



Federal Communications Commission  
Washington, D.C. 20554

November 4, 2019

Marlene H. Dortch  
Secretary, Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, D.C. 20054

Dear Ms. Dortch,

On behalf of the Federal Communications Commission's Office of Economics and Analytics, I am entering into WC Docket No. 18-89 (Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs) excerpts from an August 16, 2019 report from the Dell'Oro Group entitled Mobile RAN Quarterly Report 2Q19.<sup>1</sup> Because the report is not available to the public without a fee, we are submitting into the record only those portions relevant to the proceeding with the author's approval.

Sincerely,

Eric Ralph  
Associate Chief  
Office of Economics and Analytics  
Federal Communications Commission

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<sup>1</sup> Dell'Oro Group, Inc., MobileRAN Quarterly Report 2Q19, Vol. 20, No. 2 at 28, 45 (Aug. 16, 2019), <https://www.delloro.com/market-research/telecommunications-infrastructure/mobile-radio-access-network/>.

DELL'ORO GROUP INC

# MOBILE RAN QUARTERLY REPORT 2Q19

VOL. 20, NO.2  
MIA

MARKET SUMMARY &  
VENDOR INFORMATION

TECHNOLOGY SEGMENTS

GSM  
CDMA  
WCDMA  
MOBILE WIMAX  
LTE FDD / TDD

WORLDWIDE & REGIONS

	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	2016	2017	2018
<b>MOBILE RADIO ACCESS NETWORK TOTAL – GSM+CDMA+WCDMA+WIMAX+LTE+5G NR</b>											
<b>WORLDWIDE RADIO ACCESS NETWORK</b>											
<b>MFG REVENUE (\$M)</b>											
AIRSPAN											
ALCATEL-LUCENT											
ALVARION											
APERTO											
CISCO											
ERICSSON											
FUJITSU											
HUAWEI											
MOTOROLA											
NEC											
NOKIA											
NORTEL											
PANASONIC											
REDLINE											
SAMSUNG											
ZTE											
OTHERS											
<b>SHARE MFG REVENUE (%)</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
AIRSPAN											
ALCATEL-LUCENT											
ALVARION											
APERTO											
CISCO											
ERICSSON											
FUJITSU											
HUAWEI											
MOTOROLA											
NEC											
NOKIA											
NORTEL											
PANASONIC											
REDLINE											
SAMSUNG											
ZTE											
OTHERS											

	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	2016	2017	2018
<b>TOTAL MOBILE RADIO ACCESS NETWORK (GSM+CDMA+WCDMA+WiMAX+LTE+5G NR)</b>											
<b>NORTH AMERICA</b>											
<b>MFG REVENUE (\$M)</b>											
AIRSPAN											
ALCATEL-LUCENT											
ALVARION											
APERTO											
CISCO											
ERICSSON											
FUJITSU											
HUAWEI											
MOTOROLA											
NEC											
NOKIA											
NORTEL											
PANASONIC											
REDLINE											
SAMSUNG											
ZTE											
OTHERS											
<b>SHARE MFG REVENUE (%)</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
AIRSPAN											
ALCATEL-LUCENT											
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