

# Compute Servers Tapti | Kaveri | fs1 | fs2 Usage

## Introduction

NCRA has four common user-accessible compute servers, which can be accessed using your NCRA webmail, LDAP, or Dhruva credentials. These four compute servers—Tapti, Kaveri, fs1, and fs2—share a common `/home` area, but each has its own `/Data` area. Please note this distinction.

- Hostnames of the compute servers
  - `tapti.ncra.tifr.res.in`
  - `kaveri.ncra.tifr.res.in`
  - `fs1.ncra.tifr.res.in`
  - `fs2.ncra.tifr.res.in`

The storage capacity is allocated upon request. The default `/home` area allows you to log in and store code/scripts, but it is limited to 750MB. Please keep this area as free as possible to avoid any disruption to your login.

Tapti (equipped with an NVIDIA Tesla K40c) and Kaveri are compute servers, each with a 36-core CPU and 512GB and 768GB of RAM, respectively. Both have approximately 95TB of storage. Users need to store their data and codes in the `/Data/<username>` area. Make sure to configure your software and their paths to this `/Data/` area.

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## 1. Accessing the Compute Servers

- **Credentials:** Use your NCRA webmail, LDAP, or Dhruva credentials.
- **Servers:** The servers available are Tapti, Kaveri, fs1, and fs2.

## 2. Login Instructions

- **SSH Access:**
  - Command: `ssh <username>@<server_name>.ncra.tifr.res.in`
  - Example: `ssh ratnakumar@tapti.ncra.tifr.res.in`

## 3. File System Layout

- **Common `/home` Area:**
  - Shared across all servers.
  - Intended for storing code/scripts.
  - Limited to 750MB. Keep this area clear to avoid login issues.
- **Separate `/Data` Areas for tapti & kaveri:**
  - Unique to each server.
  - Store your data and large files here: `/Data/<username>`.
  - Configure software paths to point to your `/Data` directory.
- **Separate `/data` Areas for fs1 & fs2:**
  - Unique to each server.
  - Store your data and large files here: `/data/<username>`.
  - Configure software paths to point to your `/data` directory.

## 4. Storage Allocation

- **Requesting Additional Storage:**
  - If you need more storage, contact [ratnakumar@ncra.tifr.res.in](mailto:ratnakumar@ncra.tifr.res.in) & [satpal@ncra.tifr.res.in](mailto:satpal@ncra.tifr.res.in)
  - to request an increase.
- **Monitoring Usage:**
  - Regularly check your storage usage in `/home` to prevent issues.

## 5. Server Specifications

- **Tapti:**
  - 36-core CPU, 512GB RAM, NVIDIA Tesla K40c GPU, 95TB storage.
- **Kaveri:**
  - 36-core CPU, 768GB RAM, 95TB storage.
- **fs1 and fs2:**
  - 20-core CPU, 256GB RAM, 81TB storage each. (Storage in `/data` )

## 6. Best Practices

- **Efficiency:** Use the `/home` area sparingly and keep backups of your important files.
- **Configuration:** Ensure all software configurations point to your `/Data & /data` directory.

## 7. Troubleshooting

- **Login Issues:** Ensure that your `/home` area is not over the limit of 750MB.

- **Storage Problems:** Contact [ratnakumar@ncra.tifr.res.in](mailto:ratnakumar@ncra.tifr.res.in) & [satpal@ncra.tifr.res.in](mailto:satpal@ncra.tifr.res.in) if you encounter storage issues.
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