

LoRa Alliance® Member NetID Policy and Terms

This LoRa Alliance® Member NetID Policy and Terms (the “NetID Policy”) applies to all NetID allocations by LoRa Alliance, Inc. (“LoRa Alliance” or “Alliance”) to Alliance member network operators who contract with the Alliance to receive NetID allocations (each, a “Network Operator”) and governs the use of such NetIDs by each Network Operator under its respective NetID Agreement with the Alliance. This NetID Policy is incorporated by reference into each NetID Agreement. *Use of NetIDs by network operators that are not Alliance members is governed by the LoRaWAN® Network Affiliate Policy and Terms.*

Conditions of Net ID Usage

Network Operator is required to limit use of NetID to Open Networks and collaborating Closed/Private Networks as defined below. Only operators of Open Networks, and Closed/Private Networks which collaborate with the other networks can be allocated a NetID and use LoRa preamble sync word 0x34.

Open Network: A network that offers open connectivity services, i.e., the network operator provides subscription plans for 3rd party users to connect their 3rd party devices to the network.

Collaborating Closed/Private Network: A network that is open to 3rd party users and their 3rd party devices only through an active roaming agreement with the other networks implementing LoRaWAN® compliant roaming.

Network Operator is required to implement an ADR (Adaptive Data Rate) mechanism that maximizes the device data rate for the current radio link conditions of the device. This does not preclude other ADR objectives/cost function. In any case, devices with fixed hardcoded data rates of SF12 (Spreading Factor 12) or SF11 must not be allowed to join the network.

The Network Operator is not permitted to forward uplink frames to any end-point other than the one(s) provided by the designated assignee on the Alliance NetID allocation table.

Types of NetIDs Available to Alliance Members

There are different types of NetIDs, each differing in terms of the NwkID space and use (which has implications on NwkID collisions among operators), and also NwkAddr space (which has implications on the number of unique DevAddrs one can generate). Details of the NetID types can be found in the LoRa Alliance Backend Interfaces Specification.

The type of NetID allocated to each member without charge as a membership benefit depends on the level of LoRa Alliance membership.

- Sponsor members are allocated one Type 0 and one Type 3 NetID.
- Contributor members are allocated one Type 3 and one Type 6 NetID.
- Adopter members and Institutional members are allocated one Type 6 NetID.

NetIDs allocated without charge as a benefit of membership are referred to in this Policy as “Member Allocated NetIDs”.

Members of the Alliance at all membership levels are additionally eligible for allocation of one or more blocks of 16 Type 7 NetIDs based on payment of an annual fee and execution of a binding agreement

with the Alliance. Type 7 NetIDs allocated to Alliance Members are referred to in this Policy as “Additional Member NetIDs”.

Allocation of Additional Member NetIDs beyond the two blocks of 16 Type 7 NetIDs is subject to proof of utilization of the previously assigned ones.

Because ABP (Activation by Personalization) devices are more difficult to renumber due to lack of a LoRaWAN-layer mechanism, care must be taken when assigning DevAddr to such devices (e.g., consider using lower type NetID, or NetID=0x000000 or 0x000001 as reserved for experimental/private use [LW]).

All NetID allocations are granted for 1 year. Member Allocated NetIDs are automatically renewed concurrent with the renewal of LoRa Alliance membership. Additional Member NetIDs are automatically renewed provided that the Network Operator continues to pay the annual fee for each such NetID and remains in full compliance with the NetID Agreement including without limitation this NetID Policy.

If the Network Operator upgrades its LoRa Alliance membership level, it can keep the existing NetID allocation(s) while having additional NetID(s) assigned matching its new level. If the Network Operator downgrades its Alliance membership level, it will be assigned a new NetID matching its new level of membership (if it does not already have one) and it must release any NetID tied to its former level of membership. In the case of releasing a NetID in the context of a changing Alliance membership level, the Network Operator has a 6-month grace period to migrate all of its devices using the released NetID to another NetID that it has been allocated.

If the Network Operator fails to renew its LoRa Alliance membership, all Member Allocated NetID(s) allocated to the Network Operator and all Additional Member NetIDs in excess of two blocks of 16 Type 7 NetIDs will be returned to the free pool after a 3-month grace period. A non-renewing Network Operator may elect to retain two blocks of 16 Type 7 NetIDs as a non-member LoRaWAN® Network Affiliate upon execution of a nonmember LoRaWAN NetID Application and Agreement. Following the termination of Alliance membership, such allocation of the Type 7 NetIDs will be subject to the terms of the LoRaWAN® Network Affiliate Policy and Terms and shall be subject to the non-member annual fee.

Allocation of all freed NetID(s) to another requesting network operator(s) following any applicable grace periods is at the sole discretion of the LoRa Alliance.

NetID Fees for Additional Member NetID

Network Operator agrees to pay all applicable fees established by the Alliance for access to the Additional Member NetIDs. If Network Operator is delinquent in the payment of applicable fees under the NetID Agreement, Network Operator may be suspended from ongoing use of the NetID.

For Additional Member NetIDs, the annual fee shall initially be USD \$350 per a block of 16 Type 7 NetIDs. Network Operator acknowledges that the fees and other charges applicable to Network Operators may be changed by the Alliance in its sole discretion from time to time on a prospective basis.

NetID Remedies

If the Network Operator fails to comply with any of the conditions of NetID usage, Network Operator must promptly remedy any violation to retain the NetID(s). Failure to promptly remedy any violation may result in the Alliance terminating the NetID allocation(s). Continued violation of this NetID Policy by Network Operator may additionally result in termination of Network Operator’s LoRa Alliance membership.

If Network Operator fails to pay applicable ongoing fees or the allocation of NetID is terminated due to failure of the Network Operator to follow the NetID Policy, the NetID allocated to the Network Operator may be returned to the free pool with allocation of the freed NetID to another requesting network operator at the sole discretion of the Alliance.

Agreement for Publicity re Network Operator

Network Operator agrees that the Alliance may publicly disclose and identify Network Operator in connection with the Alliance listing of NetID allocations and in Alliance publicity related to LoRaWAN Network Affiliates. The Alliance may use the name and logo of Network Operator for such purposes during the period in which Network Operator holds a NetID.

Additional Covenants of Network Operator

Network Operator agrees to comply with all applicable laws and requirements including without limitation, antitrust statutes, laws and guidelines of each relevant jurisdiction. Network Operator agrees to take no action in contravention of the Alliance's purposes or in contravention of the NetID Policy. Network Operator agrees to avoid public communications about the Alliance and its activities that would be detrimental to the Alliance or the success of the LoRaWAN® standard.

No Transfer of NetID

Network Operator is not permitted to transfer a NetID to another network operator, except as part of an internal reorganization or change in ownership of the network operator in accordance with the requirements of the Assignment Provision in Other Terms and Conditions below.

DISCLAIMER OF WARRANTIES

THE ALLIANCE DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO (A) ANY WARRANTY THAT THE USE OF ALLIANCE INFORMATION HEREIN OR PERFORMANCE OF THE NETID AGREEMENT WILL NOT INFRINGE ANY RIGHTS OF THIRD PARTIES (INCLUDING WITHOUT LIMITATION ANY INTELLECTUAL PROPERTY RIGHTS INCLUDING PATENT, COPYRIGHT OR TRADEMARK RIGHTS) OR (B) ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE OR NONINFRINGEMENT. IN NO EVENT WILL THE ALLIANCE BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OF DATA, INTERRUPTION OF BUSINESS, OR FOR ANY OTHER DIRECT, INDIRECT, SPECIAL OR EXEMPLARY, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND, IN CONTRACT OR IN TORT, IN CONNECTION WITH THE PERFORMANCE OF THE NETID AGREEMENT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

Dispute Resolution

The NetID Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws provisions. For the limited purposes of enforcement of the NetID Agreement, the parties irrevocably consent to the exclusive personal jurisdiction (except as to actions for the enforcement of a judgment, in which case the jurisdiction will be non-exclusive) of the federal and state courts located in Delaware. The provisions of Network Operator's Member Participation Agreement shall apply in the event of disputes between Network Operator and the Alliance. Notwithstanding any provision therein, such dispute provisions shall apply only to disputes between the Alliance and Network Operator and shall not apply to any disputes between Network Operator and other network operators, between Network Operator and other members of the Alliance, and/or between Network Operator and third parties.

Other Terms and Conditions

Assignment. Except as hereinafter provided, Network Operator shall not assign the NetID Agreement to any third party without the prior written consent of the Alliance in its sole discretion. Notwithstanding the foregoing, if Network Operator enters into a transaction pursuant to a purchase, sale, merger or other transfer of substantially all of Network Operator's stock or assets, Network Operator shall have the right to assign the NetID Agreement to its successor-in-interest, provided that such successor-in-interest agrees to be bound by the terms and conditions of the NetID Agreement and subject to the Alliance's consent which shall not be unreasonably withheld. The terms and conditions of the NetID Agreement shall be binding upon and inure to the benefit of the parties' respective successors and permitted assigns, whether such transfer or assignment occurs by merger, consolidation, purchase, operation of law or otherwise.

A successor-in-interest that is already a member of the LoRa Alliance has the right to be assigned any one of the NetIDs of the Network Operator that match the membership level of the successor-in-interest or levels below that. If the successor-in-interest seeks to be assigned a NetID that matches a higher-level membership than that of the Network Operator, the Network Operator shall upgrade its membership to the matching level to be assigned the said NetID.

The assignment of such NetIDs to the successor-in-interest is limited to 3 years only. After this period, the successor-in-interest shall cease using these NetIDs, and the LoRa Alliance shall return these NetIDs to the free pool.

The annual fees for NetIDs assigned under such circumstances are as follows:

- Type 0 NetID: USD \$2500
- Type 3 NetID: USD \$1000
- Type 6 NetID: USD \$175

The successor-in-interest acknowledges that the fees and other applicable charges may be changed by the Alliance at its sole discretion on a prospective basis.

Amendment. Network Operator acknowledges that the NetID Policy may be amended by the Alliance on a prospective basis in the sole discretion of the Alliance from time to time and that all amendments shall be binding upon Network Operator upon notice of same.

Notices. All written notices from the Alliance to Network Operator may be given at the Alliance's option by electronic mail, facsimile telecommunication, commercial delivery service, mail, or similar means, addressed to Network Operator at its address for such form of delivery as it appears on the records of the Alliance. If the address or other contact information of Network Operator changes, it shall be the responsibility of Network Operator to provide the Alliance with updated information.

No Implied Joint Venture. The NetID Agreement does not create a joint venture, partnership or other form of business association among the Network Operator and the Alliance or any of the Alliance members, other Alliance network operators, Alliance vendors or Alliance suppliers, nor an obligation to develop, make available, use, buy, sell or provide any information, product, service or technology, or provide any license and nothing contained in the NetID Agreement. No action taken by Network Operator shall be deemed to render Network Operator an employee, agent or representative of the Alliance.

Further Assurances. The parties will sign other documents and take other actions reasonably necessary to further effect and evidence the NetID Agreement.

Licenses and Permits. Network Operator shall possess or obtain at its own expense all necessary licenses or permits that may be required for its operations and use of any NetID.

Enforceability and Interpretation. If any provision of the NetID Agreement is held for any reason to be invalid or unenforceable, the remaining provisions of the NetID Agreement will be unimpaired and the invalid or unenforceable provision will be replaced with a provision that is valid and enforceable and that comes closest to the parties' intention underlying the invalid or unenforceable provision. The headings in the NetID Agreement and this NetID Policy are for reference only and will not affect the meaning or interpretation of the NetID Agreement or the NetID Policy.

Waiver. No approval, consent or waiver under the NetID Agreement will be enforceable unless signed by the granting party. Failure to insist on strict performance or to exercise a right under the NetID Agreement shall not constitute a waiver of such rights.

Effectiveness. The NetID Agreement shall be effective when the Alliance has received and accepted a signed copy of the NetID Agreement and all required fees have been received from Network Operator.

Term. The NetID Agreement shall commence on effectiveness and remain in effect until terminated pursuant to its terms. Either Party may terminate the NetID Agreement without cause with no less than 30 days prior written notice. Notwithstanding the foregoing, the Alliance will only terminate the NetID Agreement without cause if it ceases to offer NetIDs to Alliance members.

The NetID Agreement shall terminate for cause upon the failure of Network Operator to (1) pay required fees on or before their due date, or 2) conform with the terms and conditions of the NetID Agreement, such termination to be effective thirty (30) days after a written notification of delinquency or breach to Network Operator by the Alliance unless in the case of the first delinquency or breach, or in the case of subsequent delinquency or breach at the Alliance's sole option, such delinquency or breach is fully cured within such 30-day period. Notwithstanding the foregoing, Network Operator's material breach of its confidentiality obligations under the NetID Agreement shall require no cure period prior to termination. Network Operator shall receive no refund of fees already paid as of termination of the NetID for any reason.