WDR implements Text to Speech System



German public broadcaster WDR has implemented a Text to Speech (TTS) system to further improve the accessibility of its broadcast services. This system converts ad-hoc text messages or ticker messages into speech during important events or in the event of a disaster, which is also played out with the broadcast signal as audio signals. Visually impaired viewers can also receive text messages as audio signals - vital in a disaster. LOGIC media solutions implemented the system and ensured seamless integration into WDR's production processes.

The Allinga Voice TTS module, a joint development of the Fraunhofer Institutes IAIS and IIS, is used for speech synthesis. It consists of a redundant Docker deployment containing the Allinga Voice TTS and a client programmed by LOGIC, whereby the Allinga Voice TTS module is located on-prem at WDR Cologne. When a texting signal is triggered in the broadcast centre, and a text message is received at the newsfeed server in the ARD CN, the client queries it at the server, and the Allinga Voice TTS synthesises speech from it in the form of audio samples. The audio servers are duplicated for redundancy reasons. The produced audio signal is then made available in the broadcasting centre via AES-3 and played out as needed. The embedder used for this purpose lowers the actual broadcast sound and plays the audio signal of the audio servers on top of the broadcast sound.

"We are pleased that we can contribute with our Allinga Voice TTS technology to support immediate aid and the flow of information in disaster situations. Our Allinga voice assistance solutions are versatile and contribute significantly to accessibility. In this context, we offer additional technologies beyond the TTS module, such as speech recognition, which converts spoken language into text. This means that application scenarios in other contexts are also conceivable - such as the transcription of public speeches," says Oliver Hellmuth, head of the department at Fraunhofer IIS.

When implementing the system, LOGIC emphasised a primarily automated process and the speed of connection since the system will be used, especially in disaster situations. The focus here was on directly addressing the solution without additional

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work steps or equipment. The TTS system is controlled via the broadcast controller (KSC), and starting and stopping are done in practice from the newsroom by the user (editorial staff) without needing a Master Control Engineer.

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