Multi-wavelength Data Analysis System Operated by Astronomy Data Center, NAOJ

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Astronomy Data Center (ADC), National Astronomical Observatory of Japan (NAOJ)

Astronomy Data Center (ADC) in NAOJ provides a multi-wavelength data analysis system for researchers of astronomy and the related fields. Users who have ID can reduce their data by using various kinds of software installed in interactive data analysis servers and batch type data analysis servers. In Mitaka campus of NAOJ, there are several dozen of terminal computers in three open-use rooms. Users can login to the data analysis servers from them. Virtual Private Network (VPN) connection is also available, which enable users to login from remote site.

Question & Request:

http://www.adc.nao.ac.jp/J/kaiseki_top.htm   **consult@ana.nao.ac.jp**

User Account Application

①User ID application

Those who can apply:
(1) Staff of NAOJ
(2) Researcher of astronomy and related field
(3) The person who is allowed by the center chief

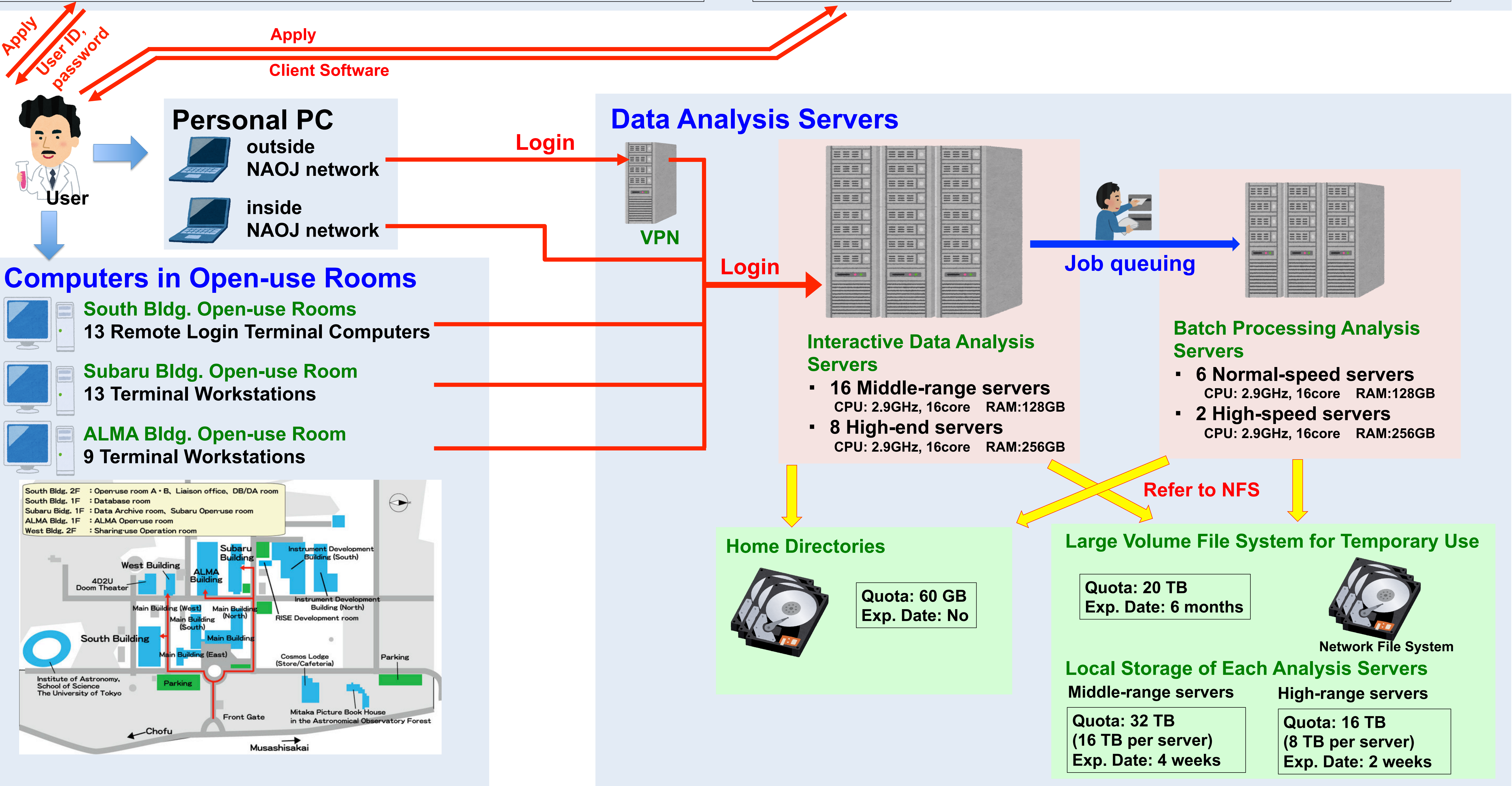**Japanese** **http://www.adc.nao.ac.jp/IDtoroku/index.html**

English **http://www.adc.nao.ac.jp/E/ID/IDtoroku_e.html**

②VPN ID application

• required when a user login from out of NAOJ network
• It is different from VPN for the NAOJ staff.

Japanese **http://www.adc.nao.ac.jp/IDtoroku/vpn.html**

English **http://www.adc.nao.ac.jp/E/ID/vpn_e.html**

Apply
User ID, password
Apply
Client Software

User

Personal PC
outside NAOJ network
inside NAOJ network

Login

VPN

Login

Data Analysis Servers

Job queuing

Computers in Open-use Rooms

South Bldg. Open-use Rooms
13 Remote Login Terminal Computers

Subaru Bldg. Open-use Room
13 Terminal Workstations

ALMA Bldg. Open-use Room
9 Terminal Workstations

Interactive Data Analysis Servers
• **16 Middle-range servers**
  CPU: 2.9GHz, 16core   RAM:128GB
• **8 High-end servers**
  CPU: 2.9GHz, 16core   RAM:256GB

Batch Processing Analysis Servers
• **6 Normal-speed servers**
  CPU: 2.9GHz, 16core   RAM:128GB
• **2 High-speed servers**
  CPU: 2.9GHz, 16core   RAM:256GB

Refer to NFS

South Bldg. 2F : Openuse room A・B, Liaison office, DB/DA room
South Bldg. 1F : Database room
Subaru Bldg. 1F : Data Archive room, Subaru Open-use room
ALMA Bldg. 1F : ALMA Openuse room
West Bldg. 2F   : Sharing-use Operation room

Home Directories

Quota: 60 GB
Exp. Date: No

Large Volume File System for Temporary Use

Quota: 20 TB
Exp. Date: 6 months

Network File System

Local Storage of Each Analysis Servers

Middle-range servers

Quota: 32 TB
(16 TB per server)
Exp. Date: 4 weeks

High-range servers

Quota: 16 TB
(8 TB per server)
Exp. Date: 2 weeks

Software

• OS: Red Hat Enterprise Linux 6 Workstation/Server
• Following software packages for astronomy and science are installed on the analysis system.
• Many development environments, web browsers, editors, image processing software, programming languages are also available.

Name	Version	Name	Version	Name	Version	Name	Version	Name	Version
AIPS	31-Dec-15	Cpgplot	5.2.2	IRAF	2.14.1, 2.16,2.16.1	NewStar	20150422	starfinder	1.8.2
Astrometry.net	0.67	ds9	7.1, 7.3	Java NewStar	20150422	NOSTAR	20120528	STSDAS	3.17
CASA	3.3.0, 3.4.0, 4.0.0, 4.0.1, 4.1.0, 4.2.0, 4.2.1, 4.2.2, 4.3.0, 4.3.1, 4.4.0, 4.5.0, 4.5.1, 4.5.2, 4.5.3, 4.6	fv	5.4	Mathematica	9.0.1, 10.4.1	PBS Professional	13.0.2	SWarp	2.38.0
		GILDAS	sep16b	MCSMDP	1.1.3	Pgperl	2.21	TABLES	3.17
		gnuplot	4.6.6, 5.0.3	MCSRED	20141205	Pgplot	5.2.2	VEDA	
		gsl-devel	1.13-1 (64bit)	MIDAS	13SEPpl1.2	Pmw	1.3.3	WCSTools	3.8.7
		Heasoft	6.13	MIRIAD	4.3.8	Scamp	2.0.4	xpa	2.1.15
CASA pipeline	4.3.1	HyperZ	1.1	Montage	4.0	SDFRED	1.4.1, 2.0, 2.0.1	x11iraf	2.0beta
cdsclient	3.8.0	IDL	8.2, 8.5.1	MSCRED	5.05	SExtractor	2.19.5		
CFITSIO	3.39	IDL Astronomy User's Library	2013.01.03	MultiNest	3.6	SkyCat	3.1.2		
COMICS q_series	4.2			Nero Linux	4.0.0.0	SM	2.4.30		

Survey for Future Improvement and System Replacement

Q1: Are you a user?

A: Yes.

B: I will be user soon.

C: No.

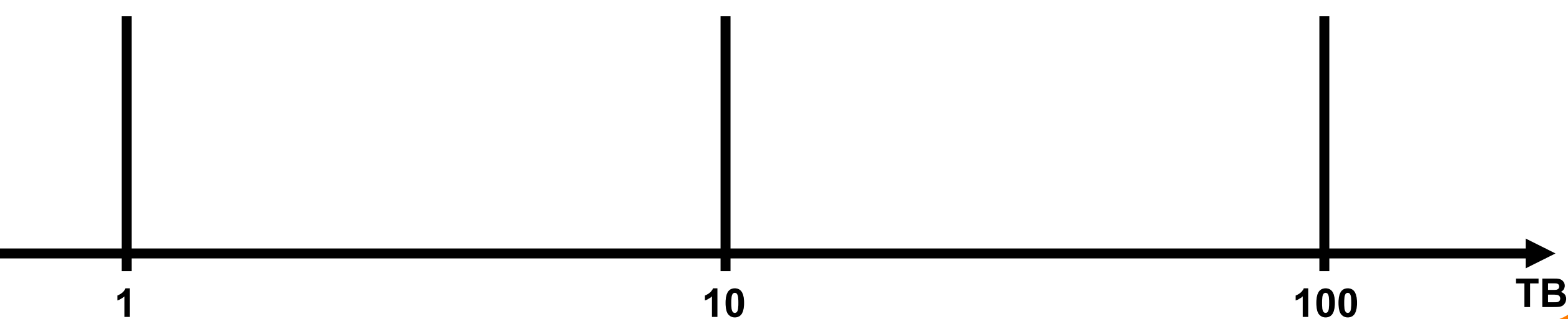**Q2: Which is most important property of the servers for you ?**

A: CPU Clock   **B: Number of Core**   **C: Memory Size**   **D: Storage Size**

Q3: How large storage do you need for your data reduction?

1   10   100   TB

Q4: Do you need any more software?

Please write name of software you need here.