

InfiniBox 2.2.x

Best practices for setting up services

About INFINIDAT

INFINIDAT features high-end, hyperscale storage with highly-dense capacity, high performance, and infinite use cases. INFINIDAT offers you an environment-friendly system with low power consumption, low CapEx & OpEx and unmatched TCO.

With more than 90 patent applications (many of which are approved), INFINIDAT is a global leader in the areas of data protection, performance, automation, energy savings, ease of management, and scaling.

About this manual

This publication provides best practices for setting up Infinibox services (iSCSI, NAS, replication).

Date	Product version	Content
Jan-2017	2.2.x	This guide provides a quick-start for setting up a replication service for InfiniBox 2.2.x. For InfiniBox version 3.0 and up, see: InfiniBox 3.0 best practices for setting up services (on the support site).

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Introduction

InfiniBox deploys an IP-based replication service on top of a Network Spaces. A network space is a logical entity that makes use of the InfiniBox networking hardware.

InfiniBox Ethernet ports

InfiniBox has either 2 or 4 Ethernet ports per node (6 to 12 ports per InfiniBox). The network layout – the way InfiniBox connects to external resources – depends on the deployed service and on the number of external switches. A detailed discussion on the available network layouts can be found on the Support site (Deployment considerations for services).

Creating a network space for replication

- Interface - One or more Ethernet Ports that are grouped together for the purpose of redundancy and/or performance using LACP.
- Network Space - A set of definitions for a network address space, annotated using CIDR.
- Link - A bidirectional means of communication between local and remote systems.
- Replica - An entity that matches a pair of source and target volumes and other settings essential for the replication.
- Replica attributes
 - Sync interval - the interval between two consecutive sync jobs
 - RPO (Recovery Time Objective) - the lag between the source and target sites

BEFORE YOU BEGIN

Make sure you have accessibility (admin privileges) to both local and remote systems. On each of the systems:

Functionality	Connected ports	IP addresses	Firewall ports
Management	1	1	80,443
Data	3 to 6 (3 * 1 to 2)	3 to 6	8067

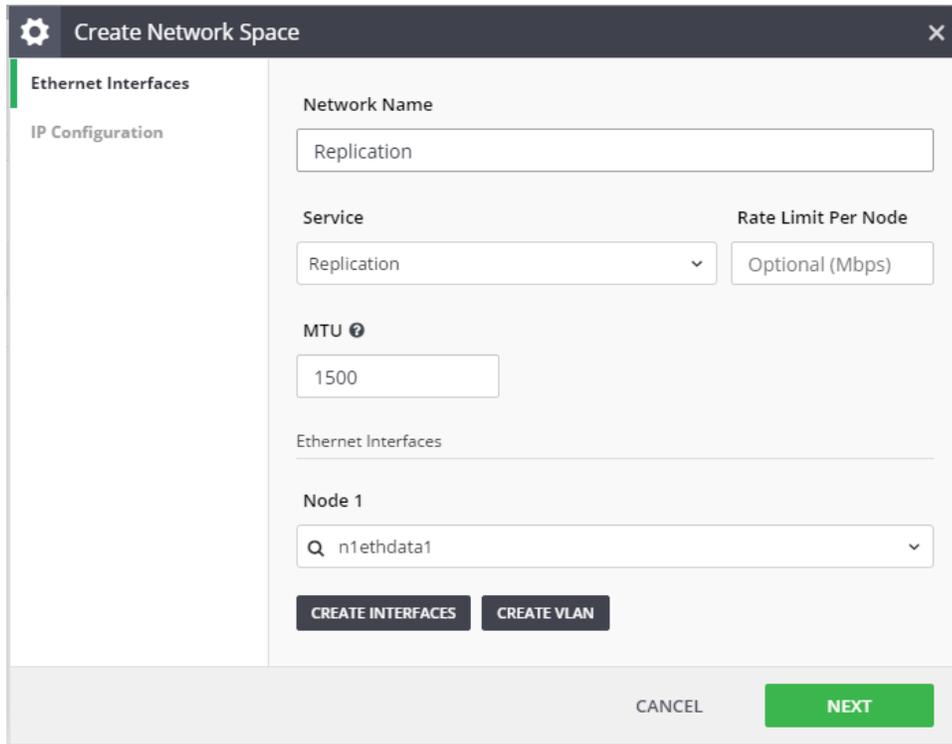
INSTRUCTIONS

- Repeat the following task sequence for each of the sites (local and remote)
- The ports that are available for the replication are listed on the **Network Interfaces** tab

Step 1 On the GUI, click the **Settings** icon on the toolbar on the left, and then click the **Network Spaces** tab.

Click **Create**.

The **Create Network Space** wizard opens. Fill in the replication network space details.



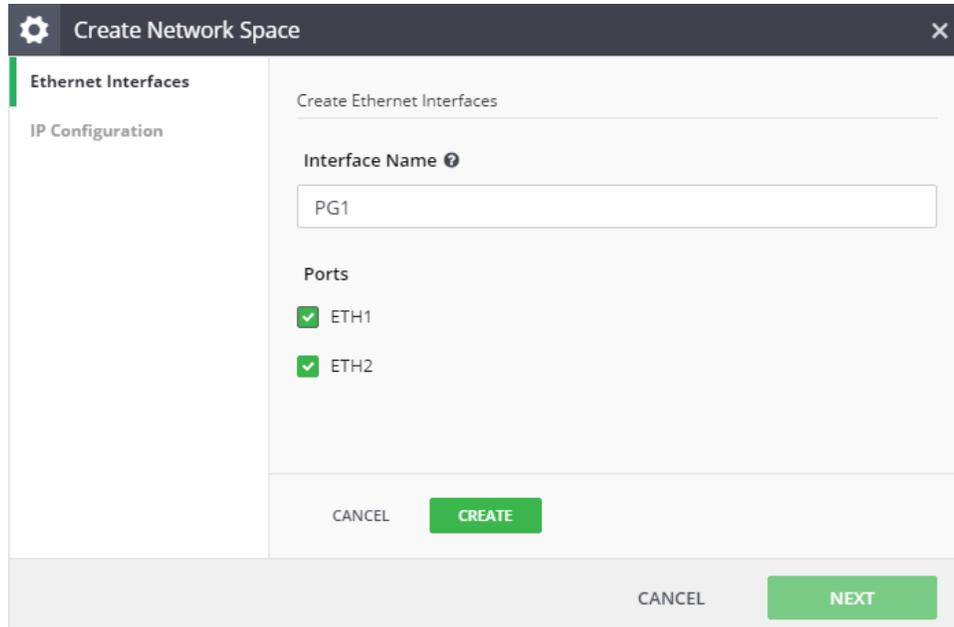
The screenshot shows a window titled "Create Network Space" with a sidebar on the left containing "Ethernet Interfaces" and "IP Configuration". The main area contains the following fields and controls:

- Network Name:** A text input field containing "Replication".
- Service:** A dropdown menu with "Replication" selected.
- Rate Limit Per Node:** A text input field containing "Optional (Mbps)".
- MTU:** A text input field containing "1500".
- Ethernet Interfaces:** A section header with a horizontal line below it.
- Node 1:** A dropdown menu with "n1ethdata1" selected.
- Buttons:** "CREATE INTERFACES" and "CREATE VLAN" are located below the Node 1 dropdown.
- Footer:** "CANCEL" and "NEXT" buttons are located at the bottom right of the window.

Step 2 Click **Create Interfaces**.

The **Create Ethernet Interfaces** screen opens. Select ports for each of the interfaces and click **Create**.

You are returned to the **Ethernet Interfaces** screen.



The screenshot shows a window titled "Create Network Space" with a close button (X) in the top right corner. On the left, there is a sidebar with a gear icon and two tabs: "Ethernet Interfaces" (selected) and "IP Configuration". The main area is titled "Create Ethernet Interfaces" and contains the following fields and controls:

- Interface Name**: A text input field containing "PG1".
- Ports**: A list of two items, "ETH1" and "ETH2", each with a checked checkbox.
- Buttons**: A "CANCEL" button and a green "CREATE" button at the bottom of the main area.

At the bottom of the window, there are two more buttons: a "CANCEL" button and a green "NEXT" button.

Click Next to move to the **IP Configuration** screen.

Step 3 Fill in the following properties:

- Network
- Netmask
- Default Gateway
- IP Addresses

Click **Finish**.

The wizard screen closes and the network space is displayed on the **Network Spaces** tab.

Creating a replication service

Remote replication is the process of copying a dataset from a local InfiniBox to a remote InfiniBox for the purpose of data protection or disaster recovery. The replication ensures uninterrupted business operation in case of a site failure. The INFINIDAT Remote Replication technology asynchronously replicates data from a source InfiniBox to a target InfiniBox. The replication is defined per volume.

This task replicates a volume, or a consistency group, from a source InfiniBox to a target InfiniBox.

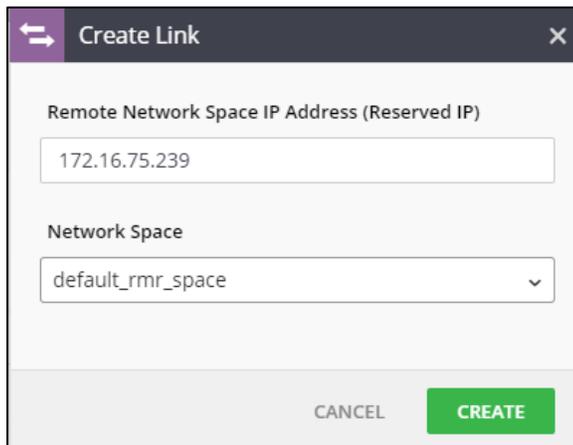
CREATING A LINK

Step 1 Click the Replication icon at the toolbar on the left. The **Replication** screen opens. Click the **Links** tab.

Step 2 Click **Create Link**. Insert an IP address of the remote system and click **Create**. Select the local network space that runs the Replication service.

In case that the remote system credentials are not identical to the credential of the local system, you will be asked to enter them.

The two systems are now connected.



The Links tab displays the link status.



CREATING A REPLICATION

Based on fulfilling the steps above, you can now create a replica on the source system.

Step 1 Click the **Replica** tab. Click **Create Replica**. Fill in the following details:

- Replica type – either a volume or a consistency group
- Source – the name of the volume or consistency group
- Remote system – the system that stores the target of the replica
- Remote target – select either of the following:
 - Create new – let InfiniBox to automatically create the replica entity on the target
 - Select existing – select an entity on the target InfiniBox
- Remote name – filled automatically if Create new was selected
- Remote pool – select the pool that will store the remote entity
- Interval
- RPO

Click **Create**.

The replica is created and is visible on the **Replication** screen.

The replica automatically initializes and its replication progress is visible on screen.

← Create Replica
×

Replica type

Consistency Group ▼

Source

Q cg2 ▼

Remote System

Q box-avi ▼

Remote target

Create new
 Select existing

Remote CG Name

cg2-target

Remote Pool

Q p-box-avi ▼

Interval

60 ▼

Sec

RPO

5 ▼

Min

📍 LOCAL
🌐 REMOTE
⋮

📊 cg2
Pool: p-box-avia

🗄️ v-7
Size: 15 GB

🗄️ v-6
Size: 15 GB

🗄️ v-9
Size: 15 GB

🗄️ v-8
Size: 15 GB

🗄️ v-10
Size: 15 GB

📊 cg2-target
Pool: p-box-avi

🗄️ v-7-target
Size: 15 GB ✎

🗄️ v-6-target
Size: 15 GB ✎

🗄️ v-9-target
Size: 15 GB ✎

🗄️ v-8-target
Size: 15 GB ✎

🗄️ v-10-target
Size: 15 GB ✎

CANCEL
CREATE