ABSIDE Networks

Vertical Sectorization

Abside Networks introduces **vertical sectorization** capability into the AI3DR™[384] massive MIMO active antenna unit RU providing greater **frequency reuse** of available spectrum licenses, enabling increased spectrum revenue from a single radio unit.

The example diagram to the right (not to scale) shows how vertical sectorization enables serving two different communities using the same channel frequency from the same radio unit on the same tower.

Vertical sectorization delivers on Abside Networks' focus of **high capacity at long range**.

Connect with Abside Networks for additional details and capabilities at contact@abside-networks.com

- **AI3DR™[384] n41** AI3DR-M64T384AE-N41 (US, Canada, Thailand, Japan)
- **AI3DR™[384] n78** AI3DR-M64T384AE-N78 (US, India, Brazil)

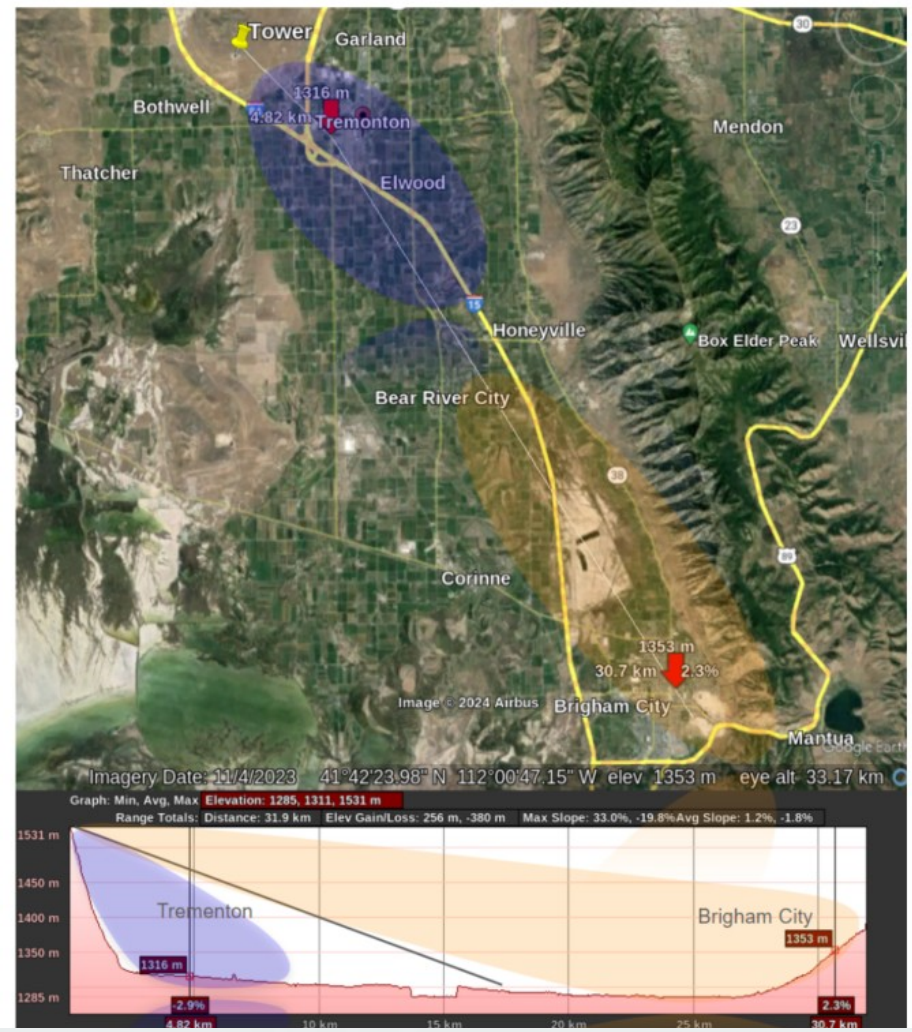


Figure 1. Vertical sectorization example: one AI3DR™[384] on one tower serves a near town (4.8 km) and a far town (30.7 km) on the same channel. Not to scale. Map: Google Earth, image © 2024 Airbus.

SISO capacity	Legacy 192AE shared capacity		Legacy 192AE split beams		**AI3DR™[384] split beams**	
	SNR (dB)	Spectral eff. (bps/Hz)	SNR (dB)	Spectral eff. (bps/Hz)	**SNR (dB)**	**Spectral eff. (bps/Hz)**
Near town (4.8 km)	32	3.7 (=7.4/2)	4.2	1.4 (-62%)	**19.1**	**5.1 (+37%)**
Far town (30.7 km)	32	3.7 (=7.4/2)	3.0	1.0 (-70%)	**23.8**	**6.2 (+67%)**

Table 1. Estimated capacity gain from vertical sectorization with the AI3DR™[384] (384 antenna elements). These are estimates; field measurements are expected in 2Q 2027.

© 2026 Abside Networks, Inc.
20261105

www.abside-networks.com
TAA Compliant

Not to scale. All included items are not shown. Image is representative only and final delivered product may differ from picture. All rights reserved. Product features and specifications are subject to change without notice.