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Larry Osterman  
Microsoft

## [Audio Enhancements in Windows 7](#)

*Courtesy of Larry Osterman, Microsoft Principal SDE*

One aspect of the Windows client which will evolve in the move from Windows Vista to [Windows 7](#) will be the audio subsystems. Now, the fact that Windows 7 is an evolution of Vista, nothing more than Windows Vista R2 if you will, is also valid for the audio infrastructure of the operating system. According to Larry Osterman, Microsoft Principal SDE, Windows 7 will not feature an overhauling of the audio subsystem, but the platform will indeed come with a range of enhancements including improved device role detection, Bluetooth audio in-box, stream switching, improved audio latency, automatic attenuation of audio samples (ducking), etc.

"The first thing we did [in Windows 7] is what we call improved device role detection," Osterman revealed at PDC 2008. "And the idea behind this feature is that we want to set things up so that when you're a multimedia application and you want to use audio, it will be really nice to know which device the user has chosen to use."

At the same time, Microsoft is recognizing the fast-paced adoption of Bluetooth devices and, in this context, the company has included specific driver by default into the operating system. Stream switching refers to Windows 7 being capable to seamlessly transfer the audio output to the speakers connected to the machine in case the headphones will be disconnected. Microsoft is in fact working to make Windows 7 smart enough to perform such actions automatically.

Microsoft will also tweak Windows 7 in order to improve audio latency by increasing support for acoustic echoing cancellation algorithms. The next iteration of the Windows client will also be capable of performing automatic attenuation of audio samples, allowing just one out of more simultaneous samples to come into focus, by reducing the volume on the remaining items.

"Using the PC as a phone is central to the future of communications, and this session will provide you with the essentials to build the end to end experience. Windows 7 provides APIs for integrating communications capabilities into your applications. This session covers attenuating and muting sounds during a phone call, receiving a phone call using a Bluetooth headset, improving the latency of a phone call, and selecting the appropriate communications device," reads the abstract for Osterman's session at PDC 2008 available for download [here](#) and for viewing [here](#).

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[Inside Windows 7: Larry Osterman on new audio capabilities](#)