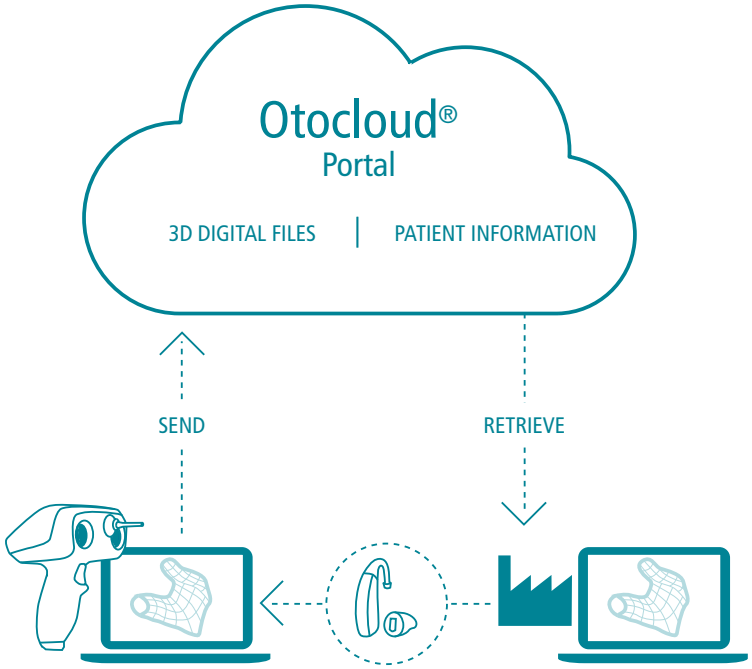
What is Otocloud®?



Otocloud is a cloud-based infrastructure for data transmission and data storage and an integrated and mandatory element of Otoscan. Its primary purpose is to store 3D ear scans taken by the clinician and furthermore to share these with hearing aid manufacturers and earmold labs for manufacturing of custom hearing devices. Additionally, Otocloud provides features for the clinician to add supporting data of the 3D ear scan to the manufacturer. Sharing of 3D ear scans with the manufacturer is easily achieved by simply selecting the preferred manufacturer and sending the 3D ear scans after which it will be immediately available for the manufacturer to download from their Otocloud account.

Software feature updates and bug-fixes are pushed to the Otoscan systems through Otocloud, ensuring that all customers are updated to the latest software version of the applications.

Where is Otocloud?

Otocloud is hosted by Microsoft Azure. In its current configuration, the platform is located on three different servers around the world. The platform enables seamless scaling of services to provide the necessary performance of Otocloud in different regions. As Otoscan is released in more markets more regional platforms are expected to be deployed, while still making sure that data is stored according to local legislation.

Enabling access in controlled environments

In order to access Otocloud, the customer IT infrastructure must be setup to allow access to specific internet addresses and port numbers. With the utilization of Microsoft online services (Platform as a Service), no physical IP addresses exists and consequently the firewall rules in the customer IT infrastructure must be setup to allow the following URLs:

EUROPE	
Main page	https://eur-otocloud.earscanning.com
API page	https://eur-otocloud-api.earscanning.com
JAPAN	
Main page	https://jpn-otocloud.earscanning.com
API page	https://jpn-otocloud-api.earscanning.com
USA	
Main page	https://usa-otocloud.earscanning.com
API page	https://usa-otocloud-api.earscanning.com
REST OF WORLD	
Main page	https://row-otocloud.earscanning.com
API page	https://row-otocloud-api.earscanning.com

Otocloud is using the standard HTTPS secure protocol, which means that Customer IT must allow HTTPS (port 443) to the api site per relevant region.

natus®

Securing your data

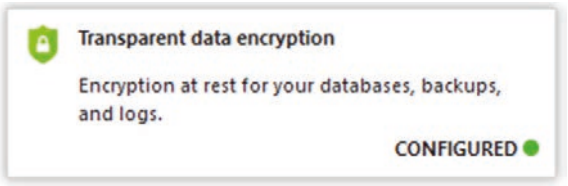
Otocloud is a secure system for patient and business data. Technical safeguards prevents unauthorized users to get access to data and authenticates authorized users access to only relevant data. Internal Natus support procedures and access controls strongly limits the ability to access data without the approval from Otocloud administrators.

Encryption

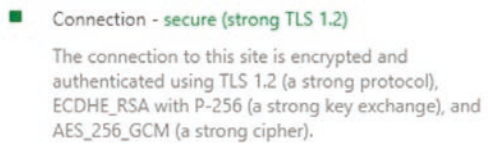
Data can be defined as being at rest or being in motion. Data stored on the Otoscan laptop or in Otocloud storage is by definition at rest.

While the data is stored on the laptop, the data is encrypted which means that neither patient data nor operator data can be accessed.

While the data is stored in the cloud storage, transparent data encryption is configured on the platform, which means that all databases, backups and logs are encrypted.



While the data is in motion between the Otoscan laptop and Otocloud or between Otocloud and the manufacturer, the connection is encrypted and authenticated using TLS 1.2, ECDHE_RSA with P-256 and AES_256_GCM.



Applications implement a strong password policy. Passwords are set by the users and encrypted using industry standards: PBKDF-2 with HMAC-SHA1, 128 bit salt, 256 bit subkey, 1000 iterations. Passwords, even temporary, are never communicated through emails or any other means.

Patient data

The required data is needed to ensure the integrity of the data and the safety of the patient. The data is stored in a single location on the laptop and/or in Otocloud. Several technical safeguards are implemented to ensure the confidentiality, integrity and availability of the stored patient data.

In addition to the data encryption, the application enforces a 20-minute automatic log out of all applications, and customers are recommended to create individual accounts for all users. Users can be deactivated to revoke access.

Mechanisms to prevent brute-force password and distributed denial of service attack (DDoS) attacks are also in place, while still preserving the availability of the data for the authenticated users.

GDPR

The Otoscan solution allows the user to enter data, which can be used to uniquely identify an individual. In the case where the user enters these data, Natus becomes a data processor by GDPR definition. By definition, the customer is the data controller in GDPR context.

Microsoft's Online Services are governed by the Online Services Terms. The Online Services Terms include Microsoft's core privacy and security commitments, data processing terms, Model Clauses, and our GDPR Terms. The GDPR Terms follow closely the requirements of GDPR Article 28 (and 30, 32-36, 44, etc).

For more information visit https://www.microsoft.com/en-us/TrustCenter/Compliance/EU-Model-Clauses

Visit hearing-balance.natus.com/otoscan for more information

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