

Nconnect Voice Service Description

The next-generation telephone system.



NFON
Cloud Telephone System

Nconnect Voice Service Description



Version 1

NFON AG
Machtlfinger Str. 7
81379 München
Tel.: + 49 89 45 3000
www.nfon.com
Email: info@nfon.com

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2 Introduction

- 2.1. With the Nconnect Voice SIP trunk, NFON AG (hereinafter referred to as NFON) provides the customer with a public telephone network access for the contractual period using the SIP (Session Initiation Protocol) technology.
- 2.2. Using the Nconnect Voice, the customer can connect one or several customer sites via a VoIP connection with NFON. A separate SIP trunk is needed for each site. This allows the exchange of voice traffic, in combination with the possibility, within the legal framework, of porting his geographical numbers or of receiving new phone numbers.
- 2.3. The Nconnect Voice is certified by well-known telephone systems manufacturers. An overview of the certified systems, the software versions and other information can be found at www.nfon.com. Technically, it is possible to connect other, non-certified telephone systems with the Nconnect Voice. In this case, however, NFON cannot provide any support.
- 2.4. This service description only includes the services of the Nconnect Voice, not other optional NFON services (e.g. NFON Business).
- 2.5. This service description applies in conjunction with the agreement, the service level agreement, the general terms and conditions, and the respective current price list (to be found in its latest version on my.nfon.com). In the event specifications on the same subject vary, the order of priority shall be as follows:
 1. Agreement (highest priority)
 2. Service descriptions, current pricelists, service level agreement
 3. General terms and conditions (lowest priority)
- 2.6. The present service description applies exclusively to business customers within the Federal Republic of Germany.

3 Service features

3.1 VoIP Service

The Nconnect Voice offers a VoIP service as a replacement of the previous ISDN / S2M connection. The customer continues to use his existing telephone system for call processing and routing for incoming and outgoing calls. In this context, NFON provides the customer with an internet-based telephone connection. The telephone connection includes a SIP account and a maximum number of concurrent incoming and outgoing voice channels.

3.2 Network access

The customer site is connected to the NFON network using of a broadband Internet connection. Optionally, NFON can provide the customer with an Internet connection by means of the product NFON Connect. In any case, the customer must ensure sufficient bandwidth (see 5.2) in order to achieve the maximum number of concurrent calls specified in the order form.

3.3 Nconnect Data (optional service)

NFON provides the internet connection via an external ISP (Internet Service Provider). For more details, please consult the Nconnect Data agreement. This agreement shall be signed separately.

3.4 Network Transport Services

NFON service is limited to linking the telephone numbers into the NFON infrastructure and terminating the calls to these telephone numbers routed by presuppliers to the customer's telephone system. NFON cannot assure the availability, quality and porting of telephone numbers and calls routed. The customer may only transfer calls originating in Germany to NFON. The availability of destinations being called abroad depends on the respective carriers involved. Service numbers abroad are limited or even unavailable.

The following incoming and outgoing connections of the worldwide telephone network (PSTN) are available for telephone numbers and network connections provided by NFON:

- Calls to geographical and mobile phone numbers
- Calls from NFON to service call numbers = outgoing calls (so-called online service numbers)
- Calls from NFON to premium service phone numbers = outgoing calls (so-called offline service numbers), are currently not supported.
- Calls from the public telephone network (PSTN) to the customer's geographical numbers, which are ported to NFON (NFON's presuppliers).
- There is no claim to the transmission of caller's phone number (customer CLI).

3.5 Features

Following features are available:

Features	Description
VoIP protocols	SIP
VoIP Codec	ITU-T G.711 a-law
Transport protocol	TCP / UDP
TLS / SRTP	TLS (Transport Layer Security) SSLv23 for encrypting call signalling and SRTP (Secure Real Time Protocol) for encrypting media streams (Q3/2017)
Number format	International phone number format according to ITU-T E.164
DTMF	DTMF (Dual Tone Multi Frequency) is supported <ul style="list-style-type: none"> • “inband” as signalling in the RTP stream • “outband” as specially marked events in the RTP stream according to RFC2833
CLI presentation (CLIP / CLIR)	The Nconnect Voice transmits both the user and the network provided phone number (CLI). These are visible to the called participant, provided that all transport carriers involved can guarantee the transmission of the phone number (CLI). With the CLIR (Calling Line Restriction) feature, the customer can suppress the user provided phone number on his telephone system.
CLIP no Screening	The customer can assign customer-specific phone numbers, for transmission to external destinations (Clip no screening). According to § 66 k (2) TKG, only those telephone numbers may be defined for transmission to the public telephone network of which the customer has acquired a right of use. According to this regulation, the customer is also not allowed to use any phone numbers for information services, mass transport services (e.g. “0137”), novel services (e.g. “012”), premium services (e.g. “0900”) and numbers for speed dial voice services as additional phone numbers and transfer them to the public telephone network.
Fax	T.38 using G.711 will be supported, yet cannot be guaranteed due to the dependency on the compatibility of the two end users.

3.6 Allocating new phone numbers or phone number blocks

In principle, NFON can provide new phone numbers and phone number blocks, by means of partners, in all areas of the network in the Federal Republic of Germany. Due to lack of telephone numbers in some local network areas, extended delivery times may occur.

The size of newly assigned direct dial blocks of telephone numbers is based on customer needs subject to the limitations of the German Federal Network Agency (www.bundesnetzagentur).

3.7 Porting of numbers

Numbers are provided by presuppliers. In the event NFON changes its advance service provider, the customer explicitly authorises NFON to transfer the numbers (porting), and agrees to sign the respective request form.

NFON supports porting of German geographical telephone numbers. This means that the customer can keep the previous call numbers and call number blocks when switching from another network provider to NFON.

According to the German telecommunications law, the previous network provider is obligated to transfer the geographical numbers, unless the customer changes into a different local area network.

For this purpose, the customer will complete a so-called customer release (porting form) for each telephone number or block of telephone numbers and submit the signed form with company stamp to NFON. NFON carries out the termination of the corresponding connections with the previous provider on the customer's behalf and coordinates the number porting.

If the telephone number that the customer wishes to port is used for an analogue or an ISDN connection in conjunction with a DSL connection, please note that the porting of the numbers of the analogue or ISDN connection will, as a rule, initiate the termination of the DSL connection. Thus, the internet access via the DSL connection will be terminated. Before porting these telephone numbers, it is therefore important to ensure for alternative internet access.

According to the law, the customer is entitled to keep the numbers even after expiration of the contractual relationship with NFON. NFON reserves the right to reject porting requests of new carriers until all outstanding accounts are settled. The new provider must be commissioned with porting telephone numbers of NFON (or its presuppliers) by the customer. After that, the new provider will then coordinate the porting with NFON.

In order for the service to not be interrupted at all or not for more than one calendar day in the event of a change of provider or the transfer of the call number from NFON to another provider, the following prerequisites must be fulfilled:

- The completed porting order submitted by the receiving provider must be received by NFON at the latest 7 working days (Monday to Friday) prior to the end of the contract.
- The export date depends on the contract period; a separate termination beyond the porting request is not required.
- In order to comply with the deadlines, the customer must also observe the deadlines set by the receiving provider.

If NFON makes the service available to the customer over the contractually agreed term, NFON is entitled to charge it according to the last valid price list. There is no claim to a permanent continuation of the service.

3.8 Phone book entry

At the customer's request, NFON will forward the customer main telephone number, name and address to be entered in public printed and electronic telephone directories (phonebook, etc.) and for inquiry services. If the customer receives new telephone numbers for his connection, only the main telephone number will be published in the entry unless otherwise instructed by the customer. For system access this is the main telephone number with the extension for the reception desk (typically "-0").

4 Calculation Basis

All calls from the customer's telephone system, which are transferred to NFON, are forwarded by NFON to its presuppliers for termination. All successfully transmitted calls are billed according to the valid price list. The customer himself is responsible for the restriction of the destinations and call authorizations at his telephone system.

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4.1 Creation of invoices

Invoices are only generated as PDF and e-mailed to the specified e-mail address or optionally as signed e-mail, or by post for a monthly fee. Invoices may, currently, be viewed at <https://reporting.nfon.com/>.

4.2 Itemised bills (CDRs)

Electronic copies of itemised bills are provided as needed, or can be viewed via a web interface (currently at <https://reporting.nfon.com/>). The customer can choose whether he wishes an itemized call list (CDR) for the chargeable connections or not. Customers choosing to receive an itemized call list should note:

Customers can choose whether the itemised call list should indicate the complete number or if the last three digits of the number dialled should be cut off.

Connections within companies and government offices require an affidavit that all employees have been or will be informed, and the workers council or employee representation was included according to the law. The customer must provide NFON with this affidavit upon request.

The itemised call list does not list calls to social services.

5 Customer Duties and Requirements

Customer's telephone system(s) and network environment must meet specific system requirements. The customer must ensure compliance with these system requirements and confirm compliance with the requirements for using the Nconnect Voice by signing the order form.

5.1 Customer service / support

The customer is responsible for setting up and operating the telephone system on own site, i.e. the configuration of the system (e.g. telephone numbers, dial plan, authorizations of the extensions, etc.) are within the customer's area of responsibility.

5.2 Internet Connection Requirements

Customers are required to provide a minimum bandwidth of 100 kbit/s up- and download (simultaneous) per simultaneous telephone call at the site. The internet connection must also continuously provide a latency of less than 100 ms (measured on DE-CIX to the device) and a package loss of clearly less than 1 %.

5.3 Customer Network Requirements

The customer must provide and operate a professionally installed, highly available local network infrastructure.

When using a firewall, the customer must configure and adapt it to VoIP data stream to allow for communication between the telephone system at his site and NFON.

5.4 Customer Duties

The customer is obliged

- to transfer to NFON only calls with a valid source number ("A" telephone number), which have been assigned by NFON or ported to NFON under this agreement.
- to terminate all calls from telephone numbers, which have been assigned by NFON or ported to NFON under this agreement via the Nconnect Voice.
- to prevent any abuse (so-called dialler / bots / hacking) according to the current state of the art.

- to ensure that calls are not forwarded to a destination where incoming calls will also be forwarded and to ensure the owner of the destination to which a call is forwarded agrees to the call forwarding.
- to inform his employees that he is able to view call logs where also calls to social consultations are displayed. The customer is obliged to inform his employees that in case of a geographically unlimited or distributed use of telephone end devices, emergency calls are always led to the receiving office assigned to the telephone number used (location), see 6.3;
- in the context of his obligation to cooperate in the event of errors, the customer agrees to take simple measures as instructed by NFON or a service provider assigned by NFON. If the customer does not have adequately technically versed personnel to perform these measures, this may result in delays processing trouble reports.
- the offered services are not to be used for the purpose of the commercial trading of termination services in the sense of arbitrage models, call shops, etc.
- to not use the service for machine-to-person communication, e.g. when using automated dialling systems
- to not use the service for bilateral person to person communication. e.g. in case dialling of numbers where the caller receives money or another material value for dialling this number.

6 Restrictions and limitations of services

6.1 Restrictions

NFON can and must set clear limitations with respect to services to be provided. NFON particularly cannot

- provide network support, nor provide customer support for the required network infrastructure or provide support with implementation, operation and fault elimination.
- provide support for the internet connection with the exception of NFON access products in accordance with their service level agreements.
- provide support with linking applications to the NFON telephone system beyond referencing the existing interface specification unless ordered as a billable consulting service.

6.2 Limitations

The VoIP technology cannot reproduce all functions of classic voice telephony (via ISDN or analogue connection). Therefore, NFON is particularly unable to provide the following functionalities:

- emergency call function if the customer IP network fails. NFON recommends using a non-NFON mobile device at every site.
- adding standard- or special ISDN equipment, e.g. ISDN PC cards, fire alarms, EC-Cash or credit card systems, franking machines and alarm systems
- offline billed special telephone numbers and blocking of individual destinations
- NFON reserves the right, with consideration to the customer's interest, to block individual target telephone numbers, groups of target telephone numbers or special country codes.
- use of Call-by-Call offerings

6.3 Emergency Calls

The customer must assign a location to each SIP trunk. Telephone numbers must match this location. NFON routes emergency calls to emergency numbers 110 and 112 to the emergency hotline matching this location. The customer is responsible for recording the complete and correct location, and to always have every device assigned to the correct location. Only the correct name and address at the time an emergency call is placed

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will ensure correct emergency call functionality, particularly reaching the nearest fire or police station. If a customer is using multiple locations within one telephone system, it is necessary to create a separate SIP trunk for each geographic location. NFON assumes no liability for damages and claims arising from improperly making an emergency call.

If a NFON customer uses the emergency call from a different location than the address entered (nomadic use), an emergency response may not be available or only if the caller is able to tell emergency dispatch his name and location. So-called "gasping calls" cannot be placed. The customer must instruct his staff accordingly. Emergency calls are only possible in Germany.

The number of parallel calls for the SIP trunk is limited according to the quantity ordered by the customer. This means that the customer must ensure that in case of a full utilisation, emergency calls to 110 or 112 are prioritised or an ongoing call is interrupted in order to make an emergency call possible.

Emergency calls to 110 and 112 cannot be placed in the event of power outages unless the customer ensured his devices, the local network and the internet connection for the site will also be operational in the event of a power outage in the building, through alternate power supply.

Changes to the configuration of the voice and data solution components preconfigured by NFON can lead to an unsuccessful emergency call. The customer is therefore responsible for researching the impacts of planned changes in advance, and to verify the functionality of a telephony solution before and after a change is made.

For the above reasons we recommend always keeping several operational mobile devices on site.

6.4 Customer's contraventions within the scope of the use

NFON is entitled to refuse or cancel the Nconnect Voice services to customers, if the customer violates the obligations under point 5.4.