

# Addition of IP Pool in IP Group


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## Revision History

**Note** Revision history details are not provided for features introduced before release 21.24.

| Revision Details | Release |
|---|---|
| First introduced | Pre 21.24 |

## Feature Description

In the existing CUPS platform, when a new IP pool is added, only the User Planes (UPs) that register after the creation of the new pool can use these pools. If any existing UP requires to use the new pool, a UP reload or UP reassocation is performed.

The Addition of IP Pool in IP Group feature ensures that when a new IP pool is added, each existing UP is evaluated based on whether its APN configuration makes it eligible to get chunks from this new pool. If the UP is eligible, then chunks are allocated to the UP and it is used for future call allocation.

The eligibility of the UP is determined in the following scenarios:

- APN has a pool-group configured. A new pool is added under this pool-group.
- APN has no pool-name or pool-group configured . A new public pool is added.

**Note** Any changes implemented on the APN do not take affect until the UP is reassociated or reloaded.

# How it Works

This section briefly describes how the Addition of IP Pool in IP Group feature works.

### Adding New Pools in a CP-CP ICSR Environment

1. Add the new pool in the Standby Control Plane (CP).
2. Add the new pool in the Active CP.

   Chunks are allocated to the eligible UPs and the same are checkpointed to the Standby CP.
3. Verify whether **show { ip | ipv6 } pool-chunks pool-name** <*name*> command in both the CPs are synchronized.

### Delete Pools in CP-CP ICSR Environment

1. Delete the pool in the Active CP.
2. Ensure that all the IPs are free from the deleted pool in the Standby CP, using the **show { ip | ipv6 } pools** command.
3. Delete the pool in the Standby CP.

**Note** Adding the IP Pool command and the Busyout command of the same IP Pool at the same time creates a race condition. To avoid the issues, run the IP Pool command and Busyout command separately.

# Monitoring and Troubleshooting

This section provides information regarding the CLI command available in support of monitoring and troubleshooting the feature.

## Show Command(s) and/or Outputs

This section provides information regarding show commands and/or their outputs in support of this feature.

### show ip user-plane verbose

The output of this CLI command displays the following fields in support of the Addition of IP Pool in IP Group feature in CUPS mode:

- Dynamic pool count
- apn-without-pool-name-v4
- apn-without-pool-name-v6
- Pool-groups

- Pool-Group-Names