

WinnForum Spectrum Sharing Webinar

We've got PAL, now what? The Future of CBRS

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PAL Auction Results

- Gross Proceeds: \$4,585,663,345
- Qualified Bidders: 271
- Winning Bidders: 228
- Licenses won: 20,625 (2946 counties)
- Licenses not sold: 2006 (287 counties)
- \$/MHz-pop: ~ \$0.216921

Top 20 Auction Winners

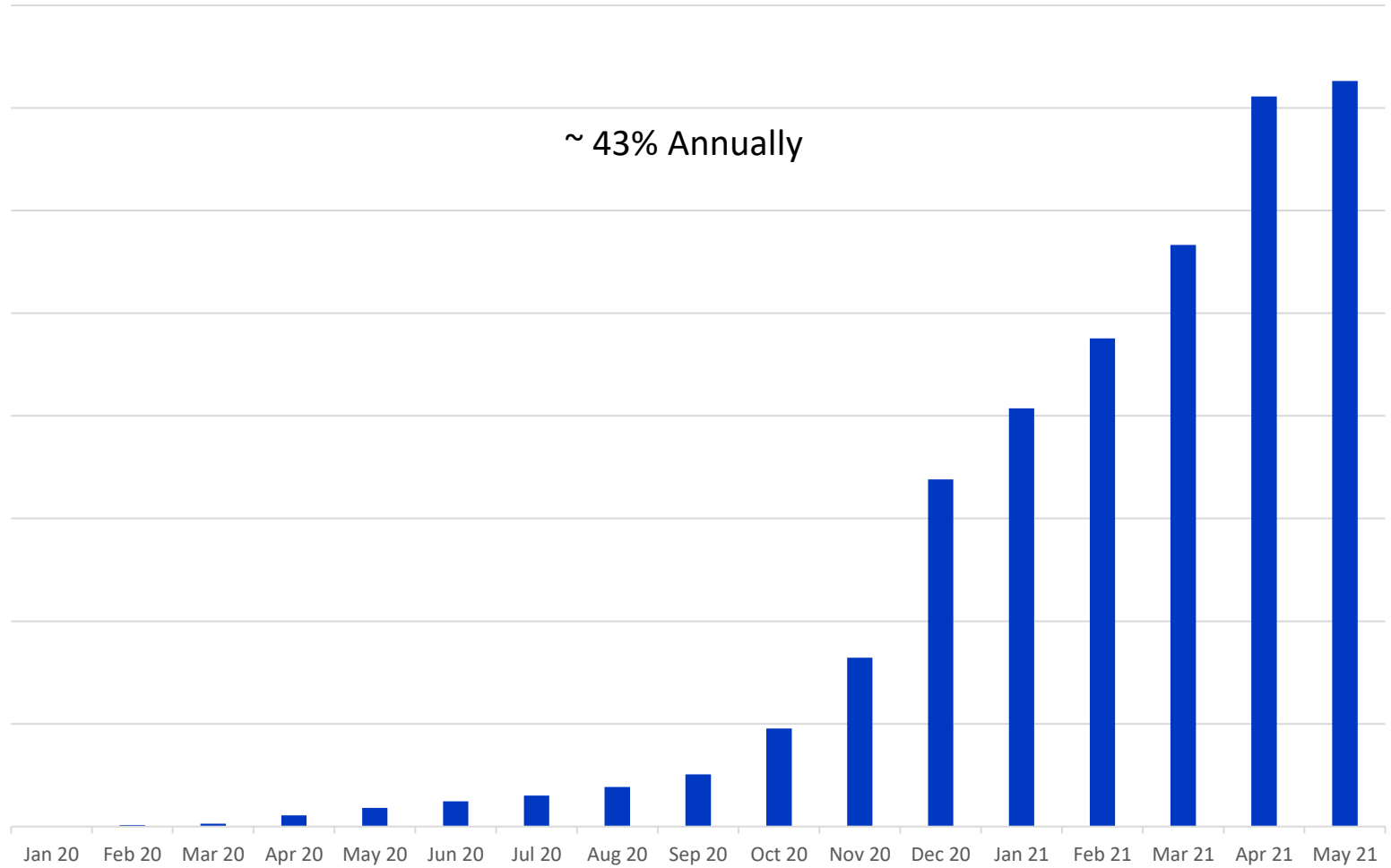
	Company	Bidding Entity	Number of Licenses Won	Net Payment
1	Verizon	Verizon Wireless	557	\$1,893,791,991
2	Dish Network	Wetterhorn Wireless	5,492	\$912,939,410
3	Charter	Spectrum Wireless Holdings	210	\$464,251,209
4	Comcast	XF Wireless Investment	830	\$458,725,900
5	Cox	Cox Communications	470	\$212,805,412
6	Southern California Edison	Southern California Edison Company	20	\$118,951,433
7	Windstream	Windstream Services	1,014	\$38,534,863
8	Mediacom	Mediacom	576	\$29,478,887
9	Nextlink Internet	AMG Technology Investment Group	1,072	\$28,489,750
10	JBG SMITH	SEAD	7	\$25,274,477
11	Sempra Energy	San Diego Gas and Electric Company	3	\$21,273,340
12	ATN International	SAL Spectrum	1,569	\$20,396,530
13	Claro Puerto Rico	Puerto Rico Telephone Company	231	\$18,887,528
14	Alabama Power	Alabama Power Company	271	\$18,878,280
15	Shentel	Shenandoah Cable Television	262	\$16,118,381
16	VTX1 Companies	VTX Communications	112	\$15,373,263
17	Viaero	NE Colorado Cellular	558	\$15,087,268
18	U.S. Cellular	United States Cellular Corporation	243	\$13,538,232
19	Watch Communications	W.A.T.C.H. TV Company	517	\$10,942,047
20	Cable One	Cable One	547	\$10,544,441

Source: FCC

CBRS Deployment Stats

Over 142k CBSDs deployed so far
More CATB than CAT A

CBSD Growth

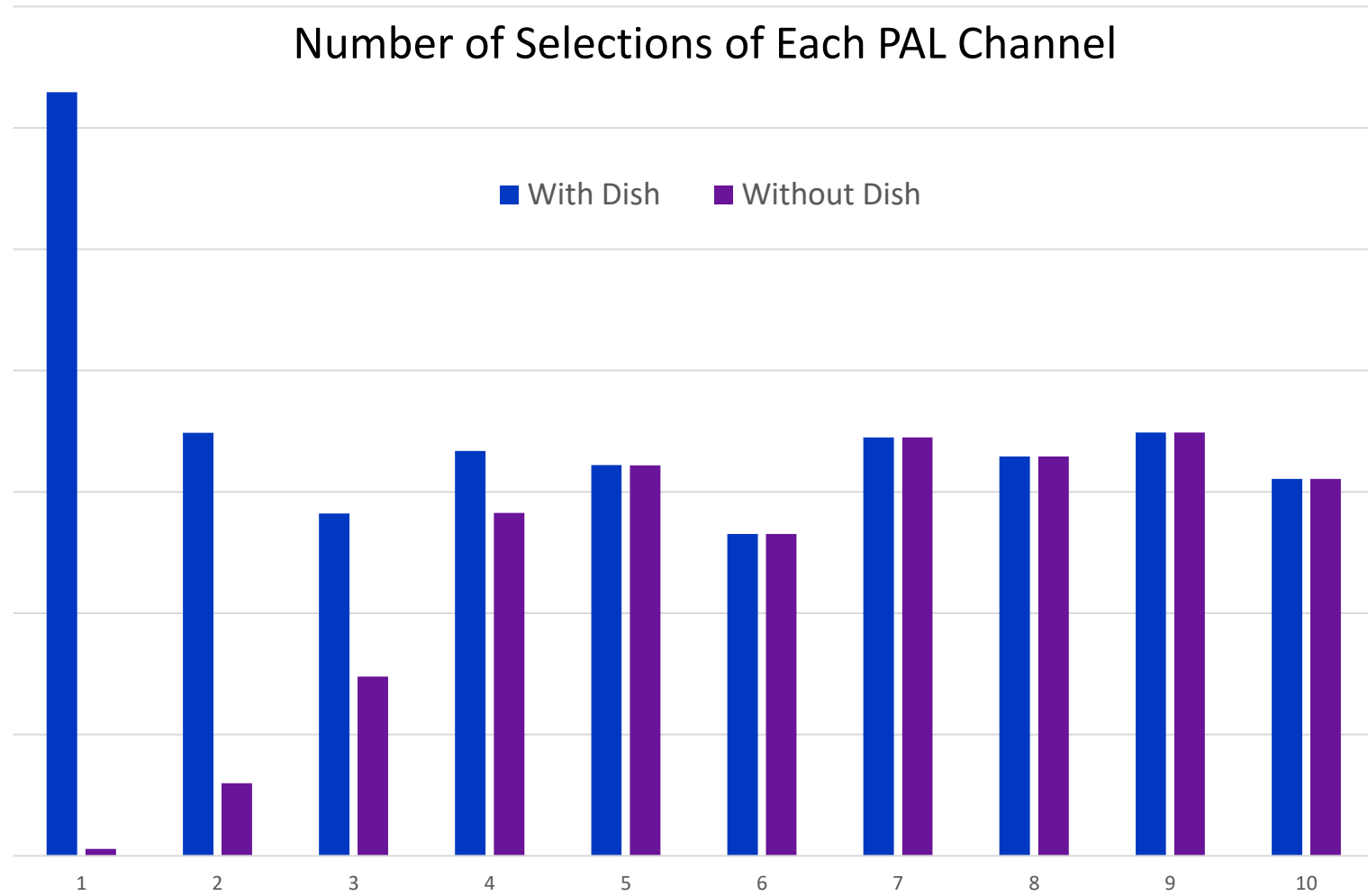


PAL Channel Selections

PAL Licensees made channel selections in a portal

Results shown are as of May 3

Number of Selections of Each PAL Channel



Today's Panelists



Matt Mangriotis, Senior Director of Product Management, *Cambium Networks*
CBRS Deployment Successes and Challenges



Masoud Olfat, VP of Technology Development, *Federated Wireless*
PAL Channel Allocation and Swapping



Max Solondz, CMTS Radio Specialist, *Verizon Wireless*
PAL Secondary Market Sales and Leasing



Richard Bernhardt, National Spectrum Adviser, *WISPA*
CBRS Markets Moving Forward



Andrew Clegg, Spectrum Engineering Lead, *Google*
WinnForum Spectrum Sharing Committee Working Group 1 Chair
CBRS Release 2 Standards