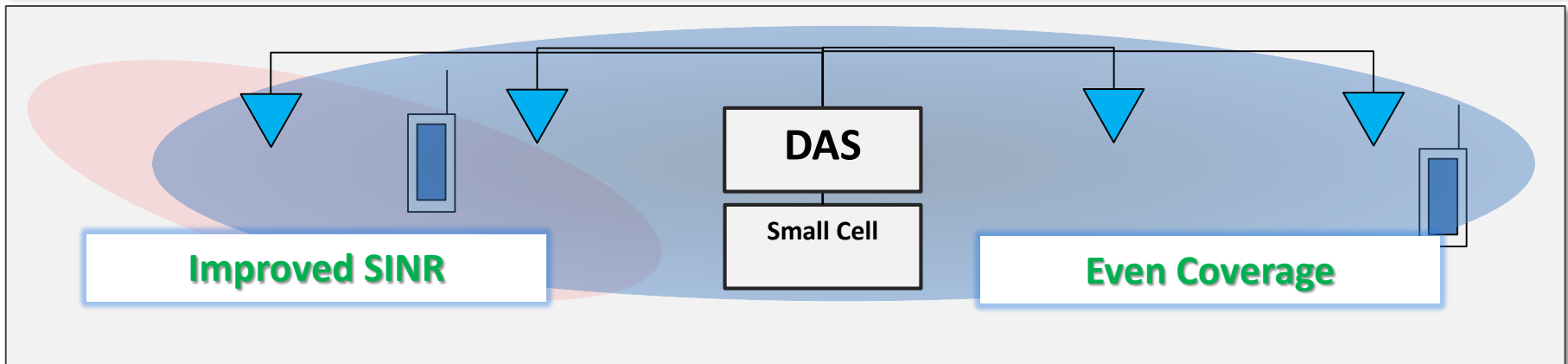
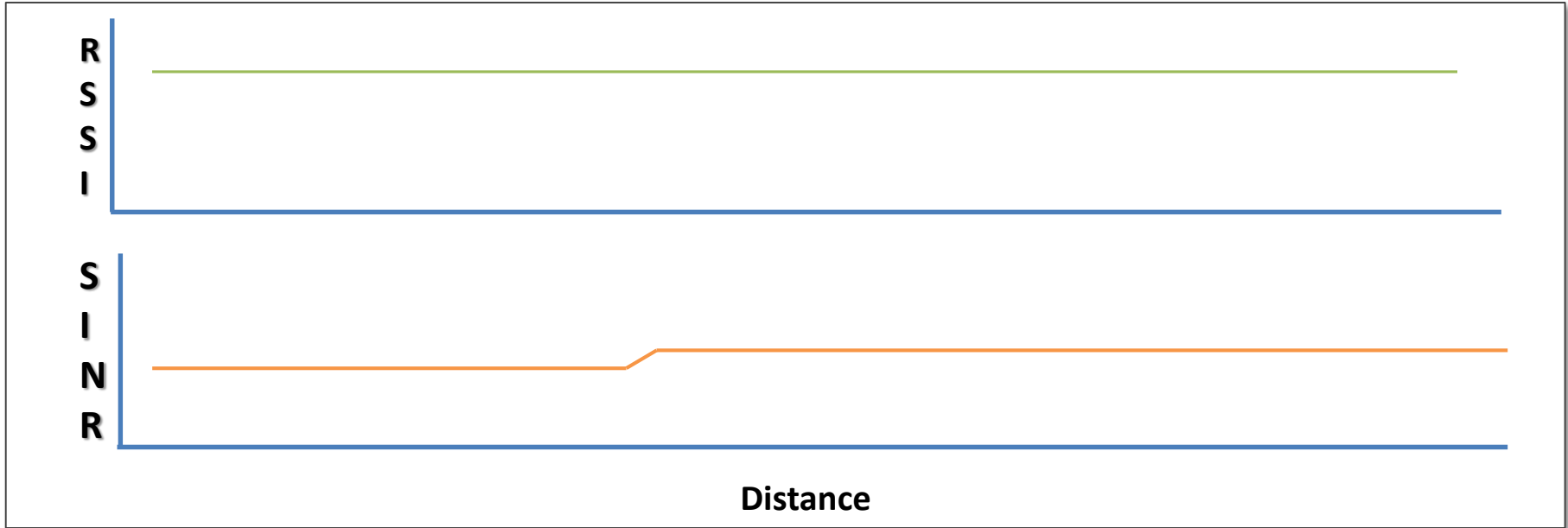
DAS

- Larger CapEx
- Higher OpEx for more components

DAS Has Higher Cost -> Also Higher performance and Scalability



RSSI and SNR – Excessive Variation Throughout Venue



RSSI and SNR – Excessive Variation Throughout Venue

DAS / Small Cell Sweet Spot

Small Cell

- < 150k sq Ft
- Single service provider

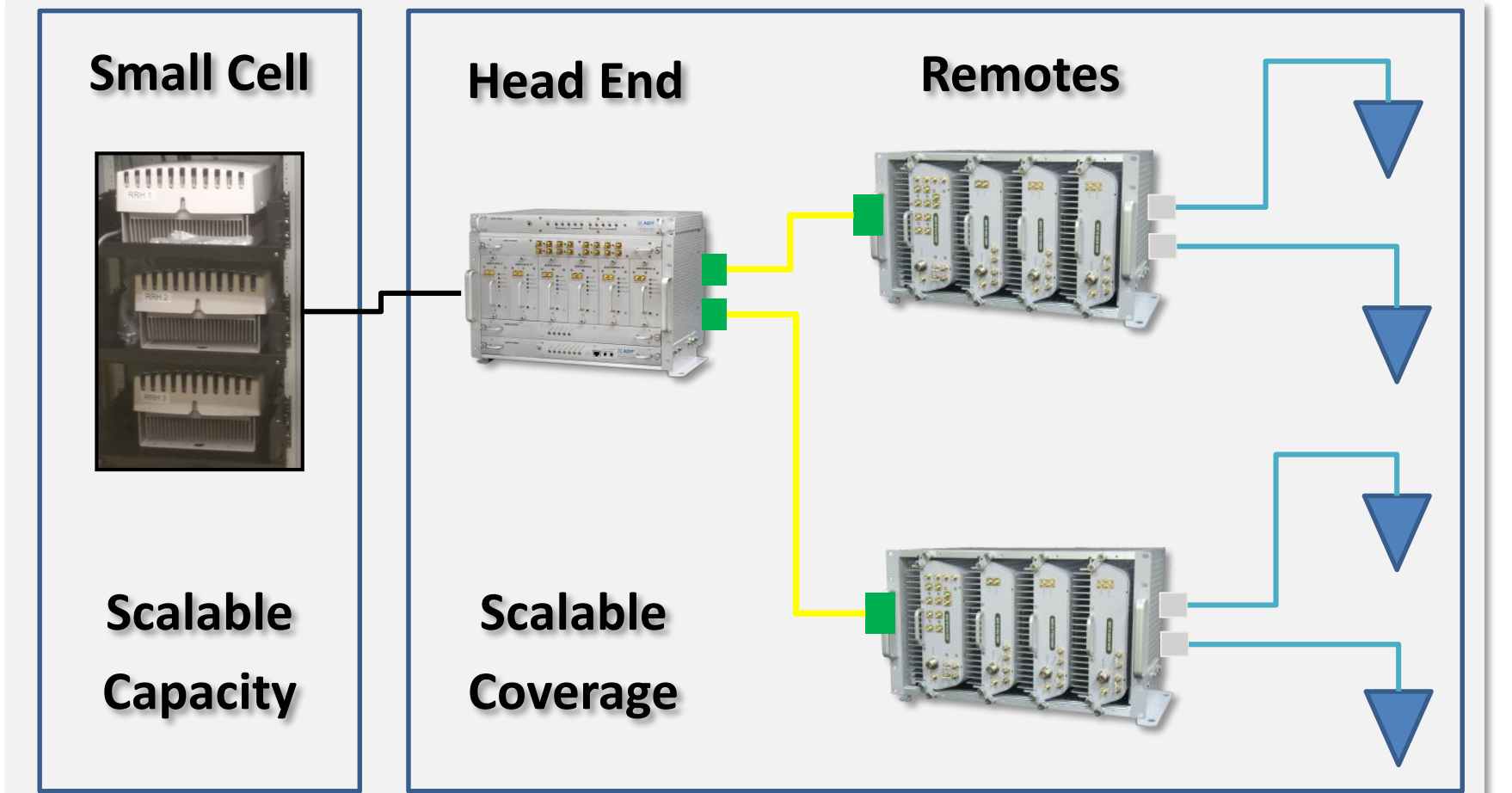
DAS

- Scalable coverage
- Multiple service provider support

Small Cells Provide Additional Capacity

Small Cells Suited for Small Venues with Single Service Provider

Small Cell Feeding DAS



Capacity from Small Cell - Coverage from DAS