

TV Whitespace Database Summary and Final Report



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Overview.

This is the final summary report following the 45 day public trials of LS telcom’s TVWS database between Monday, June 24 2013 and Thursday, August 8, 2013 as announced in the FCC public notice issued on June 18 2013, DA 13-1401. It identifies the level of activity, comments and resolutions applied from the trial period. Due to LS telcom’s international client base and presentations on the trial occurring in the USA many visitors to the site were international.

Website data.

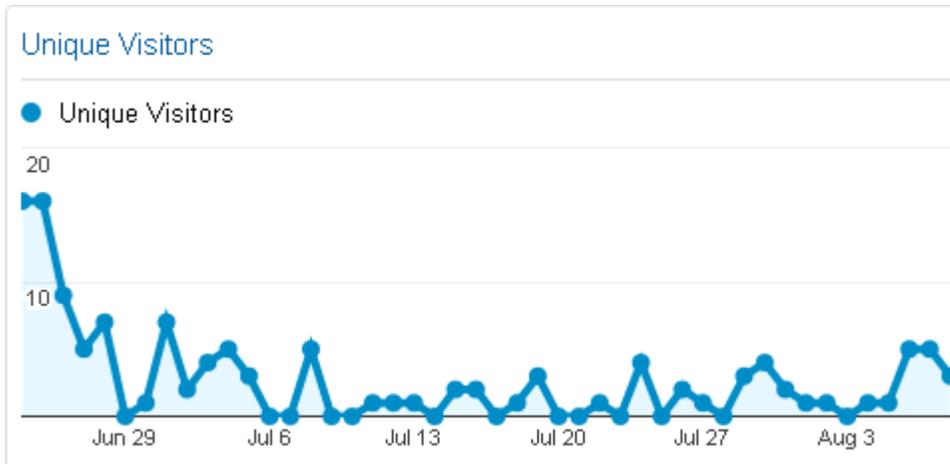
Data originates from Google Analytics™ on the site wsdb.lstelcom.com

1. Origination of website hits.



There was a wide geographical spread of visitors to the site which reflected the trial advertising made with LS telcom’s customers.

2. Website visitor numbers



The total number of visitors was 151 during the period with 83 unique visitors. The visitors that did review the site interacted well with the data.

3. Accounts created

As required by the FCC the WSDB site has areas which require account creation. There were 27 accounts created during the trial, mainly by persons located within the USA.

4. LP-AUX registrations

The site provides the capability to register LP-AUX locations for protection from WSDB device registration. During the trial there were 9 such trial registrations

5. MVPD registration

The site also provides the capability to register MVPD locations. There were 17 such registrations during the trial.

Comments received

WK	Comment	Answer	Action
6	<p>You appear to be protecting channel 5 as adjacent to channel 4.</p> <p>At location 35.4184182, -93.55574329, you show channel 5 as blocked, and the only contour you display on channels 4, 5, or 6 is K04RA-D on channel 4.</p> <p>You appear to be protecting channel 7 as adjacent to channel 6.</p> <p>At location 40.62556237, -101.029599, you show channel 7 as blocked, and the only contour you display on channels 6, 7, or 8 is KWNB-TV on channel 6.</p> <p>According to the 2nd Report and Order, paragraph 162, these channels are not considered adjacent.</p> <p>http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-260A1.pdf</p> <p>... It also proposed not to apply the adjacent channel D/U criteria to fixed/access devices between channels 4 and 5, channels 6 and 7, and channels 13 and 14 because of the frequency separations that exist between those channels</p>	<ol style="list-style-type: none"> 1. We can see that the difference of Channel 4 and Channel 5 is 4 MHz (less than the bandwidth 6 MHz). We didn't find any document to say that they are not adjacent channel. Thus we applied Channel 4 and Channel 5 as adj. channel. This will be changed according to the latest document. 2. However, we didn't apply Channel 6 and Channel 7 as adj. channel, see Figure 2. At the location (40.62556237, -101.029599) Channel 7 is available. We didn't apply Channel 13 and Channel 14 as adj. channel too. 	Completed
5	<p>I found another Issue with your trial site regarding channel availability at location 27.558665, -80.869, in south central Florida.</p> <p>You show channels 36 and 38 as reserved for microphones, while we, Telcordia and Google show channels 36 and 39 as reserved for microphones. The issue appears to be with WGPS-LD channel 38 to the west. We and Telcordia show the location just inside the</p>	<p>We checked the problem and changed the antenna pattern to non-directional for this site. Ongoing resolution regarding logic</p>	Completed

	contour, while you show it just outside the contour.		
4	Also on the Channel Availability page, when I display the contour for Canada station CHNU-DT on channel 47, your contour differs from Telcordia's, Key Bridge's, and ours. (FYI, Telcordia's contour is incorrect on their production site, but is correct on their development site.) The most obvious difference is that your contour is contiguous, where the others show a disjoint section at the lower left. (This was the station Comsearch asked about on a technical call in late June.) If you need, I can provide our detailed contour point data.	<p>When calculating the effective height of Canadian station, we use the field "RAD_CENTER" of the table tv_statio.txt. From the description (Radiating Center Above Ground Level, 0.0 to 5,000.0 meters) it should be height above ground level, and we used it as described. It seems, however, SpectrumBridge and Telcordia use it as the height above sea level. Please refer to the doc "TVWS Canadian TV station assignment data extraction insts dist 3-29-12.doc".</p> <p>In the table "tv_apatstat.txt", field "CALL_BANR_KEY" is not the primary key. Thus in the raw data there are several antennas with one station. For example, for CALL_SIGN "CHNU-DT" there are three records with antenna keys (8054, 8082, and 8083). Antenna 8083 is a vertical pattern. Therefore, we don't know which one should be selected from 8054 and 8082. The difference is, 8054 pattern gives the value every 45 degree and 8082 gives the value every 10 degree. SpectrumBridge and Telcordia use 8082. We do want to know what's the exactly logic of selection.</p> <p>If we use the height RAD_CENTER as the height above sea level and use antenna 8082 in our calculation, we compared our contour with that of SpectrumBridge. The two contours have just a little difference.</p>	Completed
4	On the Channel Availability page, when I enter Sumas, WA as the search location, an error is returned.	This is an error in the site logic and has been updated to reflect missing data. Also the relevant tile	

	<p>ERROR:Can not calculate HAAT: Lack DEM info of this location.</p> <p>and do not get any channel information.</p> <p>Place: Sumas, WA 98295, USA</p> <p>Coordinate: 49.000122, -122.264875</p> <p>And even though a Place and Coordinate is correctly returned, the map is not repositioned.</p> <p>I suspect the error is because the latitude is above 49°, and there is not a USGS NED tile for n50w123 in our elevation dataset. Instead of returning an error, I believe it would be more appropriate to treat this as missing elevation missing data and use the defaults defined in the calculation spec.</p>	data is being updated.	
3	NO NEW COMMENTS		
2	NO NEW COMMENTS		
1	<p>On your Home page,</p> <p>https://wsdb.lstelcom.com/wsdb_ui/index.html</p> <p>you reference the FCC Public Notice DA 11-1534, which was for the Spectrum Bridge trial.</p> <p>The FCC Public Notice for your trial is DA 13-1401.</p>	Thank you for picking that up. It was holding text as we created the page and missed an update to it. It will be correct immediately	Completed
1	<p>Suggest you revise "imprint" which is puzzling here. Also, "LPxx" is Low Power, not Lower Power, folks might wonder.</p>	Thank you for picking that up. "Imprint" is an error on our main corporate website which has been changed to "legal information". The typo of Lower Power will be rectified.	Completed