

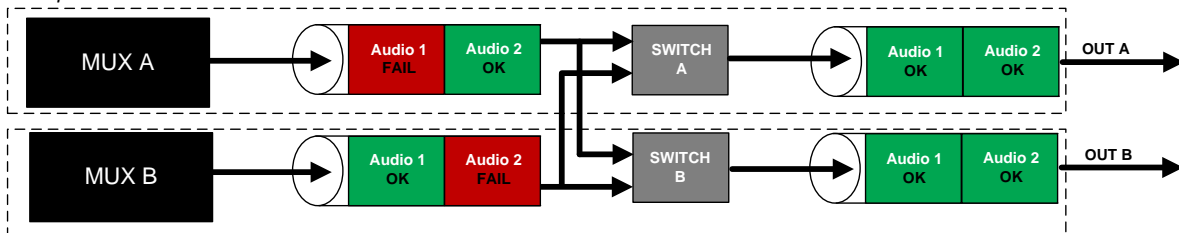


REDUNDANCY:

As a part of the intensive development, Paneda has now released an innovative technology for redundancy. A traditional system with 1 + 1 redundancy means usually having 2 identical systems, and after each system using a redundancy switch that simply selects the best system (with least error) of these two multiplexers. This has had a major disadvantage, namely that if a radio channel in the main system is faulty (as silence or broken) then this switch will select the backup system, and then **all** channels have been forced to use their backup channels, and each switch has caused an audio glitch. Many users also want the ability to use web streams in their redundant system, and in such situations, all channels are forced to switch over to backup, this has not been acceptable or appreciated. Another issue with a traditional design is that if two **different** services are faulty, one in the main system and another in the redundant system, the result will be that one of the services will be silence or faulty, it doesn't matter which source the switch will select.

A new system has now been developed that eliminates the above issues, the new Paneda switch enables that two DAB streams (one from each MUX) can be combined to create a completely correct and error free output **without** switching. This is possible since the new switch is "content aware" and can combine two faulty streams and combine these, given that the errors are effecting different services, in that case there is normally no actual switching while the output is combined and **error free**.

Example:



The smart logical switch is installed as a built-in function in the Paneda multiplexers and doesn't require any hardware. Basically, the switching between a MUX-A -> MUX-B will only occur then the multiplexer is completely down, in all other cases the switch can perform error correction without switching.

The system is already installed and in operation in several multiplexers. The switching functionality is handled by the same built-in web interface and supports a number of different switching modes and settings.