Baadal: the IITD computing cloud

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Baadal is a cloud computing environment that provides virtualized computing resources for academic and scientific environments.

Some of the main features of Baadal are:

- An indigineously developed cloud orchestration and virtualization management software that can work with multiple virtualization technologies like *KVM*, *Xen* and *VmWare*
- Developed using Open source virtualization technology based on *KVM*.
- Simple and intuitive workflow
- Ensures optimum resource utilization

Usage

- Users can request and manage virtual machines by logging on to https://baadal.iitd.ac.in

- New VMs can be requested by filling form on User Menu > Request VM.
- Users need to select Operating System & its version from a standard set of templates.
- While making a request users will have to specify machine configuration; viz. RAM, CPU & Storage. Users can optionally request for additional hard disk and specify its size.
- An additional virtual hard disk, if requested, will be attached to the virtual machines which the users will have to format themselves according to their requirement.
- Requests made by students will have to be approved by their faculty supervisors through the workflow system at   https://baadal.iitd.ac.in/baadal
- Multiple collaborators can be added to a VM.
- Once the request has been approved by a CSC cloud administrator a virtual machine will be created. The virtual machine will be owned by the faculty member who can then grant access rights to other users registered in IITD LDAP. All VM collaborators will be notified about the virtual machine creation and the access password thorough an email.
- Users can note the IP address of the commissioned virtual machine from the user interface at   https://baadal.iitd.ac.in/user/list_my_vm. Users can then access their virtual machine using ssh for Linux and rdesktop for Windows as root (Linux) or Administrator (Windows) using the initial access password. Users will be required to change the root/Administrator password at first login.

- Incase of network connectivity issue, user can access their machine using VNC option on Settings page.
- Local users can be created on the Windows or Linux VMs using standard procedures specified by the operating systems.
- Internet is accessible only through proxy, which needs to be set as specified by the operating system.
- From the user interface at https://baadal.iitd.ac.in/baadal , users can suspend, resume,

shutdown, power off and power on their virtual machines.

- Users can also monitor resource utilization of the virtual machine.
- To check frequently asked question, please visit https://baadal.iitd.ac.in/faq

Error reporting

In case of an unanticipated error in the interface at https://baadal.iitd.ac.in/baadal , users are requested to click on "Mail Admin" to report a complete transcript of the error to the cloud administrators.

Please report other problems, if any, to baadalsupport@cc.iitd.ac.in.