Broadband Coverage Data Documentation

About Broadband Mapping: These geospatial data represent areas of advertised internet access in Wisconsin. Access data are retrieved from internet providers and the Federal Communications Commission's (FCC) Form 477. Data from providers may be current up to December 31, 2018. Data from the Form 477 are current as of December 31, 2017. Mobile data are from December 31, 2016. No independent verification of access has been made by the Wisconsin Broadband Office (WBO). The dataset described here is the same as what is used in the online Wisconsin Broadband Map.

Background and Coverage Metadata: All wireline, fixed wireless, and satellite Internet Service Providers (ISPs) submit coverage data in tabular format to the FCC every six months. These ISPs will report a list of all census blocks where they provide service to at least one customer. Providers do not necessarily offer subscription service to all locations in reported census blocks. The ISPs include the provider's name, the specific type of technology used to transmit broadband and the advertised download and advertised upload speeds offered for each census block in their submission.

Mobile wireless ISPs submit coverage information to the FCC in shapefile format every six months. Mobile wireless ISPs use coverage models to estimate service boundaries. Additionally, mobile wireless ISPs only provide information on where they offer services, not speeds.

The FCC compiles all wireline, fixed wireless, and satellite ISP submissions and makes them available for download in a tabular format, or in the case of mobile wireless ISP data, shapefile format (https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477).

The PSC, on a biannual basis, requests copies of the most recent Form 477 submissions from each ISP. Due to the time it takes for the FCC and the PSC to convert tabular data to geospatial data, the PSC will use data it collected directly from ISPs when it is newer than what the FCC has available.

To convert tabular data to a geospatial format, the 2010 version of census blocks geospatial data were downloaded from the US Census Bureau (https://www.census.gov/geo/maps-data/). These census block data were joined to the ISPs' tabular data based upon the unique census block numbers. To differentiate the FCC's data from submissions coming directly from ISPs, source and coverage data information are included in geospatial data. Only coverage data available for consumers, per the FCC's Form 477, are included with this download.

Disclaimer: While these GIS data attempt to highlight areas of the state that have internet access, no guarantee of said coverage can be fully made. The methodology of collecting coverage data, local anomalies, and coverage changes may result in the understatement or overstatement of internet coverage. As a result, the PSC is not liable for inaccuracies or other unusual phenomena in these map layers. All data are subject to the PSC's Terms and Conditions.

Data Formats: Downloadable data are available in ESRI Geodatabase format and in shapefile format. The Geodatabase contains five feature classes. Each feature class is also available in shapefile format. See Table 1 for files names and associated technology types. There are separate look up tables for the geodatabase and the shapefiles, see Tables 2A-C & 3A-C. For more information on the definitions of connection technologies go to https://www.fcc.gov/general/types-broadband-connections.

Table 1: Mapping Layers included in Download & Associated Content

Geodatabase Format: CoverageData12312018.gdb	Shapefile Format: \Shapefiles12312018\
BbCovConMobileIdentify includes the following access:	**BbCovConMobileIdentify** includes the following access:
Terrestrial Mobile Wireless	Terrestrial Mobile Wireless
BbCovConProviders includes:	**BbCovConProviders** includes:
ISP Advertised Access Boundary Data	ISP Advertised Access Boundary Data
BbCovConSatelliteIdentify includes the following access:	**BbCovConSatelliteIdentify** includes the following access:
Satellite	Satellite
BbCovConWireless includes the following access:	**BbCovConWireless** includes the following access:
Terrestrial Fixed Wireless	Terrestrial Fixed Wireless
BbCovConWireline includes the following access:	**BbCovConWireline** includes the following access:
ADSL2, ADSL2+	ADSL2, ADSL2+
Asymmetric xDSL	Asymmetric xDSL
Cable Modem - DOCSIS 1, 1.1 or 2.0	Cable Modem - DOCSIS 1, 1.1 or 2.0
Cable Modem - DOCSIS 3.0	Cable Modem - DOCSIS 3.0
Cable Modem – DOCSIS 3.1	Cable Modem – DOCSIS 3.1
Cable Modem other than DOCSIS 1, 1.1, 2.0, 3.0, or 3.1	Cable Modem other than DOCSIS 1, 1.1, 2.0, 3.0, or 3.1
Optical Carrier / Fiber to the End User	Optical Carrier / Fiber to the End User
Other Copper Wireline	Other Copper Wireline
Symmetric xDSL	Symmetric xDSL
VDSL	VDSL

Table 2A: Geodatabase Field Data Dictionary for BbCovConMobileIdentify

Geodatabase Field List	Description
MAPDISPLAYNAME	Provider name
CONNECTIONTECHTYPE	Connection technology (string)
COVDATALASTUPDATED	Coverage data last update
COVERAGEDATASOURCE	Coverage data source
PROVIDERWEBSITE	Provider website
DISCLAIMER	Call to verify local connection

Table 2B: Geodatabase Field Data Dictionary for BbCovConProviders

Geodatabase Field List	Description
MAPDISPLAYNAME	Provider name
GENCONNECTIONTECHTYPE	Connection technology (string)

Table 2C: Geodatabase Field Data Dictionary for BbCovConSatelliteIdentify, BbCovConWirelessIdentify, BbCovConWirelineIdentify

Geodatabase Field List	Description
ProviderNameMapDisplay	Provider name
TechCodeTxt	Connection technology (string)
TechCodeGeneral	General technology category
MaxAdDownTxt	Maximum advertised download speed (string)
MaxAdUpTxt	Maximum advertised upload speed (string)
CoverageDateTxt	Coverage data last updated
CoverageSource	Coverage data source
CafiiAwardStatus	Within CAF-II subsidized area (Y/N)
CafiiAuctionStatus	Within CAF-II Auction subsidized area (Y/N)
AcamAwardStatus	Within A-CAM subsidized area (Y/N)
ProviderWebsite	Provider URL
Disclaimer	Disclaimer text
TechCode	FCC connection technology (long)
MaxAdDown	Maximum advertised download speed (long)
MaxAdUp	Maximum advertised upload speed (long)

Table 3A: Shapefile Field Data Dictionary for BbCovConMobileIdentify

Shapefile Field List	Description
MAPDISPLAY	Provider name
CONNECTION	Connection technology (string)
COVDATALAS	Coverage data last updated
COVERAGEDA	Coverage data source
PROVIDERWE	Provider URL
DISCLAIMER	Disclaimer text

Table 3B: Shapefile Field Data Dictionary for BbCovConProviders

Shapefile Field List	Description
MAPDISPLAY	Provider name
GENCONNECT	Connection technology (string)

Table 3C: Shapefile Field Data Dictionary for BbCovConSatelliteIdentify, BbCovConWirelessIdentify, BbCovConWirelineIdentify

Shapefile Field List	Description
ProviderNa	Provider name
TechCodeTx	Connection technology (string)
TechCodeGe	General technology category
MaxAdDownT	Maximum advertised download speed (string)
MaxAdUpTxt	Maximum advertised upload speed (string)
CoverageDa	Coverage data last update
CoverageSo	Coverage data source
CafiiAward	Within CAF-II subsidized area (Y/N)
CafiiAucti	Within CAF-II Auction subsidized area (Y/N)
AcamAwardS	Within A-CAM subsidized area (Y/N)
ProviderWe	Provider URL
Disclaimer	Disclaimer text
TechCode	FCC connection technology (long)
MaxAdDown	Maximum advertised download speed (long)
MaxAdUp	Maximum advertised upload speed (long)

Questions or comments: Contact pscstatebroadbandoffice@wisconsin.gov or the POC of this document (see header).