

WA	BELLEVUE GLENCOURT	BLLVWAGL	Tier 2
WA	SEATTLE CHERRY	STTLWACH	Tier 2
WA	TACOMA FAWCETT	TACMWAFA	Tier 2
AZ	SUNRISE	AGFIAZSR	Tier 3
AZ	ASHFORK	ASFKAZMA	Tier 3
AZ	BUCKEYE	BCKYAZMA	Tier 3
AZ	BISBEE	BISBAZMA	Tier 3
AZ	BLACK CANYON	BLCNAZMA	Tier 3
AZ	BENSON	BNSNAZMA	Tier 3
AZ	ST DAVID	BNSNAZSD	Tier 3
AZ	BEARDSLEY	BRDSAZMA	Tier 3
AZ	CHANDLER MAIN	CHNDAZMA	Tier 3
AZ	CHANDLER SOUTH	CHNDAZSO	Tier 3
AZ	CHANDLER WEST	CHNDAZWE	Tier 3
AZ	CHINO VALLEY	CHVYAZMA	Tier 3
AZ	COOLIDGE	CLDGAZMA	Tier 3
AZ	CAMP VERDE	CMVRAZMA	Tier 3
AZ	CIRCLE CITY	CRCYAZNM	Tier 3
AZ	CORONADO	CRNDAZMA	Tier 3
AZ	CASA GRANDE	CSGRAZMA	Tier 3
AZ	COTTONWOOD MAIN	CTWDAZMA	Tier 3
AZ	COTTONWOOD SOUTH	CTWDAZSO	Tier 3
AZ	CAVE CREEK	CVCKAZMA	Tier 3
AZ	DUDLEYVILLE	DDVLAZNM	Tier 3
AZ	DOUGLAS	DGLSAZMA	Tier 3
AZ	DEER VALLEY NORTH	DRVYAZNO	Tier 3
AZ	ELOY	ELOYAZ01	Tier 3
AZ	FLAGSTAFF EAST	FLGSAZEA	Tier 3
AZ	FLAGSTAFF MAIN	FLGSAZMA	Tier 3
AZ	FLAGSTAFF SOUTH	FLGSAZSO	Tier 3
AZ	FLORENCE	FLRNAZMA	Tier 3
AZ	FT MCDOWELL	FTMDAZMA	Tier 3
AZ	RIO VERDE	FTMDAZNO	Tier 3
AZ	COLDWATER	GDYRAZCW	Tier 3
AZ	GILA BEND	GLBNAZMA	Tier 3
AZ	GLENDALE	GLDLAZMA	Tier 3
AZ	GLOBE	GLOBAZMA	Tier 3
AZ	GREEN VALLEY	GNVYAZMA	Tier 3
AZ	GRAND CANYON	GRCNAZMA	Tier 3
AZ	HIGLEY	HGLYAZMA	Tier 3
AZ	QUEEN CREEK	HGLYAZQC	Tier 3
AZ	HUMBOLDT	HMBLAZMA	Tier 3
AZ	HAYDEN	HYDNAZMA	Tier 3
AZ	JOSEPH CITY	JSCYAZMA	Tier 3
AZ	KEARNY	KRNYAZMA	Tier 3
AZ	LITCHFIELD PARK	LTPKAZMA	Tier 3
AZ	MARANA	MARNAZMA	Tier 3
AZ	GILBERT	MESAAZGI	Tier 3
AZ	MIAMI	MIAMAZMA	Tier 3
AZ	MAMMOTH	MMTHAZMA	Tier 3
AZ	MARICOPA	MRCPAZMA	Tier 3
AZ	MUNDS PARK	MSPKAZMA	Tier 3
AZ	NOGALES MAIN	NGLSAZMA	Tier 3
AZ	NOGALES MIDWAY	NGLSAZMW	Tier 3
AZ	NEW RIVER	NWRVAZMA	Tier 3
AZ	ORACLE	ORCLAZMA	Tier 3
AZ	PAGE	PAGEAZMA	Tier 3
AZ	FOOTHILLS	PHNXAZB1	Tier 3
AZ	BETHANY WEST	PHNXAZBW	Tier 3
AZ	CACTUS	PHNXAZCA	Tier 3
AZ	GREENWAY	PHNXAZGR	Tier 3
AZ	LAVEEN	PHNXAZLV	Tier 3
AZ	MID RIVERS	PHNXAZMR	Tier 3
AZ	MARYVALE	PHNXAZMY	Tier 3
AZ	PHOENIX NORTHWEST	PHNXAZNW	Tier 3
AZ	PECOS	PHNXAZPP	Tier 3
AZ	PEORIA	PHNXAZPR	Tier 3
AZ	PHOENIX SOUTH	PHNXAZSO	Tier 3
AZ	SUNNYSLOPE	PHNXAZSY	Tier 3
AZ	PHOENIX WEST	PHNXAZWE	Tier 3
AZ	PIMA	PIMAAZMA	Tier 3
AZ	PINE	PINEAZMA	Tier 3
AZ	PALOMINAS	PLMNAZMA	Tier 3
AZ	PRESCOTT EAST	PRSCAZEA	Tier 3
AZ	PRESCOTT MAIN	PRSCAZMA	Tier 3
AZ	PINNACLE PEAK	PRVYAZPP	Tier 3
AZ	ELGIN	PTGNAZEL	Tier 3
AZ	PATAGONIA	PTGNAZMA	Tier 3
AZ	PAYSON	PYSNAZMA	Tier 3

AZ	SHEA	SCDLAZSH	Tier 3
AZ	SEDONA MAIN	SEDNAZMA	Tier 3
AZ	SEDONA SOUTH	SEDNAZSO	Tier 3
AZ	SAFFORD	SFFRAZMA	Tier 3
AZ	SOMERTON	SMTNAZMA	Tier 3
AZ	SAN MANUEL	SNMNAZMA	Tier 3
AZ	SUPERIOR	SPRRAZMA	Tier 3
AZ	SUPER EAST	SPRSAZE	Tier 3
AZ	SUPER MAIN	SPRSAZMA	Tier 3
AZ	SUPER WEST	SPRSAZWE	Tier 3
AZ	SIERRA VISTA MAIN	SRVSAZMA	Tier 3
AZ	SIERRA VISTA NORTH	SRVSAZNO	Tier 3
AZ	SIERRA VISTA SOUTH	SRVSAZSO	Tier 3
AZ	STANFIELD	STFDZMA	Tier 3
AZ	CATALINA	TCSNAZCA	Tier 3
AZ	CORTARO	TCSNAZCO	Tier 3
AZ	CRAYCROFT	TCSNAZCR	Tier 3
AZ	TUCSON EAST	TCSNAZEA	Tier 3
AZ	FLOWING WELLS	TCSNAZFW	Tier 3
AZ	MT LEMMON	TCSNAZML	Tier 3
AZ	TUCSON NORTH	TCSNAZNO	Tier 3
AZ	RINCON	TCSNAZRN	Tier 3
AZ	TUCSON SOUTHEAST	TCSNAZSE	Tier 3
AZ	TUCSON SOUTH	TCSNAZSO	Tier 3
AZ	TUCSON SOUTHWEST	TCSNAZSW	Tier 3
AZ	TANQUE VERDE	TCSNAZTV	Tier 3
AZ	TUCSON WEST	TCSNAZWE	Tier 3
AZ	TOLLESON	TLNAZMA	Tier 3
AZ	TOMBSTONE	TMBSAZMA	Tier 3
AZ	TONTO CREEK	TNCKAZMA	Tier 3
AZ	TUBAC	TUBCAZMA	Tier 3
AZ	VAIL NORTH	VAILAZNO	Tier 3
AZ	VAIL SOUTH	VAILAZSO	Tier 3
AZ	WICKENBURG	WCBGAZMA	Tier 3
AZ	WHITE TANKS	WHTKAZMA	Tier 3
AZ	WHITLOW	WHTLAZMA	Tier 3
AZ	WILLCOX	WLCXAZMA	Tier 3
AZ	WILLIAMS	WLMSAZMA	Tier 3
AZ	WELLTON	WLTNAZMA	Tier 3
AZ	WINTERSBURG	WNBGAZ01	Tier 3
AZ	WINSLOW	WNSLAZMA	Tier 3
AZ	YARNELL	YRNLAZMA	Tier 3
AZ	FORTUNA	YUMAAZFT	Tier 3
AZ	YUMA MAIN	YUMAAZMA	Tier 3
AZ	YUMA SOUTHEAST	YUMAAZSE	Tier 3
CO	AIR FORCE ACADEMY	AFACCOMA	Tier 3
CO	AGUILAR	AGLRCOMA	Tier 3
CO	ALAMOSA	ALMSCOMA	Tier 3
CO	ALLENS PARK	ALPKCOMA	Tier 3
CO	ASPEN	ASPECOMA	Tier 3
CO	AULT	AULTCOMA	Tier 3
CO	MONAGHAN	AURRCOMB	Tier 3
CO	AVONDALE	AVDLCOMA	Tier 3
CO	AVON	AVONCOMA	Tier 3
CO	BAILEY	BALYCOMA	Tier 3
CO	BRIGHTON	BITNCOMA	Tier 3
CO	GUNBARREL	BLDRCOGB	Tier 3
CO	BLACK FOREST	BLFSCOMA	Tier 3
CO	BUENA VISTA	BNVSCOMA	Tier 3
CO	BROOMFIELD	BRFDCOMA	Tier 3
CO	BRECKENRIDGE	BRRGCOMA	Tier 3
CO	BRUSH	BRSHCOMA	Tier 3
CO	BERTHOUD	BRTHCOMA	Tier 3
CO	BASALT	BSLTCOMA	Tier 3
CO	BAYFIELD	BYFDCOMA	Tier 3
CO	CANON CITY	CACYCOMA	Tier 3
CO	COAL CREEK CANYON	CCNCOMA	Tier 3
CO	CLIFTON	CFTNCONM	Tier 3
CO	CALHAN	CLHNCOMA	Tier 3
CO	GATEHOUSE	CLSPCO32	Tier 3
CO	COLO SPRINGS EAST	CLSPCOEA	Tier 3
CO	STRATMOOR	CLSPCOSM	Tier 3
CO	CENTRAL CITY	CNCYCOMA	Tier 3
CO	COPPER MOUNTAIN	CPMTCOMA	Tier 3
CO	CRAIG	CRAGCOMA	Tier 3
CO	CRESTED BUTTE	CRBTCOMA	Tier 3
CO	CRIPPLE CREEK	CRCKCOMA	Tier 3
CO	CARBONDALE	CRDLCOMA	Tier 3
CO	CORTEZ	CRTZCOMA	Tier 3

CO	CASTLE ROCK	CSRKCONM	Tier 3
CO	DEBEQUE	DBEQCONC	Tier 3
CO	DECKERS	DCKRCOMA	Tier 3
CO	DELTA	DELTCOMA	Tier 3
CO	DILLON	DLNCOMA	Tier 3
CO	DEL NORTE	DLNRCOMA	Tier 3
CO	COLUMBINE	DNVRCOCL	Tier 3
CO	COTTONWOOD	DNVRCOCW	Tier 3
CO	MONTEBELLO	DNVRCOMB	Tier 3
CO	DENVER NORTHEAST	DNVRCONE	Tier 3
CO	DENVER NORTH	DNVRCONO	Tier 3
CO	DNVR INTL AIRPORT	DNVRCOOU	Tier 3
CO	DENVER SOUTHEAST	DNVRCOSE	Tier 3
CO	SMOKY HILL	DNVRCOSH	Tier 3
CO	DENVER SOUTHWEST	DNVRCOSW	Tier 3
CO	DENVER WEST	DNVRCOWS	Tier 3
CO	DURANGO	DURNCOMA	Tier 3
CO	EATON	EATNCOMA	Tier 3
CO	ELBERT	ELBRCOMA	Tier 3
CO	EL PASO	ELPSCOXC	Tier 3
CO	ELIZABETH	ELZBCO01	Tier 3
CO	ENGLEWOOD	ENWDCOMA	Tier 3
CO	ERIE	ERIECOMA	Tier 3
CO	ESTES PARK	ESPKCOMA	Tier 3
CO	EVERGREEN	EVRGCOMA	Tier 3
CO	FLORENCE	FLRNCOMA	Tier 3
CO	FOUNTAIN	FONTCOMA	Tier 3
CO	FREDERICK	FRDRCOMA	Tier 3
CO	FAIRPLAY	FRPLCOMA	Tier 3
CO	FRISCO	FRSCCOMA	Tier 3
CO	FRASER	FRSRCOMA	Tier 3
CO	FRUITA	FRUTCOMA	Tier 3
CO	HARMONY	FTCLCOHM	Tier 3
CO	FT COLLINS	FTCLCOMA	Tier 3
CO	FT LUPTON	FTLPCOMA	Tier 3
CO	FT MORGAN	FTMRCOMA	Tier 3
CO	GRAND JUNCTION	GDJTCOMA	Tier 3
CO	GRAND LAKE	GDLKCOMA	Tier 3
CO	GILCREST	GLCRCOMA	Tier 3
CO	GOLDEN	GLDNCOMA	Tier 3
CO	GLENWOOD SPRINGS	GLSPCOMA	Tier 3
CO	GREEN MOUNTAIN FALLS	GMFLCOMA	Tier 3
CO	GUNNISON	GNSNCOMA	Tier 3
CO	PARKVIEW	GRELCOJC	Tier 3
CO	GREELEY	GRELCOMA	Tier 3
CO	GRANBY	GRNBCOMA	Tier 3
CO	GEORGETOWN	GRTWCOMA	Tier 3
CO	HUDSON	HDSNCOMA	Tier 3
CO	HILLROSE	HLRSCOMA	Tier 3
CO	HOT SULPHUR SPRINGS	HSSPCOMA	Tier 3
CO	HAYDEN	HYDNCOMA	Tier 3
CO	IDAHO SPRNGS	IDSPCOMA	Tier 3
CO	JOHNSTOWN-MILLIKEN	JHMLCOMA	Tier 3
CO	JULESBURG	JLBGCOMA	Tier 3
CO	KIOWA	KIOWCONM	Tier 3
CO	KEENESBURG	KNBGCOMA	Tier 3
CO	KREMMLING	KRNGCOMA	Tier 3
CO	LEADVILLE	LDVLCOMA	Tier 3
CO	LIMON	LIMNCOMA	Tier 3
CO	LOOKOUT MOUNTAIN	LKMTCOMA	Tier 3
CO	LAKESWOOD	LKWDCOMA	Tier 3
CO	LONGMONT	LNMTCOMA	Tier 3
CO	LARKSPUR	LRKSCONM	Tier 3
CO	LA SALLE	LSLLCOMA	Tier 3
CO	HIGHLANDS RANCH	LTTNCOHL	Tier 3
CO	LITTLETON	LTTNCOMA	Tier 3
CO	LOVELAND	LVLDCOMA	Tier 3
CO	LYONS	LYNSCOMA	Tier 3
CO	MEAD	MEADCOMA	Tier 3
CO	MEEKER	MEKRCOMA	Tier 3
CO	MANCOS	MNCSCOMA	Tier 3
CO	MONUMENT	MNMTCOMA	Tier 3
CO	MANITOU SPRINGS	MNSPCOMA	Tier 3
CO	MINTURN	MNTRCOMA	Tier 3
CO	MORRISON	MRSNCOMA	Tier 3
CO	MONTROSE	MTRSCOMA	Tier 3
CO	MONTE VISTA	MTVSCOMA	Tier 3
CO	MESA VERDE	MVNPCOMA	Tier 3
CO	NEDERLAND	NLDLCOMA	Tier 3

CO	NIWOT	NIWTCOMA	Tier 3
CO	NEW CASTLE	NWCSCOMA	Tier 3
CO	OAK CREEK	OKCKCOMA	Tier 3
CO	OLATHE	OLTHCOMA	Tier 3
CO	OURAY	OURYCOMA	Tier 3
CO	OVID	OVIDCOMA	Tier 3
CO	PARACHUTE	PACHC001	Tier 3
CO	PALISADE	PLSDCOMA	Tier 3
CO	PENROSE	PNRSCOMA	Tier 3
CO	PARKER	PRKRCOMA	Tier 3
CO	PLATTEVILLE	PTVLCOMA	Tier 3
CO	PUEBLO WEST	PUBLICO06	Tier 3
CO	PUEBLO MAIN	PUBLICOMA	Tier 3
CO	SUNSET	PUBLICOSU	Tier 3
CO	PEYTON	PYTNCOMA	Tier 3
CO	RIDGWAY	RDGWCOMA	Tier 3
CO	RIFLE	RIFLCOMA	Tier 3
CO	SALIDA	SALDCOMA	Tier 3
CO	SECURITY	SCRTCOMA	Tier 3
CO	SOUTHFORK	SFRKCOMA	Tier 3
CO	SILT	SILTCOMA	Tier 3
CO	SILVERTON	SLTNCOMA	Tier 3
CO	SNOWMASS	SNMSCOMA	Tier 3
CO	STERLING	STNGCOMA	Tier 3
CO	STEAMBOAT SPRINGS	STSPCOMA	Tier 3
CO	TABLE MESA	TEMACOMA	Tier 3
CO	TELLURIDE	TLRDCOMA	Tier 3
CO	TRINIDAD	TRNDCOMA	Tier 3
CO	VAIL	VAILCOMA	Tier 3
CO	VINELAND	VNLDCOMA	Tier 3
CO	WARD	WARDCOMA	Tier 3
CO	WOODLAND PARK	WDPKCOMA	Tier 3
CO	WELLINGTON	WGTNCOMA	Tier 3
CO	WALSENBURG	WLBGCOMA	Tier 3
CO	WELDONA	WLDACOMA	Tier 3
CO	WESTMINISTER	WMNSCOMA	Tier 3
CO	WINDSOR	WNSCOMA	Tier 3
CO	YAMPA	YAMPCOMA	Tier 3
IA	ACKLEY	ACKLIACO	Tier 3
IA	ADEL	ADELIACO	Tier 3
IA	ALGONA	ALGNIATC	Tier 3
IA	ALTOONA	ALNAIACO	Tier 3
IA	AMES DOWNTOWN	AMESIATC	Tier 3
IA	AMES WEST	AMESIAWS	Tier 3
IA	ANKENY	ANKNIACO	Tier 3
IA	ANAMOSA	ANMSIACO	Tier 3
IA	ANTHON	ANTHIACO	Tier 3
IA	ARNOLDS PARK	ARPKIACO	Tier 3
IA	ATLANTIC	ATLTIATC	Tier 3
IA	BOONE	BOONIACO	Tier 3
IA	BLAIRSBURG	BRBGIACO	Tier 3
IA	BRITT	BRTTIACO	Tier 3
IA	BURLINGTON	BURLIATC	Tier 3
IA	CORRECTIONVILLE	CCVLIACO	Tier 3
IA	CEDAR FALLS	CDFLIACO	Tier 3
IA	CEDAR RAPIDS MARION(MAIN)	CDRRIAMN	Tier 3
IA	CEDAR RAPIDS NORTH	CDRRIANO	Tier 3
IA	CEDAR RAPIDS WEST	CDRRIAWS	Tier 3
IA	COGGON	CGGNIACO	Tier 3
IA	CHARLES CITY	CHCYIATC	Tier 3
IA	CHEROKEE	CHRKIACO	Tier 3
IA	COLFAX	CLFXIACO	Tier 3
IA	CALMAR	CLMRIACO	Tier 3
IA	CLARION	CLRIIACO	Tier 3
IA	CLINTON CAMANCHE	CLTNIACC	Tier 3
IA	CLINTON DOWNTOWN	CLTNIACO	Tier 3
IA	COUNCIL BLUFFS MANAWA(MAIN)	CNBLIAMW	Tier 3
IA	COUNCIL BLUFFS DOWNTOWN(WEST)	CNBLIAWA	Tier 3
IA	CENTER POINT	CNPNIACO	Tier 3
IA	CARLISLE-HARTFORD	CRLSIACO	Tier 3
IA	CARROLL	CRRLIATC	Tier 3
IA	CRESCENT	CRSCIACO	Tier 3
IA	DECORAH	DCRHIACO	Tier 3
IA	DES MOINES ASHWORTH	DESMIAAW	Tier 3
IA	DES MOINES EAST	DESMIAEA	Tier 3
IA	DES MOINES NORTHWEST	DESMIANW	Tier 3
IA	DES MOINES SOUTH	DESMIASO	Tier 3
IA	DES MOINES WEST	DESMIAWS	Tier 3
IA	DIKE	DIKEIACO	Tier 3

IA	DALLAS CENTER	DLCTIACE	Tier 3
IA	DANBURY	DNBRIACO	Tier 3
IA	DENVER	DNVRIACO	Tier 3
IA	DUBUQUE NORTHWEST	DUBQIANW	Tier 3
IA	DUBUQUE DOWNTOWN	DUBQIATC	Tier 3
IA	DAVENPORT DOWNTOWN	DVNPIADT	Tier 3
IA	DAVENPORT EAST	DVNPIAEA	Tier 3
IA	DAVENPORT NORTHEAST	DVNPIANE	Tier 3
IA	DAVENPORT NORTHWEST	DVNPIANW	Tier 3
IA	DAVENPORT WEST	DVNPIAWS	Tier 3
IA	EAGLE GROVE	EGGVIACO	Tier 3
IA	EARLHAM	ERHMIACO	Tier 3
IA	ESTHERVILLE	ESVLIACO	Tier 3
IA	FT MADISON	FTMDIATC	Tier 3
IA	GILMORE CITY	GLCYIACO	Tier 3
IA	GLENWOOD-MINEOLA	GLWDIACO	Tier 3
IA	GRIMES	GRMSIACO	Tier 3
IA	GRANGER	GRNGIACO	Tier 3
IA	GARNER	GRNRIACO	Tier 3
IA	HUDSON	HDSNIACO	Tier 3
IA	HAMBURG	HMBGIACO	Tier 3
IA	HUMBOLDT	HMBLIACO	Tier 3
IA	HAMPTON-GENEVA	HMPNIACO	Tier 3
IA	INDIANOLA	INDNIACO	Tier 3
IA	INDEPENDENCE	INDPIACO	Tier 3
IA	IOWA CITY	IWCYIATC	Tier 3
IA	IOWA FALLS	IWFLIACO	Tier 3
IA	JEWELL	JEWLIACO	Tier 3
IA	KEOKUK	KEKKIACO	Tier 3
IA	LAKE PARK	LKPKIACO	Tier 3
IA	LANSING	LNNGIACO	Tier 3
IA	LAURENS	LRNSIACO	Tier 3
IA	LIVERMORE	LVMRIACO	Tier 3
IA	LIVERNE	LVRNIACO	Tier 3
IA	MILFORD	MLFRIACO	Tier 3
IA	MALVERN	MLVRIACO	Tier 3
IA	MANLY	MNLYIACO	Tier 3
IA	MONTICELLO	MNTIACO	Tier 3
IA	MAPLETON	MPTNIACO	Tier 3
IA	MAQUOKETA	MQKTIACO	Tier 3
IA	MERRILL	MRRLIACO	Tier 3
IA	MARSHALLTOWN	MRTWIASO	Tier 3
IA	MUSCATINE	MSCIACO	Tier 3
IA	MASON CITY	MSCYIATC	Tier 3
IA	MISSOURI VALLEY	MSVYIACO	Tier 3
IA	MT VERNON	MTVRIACO	Tier 3
IA	NASHUA	NASHIACO	Tier 3
IA	NEOLA	NEOLIACO	Tier 3
IA	NEW HARTFORD	NHFRIACO	Tier 3
IA	NORWALK-CUMMING	NRWLIACO	Tier 3
IA	NORTHWOOD	NWODIACO	Tier 3
IA	ONELWEIN	OLWNIATC	Tier 3
IA	ONAWA	ONAWIACO	Tier 3
IA	OSAGE	OSAGIACO	Tier 3
IA	OSKALOOSA	OSKLIACO	Tier 3
IA	OTTUMWA	OTTMATC	Tier 3
IA	POCAHONTAS	PCHNIACO	Tier 3
IA	POLK CITY	PKCYIACO	Tier 3
IA	PARKERSBURG	PRBGIACO	Tier 3
IA	PRAIRIE CITY	PRCYIACO	Tier 3
IA	PERRY-DAWSON	PRRYIACO	Tier 3
IA	RED OAK	RDOKIACO	Tier 3
IA	RUNNELLS	RNLSIACO	Tier 3
IA	RENWICK	RNWCIACO	Tier 3
IA	ROSE HILL	RSHLIACO	Tier 3
IA	SHELDON	SHLNIATC	Tier 3
IA	SHENANDOAH	SHNDIACO	Tier 3
IA	SPIRIT LAKE	SPLKIACO	Tier 3
IA	SPENCER	SPNCIATC	Tier 3
IA	STORM LAKE-ALTA	STLKIATC	Tier 3
IA	STUART	STRTIACO	Tier 3
IA	SIOUX CITY DOWNTOWN	SXCYIADT	Tier 3
IA	SIOUX CITY LEEDS	SXCYIALD	Tier 3
IA	SIOUX CITY MORNINGSIDE	SXCYIAMS	Tier 3
IA	SIOUX RAPIDS	SXRPIACO	Tier 3
IA	UNDERWOOD	UNWDIACO	Tier 3
IA	VAN METER	VNMTIACO	Tier 3
IA	VINTON	VNTNIACO	Tier 3
IA	WAUKON	WAKNIACO	Tier 3

IA	WAUKEE	WAUKIACO	Tier 3
IA	WEBSTER CITY	WBCYIATC	Tier 3
IA	WHITTEMORE	WHMRIACO	Tier 3
IA	WHITING	WHNGIACO	Tier 3
IA	WAHPETON	WHTNIACO	Tier 3
IA	WALCOTT	WLCTIACO	Tier 3
IA	WILLIAMS	WLMSIACO	Tier 3
IA	WINTERSET	WNTRIACO	Tier 3
IA	WESLEY	WSLYIACO	Tier 3
IA	WATERLOO DOWNTOWN	WTRLIADT	Tier 3
IA	WATERLOO WASHBURN	WTRLIAWS	Tier 3
IA	WEST UNION	WUNNIACO	Tier 3
IA	WAVERLY	WVRLIACO	Tier 3
ID	AMERICAN FALLS	AMFLIDMA	Tier 3
ID	BLACKFOOT	BLFTIDMA	Tier 3
ID	BLISS	BLSSIDMA	Tier 3
ID	BANCROFT	BNCRIDMA	Tier 3
ID	BOISE NORTHWEST	BOISIDNW	Tier 3
ID	BOISE SOUTHWEST	BOISIDSW	Tier 3
ID	BURLEY	BRLYIDMA	Tier 3
ID	BUHL	BUHLIDMA	Tier 3
ID	CALDWELL	CLWLIDMA	Tier 3
ID	CRAIGMONT	CRGMID01	Tier 3
ID	CASTLEFORD	CSFRIDMA	Tier 3
ID	COTTONWOOD	CTWDID01	Tier 3
ID	DECLO	DECLIDMA	Tier 3
ID	DOWNNEY	DWNYIDMA	Tier 3
ID	DAYTON	DYTNIDMA	Tier 3
ID	EAGLE	EAGLIDNM	Tier 3
ID	EDEN-HAZELTON	EDHZIDMA	Tier 3
ID	EMMETT	EMMTIDMA	Tier 3
ID	FRANKLIN	FKLNIDMA	Tier 3
ID	FIRTH	FRTHIDMA	Tier 3
ID	GRANGEVILLE	GAVLID01	Tier 3
ID	GOODING	GDNGIDMA	Tier 3
ID	GLENN'S FERRY	GLFYIDMA	Tier 3
ID	GRACE	GRACIDMA	Tier 3
ID	HAILEY	HALYIDMA	Tier 3
ID	HAGERMAN	HGMNIDMA	Tier 3
ID	IDAHO CITY	IDCYIDMA	Tier 3
ID	IDAHO FALLS	IDFLIDMA	Tier 3
ID	INKOM	INKMIDMA	Tier 3
ID	JEROME	JERMIDNM	Tier 3
ID	KAMIAH	KAMHID01	Tier 3
ID	KIMBERLY	KMBRIDMA	Tier 3
ID	KOOSKIA	KOSKID01	Tier 3
ID	KETCHUM	KTCHIDMA	Tier 3
ID	KUNA	KUNRIDMA	Tier 3
ID	LAPWAI	LAPWID01	Tier 3
ID	LAVA HOT SPRINGS	LHSPIDMA	Tier 3
ID	LEWISVILLE-MENA	LSMNIDMA	Tier 3
ID	LEWISTON SHERWOOD	LSTNIDSH	Tier 3
ID	MCCAMMON	MCCMIDMA	Tier 3
ID	MIDDLETON	MDTNIDMA	Tier 3
ID	MELBA	MELBIDMA	Tier 3
ID	MERIDIAN	MRDNIDMA	Tier 3
ID	MURTAUGH	MRTGIDMA	Tier 3
ID	MOUNTAIN HOME	MTHOIDMA	Tier 3
ID	MOUNTAIN HOME SOUTH	MTHOIDS0	Tier 3
ID	MONTPELIER	MTPLIDMA	Tier 3
ID	NAMPA	NMPAIDMA	Tier 3
ID	NEW PLYMOUTH	NPMOIDMA	Tier 3
ID	NEZ PERCE	NZPRID01	Tier 3
ID	POCATELLO MAIN	PCTLIDMA	Tier 3
ID	POCATELLO NORTH	PCTLIDNO	Tier 3
ID	PRESTON	PSTNIDMA	Tier 3
ID	PAYETTE	PYTTIDMA	Tier 3
ID	ROBERTS	RBRTIDMA	Tier 3
ID	RIGBY	RGBYIDMA	Tier 3
ID	RIRIE	RIRIIDMA	Tier 3
ID	RIVERSIDE	RVSDIDMA	Tier 3
ID	REXBURG	RxBGIDMA	Tier 3
ID	SODA SPRINGS	SDSPIDMA	Tier 3
ID	SHELLY	SHLYIDMA	Tier 3
ID	SHOSHONE-DIETRICH	SHSHIDMA	Tier 3
ID	STAR	STARIDNM	Tier 3
ID	THATCHER	THTCIDMA	Tier 3
ID	TWIN FALLS	TWFLIDMA	Tier 3
ID	WEISER	WESRIDMA	Tier 3

ID	WENDELL	WNDLIDMA	Tier 3
MH	NYSSA	NYSSORXC	Tier 3
MH	ONTARIO	ONTRORXC	Tier 3
MH	OREGON SLOPE	ORSLORXC	Tier 3
MH	VALE	VALEORXC	Tier 3
MN	AFTON	AFTMNAF	Tier 3
MN	ALBERT LEA	ALLEMNAL	Tier 3
MN	ANOKA	ANOKMNAN	Tier 3
MN	APPLETON	APPLMNAP	Tier 3
MN	AUSTIN	AUSTMNAB	Tier 3
MN	AVON	AVONMNVO	Tier 3
MN	BUFFALO	BFLOMNBU	Tier 3
MN	BLAINE	BLANMNBL	Tier 3
MN	CEDAR	BLTNMNCE	Tier 3
MN	BEMIDJI	BMDJMNBE	Tier 3
MN	BROOKLYN CENTER	BRCTMNBC	Tier 3
MN	BRAHAM	BRHMMNBR	Tier 3
MN	BARNUM	BRNMMNBA	Tier 3
MN	BRAINERD	BRNRMNBR	Tier 3
MN	BURNSVILLE	BRVLMNBU	Tier 3
MN	BATTLE LAKE	BTLKMNBA	Tier 3
MN	BUHL	BUHLMNBU	Tier 3
MN	BIWABIK	BWBKMNBI	Tier 3
MN	CHISHOLM	CHSHMNCS	Tier 3
MN	BASS BROOK(COHASSET)	CHSTMNCH	Tier 3
MN	CROOKSTON	CKTNMNCR	Tier 3
MN	CALEDONIA	CLDNMNCA	Tier 3
MN	CLOQUET	CLQTMNCA	Tier 3
MN	COLERAINE	CLRNMNCO	Tier 3
MN	COLD SPRING	CLSPMNCB	Tier 3
MN	CAMBRIDGE	CMBRMNCA	Tier 3
MN	COMSTOCK	CMSTMNCO	Tier 3
MN	COON RAPIDS	CNRPMNND	Tier 3
MN	COOK	COOKMNCO	Tier 3
MN	CARLTON	CRTOMNCB	Tier 3
MN	CASS LAKE	CSSLMNCL	Tier 3
MN	CHATFIELD	CTFDMNCH	Tier 3
MN	COTTAGE GROVE	CTGVMNCG	Tier 3
MN	HEMLOCK	DLTHMNAF	Tier 3
MN	DULUTH CALUMET	DLTHMNCB	Tier 3
MN	DULUTH DOUGLAS	DLTHMNDB	Tier 3
MN	DULUTH LAKESIDE	DLTHMNLA	Tier 3
MN	DULUTH MELROSE	DLTHMNME	Tier 3
MN	DULUTH PIKE LAKE	DLTHMNPL	Tier 3
MN	DETROIT LAKES	DTLKMNDL	Tier 3
MN	EDEN PRAIRIE	EDPRMNPE	Tier 3
MN	GLEN PRAIRIE	EDPRMNPG	Tier 3
MN	ELK RIVER	EKRYMNER	Tier 3
MN	EVELETH	EVLTMNEV	Tier 3
MN	EXCELSIOR	EXCLMNEX	Tier 3
MN	FINLAND	FNLDMNFO	Tier 3
MN	FOLEY	FOLYMNFO	Tier 3
MN	FARIBAUT	FRBLMNFA	Tier 3
MN	FRIDLEY	FRDLMNFR	Tier 3
MN	FERGUS FALLS	FRFLMNFB	Tier 3
MN	FOREST LAKE	FRLKMNFL	Tier 3
MN	GRAND MARAIS	GDMRMNGM	Tier 3
MN	GRAND RAPIDS	GDRPMNGR	Tier 3
MN	GLENVILLE	GLVLMNGL	Tier 3
MN	GLENWOOD	GLWDMNGL	Tier 3
MN	GAYLORD	GYLRMNGA	Tier 3
MN	HAMEL	HAML MNHB	Tier 3
MN	HIBBING	HBNGMNHI	Tier 3
MN	HOLDINGFORD	HLFRMNCO	Tier 3
MN	HINCKLEY	HNCKMNHI	Tier 3
MN	HENNING	HNGGMNHE	Tier 3
MN	HANOVER	HNVRMNHB	Tier 3
MN	HOPKINS	HPKMNHO	Tier 3
MN	HAWLEY	HWLYMNHA	Tier 3
MN	ISLAND LAKE	ISLKMNIL	Tier 3
MN	ISANTI	ISNTMNIS	Tier 3
MN	JACKSON	JCSNMNJA	Tier 3
MN	KEEWATIN	KEWTMNKE	Tier 3
MN	LE SUEUR	LESRMNLS	Tier 3
MN	LITCHFIELD	LTDFMNLI	Tier 3
MN	LITTLE FALLS	LTFLMNLF	Tier 3
MN	LIVERNE	LVRNMNLU	Tier 3
MN	MAHONOMEN	MHNMMNMA	Tier 3
MN	MOOSE LAKE	MOLKMNML	Tier 3

MN	MORA	MORAMNMO	Tier 3
MN	BRYANT	MPLSMNBB	Tier 3
MN	MPLS BEARD	MPLSMNBE	Tier 3
MN	MPLS FRANKLIN	MPLSMNFR	Tier 3
MN	FT SNELLING	MPLSMNFS	Tier 3
MN	CENTRAL AVE	MPLSMNGE	Tier 3
MN	PENN	MPLSMNPE	Tier 3
MN	PILLSBURY	MPLSMNPI	Tier 3
MN	MPLS 24TH AVE	MPLSMNPF	Tier 3
MN	MARBLE	MRBLMNMA	Tier 3
MN	MORRIS	MRRSMNMO	Tier 3
MN	MARSHALL	MRSHMNMA	Tier 3
MN	MOUNTAIN IRON	MTIRMNMI	Tier 3
MN	MONTEVIDEO	MTVDMNMO	Tier 3
MN	NORTH BRANCH	NBRNMNNB	Tier 3
MN	NICOLLET	NCLTMNNC	Tier 3
MN	NORTHFIELD	NRFDMNNO	Tier 3
MN	NASHWAUK	NSHWMNNA	Tier 3
MN	PARK ROW	NSPLMNPR	Tier 3
MN	NISSWA	NSSWMNNI	Tier 3
MN	NAVARRE	NVRRMNNA	Tier 3
MN	CLEVELAND	NWBTMNCL	Tier 3
MN	OGILVIE	OGLVMNOA	Tier 3
MN	OAK GROVE	OKGVMNOG	Tier 3
MN	OLIVIA-BIRD ISLAND	OLIVMNOL	Tier 3
MN	ORTONVILLE-BIG STONE	ORVLMNOR	Tier 3
MN	PARK RAPIDS	PKRPMNPR	Tier 3
MN	PLYMOUTH	PLMOMNFE	Tier 3
MN	PINE CITY	PNCYMNPC	Tier 3
MN	PIPESTONE	PPSTMNPI	Tier 3
MN	PRINCETON	PRTNMNPR	Tier 3
MN	MPLS 66TH ST	RCFDMN66	Tier 3
MN	ROCKFORD	RCFRMNRO	Tier 3
MN	REDWOOD FALLS-MORTON	RDFLMNRA	Tier 3
MN	RED WING	RDWMMNRW	Tier 3
MN	RUSH CITY	RSCYMNRC	Tier 3
MN	ROYALTON	RYTNMNRN	Tier 3
MN	SABIN	SABNMNSA	Tier 3
MN	SODERVILLE	SDVLMNSO	Tier 3
MN	SHAKOPEE	SHKPMNSH	Tier 3
MN	RICE	SHVWMNRI	Tier 3
MN	SAUK CENTRE	SKCTMNSC	Tier 3
MN	SILVER BAY	SLBAMNSA	Tier 3
MN	SANDSTONE	SNDSMNSA	Tier 3
MN	STAPLES	SPLSMNST	Tier 3
MN	ST CHARLES	STCHMNSC	Tier 3
MN	ST JOSEPH	STJSMNSJ	Tier 3
MN	BEECH	STPLMNBE	Tier 3
MN	EMERSON	STPLMNEM	Tier 3
MN	FRONT	STPLMNH	Tier 3
MN	MIDWAY	STPLMNMI	Tier 3
MN	ST PETER	STPRMNPI	Tier 3
MN	STEWARTVILLE	STVLMNST	Tier 3
MN	STILLWATER	STWRMNST	Tier 3
MN	SWANVILLE	SWVLMNSV	Tier 3
MN	TOFTE	TOFTMNTB	Tier 3
MN	TRACY	TRACMNTR	Tier 3
MN	THIEF RIVER FALLS	TRFLMNTH	Tier 3
MN	VIRGINIA	VRGNMNV	Tier 3
MN	WADENA	WADNMNWA	Tier 3
MN	WASECA	WASCMNWA	Tier 3
MN	WHITE BEAR LAKE	WBLKMNWB	Tier 3
MN	WABASHA	WBSHMNWA	Tier 3
MN	WINONA	WINOMNWI	Tier 3
MN	WILLMAR	WLMRMNWI	Tier 3
MN	WINDOM	WDMNMNWI	Tier 3
MN	OAKDALE WEST	WSPLMNWS	Tier 3
MN	WAYZATA	WYZTMNWA	Tier 3
MT	AMSTERDAM	AMSTMNMA	Tier 3
MT	ANACONDA	ANCNMNMA	Tier 3
MT	BOULDER	BLDRMNMA	Tier 3
MT	BELGRADE	BLGRMNMA	Tier 3
MT	BILLINGS MAIN	BLNGMNMA	Tier 3
MT	BILLINGS WEST	BLNGMNWE	Tier 3
MT	BRIDGER	BRDGMN01	Tier 3
MT	BUTTE	BUTTMN09	Tier 3
MT	BUTTE SOUTH	BUTTMN18	Tier 3
MT	BOZEMAN	BZMNMNMA	Tier 3
MT	COOKE CITY	CKCYMNMA	Tier 3

MT	COLUMBUS	CLMBMTMA	Tier 3
MT	CLANCY	CLNCMTMA	Tier 3
MT	CLYDE PARK	CLPKMTMA	Tier 3
MT	COLSTRIP	CLSTMTMA	Tier 3
MT	CANYON FERRY	CNFYMT02	Tier 3
MT	CONRAD	CNRDMTMA	Tier 3
MT	CORVALLIS	CRVSMTMA	Tier 3
MT	CASCADE	CSCDMTMA	Tier 3
MT	CUT BANK	CTBNMTMA	Tier 3
MT	DILLON	DLLNMTMA	Tier 3
MT	DARBY	DRBYMTMA	Tier 3
MT	DEER LODGE	DRLDMTMA	Tier 3
MT	DUTTON	DTTNMTMA	Tier 3
MT	EAST GLACIER PARK	EGPKMTMA	Tier 3
MT	EAST HELENA	EHLNMTMA	Tier 3
MT	FRENCHTOWN	FCTWMTMA	Tier 3
MT	FROMBERG	FRMBMTMA	Tier 3
MT	FORSYTH	FRSYM TMA	Tier 3
MT	FAIRVIEW	FRVWMTMA	Tier 3
MT	GALLATIN GATEWAY	GLGTMTMA	Tier 3
MT	GLENDIVE	GLNDMTMA	Tier 3
MT	GREAT FALLS	GRFLMTMA	Tier 3
MT	GARDINER	GRNRMTMA	Tier 3
MT	HAVRE	HAVRMTMA	Tier 3
MT	HELENA MAIN	HLNAMTMA	Tier 3
MT	HELENA NORTH	HLNAMTNO	Tier 3
MT	HAMILTON	HMTNMTMA	Tier 3
MT	HARDIN	HRDNMTMA	Tier 3
MT	JOLIET	JOLTMTMA	Tier 3
MT	LAUREL	LARLMTMA	Tier 3
MT	LOLO	LOLOMTMA	Tier 3
MT	LIVINGSTON	LVTNMTMA	Tier 3
MT	LEWISTOWN	LWTWMTMA	Tier 3
MT	MILES CITY	MLCYMTMA	Tier 3
MT	MILLTOWN	MLTWMTMA	Tier 3
MT	MANHATTAN	MNHTMTMA	Tier 3
MT	MISSOULA MAIN	MSSLMTMA	Tier 3
MT	MISSOULA SOUTH	MSSLMTSO	Tier 3
MT	OPPORTUNITY	OPRTMTMA	Tier 3
MT	PRAY	PRAYMTMA	Tier 3
MT	PARK CITY	PRCYMTMA	Tier 3
MT	ROBERTS	RBRTMTMA	Tier 3
MT	RED LODGE	RDLGMTMA	Tier 3
MT	SIDNEY	SDNYMTMA	Tier 3
MT	SHELBY	SHLBMTMA	Tier 3
MT	SHEPHERD	SHPHMTMA	Tier 3
MT	ST MARY	STMYMTMA	Tier 3
MT	STEVENSVILLE	STVLMTMA	Tier 3
MT	THREE FORKS	THFKMTMA	Tier 3
MT	TERRY	TRRYMTMA	Tier 3
MT	TOWNSEND	TWNSMTMA	Tier 3
MT	ULM	ULM-MTMA	Tier 3
MT	VICTOR	VCTRMTMA	Tier 3
MT	VAUGHN	VGHNMTMA	Tier 3
MT	WEST GLACIER	WGLCMTMA	Tier 3
MT	WHITEHALL	WHTHMTMA	Tier 3
MT	WIBAUX	WIBXMTMA	Tier 3
MT	WOLF CREEK	WLCKMTMA	Tier 3
MT	WILLSALL	WLSLMTMA	Tier 3
MT	WARM SPRINGS	WRSPMTMA	Tier 3
MT	WEST YELLOWSTONE	WYLWMTMA	Tier 3
ND	BELFIELD	BLFDNDBC	Tier 3
ND	BISMARCK	BSMRNDBC	Tier 3
ND	CASSELTON	CSLTNDBC	Tier 3
ND	DICKINSON	DCSNDBC	Tier 3
ND	GRAND FORKS	GDFRNDBC	Tier 3
ND	EMERADO	GFABNDBC	Tier 3
ND	GRAFTON	GFTNNDBA	Tier 3
ND	GARDNER	GRNRNDBC	Tier 3
ND	HILLSBORO	HLBONDBC	Tier 3
ND	HATTON	HTTNNDBC	Tier 3
ND	JAMESTOWN	JMTWNDBC	Tier 3
ND	KINDRED	KNDRNDBC	Tier 3
ND	LEONARD	LNRDNMW	Tier 3
ND	LARIMORE	LRMRNDBA	Tier 3
ND	MANVEL	MANVNDBC	Tier 3
ND	MINTO	MINTNDBA	Tier 3
ND	MANDAN	MNDNNDBA	Tier 3
ND	MAYVILLE	MYVLNDBC	Tier 3

ND	NORTHWOOD	NWODNDBC	Tier 3
ND	REYNOLDS	RYNLNDBC	Tier 3
ND	THOMPSON	THSNDBC	Tier 3
ND	VALLEY CITY	VLCTNDBC	Tier 3
ND	WEST FARGO	WFRGNDBC	Tier 3
ND	WAHPETON-BRECKENRIDGE	WHTNDBC	Tier 3
NE	ALLIANCE	ALNCNENW	Tier 3
NE	AINSWORTH	ANWONENW	Tier 3
NE	ATLANTA	ATLNNENW	Tier 3
NE	ATKINSON	ATSNNENW	Tier 3
NE	AXTELL	AXTLNENW	Tier 3
NE	BIG SPRINGS	BGSPNENW	Tier 3
NE	BENNINGTON	BGTNNECO	Tier 3
NE	BROKEN BOW	BRKBNENW	Tier 3
NE	BRIDGEPORT	BRPTNENW	Tier 3
NE	CAIRO	CAIRNENW	Tier 3
NE	CHADRON	CHDRNENW	Tier 3
NE	CLARKSON	CKSNNEUW	Tier 3
NE	CENTRAL CITY	CNCYNENW	Tier 3
NE	CRAWFORD-WHITNEY	CRFRNENW	Tier 3
NE	ELKHORN-WATERLOO	ELKHENW	Tier 3
NE	ELWOOD	ELWDNENW	Tier 3
NE	ELM CREEK	EMCKNENW	Tier 3
NE	EMERSON	EMSNENW	Tier 3
NE	FREMONT	FRMTNENW	Tier 3
NE	FARWELL	FRWLNENW	Tier 3
NE	FULLERTON	FUTNENW	Tier 3
NE	GRAND ISLAND	GDISENENW	Tier 3
NE	GRETNA	GRETENW	Tier 3
NE	GOTHENBURG	GTBGNENW	Tier 3
NE	HOLDREGE	HLDGNENW	Tier 3
NE	HUMPHREY-CRESTON	HMPHNENW	Tier 3
NE	HOMER	HOMRNENW	Tier 3
NE	HARRISON	HRSNNENW	Tier 3
NE	HOWELLS	HWLSNENW	Tier 3
NE	LAUREL	LARLNENW	Tier 3
NE	LOUP CITY	LPCYNENW	Tier 3
NE	LEXINGTON	LXTNENW	Tier 3
NE	LYONS	LYNSNENW	Tier 3
NE	MC COOK	MCKKNENW	Tier 3
NE	MINDEN	MINDNENW	Tier 3
NE	NORTH PLATTE	NPLTNENW	Tier 3
NE	NORFOLK	NRFLNENW	Tier 3
NE	OGALLALA	OGLLNENW	Tier 3
NE	OAKLAND	OKLDNEUW	Tier 3
NE	OMAHA 78TH ST	OMAHNE78	Tier 3
NE	OMAHA 84TH ST	OMAHNE84	Tier 3
NE	OMAHA BELLEVUE	OMAHNEBE	Tier 3
NE	OMAHA FORT ST	OMAHNEFO	Tier 3
NE	OMAHA FOWLER ST	OMAHNEFW	Tier 3
NE	OMAHA 156 ST	OMAHNEHA	Tier 3
NE	OMAHA IZARD ST	OMAHNEIZ	Tier 3
NE	O NEILL	ONELNENW	Tier 3
NE	OXFORD	OXFRNENW	Tier 3
NE	PILGER	PLGRNENW	Tier 3
NE	PENDER	PNDRNEUW	Tier 3
NE	RANDOLPH	RNDHNENW	Tier 3
NE	SCHUYLER	SCHLNENW	Tier 3
NE	SIDNEY	SDNYNENW	Tier 3
NE	SILVER CREEK	SLCKNENW	Tier 3
NE	SPRINGFIELD	SPFDNENW	Tier 3
NE	DAKOTA CITY-SO SIOUX CITY	SSCYNENW	Tier 3
NE	ST LIBORY	STLBNENW	Tier 3
NE	ST PAUL	STPLNENW	Tier 3
NE	TEKAMAH	TKMHNENW	Tier 3
NE	VALLEY	VLLYNENW	Tier 3
NE	VALENTINE	VLNTNENW	Tier 3
NE	WAYNE	WAYNNEUW	Tier 3
NE	WOOD RIVER	WDRVNENW	Tier 3
NE	WAKEFIELD	WKFDNENW	Tier 3
NE	WEST POINT	WSPNNENW	Tier 3
NM	ACADEMY	ALBQNMCA	Tier 3
NM	CORRALES	ALBQNMCR	Tier 3
NM	ALBQ EAST	ALBQNMCA	Tier 3
NM	ALBQ NORTH	ALBQNMNO	Tier 3
NM	RIO RANCHO	ALBQNMRR	Tier 3
NM	ALBQ SOUTHWEST	ALBQNMSS	Tier 3
NM	ALBQ WEST	ALBQNMWE	Tier 3
NM	ALAMOGORDO MAIN	ALMGNMMA	Tier 3

NM	ALAMOGORDO WEST	ALMGNMWE	Tier 3
NM	ANGEL FIRE	ANFRNMMA	Tier 3
NM	ANTHONY	ANTHNMMA	Tier 3
NM	ARTESIA	ARTSNMMA	Tier 3
NM	AZTEC MAIN	AZTCNM03	Tier 3
NM	AZTEC SOUTH(BLOOMFIELD)	AZTCNMBL	Tier 3
NM	BELÉN	BELNNMMA	Tier 3
NM	BERNALILLO	BRNLNMMA	Tier 3
NM	BAYARD	BYRDNMMA	Tier 3
NM	CHAPARRAL	CHAPNMMA	Tier 3
NM	CLOVIS MAIN	CLVSNMMA	Tier 3
NM	CLOVIS WEST	CLVSNMWE	Tier 3
NM	CIMARRON	CMRNNMMA	Tier 3
NM	DEMING	DMNGNMMA	Tier 3
NM	ESTANCIA	ESTNNMMA	Tier 3
NM	FARMINGTON MAIN	FRTNNMMA	Tier 3
NM	FARMINGTON WEST	FRTNNMWE	Tier 3
NM	GALLUP EAST	GLLPNMEA	Tier 3
NM	FT WINGATE	GLLPNMFV	Tier 3
NM	GALLUP MAIN	GLLPNMMA	Tier 3
NM	GRANTS MAIN	GRNTNMMA	Tier 3
NM	HATCH	HATCNMMA	Tier 3
NM	LAGUNA ACOMA	LAACNM01	Tier 3
NM	LA MESA	LAMSNMMA	Tier 3
NM	LOS ALAMOS	LSALNMMA	Tier 3
NM	WHITE ROCK	LSALNMWR	Tier 3
NM	AMBER MESA	LSCRNM16	Tier 3
NM	LAS CRUCES MAIN	LSCRNMMA	Tier 3
NM	LAS CRUCES TELSHOR	LSCRNMST	Tier 3
NM	LOS LUNAS MAIN	LSLNNMMA	Tier 3
NM	LOS LUNAS NORTH	LSLNNMNO	Tier 3
NM	LAS VEGAS	LSVGNMMA	Tier 3
NM	MORIARTY	MRTYNMMA	Tier 3
NM	MOUNTAIN AIR	MTNRNMMA	Tier 3
NM	PENA BLANCA	PNBLNMMA	Tier 3
NM	PENASCO	PNSCNMMA	Tier 3
NM	PORTALES	PTLSNMMA	Tier 3
NM	QUESTA	QUSTNMMA	Tier 3
NM	RATON	RATNNMMA	Tier 3
NM	RED RIVER	RDRVNMMA	Tier 3
NM	ROSWELL MAIN	RSWLNMMA	Tier 3
NM	ROSWELL SOUTH	RSWLNMSO	Tier 3
NM	SOCORRO	SCRRNMMA	Tier 3
NM	SILVER CITY	SLCYNMMA	Tier 3
NM	SANTA FE - ELDORADO	SNFENM58	Tier 3
NM	SANTA FE MAIN	SNFENMMA	Tier 3
NM	SANTA FE NORTH	SNFENMNO	Tier 3
NM	SANTA FE SOUTHWEST	SNFENMSW	Tier 3
NM	SANTA TERESA	SNTSNMMA	Tier 3
NM	SPRINGER	SPRNNMMA	Tier 3
NM	TAOS MAIN	TAOSNMMA	Tier 3
NM	TAOS NORTH	TAOSNMNO	Tier 3
NM	TUCUMCARI	TCMCMMA	Tier 3
NM	TIJERAS	TJRSNMMA	Tier 3
OR	ADAIR	ADAROR21	Tier 3
OR	ALBANY	ALBYOR63	Tier 3
OR	ASHLAND	ASLDOR55	Tier 3
OR	ASTORIA	ASTROR64	Tier 3
OR	ATHENA	ATHNOR56	Tier 3
OR	BAKER-SUMPTER	BAKROR23	Tier 3
OR	CAMP SHERMAN(BLACK BUTTE)	BLBTOR01	Tier 3
OR	BLUE RIVER	BLRVOR53	Tier 3
OR	BURLINGTON	BURLOR62	Tier 3
OR	CULP CREEK	CLCKOR53	Tier 3
OR	CULVER	CLVROR01	Tier 3
OR	CANNON BEACH	CNBHOR64	Tier 3
OR	CENTRAL POINT	CNPNOR29	Tier 3
OR	CORVALLIS	CRVSOR65	Tier 3
OR	COTTAGE GROVE	CTGVOR53	Tier 3
OR	DALLAS	DLLSOR58	Tier 3
OR	EUGENE RIVER ROAD	EUGNOR28	Tier 3
OR	FALLS CITY	FLCYOR58	Tier 3
OR	FLORENCE	FLRNOR53	Tier 3
OR	GOLD HILL	GLHLOR55	Tier 3
OR	GRANTS PASS	GRPSOR29	Tier 3
OR	HERMISTON	HMTNOR56	Tier 3
OR	INDEPENDENCE	INDPOR58	Tier 3
OR	JACKSONVILLE	JCVLOR56	Tier 3
OR	JEFFERSON	JFSNOR63	Tier 3

OR	JUNCTION CITY	JNCYOR51	Tier 3
OR	KLAMATH FALLS	KLFLOR54	Tier 3
OR	LAPINE	LAPIOR52	Tier 3
OR	LEABURG	LEBGOR54	Tier 3
OR	LAKE OSWEGO	LKOSOR62	Tier 3
OR	LOWELL	LWLLOR53	Tier 3
OR	MADRAS	MDRSOR52	Tier 3
OR	MILTON-FREEWATER	MLTNOR56	Tier 3
OR	MILWAUKIE	MLWKOR17	Tier 3
OR	MAPLETON	MPTNOR54	Tier 3
OR	MARCOLA	MRCJOR53	Tier 3
OR	NORTH PLAINS	NPLNOR62	Tier 3
OR	NEWPORT	NWPTOR35	Tier 3
OR	OAKRIDGE	OKRGOR01	Tier 3
OR	OREGON CITY	ORCYOR18	Tier 3
OR	PHOENIX	PHNXOR55	Tier 3
OR	PENDLETON	PNTNOR56	Tier 3
OR	PRINEVILLE	PRVLOR53	Tier 3
OR	PTLD CYPRESS	PTLDOR02	Tier 3
OR	PTLD HAROLD	PTLDOR08	Tier 3
OR	PTLD ATLANTIC	PTLDOR12	Tier 3
OR	PTLD BUTLER	PTLDOR14	Tier 3
OR	PTLD CHERRY	PTLDOR17	Tier 3
OR	PTLD PROSPECT	PTLDOR18	Tier 3
OR	RAINIER	RANROR01	Tier 3
OR	REDMOND	RDMDOR01	Tier 3
OR	ROGUE RIVER	RGRVOR55	Tier 3
OR	ROSEBURG	RSBGOR57	Tier 3
OR	SALEM 10TH AVE	SALMOR59	Tier 3
OR	SEASIDE	SESDOR64	Tier 3
OR	SILETZ	SLTZOR66	Tier 3
OR	SPRINGFIELD	SPFDOR01	Tier 3
OR	SPRING RIVER ROAD	SPRVOR02	Tier 3
OR	SISTERS	SSTROR01	Tier 3
OR	STANFIELD	STFDOR56	Tier 3
OR	ST HELENS	STHNOR40	Tier 3
OR	OAKLAND-SUTHERLIN	STHROR58	Tier 3
OR	TOLEDO	TOLDOR66	Tier 3
OR	UMATILLA	UMTLOR57	Tier 3
OR	VENETA	VENTOR54	Tier 3
OR	WOODBURN	WDBNOR59	Tier 3
OR	WINSTON	WNTNOR57	Tier 3
OR	WARM SPRINGS	WRSPOR52	Tier 3
OR	WARRENTON	WRTNOR64	Tier 3
OR	WESTPORT	WSPTOR64	Tier 3
SD	ABERDEEN	ABRSDCO	Tier 3
SD	ARLINGTON	ARTNSDCO	Tier 3
SD	BELLE FOURCHE	BLFRSDCO	Tier 3
SD	BLACKHAWK	BLHKSDCO	Tier 3
SD	CAVOUR	CAVRSDCO	Tier 3
SD	CHAMBERLAIN	CHBLSDCO	Tier 3
SD	COLMAN	CLMNSDCO	Tier 3
SD	CANTON	CNTNSDCO	Tier 3
SD	DEADWOOD	DDWSDCO	Tier 3
SD	DESMET	DEMSDCO	Tier 3
SD	ELK POINT	ELPNSDCO	Tier 3
SD	FLANDREAU	FLNDSDCO	Tier 3
SD	FT PIERRE	FTPRSDCO	Tier 3
SD	HILL CITY	HLCYSDCO	Tier 3
SD	HARRISBURG	HRBGSDCO	Tier 3
SD	HURON	HURNSDCO	Tier 3
SD	IROQUOIS	IRQSSDCO	Tier 3
SD	LEAD	LEADSDCO	Tier 3
SD	LAKE PRESTON	LKPRSDCO	Tier 3
SD	MCINTOSH	MCINSDCO	Tier 3
SD	MADISON	MDSNSDCO	Tier 3
SD	MILBANK	MLBNSDCO	Tier 3
SD	MILLER	MLLRSDCO	Tier 3
SD	MORRISTOWN	MRTWSDCO	Tier 3
SD	MITCHELL	MTCHSDCO	Tier 3
SD	PIERRE	PIRRSDCO	Tier 3
SD	REDFIELD	RDFSDCO	Tier 3
SD	RAPID CITY	RPCYSDCO	Tier 3
SD	RAPID VALLEY	RPVYSDCO	Tier 3
SD	SPEARFISH	SPRFSDCO	Tier 3
SD	STURGIS	STRGSDCO	Tier 3
SD	SIOUX FALLS SOUTHEAST	SXFLSDSE	Tier 3
SD	SIOUX FALLS SOUTHWEST	SXFLSDSW	Tier 3
SD	TEA	TEA-SDCO	Tier 3

SD	TIMBER LAKE	TMLKSDCO	Tier 3
SD	VOLGA	VOLGSDCO	Tier 3
SD	VERMILION	VRMLSDCO	Tier 3
SD	WHITEWOOD	WHWSDCO	Tier 3
SD	WARWICK	WRWKSDCO	Tier 3
SD	WATERTOWN	WTTWSDCO	Tier 3
SD	YANKTON	YNTNSDCO	Tier 3
UT	ALTA	ALTAUTMA	Tier 3
UT	AMERICAN FORK	AMFKUTMA	Tier 3
UT	BEAVER	BEVRUTMA	Tier 3
UT	BRIGHAM CITY	BGCYUTMA	Tier 3
UT	BRIANHEAD	BNHDUTMA	Tier 3
UT	BOUNTIFUL	BNTFUTMA	Tier 3
UT	CEDAR CITY	CDCYUTMA	Tier 3
UT	CLEARFIELD	CLFDUTMA	Tier 3
UT	CORINNE	CRNNUTMA	Tier 3
UT	COTTONWOOD	CTWDUTMA	Tier 3
UT	DRAPER	DRPRUTMA	Tier 3
UT	EVANSTON	EVTNWWYMA	Tier 3
UT	FARMINGTON	FRTNUTMA	Tier 3
UT	GRANTSVILLE	GTVLUTMA	Tier 3
UT	HEBER CITY	HBCYUTMA	Tier 3
UT	HOLLADAY	HLDYUTMA	Tier 3
UT	HUNTSVILLE	HNVIUTMA	Tier 3
UT	HURRICANE	HRCNUTMA	Tier 3
UT	HYRUM	HYRMUTMA	Tier 3
UT	KEARNS	KRNSUTMA	Tier 3
UT	KAYSVILLE	KYVLUTMA	Tier 3
UT	LEEDS	LEDSUTMA	Tier 3
UT	LEHI	LEHIUTMA	Tier 3
UT	LOGAN	LOGNUTMA	Tier 3
UT	LAYTON EAST	LYTNUTMA	Tier 3
UT	MAGNA	MAGNUTNM	Tier 3
UT	MONROE	MONRUTMA	Tier 3
UT	MORGAN	MRGNUTMA	Tier 3
UT	MOUNTAIN GREEN	MTGNUTMA	Tier 3
UT	NEPHI	NEPHUTMA	Tier 3
UT	OGDEN NORTH	OGDNUTNO	Tier 3
UT	OGDEN SOUTH	OGDNUTSO	Tier 3
UT	OGDEN WEST	OGDNUTWE	Tier 3
UT	OREM	OREMUTMA	Tier 3
UT	PAGE	PAGEAZMA	Tier 3
UT	PLEASANT GROVE	PLGVUTMA	Tier 3
UT	PARK CITY	PRCYUTMA	Tier 3
UT	PAROWAN	PRWNUTMA	Tier 3
UT	PAYSON	PYSNUTMA	Tier 3
UT	RICHFIELD	RCFDUTMA	Tier 3
UT	RICHMOND	RCMDUTMA	Tier 3
UT	RIVERTON	RVTNUTMA	Tier 3
UT	SALEM	SALMUTMA	Tier 3
UT	SALINA	SALNUTMA	Tier 3
UT	SLKC EAST	SLKCUTEA	Tier 3
UT	SLKC SOUTH	SLKCUTSO	Tier 3
UT	SMITHFIELD	SMFDUTMA	Tier 3
UT	SANTAQUIN	SNTQUTMA	Tier 3
UT	SPRINGDALE	SPDLUTMA	Tier 3
UT	SPANISH FORK	SPFKUTMA	Tier 3
UT	SPRINGVILLE	SPVLUTMA	Tier 3
UT	ST GEORGE	STGRUTMA	Tier 3
UT	TOOELE	TOOLUTMA	Tier 3
UT	VEYO	VEYOUTMA	Tier 3
UT	WASHINGTON	WASHUTMA	Tier 3
UT	WEST JORDAN	WJRDUTMA	Tier 3
WA	ABERDEEN	ABRDWA01	Tier 3
WA	AUBURN	AUBNWA01	Tier 3
WA	BUCKLEY	BCKLWA01	Tier 3
WA	BLACK DIAMOND	BDMDWA01	Tier 3
WA	BELFAIR	BLFRWA01	Tier 3
WA	BELLINGHAM REGENT	BLHMWA01	Tier 3
WA	BELLINGHAM LUMMI	BLHMWALU	Tier 3
WA	BREMERTON ESSEX	BMTNWA01	Tier 3
WA	BAINBRIDGE ISLAND	BNISWA01	Tier 3
WA	BATTLEGROUND	BTLGWA01	Tier 3
WA	BONNEY LAKE	BYLKWA01	Tier 3
WA	CENTRALIA	CENLWA01	Tier 3
WA	CHEHALIS	CHHLWA01	Tier 3
WA	COULEE DAM	CLDMWA01	Tier 3
WA	CLE ELUM	CLELWA01	Tier 3
WA	COLFAX	CLFXWA01	Tier 3

WA	COLVILLE	CLVLWA01	Tier 3
WA	COLBY	COLBWA01	Tier 3
WA	CRYSTAL MOUNTAIN	CRMTWA01	Tier 3
WA	CROSBY	CRSBWA01	Tier 3
WA	CASTLE ROCK	CSRKWA01	Tier 3
WA	DES MOINES-TA-TR	DESMWA01	Tier 3
WA	DEER PARK	DRPKWA01	Tier 3
WA	DAYTON	DYTNWA01	Tier 3
WA	ELK	ELK-WA01	Tier 3
WA	ENUMCLAW	ENMCWA01	Tier 3
WA	EPHRATA	EPHRWA01	Tier 3
WA	EASTON	ESTNWA01	Tier 3
WA	FEDERAL WAY	FDWYWA01	Tier 3
WA	GREEN BLUFF	GRBLWA01	Tier 3
WA	GRAHAM	GRHMWAGR	Tier 3
WA	HOODSPORT	HDPTWA01	Tier 3
WA	ISSAQUAH	ISQHWAEX	Tier 3
WA	JOYCE	JOYCWA01	Tier 3
WA	KENT ULRICK	KENTWA01	Tier 3
WA	KENT MERIDIAN	KENTWAME	Tier 3
WA	LACEY	LACYWA01	Tier 3
WA	LIBERTY LAKE	LBLKWA01	Tier 3
WA	LONGVIEW	LGVWVA02	Tier 3
WA	LOON LAKE	LNLKWA01	Tier 3
WA	MAPLE VALLEY	MPVYWAMV	Tier 3
WA	MERCER ISLAND	MRISWA01	Tier 3
WA	MOSES LAKE ALDER	MSLKWA01	Tier 3
WA	MOSES LAKE AFB	MSLKWAAB	Tier 3
WA	NORTHPORT	NPRTWA01	Tier 3
WA	NAPAVINE	NPVNWA01	Tier 3
WA	NEWMAN LAKE	NWLKWA01	Tier 3
WA	COPALIS-OCEAN SHORES	OCSHWA01	Tier 3
WA	OLYMPIA EVERGREEN	OLYMWAEV	Tier 3
WA	OMAK	OMAKWA01	Tier 3
WA	ORCHARDS	ORCHWA01	Tier 3
WA	OROVILLE	ORVLWA01	Tier 3
WA	OTHELLO	OTHEWA01	Tier 3
WA	PASCO	PASCWA01	Tier 3
WA	POMEROY	PMRYWA01	Tier 3
WA	PORT ANGELES	PTANWA01	Tier 3
WA	PORT LUDLOW	PTLWVA01	Tier 3
WA	PORT ORCHARD	PTORWAFE	Tier 3
WA	PATEROS	PTRSWA01	Tier 3
WA	PORT TOWNSEND	PTTWVA01	Tier 3
WA	PUYALLUP	PYLPWA01	Tier 3
WA	RIDGEFIELD	RDFDWA01	Tier 3
WA	RENTON	RNTNWA01	Tier 3
WA	ROCHESTER	ROCHWA01	Tier 3
WA	ROY	ROY-WA01	Tier 3
WA	SEQUIM	SEQMWA01	Tier 3
WA	SHELTON	SHTNWA01	Tier 3
WA	SILVERDALE	SLDLWASI	Tier 3
WA	SUMNER	SMNRWA01	Tier 3
WA	SUNNYSLOPE	SNYSWA01	Tier 3
WA	SPRINGDALE	SPDLWA01	Tier 3
WA	SPOKANE CHESTNUT	SPKNWACH	Tier 3
WA	SPOKANE FAIRFAX	SPKNWAFI	Tier 3
WA	SPOKANE HUDSON	SPKNWAHD	Tier 3
WA	SPOKANE KEYSTONE	SPKNWAKY	Tier 3
WA	SPOKANE MORAN	SPKNWAMO	Tier 3
WA	SPOKANE WALNUT	SPKNWAWA	Tier 3
WA	SPOKANE WHITWORTH	SPKNWAWH	Tier 3
WA	SEATTLE EMERSON	STTLWA04	Tier 3
WA	SEATTLE ATWATER	STTLWA05	Tier 3
WA	SEATTLE CAMPUS	STTLWACA	Tier 3
WA	SEATTLE DUMWAMISH	STTLWADU	Tier 3
WA	SEATTLE LAKEVIEW	STTLWALA	Tier 3
WA	SEATTLE PARKWAY	STTLWAPA	Tier 3
WA	SEATTLE SUNSET	STTLWASU	Tier 3
WA	SEATTLE WEST	STTLWAWE	Tier 3
WA	TACOMA FT LEWIS	TACMWAFI	Tier 3
WA	TACOMA GREENFIELD	TACMWAGF	Tier 3
WA	TACOMA JUNIPER	TACMWAJU	Tier 3
WA	TACOMA LENOX	TACMWALE	Tier 3
WA	TACOMA LOGAN	TACMWALO	Tier 3
WA	TACOMA SKYLINE	TACMWASY	Tier 3
WA	TACOMA WAVERLY 2	TACMWAWA	Tier 3
WA	TACOMA WAVERLY 7	TACMWAWV	Tier 3
WA	VANCOUVER OXFORD	VANCWA01	Tier 3

WA	VANCOUVER NORTH	VANCWANO	Tier 3
WA	WALLA WALLA-TOUCHET	WLWLWA01	Tier 3
WA	WINLOCK	WNLCWA01	Tier 3
WA	WARDEN	WRDNWA01	Tier 3
WA	WAITSBURG	WTBGWA01	Tier 3
WA	YAKIMA CHESTNUT	YAKMWA02	Tier 3
WA	YAKIMA WEST	YAKMWAVE	Tier 3
WY	AFTON	AFTNWYMA	Tier 3
WY	BUFFALO	BFLOWYMA	Tier 3
WY	CHEYENNE	CHYNWYMA	Tier 3
WY	CODY	CODYWYMA	Tier 3
WY	CASPER	CSPRWYMA	Tier 3
WY	DOUGLAS	DGLSWYMA	Tier 3
WY	DAYTON-RANCHESTER	DNRHWYMA	Tier 3
WY	EVANSTON	EVTNWYMA	Tier 3
WY	GLENDO	GLNDWYMA	Tier 3
WY	GLENROCK	GLRKWYMA	Tier 3
WY	GILLETTE	GLTTWYMA	Tier 3
WY	GREEN RIVER	GNRVWYMA	Tier 3
WY	JACKSON	JCSNWYMA	Tier 3
WY	KEMMERER	KMMRWYMA	Tier 3
WY	LAKE	LAKEWYMA	Tier 3
WY	LARAMIE	LARMWYMA	Tier 3
WY	LANDER	LNDRWYMA	Tier 3
WY	LUSK	LUSKWYMA	Tier 3
WY	MAMMOTH	MMTHWYMA	Tier 3
WY	MORAN	MORNWYMA	Tier 3
WY	OLD FAITHFUL	OLFTWYMA	Tier 3
WY	POWELL	POWLWYMA	Tier 3
WY	ROCK SPRINGS	RCSPWYMA	Tier 3
WY	RIVERTON	RVTNWYMA	Tier 3
WY	RAWLINS	RWLNWYMA	Tier 3
WY	SHERIDAN	SHRDWYMA	Tier 3
WY	STORY	STRYWYMA	Tier 3
WY	WHEATLAND	WHLDWYMA	Tier 3
WY	WRIGHT CITY	WRGHWYMA	Tier 3

**ATTACHMENT B**

**Wire Centers that Satisfy the Nonimpairment Standards for DS1 and DS3 Loops**

**DS3 Loops**

<b>State</b>	<b>SWC Name</b>	<b>SWC CLLI</b>
ID	Boise Main	BOISIDMA
CO	Dry Creek	DNVRCODC
CO	Denver Main	DNVRCOMA
WA	Kent O Brien	KENTWAOB
AZ	Phoenix Main	PHNXAZMA
AZ	Phoenix North	PHNXAZNO
MN	Market	STPLMNMK
AZ	Tempe	TEMPAZMA

**DS1 & DS3 Loops**

<b>State</b>	<b>SWC Name</b>	<b>SWC CLLI</b>
MN	MPLS Downtown	MPLSMNDT
OR	PTLD Capitol	PTLDOR69
UT	SLKC Main	SLKCUTMA
WA	Seattle Main	STTLWA06

**QWEST OMAHA FORBEARANCE PETITION  
WC DOCKET 04-223**

**Responses to FCC inquiries**

**TAB 12**

**Request:** Explain why Qwest used Year 2000 (and not 1996) as a base year for comparison against the February 2004 data discussing line losses.

**Response:** Following are the retail line trends from December 1997 to February 2004 for Qwest residence and business retail lines in the 24 Omaha/Council Bluffs MSA wire centers:

	12/97	12/98	12/99	12/00	2/04
Res	278,678	274,843	260,023	236,725	136,572
Bus	125,116	124,205	118,999	113,624	81,749
Total	403,794	399,048	379,022	350,349	218,321

*Note: these line counts exclude Qwest Official Company Service and Public Coin lines, and the 12/00 and 2/04 quantities are the same as those shown at page 3 of the Teitzel declaration.*

In responding to the Staff's question regarding why Qwest didn't use a point further back than 12/00 as the Qwest line comparison, the answer is that we could have done so. However, there are two considerations:

- 1) Local competition significantly ramped up in 2000 vs. prior years.
- 2) Our wholesale data tracking beginning in 2000 was much more comprehensive than in prior years.

In the Teitzel declaration, comparing 12/00 to 2/04 data adequately illustrates the point we are trying to make with data that is easily supportable: our local exchange base in the Omaha MSA is eroding at a very rapid pace while wholesale services are growing at an exponential rate

Dave Teitzel  
Staff Director, Qwest Public Policy

**Source:** Qwest Forecast Data Mart (FDM) retail services tracking system.

**QWEST OMAHA FORBEARANCE PETITION  
WC DOCKET 04-223**

**Responses to FCC inquiries**

**TAB 13**

**Request:** a. Provide any specific data available to Qwest regarding wireless competition in the Omaha MSA. Alternatively, is it possible to demonstrate that the trend/competition in Omaha is consistent with national statistics?

b. In the Omaha MSA, does Qwest have information regarding the percentage of customers and/or corresponding access lines have "cut the cord" as compared to customers who have both wireline and wireless service? Do we know the size of the total wireless market in Omaha?

**Response:** ***Note: the information provided is Confidential.***  
When a customer contacts Qwest to disconnect service, it is Qwest's practice to ask for record the reason for the disconnect. Attached are two reports that summarize the reasons for Business and Residential competitive losses in the wire centers that comprise the Omaha MSA.

Also provided is a copy of the Iowa wireless substitution research conducted by Frederick Polls.

**Source:** Qwest internal business tracking  
Frederic Polls

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<b>QWEST BUSINESS COMPETITIVE LOSS TRACKING BY WIRE CENTER</b>							
Wire Center	Reason						
	<b>COMPETITION - CUSTOMER SERVICE</b>	<b>COMPETITION - OTHER</b>	<b>COMPETITION - PRICE</b>	<b>COMPETITION - PRODUCT N/A</b>	<b>COMPETITION - PRODUCT QUALITY</b>	<b>COMPETITION - WIRELESS</b>	<b>Grand Total</b>
156 HARRISON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
BELLEVUE	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
BENNINGTON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
CENTER	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
CENTER (135TH ST)	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
COUNCIL BLUFFS	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
CRESCENT	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
DOUGLAS	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
ELKHORN-WATERLOC	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
FORT STREET	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
FOWLER ST	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
GIRARD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
GRETNA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
HARRISON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
IZARD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
MANAWA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
MISSOURI VALLEY	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
N/A	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
O STREET	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
OMAHA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
SPRINGFIELD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
UNDERWOOD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
VALLEY	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
Grand Total	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED

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QWEST CONSUMER COMPETITIVE LOSSES BY WIRE CENTER																	
Wire Center	Reason	Abandon Service	Bankruptcy	Cannot afford	Competition Other	Competitive Price	Competitive Quality	Competitive Wireless	Consolidating Billing	Fire Flood	Legal	Moving	moving out of Qwest area	Moving within Qwest	no further use	non pay	
156 HARRISON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
BELLEVUE	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
BENNINGTON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
CENTER	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
COUNCIL BLUFFS	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
CRESCENT	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
DOUGLAS	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
ELKHORN-WATERLOO	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
FORT STREET	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
FOWLER ST	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
GIRARD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
GRETNA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
HARRISON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
IZARD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
MANAWA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
N/A	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
NEOLA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
O STREET	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
OMAHA	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
RED OAK	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
SPRINGFIELD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
UNDERWOOD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
VALLEY	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
Grand Total	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED

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<b>QWEST CONSUMER</b>														
<i>Wire Center</i>														
	<i>Product Migration</i>	<i>Qwest Wireless</i>	<i>Moving and going with Competit</i>	<i>Dead</i>	<i>Other</i>	<i>Protect Revenue</i>	<i>Competitive Product not Available</i>	<i>Supercedure</i>	<i>Customer Refused</i>	<i>Going with Competitor</i>	<i>Resale</i>	<i>Seasonal Disconnect</i>	<i>Closing Business</i>	<i>Grand Total</i>
156 HARRISON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
BELLEVUE	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
BENNINGTON	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
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SPRINGFIELD	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
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VALLEY	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED
Grand Total	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED	REDACTED

**FREDERICKpolls**

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**SURVEY RESULTS**

**IOWA**

**QWEST SMALL BUSINESS AND  
RESIDENTIAL CUSTOMERS**

**Prepared for:  
Qwest**

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**PAGES 2 THROUGH 43 OF THE DOCUMENT**

***“SURVEY RESULTS***

***IOWA***

***Qwest Small Business and  
Residential Customers”***

***CONTAIN CONFIDENTIAL INFORMATION***

***SUBJECT TO PROTECTIVE ORDER AND***

***HAVE BEEN REDACTED FOR PUBLIC***

***INSPECTION.***

**QWEST OMAHA FORBEARANCE PETITION  
WC DOCKET 04-233**

**Responses to FCC inquiries**

**TAB 14**

**Request:** The FCC made specific findings in the TRO/TRRO about how to determine the impairment standard, the state of competition, the cost to enter the market etc. For purposes of the Qwest's forbearance petition, how is the Omaha marketplace different?

**Response:**

Under Section 10(a) of the Communications Act, forbearance is to be granted where:

- (1) Enforcement of a regulation or provision of the Communications Act is not necessary to ensure that the charges, practices, classifications, or regulations of a carrier are just and reasonable;
- (2) Enforcement of such regulation or provision is not necessary for the protection of consumers; and
- (3) Forbearance is consistent with the public interest.

In determining whether forbearance serves the public interest, Section 10(b) of the Act requires that the Commission consider whether forbearance will "enhance competition among providers of telecommunications providers." If competition between carriers is promoted, from a consumer viewpoint, then this finding is dispositive.

In contrast, the Section 251(d)(2) impairment standard is a more empirical standard that looks toward the ability of a competitor to provide a service in the absence of access to an ILEC's unbundled network elements. While a network element that did not meet the impairment test would clearly qualify for forbearance relief as well, the opposite is not necessarily true.

Consequently, Section 10 looks to the broad public interest as outlined above (once Section 251(c) has been "fully implemented), and forbearance cannot be denied solely because the impairment standard has not been met.

Qwest has demonstrated that its local exchange territory in the Omaha MSA is extremely competitive, and that Qwest's retail market share has dropped to the point where Qwest is now a minority player in much of the Omaha market. Qwest's showing clearly demonstrates the right to forbearance. Qwest's right to forbearance if its showing is accurate has gone relatively unchallenged.

**QWEST OMAHA FORBEARANCE PETITION  
WC DOCKET 04-233**

***Responses to FCC inquiries***

Instead, Cox and other CLECs that compete with Qwest have challenged the accuracy and sufficiency of Qwest's data without providing any of their own, even though this information is presumably in their possession.

Under the standards of evidence, a party's failure to provide evidence that is particularly within their control permits a court – or the Commission – to draw the conclusion that this information would not be favorable to that party's claims.

*See Mammoth Oil Co. v United States, 275 U.S. 13, 51-53 (1927).*

**QWEST OMAHA FORBEARANCE PETITION  
WC DOCKET 04-223**

**Responses to FCC inquiries**

**TAB 15**

**Request:**            ***Note: some of the information provided is Confidential.***  
Provide any available facts on the growth of VoIP services as it  
relates to Qwest's continued line loss in the Omaha MSA.

**Response:**        See documents provided.

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### **Broadband Internet and VoIP in the Omaha MSA**

15. At P. 26 of my affidavit, I stated that VoIP services are available from at least 7 providers in the Omaha MSA: AT&T, FiveStar, Vonage, Packet8, VoicePulse, BroadVoice and ZipGlobal.

- In addition, Cox has announced "detailed plans to convert Cox's local telephone service from traditional circuit switching to Voice over IP, beginning immediately." (source: Telephony On Line. [http://telephonyonline.com/home/news/cox\\_voip\\_nortel\\_030705](http://telephonyonline.com/home/news/cox_voip_nortel_030705))
- Vonage announced that it has doubled its growth rate by adding "more than 15,000 lines per week, up 50% from the 4th quarter," and that it "has exceeded 500,000 total lines in service" on a national basis ([http://www.vonage.com/corporate/press\\_index.php?PR=2005\\_03\\_07\\_1](http://www.vonage.com/corporate/press_index.php?PR=2005_03_07_1))
- **Important:** any customer with access to a broadband internet connection is a potential VoIP subscriber. For customers with existing broadband internet connections, it is very easy to self-install the VoIP arrangement (it is a matter of plugging a standard telephone into the RJ11 jack on the VoIP Analog Telephone Adapter (ATA), then plugging the ATA into the RJ45 broadband data jack that is currently active to serve the customer's desktop computer.

**NOTE:** The Consumer and Business marketing organizations have only recently established a tracking code to identify Qwest disconnected lines that have been lost to VoIP service and specific VoIP losses are not yet available (to date, any losses to VoIP have simply been identified in the "other" disconnect reason category). At this time, we do not have specific competitive VoIP loss data for the Omaha MSA. Quantities will begin to appear in the tracking systems in future months.

15(a). Potential size of VoIP market in Omaha.

- Estimated size of customer base currently subscribing to broadband internet connections (cable modem and DSL):
  - o Cox currently passes 300,000 homes in the Omaha MSA plus 7,500 commercial customers (source: Teitzel affidavit, p. 11)
  - o In the 2004 Cox 10K, they report that they have a 24.6% broadband penetration rate of homes passed.
  - o Estimated Cox broadband internet subscribers in the Omaha MSA:  
 $307,500 * .246 = 85,963$ .
  - o **CONFIDENTIAL: \* \* \* REDACTED \* \* \***
  - o **CONFIDENTIAL: \* \* \* REDACTED \* \* \***
  - o Total estimated broadband internet subscribers in the Omaha MSA as of 12/04: **85,963**. (this excludes any broadband subscribers of other

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competitors, such as Alltel, who are also now providing DSL service in the Omaha MSA. We have no means of estimating these additional quantities).

- I estimated the total res and bus access line base (Qwest and CLECs combined) in the Omaha MSA at approximately 484,000 (P. 8 of Teitzel affidavit).
- On this basis, approximately 17.8% of the telephony access line base in the Omaha MSA is also subscribing to broadband internet service.

**NOTE:** This figure is ONLY an estimate of the actual number of broadband internet lines now in service, and does not represent the total size of the potential broadband internet market in Omaha.

- **NOTE:** 100% of the Cox cable network in the Omaha MSA (passing over 300,000 homes and businesses) is currently capable of providing broadband internet service. An additional number of Qwest lines in the 24 wire centers is DSL-capable (we are currently obtaining from Network the percentage of Qwest voice lines in each wire center that are DSL-capable and should have that data by 5/9). We estimate that approximately 75% of the residents and businesses in the Omaha MSA currently have the option of subscribing to broadband internet service (will refine this estimate when the Qwest data is available). It is important to note that each one of these customers is a potential VoIP customer.

RE: VoIP Competition

On 2/4/05, Dave Teitzel testified in an Arizona docket before the Arizona Commission in which Vonage also testified. Brooke Shultz, a Senior Vice President at Vonage, made several statements on the record that are of interest re: VoIP. Qwest has a copy of the transcript of the hearing that day. Here's what she said, verbatim:

- Vonage's service "can make and receive phone calls off of traditional phone numbers anywhere there is a broadband connection."
- \* Vonage service can be used like a PDA. "You have to have an i-pack and it just needs to be connected to a Wi-Fi Internet connection to work."
- "We actually have evidence of customers in Arizona using our service over satellite broadband."

As a Vonage Senior Vice President stated in a non-confidential hearing (the transcript is public and none of what she said was confidential), VoIP service also works with Wi-Fi, WiMAX and satellite broadband connections, and they have actual customers now using their service with wireless and satellite connections. This expands the potential customer base for VoIP beyond wireline applications.

## WHITEPAPER: Circuit Switch to VoIP Evolution Plan

### INTRODUCTION

Cox Communications has grown from a single-service cable television company into a multi-service broadband communications provider. Via its flexible and powerful broadband delivery network, Cox provides a number of communications and entertainment services, including but not limited to digital cable television, high-definition television, entertainment on demand, high-speed Internet and telephone service in most of its residential and commercial markets. Cox uses the power of its broadband platform to create multiple revenue streams, but also to create long-term customer relationships by offering bundled services to customers. Cox has had impressive penetration growth in these new services.

Cox's telephone business, in particular, has distinguished the company from its peers. In the mid 1990s, Cox began installing telecom equipment in select markets, preparing to capitalize on new business opportunities made available per the Telecommunications Act of 1996. Cox first launched local phone service in 1997 in Orange County, California. Today, Cox Digital Telephone has more than 1.2 million residential customers and more than 100,000 business location customers across 17 telephone markets. For two consecutive years, Cox received the highest honor in J.D. Power and Associates' Residential Local Telephone Customer Satisfaction Study<sup>SM</sup> in the Western Region (2003 and 2004). In a separate study, Cox's bundled customers nationwide ranked Cox highest for customer satisfaction in J.D. Power and Associates' 2004 Residential Long Distance Telephone Service<sup>SM</sup> study.

In Cox's whitepaper, "VoIP: Ready for Prime Time" (May 2004), the company outlined its telephone strategy and how Voice over Internet Protocol (VoIP) technology complements circuit-switch technology by enabling it to introduce phone services to new telephone markets without stranding the circuit-switch investments. It further stated "The company will not abandon its circuit-switched business. Cox will completely utilize the capacity of existing switches."

#### COX TELEPHONY MARKETS\*



Cox Digital Telephone service is available to more than 6.5 million homes in Orange County and San Diego, Calif.; Phoenix and Tucson, Ariz.; Omaha, Neb.; Meriden, Conn.; Rhode Island statewide; New Orleans, Baton Rouge and Lafayette, La.; Oklahoma City and Tulsa, Okla.; Wichita, Kansas; West Texas; and Hampton Roads, Roanoke and Northern Virginia. Cox will launch the service in additional markets in 2005.

\* As of February 2005. West Texas includes 5 geographically dispersed locations, including: Lubbock, Amarillo, Midland, Abilene and San Angelo.

Further, Cox believes that VoIP provides an economically efficient method to support the exponential growth it is experiencing in its mature circuit-switch markets. This whitepaper will provide an update on Cox's successful strategy to leverage its installed base of circuit switches and migrate the growth in legacy telephone markets to a complementary VoIP overlay.

## SITUATION

Fundamental to Cox's operational strategy for telephone service is its commitment to leverage the flexibility it has built into its network to remain a customer-driven, efficient and successful provider in the telecommunications marketplace. In doing so, Cox first embraced VoIP technology to deliver long distance traffic over its own IP backbone network. While originally built for high-speed Internet access, today Cox's national long distance VoIP solution is based on a converged packet core that successfully transports a growing number of its long distance customer calls via its national backbone, effectively reducing reliance on third-party wholesale providers.

As a successful telecom provider with impressive customer growth in 17 telephone markets (circuit switch and VoIP), Cox's telephony infrastructure today includes:

- **Circuit Switches.** Two dozen circuit switches provide primary line residential and commercial services in Orange County and San Diego, California; Phoenix and Tucson, Arizona; Omaha, Nebraska; Metro Hartford, Connecticut; Rhode Island statewide; Hampton Roads and Fairfax County, Virginia; New Orleans, Louisiana; Oklahoma City; and Wichita, Kansas.
- **Softswitches.** A softswitch provides primary line services via VoIP technology to residential and commercial customers in Roanoke, Virginia; Tulsa, Oklahoma; Baton Rouge, Louisiana; five cities in West Texas; and Lafayette/Southwest Louisiana.
- **Long Distance.** A VoIP long distance solution riding over Cox's national IP backbone connects all the circuit switch and VoIP markets together.

## THE CHALLENGE

With five VoIP technology markets already commercially deployed and continuous growth in mature circuit-switch markets, Cox sought a solution that would enable it to move a high volume of new line growth over to VoIP in a rapid timeframe, allowing it to reap the benefits of lower capex while ensuring future growth.

Extensive modeling showed that evolving the existing circuit switches referenced above to simultaneously provide both Time Division Multiplexed (TDM) and VoIP support was more cost effective than overlaying new softswitches in TDM markets. The model also suggests that Cox would not have to reproduce interconnection and E911 facilities, rate center connections and back-office infrastructure. In some cases, SS7 links, associated infrastructure and connectivity to as many as 35 different rate centers would have needed to be duplicated.

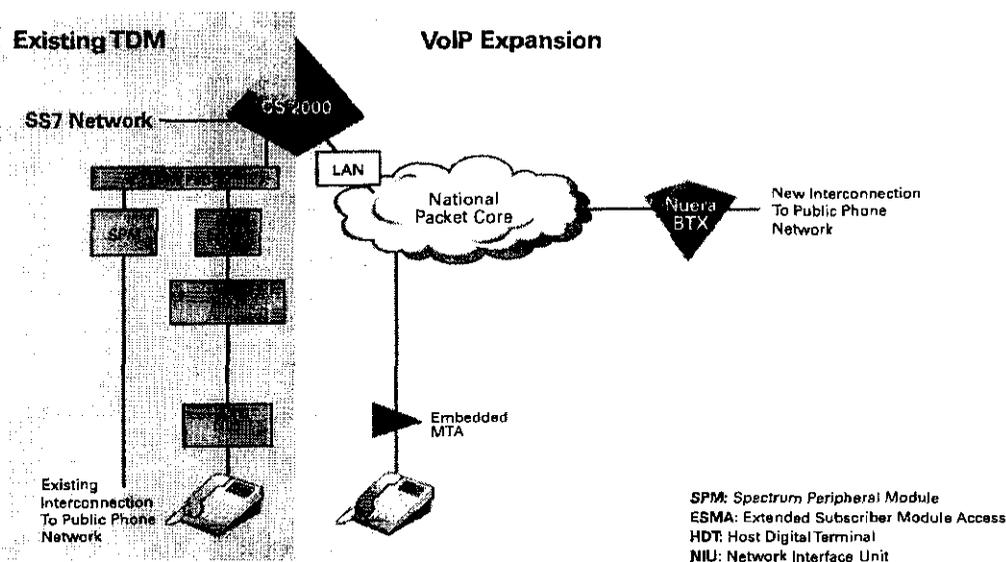
## THE SOLUTION

In choosing to evolve the majority of its circuit switches to hybrid TDM/VoIP switches, Cox has opted to keep its TDM lines in place until migration is fully warranted. In doing so, Cox will add new lines on the VoIP side of the same processor. As a result, Cox can achieve the best time-to-market, leverage its existing processors and immediately realize the new economies of VoIP. Further, by upgrading at least 10 Nortel Digital Multiplex Systems (DMSs) to Nortel Communication Server (CS) 2000 hybrids, Cox expects to bring more than 50 percent of its new growth lines to VoIP by the end of 2005. Such growth will meet the increasing demand in the current Cox markets.

Nortel will provide Cox with a PacketCable™ compliant solution, including the CS 2000 platform integrated with Nuera Communications BTX media gateways. Nortel's cable VoIP solution will enable Cox to offer the same high-quality, full-featured telephony services that residential and business customers have come to expect from Cox. In addition, Cox will utilize the enhanced infrastructure to offer VoIP services to business customers over its metropolitan fiber assets by using integrated access devices to reach PBX connections. This deployment also positions Cox to add rich multimedia services in the future, further enhancing the communication capabilities for its customers.

Cox expects to realize significant cost savings as a result of this network migration. The PacketCable qualified VoIP solution will allow Cox to take full advantage of its existing network architecture and continue growing its network with VoIP while transitioning to a packet-based architecture throughout its network. The demonstrated capacity of the solution and strong scalability mean that, in the long term, Cox will be able to continue to grow the number of lines beyond even the largest circuit switch.

### Circuit Switch to VoIP Evolution Plan



There are six steps which Cox and Nortel are following to implement this strategy.

1. Upgrade circuit switches to the required hardware baseline to support VoIP.
2. Upgrade core software to a VoIP-enabled load in an overnight process.
3. Add VoIP hardware components: media gateway controller blades and media gateways.
4. Establish connectivity to the VoIP-ready IP "bearer" packet network.
5. Reconfigure operating system applications to support VoIP, including provisioning and connectivity to network operations center for alarms.
6. Complete pre-In-service testing.

With meticulous preparation, the actual upgrade is transparent to subscribers. Further, it has no impact on the feature-rich solution and does not impose network affecting changes to external carriers, billing or routing. In addition, Cox's experience with the hybrid CS 2000 solution dates back to 2003, when a new switch was deployed for TDM line growth and a VoIP long distance solution.

The distributed architecture of voice over packet networks enables separation of the call control and signaling from the actual call switching fabric and bearer path to improve scalability and allow carriers to distribute parts of the network for efficiency and greater geographic reach. With a distributed architecture, Cox can locate media gateways and media terminal adapters (MTAs) remotely from call control and signaling resources. The combination of increased call server scale, greater geographic reach and distributed gateways enables Cox to enter markets at low initial line sizes, since existing softswitches can be shared across a larger number of sites.

## CONCLUSION

In the near term, Cox has chosen to cap its Class 5 TDM investment and grow using packet technology, with 10 circuit switch to VoIP hybrid migrations already in progress. Some new telephony markets are planned to be served by the VoIP hybrid solution leveraging the geographic reach of the architecture.

For the long term, Cox will continue to evaluate the merits of a full conversion from circuit to packet to attain the basic operational savings attributable to packet technology, including reduced real estate, power, transport, line operations costs and operational savings from a simplified and/or flattened network.

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# TELEPHONY ONLINE

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## VON: Cox announces VoIP plans

By Carol Wilson

Mar 7, 2005 11:04 AM

Cox Communications and its primary vendor, Nortel Networks, have detailed plans to convert Cox's local telephone service from traditional circuit-switching to voice over IP, beginning immediately. The cable company, which was most aggressive in deploying circuit-switched telephony networks, is now upgrading those circuit switches to be hybrid, capable of supporting VoIP as well. The changeover involves a classic "cap and grow" strategy that will put new Cox telephony customers on a lower-cost softswitch/media gateway network, while supporting existing customers on the TDM network Cox already built, based on Nortel switches.

Cox was the cable industry leader in building circuit-switched voice networks, beginning in the mid-1990s. As it begins VoIP deployment, Cox has 1.2 million residential customers and 100,000 business sites in 17 markets in its network. The company has already deployed VoIP as a long-distance transport strategy in five "greenfield" markets.

But there is a strong economic driver for growth in existing TDM markets to be VoIP-based as well, said Jay Rolls, vice president of Telephone and Data Engineering at Cox.

"The economic drivers are pretty strong," he said. "With a lot of our services, the most price-sensitive aspect is what has to go into the home itself."

For its existing telephony service, Cox uses proprietary gear from Arris as its CPE while with VoIP it can use standardized media terminal adapters that are less expensive, given the economies of scale.

Cox began deploying VoIP in Roanoke, Va., in December of 2003, and has spent the last year "getting our comfort level," and launching the four other new markets, Rolls said. After doing extensive modeling, the company decided it would be more cost effective to evolve its existing Nortel switches to hybrid TM/VoIP systems, instead of building a VoIP overlay. Cox will upgrade at least 10 Nortel DMS switches to Nortel *Communication Server 2000 hybrids*, to serve more than 50% of its new growth lines on VoIP by the end of the year.

"As we worked with Nortel, they put in front of us a method and a migration strategy that made it work," he commented. "The hybrid approach means we could go six months with VoIP and go back to TDM—not that we'll do that. But it's important because you don't have to run two totally stovepipe systems side by side."

Serving all voice customers on a single system simplifies the process of customer support, as well. The new VoIP service will automatically be connected as part of the existing voice network, including signaling system 7, data management telemetry and E911 connections.

"All that is in place today and we can leverage it, which should allow for a faster rollout," Rolls said.

In addition, Rolls said, the softswitches can be regionally deployed, which means greater flexibility in deployment as well as savings. Cox can add markets in areas where it has deployed the hybrid Nortel solution by adding additional Nuera Communications BTX media gateways.

"With VoIP, the notion of geography starts to fade away," Rolls said. "For example, if we upgrade one of the switches in Orange County for Santa Barbara, where we haven't launched telephony, we wouldn't put a softswitch in Santa Barbara, we would launch off one of these hybrids that is already deployed."

Using VoIP will give Cox the flexibility it needs to support a new generation of voice services, including Integrated Messaging, he said. The flexible architecture will also give Cox the opportunity to expand its service territory more easily, said Elaine Smiles, director of cable marketing for Nortel.



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"That's another advantage of VoIP--not only is it more cost-effective on the access side, but the architecture is so different," she said. "You can not only leverage the switch for the immediate community but go out of territory. The installed base becomes quite large, and as it grows, you can choose to put a softswitch closer to where the subscribers are."

Cox is determined to provide VoIP service that is no different in quality from its TDM voice, said Rolls. For example, Cox VoIP will meet E911 and CALEA requirements from the outset, and comes with a battery backup system that provides eight to 10 hours of service when commercial power goes out.

"There is a device in the home that is the registered access point of the user," said Smiles. "Even though traffic is traveling on VoIP, there is a registered device that says where that location is, for E911 purposes."

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## Access Line Breakout for Omaha MSA as of February 2004

	<i>Residence</i>	<i>Business</i>	<i>Total</i>
<i>Resold lines</i>	X	X	X
<i>UNE-P listings</i>	X	X	X
<i>E911 records</i>	X	X	X
<i>Total CLEC lines</i>	X	X	X
<i>Qwest retail lines and % market share</i>	X	X	X
<i>Total Omaha MSA market lines</i>	X	X	X
<i>% CLEC lines in Omaha MSA</i>	X	X	X

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May 18, 2005

**HEARD ON THE STREET**

**Cable's Eyes on Wireless Prize**

**Comcast and Others Seek  
New Weapon in War  
With Phone Giants**

By **PETER GRANT, JESSE DRUCKER** and **DENNIS K. BERMAN** in New York  
Staff Reporters of **THE WALL STREET JOURNAL**  
May 18, 2005; Page C4

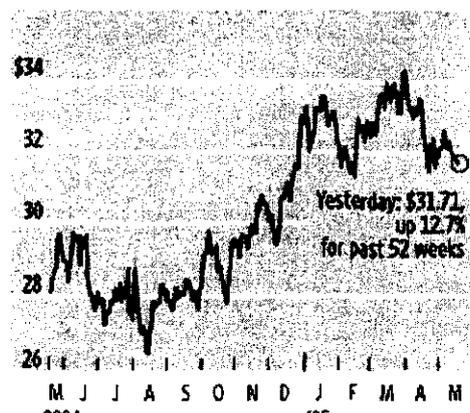
After the recent spate of deals among huge telecommunications companies, all eyes are now focused on their rivals: cable companies.

Cable companies have been in talks with wireless companies for months about joining forces as a way to give cable operators another weapon in their battle against the telephone giants. The repercussions would be especially significant if such a move was made by **Comcast Corp.**, the country's largest cable operator, with more than 21 million subscribers.

The question Wall Street is asking is whether Comcast will act as part of a cable-industry consortium, or strike an alliance of its own. The most attractive partner may be **T-Mobile USA Inc.**, which isn't a direct threat to Comcast in the way that **SBC Communications Inc.** and **Verizon Communications Inc.** have become. An alliance with the newly formed **Sprint Corp.-Nextel Communications Inc.** is also possible, as Sprint has aggressively pursued deals with cable companies. But Comcast may prefer to get involved with a company over whom it could have greater influence.

**Upgraded Cable**

Daily closing share price for Comcast A-shares on Nasdaq



Until now wireless has been one of the advantages that phone companies have had in their battle with cable operators over who could offer consumers the most-attractive package of telecommunications services.

Large cable companies such as Comcast and **Time Warner Inc.** have been able to offer television programming, high-speed Internet connections and, most recently, phone service. But, unlike phone companies, they haven't been offering a wireless product.

Cable companies have considered a range of transactions with wireless companies, from marketing deals, to cable companies reselling wireless service to

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*cable operators actually acquiring a wireless operation.*

Last year the country's largest cable companies -- including Comcast, Time Warner, Cox Communications Inc. and Charter Communications Inc. -- formed a consortium to study their alternatives.

Earlier this year, Time Warner Cable and Sprint announced a deal allowing the country's second-biggest cable operator to offer cellphone service on a trial basis in Kansas City, Mo. And Cablevision announced plans recently to sell Sprint cellular service on its Web site.

Until recently many of the top cable operators have played down the acquisition possibility. Comcast Chief Executive Brian Roberts last year pointed out that there were so many cellular operators interested in doing marketing and resale deals with cable operators that it made more sense to pursue that alternative.

But the landscape has changed in the wake of major acquisitions in the wireless business. The number of players has declined, with the purchase by Cingular Wireless, the venture of SBC and BellSouth, of AT&T Wireless, Sprint's merger with Nextel Communications Inc. and Alltel Corp.'s acquisition of Western Wireless Corp.

In a call with analysts to discuss first-quarter results last month, Mr. Roberts pointed out that Comcast has "made no secret that we are exploring wireless options with other [cable operators] and with a variety of wireless companies."

Mr. Roberts also reiterated that Comcast is mostly interested in integrating cellphone service into its broadband, phone and TV offerings. "Having a cellphone bundled with cable and high-speed data has not proved to be a marketing differentiator that we feel that we're concerned about," he said. "But we are very much focused on where wireless is going."

So far all of Comcast's conversations with T-Mobile USA, a unit of Deutsche Telekom AG, and other wireless carriers have been in the context of the consortium talks, according to a person familiar with the matter.

Comcast has also had conversations about a possible wireless deal with Sprint.

T-Mobile USA is the country's fifth-biggest national wireless carrier, with about 18.3 million customers. The company has been experiencing some of the fastest customer growth in the industry for the past two years, adding 4.2 million new subscribers during 2004.

Cingular and Verizon Wireless are owned by the telephone companies that compete with cable for telephone and Internet customers, which makes any potential partnerships with cable operators highly unlikely.

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## FCC to Rule On 911 Access For Web Phones

By Yuki Noguchi  
Washington Post Staff Writer  
Wednesday, May 18, 2005; E01

In February, a 17-year-old in Houston tried to make a 911 call on her family's Internet phone after an intruder shot her parents in their home. Last month, a woman in Torrington, Conn., failed to reach a 911 operator using her Internet phone as she sought medical attention for her infant son.

Both cases highlight a shortcoming of Internet phone technology: It isn't automatically configured to transfer emergency calls through the normal channels. In Houston, the family hadn't registered as required in order to have emergency calling from their Internet-based phone. In the Connecticut case, the call was transferred to an unmanned administrative line at the local 911 call center.

As the popularity of cheaper, Internet-based phone systems increases, so does political pressure to require providers to automatically link their customers to the 911 system. The attorneys general of Texas and Connecticut have filed suit against Vonage Holdings Corp., a New Jersey Internet phone provider, claiming it failed to adequately disclose the limitations of its emergency calling system. Members of Congress have urged swift action. And now, federal regulators are trying to resolve the thorny issue of making old services work with new technologies -- without damaging that technology's innovative, entrepreneurial potential.

The Federal Communications Commission is set to rule on the issue Thursday and is expected to set strict new 911 requirements for most Internet phone providers. Public safety groups and traditional telephone companies support the idea, citing the need to support the general public's expectations for emergency calling. But the anticipated requirements, which would take effect 120 days after an FCC order is finalized, are coming too quickly to address all the technical problems, according to some of the companies involved.

"This is a big obligation, and it's being imposed on the industry in a very short time frame," said David Baker, vice president of law and public policy at EarthLink Inc., an Internet-service provider that also resells Vonage. "We all have an interest in making 911 available," but for now, the technical hurdles can't be overcome in the FCC's timeframe, he said.

Widely available for only about two years, Internet phone service is expected to grow to more than 1.2 million users at the end of this year from about half a million users at the end of last year, according to In-stat, a market-research firm. It will continue to increase as large cable companies such as Comcast Corp. join upstarts such as Vonage to offer the service.

Connecting an emergency call from an Internet phone isn't as simple as hooking up the line.

Most Internet-based phones look and operate much like a traditional phone -- except that they are

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connected to a high-speed Internet line instead of to the traditional phone network. When a call is made, the Internet phone company connects it to the local phone system.

Users sometimes assume Internet phones come with the standard public safety feature that transmits the caller's address along with the call to the emergency operator.

But where conventional phones have a fixed address, Internet phones have no such geographic tie: A user with a laptop, for example, could make calls from anywhere there is an Internet connection. Companies have different technologies for routing calls into the phone network and on to local emergency call centers, but ultimately it requires the customer to specify where the phone is located.

Politicians and business executives agree the public has a right to reliable 911 service, but some telephone companies are skittish about the FCC regulating technology that until now has thrived free of regulation.

"I'm very nervous about the regulatory net catching the wrong fish," said Vinton G. Cerf, senior vice president of technology strategy at MCI Inc., which sells its Advantage Internet phone service to its business customers. "I have mixed feelings about requiring [911] because I'm very worried about the societal dependence on it," he said, "but I don't want things that look like the old service to be treated like the old service because we know it's not an old service."

Indeed, the FCC's challenge lies in defining how to address a new, broad category of services that straddle the intersection of computers and phones. The commission's expected decision will require Internet phone providers to register customers before turning on their service, according to agency staff. It will also require providers to allow customers to update their location if they travel or move.

The commission is not expected to require 911 connections for services such as instant messengers, Skype, Free World Dialup, or other computer programs that allow users to talk to each other but not make phone calls outside their particular system.

FCC action would be welcomed by public safety officials such as Steve Souder, the director of the Montgomery County emergency communications center, which last month advised residents that Internet phones might not connect to 911 service.

"It took an agonizing 15 years to get wireless carriers to make 911 calling work," he said. "We cannot afford the same kind of time" to resolve the issue for phone service over the Internet, he said. Although cell phones, like Internet phones, are not fixed geographically, a caller's position can be determined using global positioning satellite systems and other technology.

Critics of the FCC's pending action say the measure goes too far, too fast -- requiring companies, for instance, to essentially keep track of where their users are when they place a call, a feat that Internet phone providers contend is not yet technically possible.

"If they come out and say, 'you have to have this,' it won't work" in the time frame they want, said Bryan Martin, chief executive of Santa Clara, Calif.-based 8x8 Inc., which has more than 40,000 customers for its Packet8 service. The industry is coming up with ways to help emergency centers instantly identify an Internet caller's location, but such a fix won't be available within 120 days, he said. Depending on how firm the rules are, Packet8 may have to contact its customers to get their location information or shut down service for customers who haven't registered an address, he said.

Internet phone proponents are also urging the FCC to ensure that regional phone companies cooperate with routing calls to the proper 911 center. Internet phone providers should have access to the 911 network at reasonable rates, they say, and not be overcharged by the regional phone companies that own those systems. Regional phone companies such as Verizon Communications Inc. and SBC Communications Inc. that are moving into the Internet phone business themselves say they are working to make the 911 system available to competing services such as Vonage.

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