

1. Explanation of how you would coordinate any usage with a Spectrum Access System (SAS).

We understand that for the duration of the STA, we need to ensure our CBSDs coexist with any CBSDs in the region managed by commercial SASs. To that end, we will do the following: (1) Under this STA, we propose to operate our CBSDs in the top 50 MHz (3650-3700 MHz) spectrum using a SAS under development that fully supports WINFORUM SAS-CBSD and SAS-SAS protocols. Such SAS controlled operation will allow us to fully test and understand operation and implications of the WINFORUM SAS-CBSD protocol and its impact on our network needs and performance. (2) As explained below, the commercial SASs will enforce “blocking criteria” for protection of the FSS+GWBL protection --specifically, not authorizing any CBSDs in the 150 Km exclusion zone around FSS with embedded GWBLs. This criterion applies to our location and therefore, there won't be any competing grants from commercial SAS in the top 50 MHz that conflict with our STA. In essence, our eNBs authorized under this STA will appear as legacy GWBLs.

For the sake of completeness, we will notify data on our CBSDs to these existing active commercial SASs and also share with them estimated interference to any incumbents nearby. Please note that since the commercial SASs enforce “blocking criteria”, existence of our CBSDs and their interference to FSS+GWBL if any is immaterial to them -- as mentioned above our CBSDs will look like legacy GWBL devices to them.

2. Explanation of how you would specifically avoid causing interference to incumbent and commercial operations in the band, including General Authorized Access (GAA).

We propose to operate our CBSDs in the top 50 MHz (3650-3700 MHz) spectrum under this STA. The location of operation of these CBSDs is constrained by several Fixed Satellite Service (FSS) stations and Grandfathered Wireless Broadband Licensee (GWBL)s. Since, here GWBLs are embedded inside 150 Km radius protection area of FSS, as per the FSS+GWBL protection criteria the CBSDs around in these areas are blocked from using entire top 50 MHz. Due to this “blocking criteria”, commercial SASs will not grant any channels to CBSDs in this area.

To elaborate, for our site, the nearest GWBL is 15 km away under licensee: Exelon Energy, call sign: WQMQ231 with operating frequency: 3650-3675 MHz. Another GWBL is 200 km away.

The site is also surrounded by 24 FSS in 2 clusters – (1) Roaring creek earth station, PA (2) In Maryland near Mount Airy, approximately 130 Kms away - almost close to 150 Km exclusion/protection zone defined in CBRS framework.

Given this favorable geolocation scenario, we intend to manually coordinate with the FSS and GWBLs for the duration of trial and limit our transmit powers to achieve successful co-existence with and protection of incumbents. Since, commercial SASs don't authorize CBSDs in top 50 MHz in this location, ours will be only CBSDs that will operate here, and our coordination will guarantee incumbent safety.