

Comparing OTP SMS and NSDT™'s Audio-OTP

NSDT™ uses Audio One Time Password (AOTP) technology for secure authentication. This method consists of generating a randomized code with a very short life span (between a few seconds and a few minutes) that is sent to a user through a distinct communication channel.

Both NSDT™'s AOTP and OTPs generated through the SMS channel fall into this category; however the AOTP has several advantages which are described in the table below.

	SMS	NSDT™
Ergonomics	<ol style="list-style-type: none"> 1. Receives and opens the SMS 2. Reads the message 3. Transcribes the OTP in the SMS into the PC keyboard 4. Sends the OTP 5. Process perceived as complex and technical 	<ol style="list-style-type: none"> 1. Answers the phone... that's all 2. Experienced as secure, yet user friendly
Security	<ol style="list-style-type: none"> 1. The SMS network is not completely secure. At the level of the SMS center, it is possible to read, modify, and duplicate an SMS. 2. There is no guarantee that the phone is present in front of the web page. A SMS can be read or forwarded at a distance. 3. The life-span of the OTP must be relatively long in order to accommodate the synchronization and ergonomics needs of the OTP. 4. The length and complexity of the OTP is limited to a few alphanumeric characters in order to maintain a reasonable ergonomics and entry error rate. 5. The security is not reinforced by an audio-channel interaction with the client. 	<ol style="list-style-type: none"> 1. The audio channel is very secure (see GSM specifications). 2. NSDT™ guarantees that the client's phone is present in front of the web page in order to hear the AOTP. 3. The life-span of the AOTP is less than 60 seconds. 4. The length and complexity of the AOTP allows more than 100 million unique combinations. 5. It is possible to request a password or secret from the client that is confirmed via the DTMF audio channel established by NSDT™. This provides an even higher level of security, protecting against Man in the Middle attacks.
Speed/ universality	<ol style="list-style-type: none"> 1. Network operators do not guarantee the delivery of SMS; as a result, there is no guarantee of reliable or effective results. 2. The speed of SMS delivery varies according to network traffic and can sometimes take several minutes to arrive. 3. The web server does not have access to online follow-up of message delivery to put in place a fall back authentication solution. 4. For some clients, opening an SMS can be slow. 5. Reading an SMS requires good visual acuity and may render SMS OTP authentication inaccessible to vision impaired clients as there is no zoom function for SMS. 6. SMS only works on mobile phones; voice SMS are reserved for ADSL subscribers since the RTC line of others is already occupied with an internet connection. 	<ol style="list-style-type: none"> 1. Between ½ and 5 seconds after the call is answered. . 2. Compatible with both GSM and fixed line phones. 3. In the event of network problems, the server is perpetually informed. 4. Can be used by 100% of clients. 5. Can also work if the client calls the server.