Assistive Hearing Technologies

Type	Description	Use	Benefits	Disadvantages	Municipalities Using Technology
Induction Loop Systems	An Induction Loop, also known as Hearing or Audio Loop, utilizes a magnetic wireless signal to transmit sound directly to a T-Coil (Telecoil) imbedded within a hearing aid or cochlear implant.	• One-to-One • One-to-Many	• Easy to install • Cost effective • No additional hardware is required	• Not all hearing aids include an integrated T-Coil • Higher frequency sound can cause distortion • Large hearing loop applications cannot be easily relocated • Can receive sound feedback and interference	• City of Delta • City of Surrey • City of North Vancouver • Town of Osoyoos • Town of Oliver • City of Port Coquitlam • City of Coquitlam
Speech to Text	Speech recognition software that converts spoken works into written text for review on a user's smartphone or web-enabled tablet.	• One-to-One	• Most smartphones already include this technology • Easy to install • Cost effective	• Speech to Text is not always accurate • May not appeal to older population • Can delay communication as it requires the user to read the text	
Wi-Fi Streaming	Wi-Fi systems work by streaming data (audio) wirelessly to personal devices, such as smart phones. An app on the phone receives the signal and transfers the audio to headphones.	• One-to-One • One-to-Many	• Easy to install • Cost effective	• Can easily be intercepted • Unsecure user privacy • Effectiveness of Wi-Fi streaming can be compromised by the system latency	• City of Pitt Meadows

Radio Frequency Systems	RF systems utilize technology to convert sound to radio waves that are picked up from an FM radio receiver and is transmitted via a microphone.	• One-to-Many	• Good option to transfer sound to large rooms or venues	• Privacy would be a concern, and is not best suited for one-on-one conversations	• City of Surrey
Adaptive Sound Field Systems	Sound field systems consist of an outboard speaker-array tower, a wireless microphone, and a system controller that transmits and amplifies the speaker's audio through speakers.	• One-to-Many	• Microphone is able to detect ambient noise levels and adjust the audio volume accordingly	• Privacy would be a concern, and is not best suited for one-on-one conversations	• Vancouver Island University • City of Kamloops • District of Oak Bay