



Wisteria/BDEC-01 (Odyssey) How to login

Information Technology Center The University of Tokyo If you have any questions, please contact Kengo Nakajima at nakajima(at)cc.u-tokyo.ac.jp Please DO NOT contact official support site

Before Accessing Odyssey ...

- Please make sure that:
 - -the OS of your PC is the most updated version
 - proper anti-virus software with the most updated version is installed to your PC
- If you have NOT received info-1/info-2 e-mail's from me (although you have officially registered for this class through UTAS), please contact me through chat

- Supercomputers in ITC/U.Tokyo
 - Information Technology Center, The University of Tokyo
- Login to Odyssey
- After Login

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Login to Odyssey

- SSH Public Key Authentication (SSH公開鍵認証, SSH=Secure Shell): Safer than Password Authentication
- Procedures
 - Windows: Cygwin, Mac-Unix: Terminal
 - 1 Creating Keys (Private Key, Public Key) on PC
 - Passphrase: Password for SSH Public Key Authentication
 - "Empty Passphrase" is prohibited
 - If you have already created keys on your PC before, you can skip (Please make sure it is with "passphrase")
 - 2 Accessing the Portal Site
 - User ID (t87XYZ) and "Initial Password with 8-Characters" (Info-1/Info-2)
 - You are requested to change Password after accessing the portal site
 - Several rules for number of characters, combinations etc.
 - ③ Registration of the Public Key through the Portal Site
 - 2 and 3 are essential, even if you have already had UID's on Odyssey
 - 4 Login to Odyssey by ssh

1 Creating Keys on PC (1/3)

```
$ ssh-keygen -t rsa
```

The key fingerprint is:

SHA256; vt880+PTcscHkOyabvxGjeRsMWLAWds+ENsDcReNwKo nakajima@KNs-NEW-VAIO The key's randomart image is:

Procedures

- ssh-keygen –t rsa <Return↓>
- <Return
- Your Favorite Passphrase < Return \ >
- Same Passphrase < Return \(> \)
- "Empty Passphrase" is prohibited

1 Creating Keys on PC (1/3)

```
$ ssh-keygen -t rsa

Generating public/private rsa key pair.

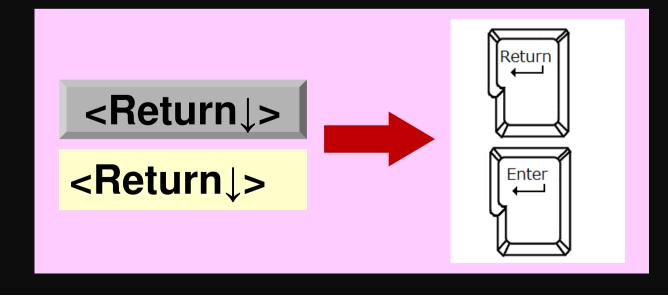
Enter file in which to save the key (/home/user/. ssh/id_rsa): <Return↓>

Enter passphrase (empty for no passphrase): Your Favorite Passphrase <Return↓>

Enter same passphrase again: Same Passphrase <Return↓>
```

Your jublic key has been saved in /home/user/.ssh/id_rsa.

The key fingerprint is: SHA256:vt880+PTcscHkOyabvxGjeRsMWLAWds+ENsDcReNwKo nakajima@KNs-NEW-VAIO The key's randomart image is:



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- ssh-keygen –t rsa <Return↓>
- <Return
- Your Favorite Passphrase < Return \ >
- Same Passphrase < Return \(> \)
- "Empty Passphrase" is prohibited

1 Creating Keys on PC (2/3)

```
$ cd ~/. ssh
                            ⇒秘密鍵 (Private Key)
 id rsa
                            ⇒公開鍵 (Public Key)
 id rsa.pub
$ cat id rsa.pub
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAABAQDa6InmOYYaCrWjQDukjiNEfdW8veUwJyZtEI3oDu0A28
eey6p0wbtI7JB09xnI1707HG4yYv0M81+/nIAHy5tAfJIy0dsPzjTgdTBLdgi3cSf5pWEY6U96
yaErOEi8Wge1HkXrhcwUjGDVTzvTORefe6zLdRziL/KNmmesSQfR5lsZ/ihsjMgFxGaKsHHq/I
ErCtHIIIf9V/Ds2yj6vkAaWH6asBn+ZsRiRFvwHPhkYAnp/j3LY6b8Qfqg0p4WZRenh/HgySWT
YIGi8x67VzMaUlm9qIK0QFMCaK2rivX1fmbwyWJ/vrWDqiek6YXoxLDu+GPeQ4CPvxJcZnqF9g
```

f3 nakajima@KNs-NEW-VAIO

(1) Copying the Public Key (3/3)

- \$ cd .ssh

id rsa id_rsa.pub

\$ cat id_rsa.pub

Procedures

- cat id rsa.pub <Return \(> \)
- setting the cursor on "ssh-rsa"
- selecting from "ssh-rsa" to "f3" on the last line and "copy"
- You can include "nakaima@KNs-NEW-VAIO", but registration may fail if multi-byte characters are there (This info. may not appear in certain OS)

ssh-rsa

AAAAB3NzaC1yc2EAAAADAQABAAABAQDa6InmOYYaCrWjQDukjiNEfdW8veUwJyZtEI3oDuOA28 eey6p0wbtI7JB09xnI1707HG4yYv0M81+/nlAHy5tAfJly0dsPzjTgdTBLdgi3cSf5pWEY6U96 yaErOEi8Wge1HkXrhcwUjGDVTzvTORefe6zLdRziL/KNmmesSQfR5lsZ/ihsjMgFxGaKsHHq/I ErCtHIIIf9V/Ds2yj6vkAaWH6asBn+ZsRiRFvwHPhkYAnp/j3LY6b8Qfqg0p4WZRenh/HgySWT YIGi8x67VzMaUlm9qlK0QFMCaK2rivX1fmbwyWJ/vrWDqiek6YXoxLDu+GPeQ4CPvxJcZnqF9g

nakajima@KNs-NEW-VAIO

2 Accessing the Portal Site (1/3)

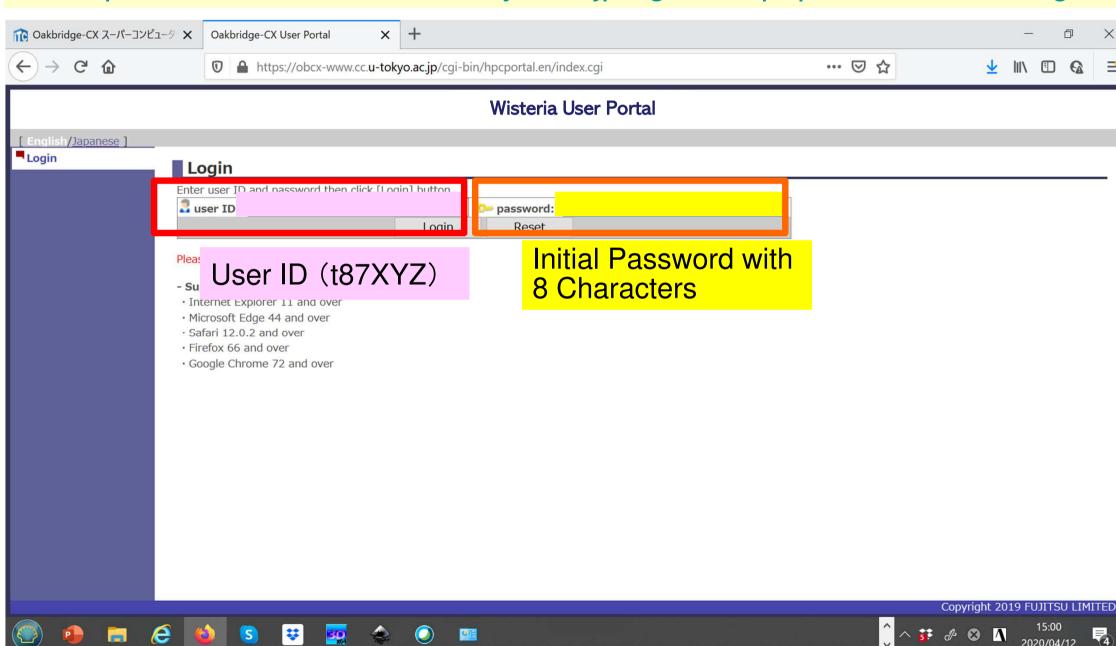
- Please prepare 2 e-mails from me
- Info-1
 - User ID: t87XYZ
- Info-2
 - Initial Password (8-Characters): e.g. Pas#w0rd

System Information/Portal Site

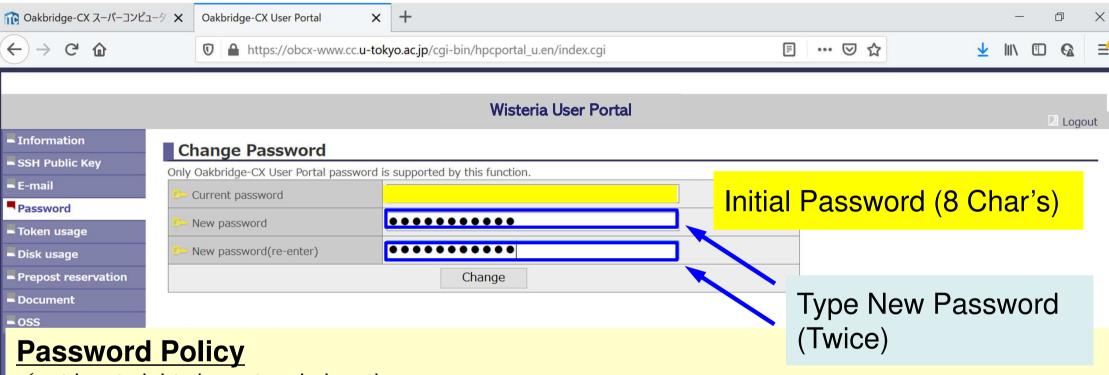
- 日本語
 - https://wisteria-www.cc.u-tokyo.ac.jp/cgi-bin/hpcportal.ja/index.cgi
 - https://www.cc.u-tokyo.ac.jp/supercomputer/wisteria/service/
- English
 - https://wisteria-www.cc.u-tokyo.ac.jp/cgi-bin/hpcportal.en/index.cgi

2 Accessing the Portal Site (2/3)

https://wisteria-www.cc.u-tokyo.ac.jp/cgi-bin/hpcportal.en/index.cgi

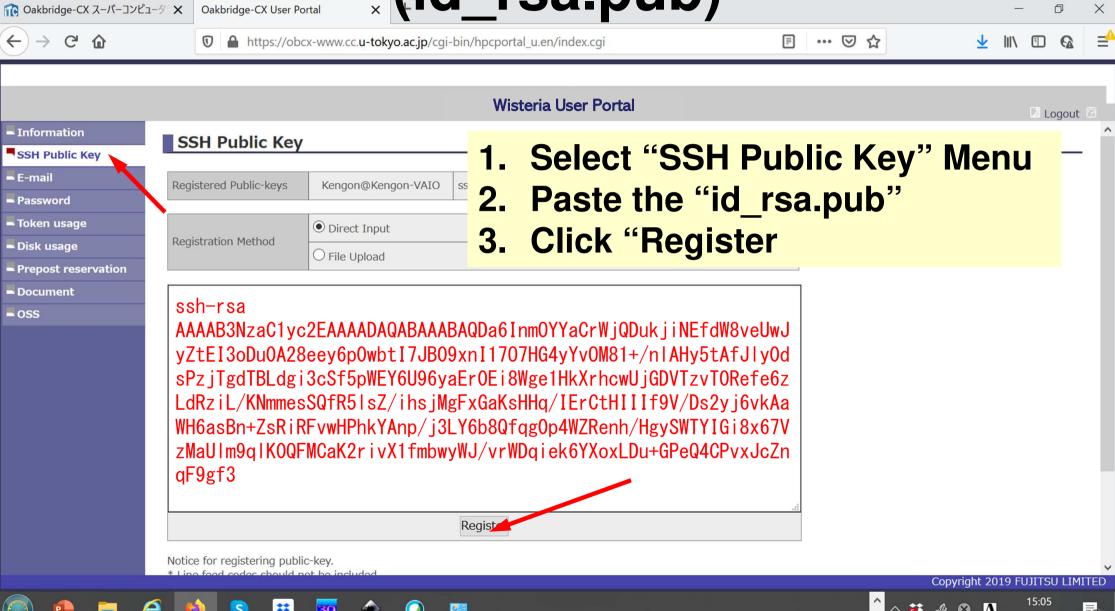


2 Changing Initial Password (2/3)

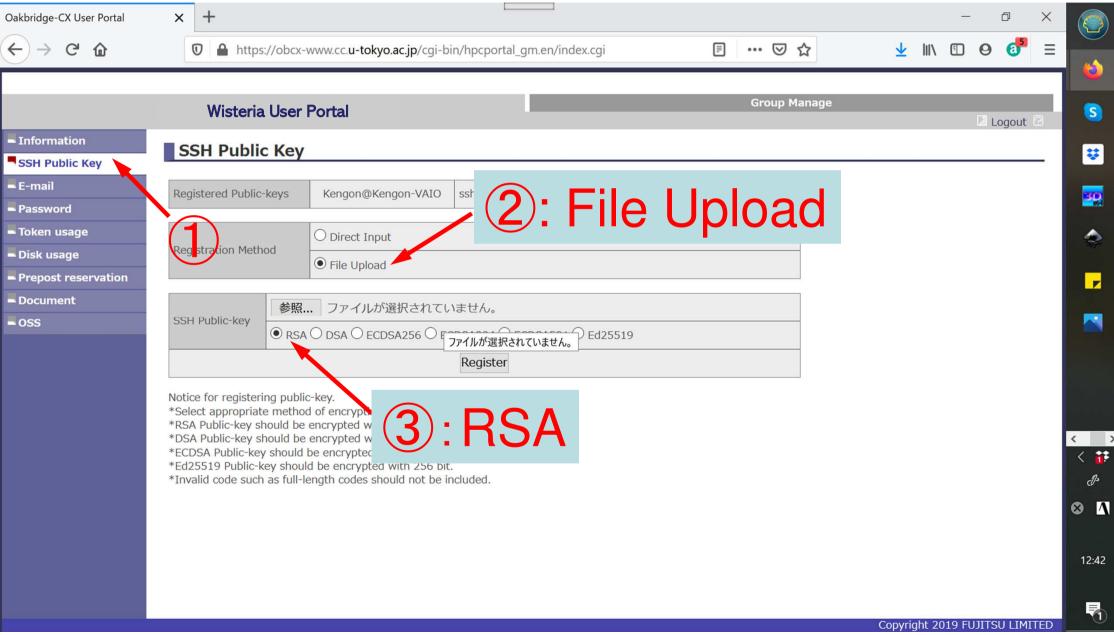


- ✓ at least eight characters in length
- ✓ should not contain three or more characters from current password
- ✓ should not be the same as the past 2 times.
- ✓ should contain all character types of lower case letters, upper case letters, arabic numbers, and special characters
- ✓ special characters can be used are as follow: blank, !, ", #, \$, %, &, ', (,), *, +, ,, -, ., /, :, ;, <, =, >, ?, @, [, ¥,], ^, _, `, {, |, }, ~,
- ✓ not a name or linux dictionary word
- ✓ do not contain multi-byte characters

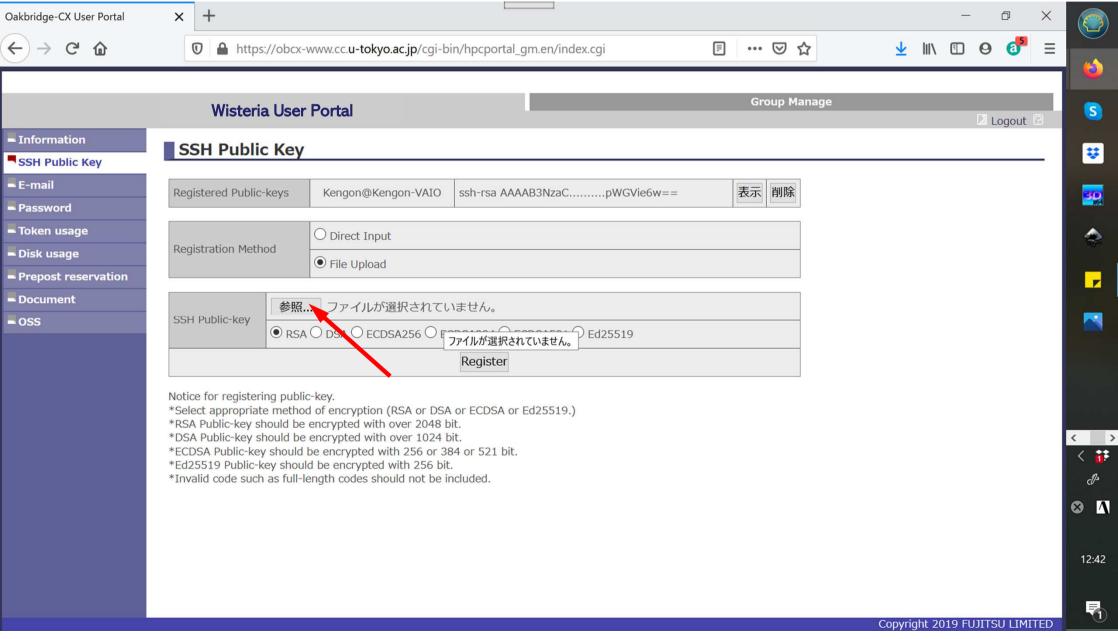
3 Registration of the Public Key (id rsa.pub)



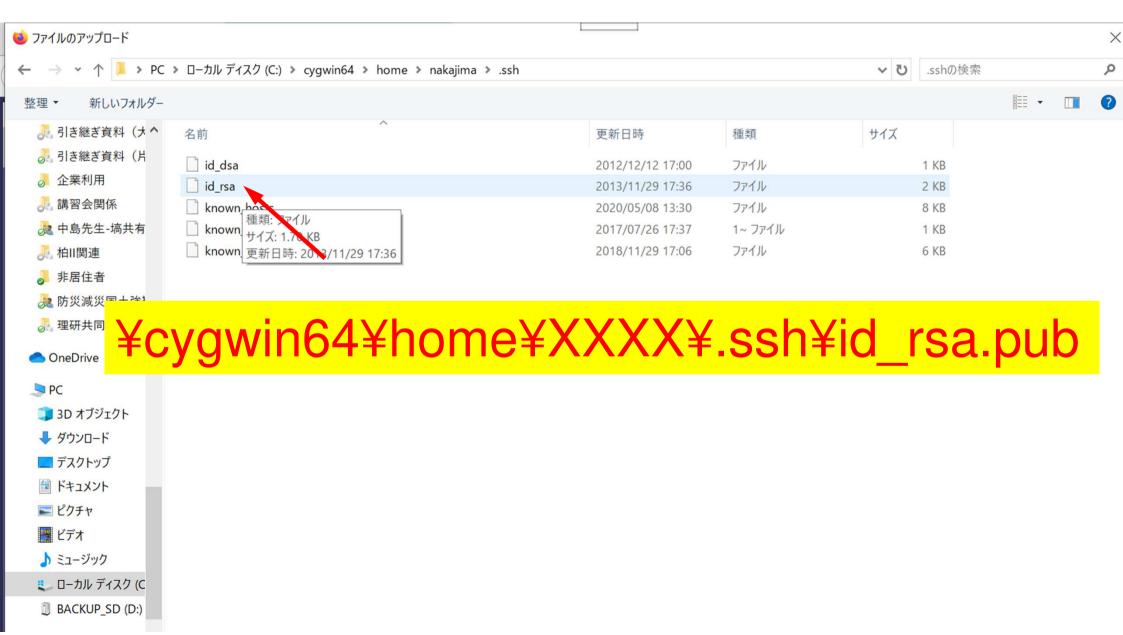
(id_rsa.pub): Direct Upload (1/4)



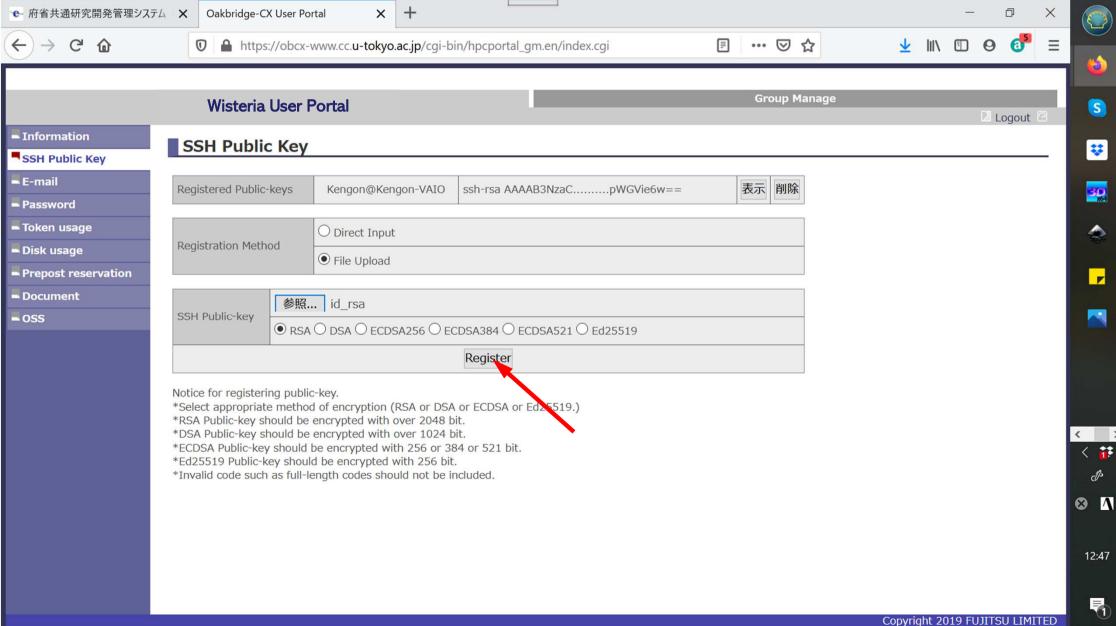
(id_rsa.pub): Direct Upload (2/4)



(id_rsa.pub): Direct Upload (3/4)



(id_rsa.pub): Direct Upload (4/4)



4 Login to Odyssey from PC (1/2) Initial

```
$ ssh t87XYZ@wisteria.cc.u-tokyo.ac.jp Return

The authenticity of host 'wisteria.cc.u-tokyo.ac.jp' can't be established.

ECDSA key fingerprint is SHA256:/XXXXXX ...

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes Return

Warning: Permanently added 'wisteria.cc.u-tokyo.ac.jp' to the list of known hosts.

Enter passphrase for key '/home/nakajima/.ssh/id_rsa': Your Passphrase Return
```

- 1. ssh t87XYZ@wisteria.cc.u-tokyo.ac.jp <Return>
- 2. yes <Return>
- 3. Your Passphrase <Return>

4 Login to Odyssey from PC (1/2) after 2nd Login

```
$ ssh t80XYZ@wisteria.cc. u-tokyo.ac. jp Return
Enter passphrase for key '/home/nakajima/.ssh/id_rsa': Your Passphrase
                                                                          Return
```

- 1. ssh t87XYZ@wisteria.cc.u-tokyo.ac.jp <Return>
- 2. Your Passphrase <Return>

4 Login to Odyssey from PC (2/2)

Wisteria/BDEC-01 Information

Date: May. 14, 2021

Welcome to Wisteria/BDEC-01 system

```
* Operation Schedule
05/14(Fri) 10:00 - 05/28(Fri) 09:00 Normal Operation
05/24(Mon) 09:00 - 05/24(Mon) 17:00 HPC Challenge(Odyssey
05/28(Fri) 09:00 - 05/28(Fri) 22:00 System Maintenance
05/28(Fri) 22:00 - Normal Operation
```

Schedule of future maintenance etc. will be displayed

For more information about this service, see https://www.cc.u-tokyo.ac.jp/supercomputer/schedule.php

* How to use Users Guide can be found at the User Portal (https://wisteria-www.cc.u-tokyo.ac.jp/).

If you have any questions, please refer to the following URL and contact us:

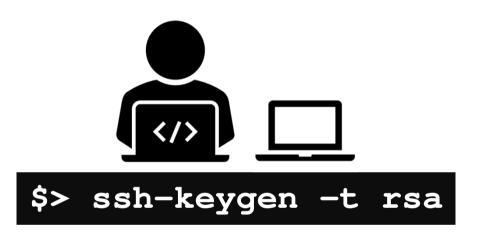
https://www.cc.u-tokyo.ac.jp/supports/contact/

Last login: Mon May 17 10:04:54 2021 from 133.11.59.131

[t87XYZ@wisteria06 ~]\$

Please DO NOT contact this URL if you have questions

SSH Public Key Authentication (1/4) 1 Creating Keys on PC



id_rsa 秘密鍵/Private Key

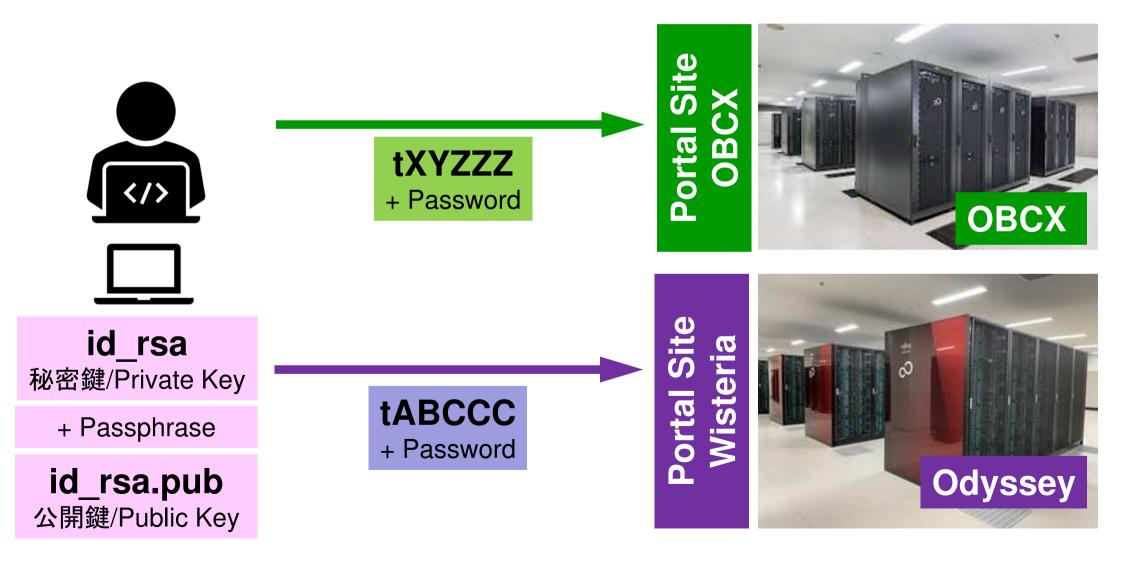
+ Passphrase

id_rsa.pub 公開鍵/Public Key





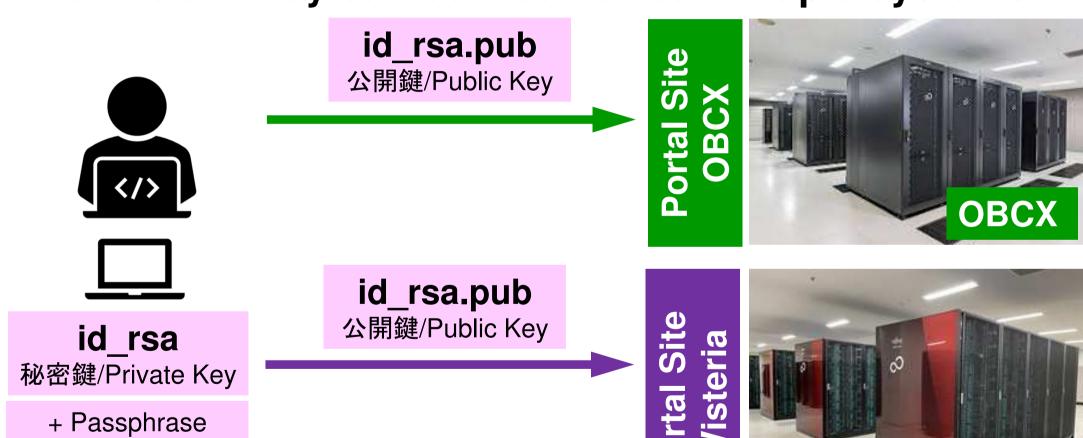
SSH Public Key Authentication (2/4) 2 Accessing the Portal Site



Odyssey

SSH Public Key Authentication (3/4) 3 Registration of the Public Key

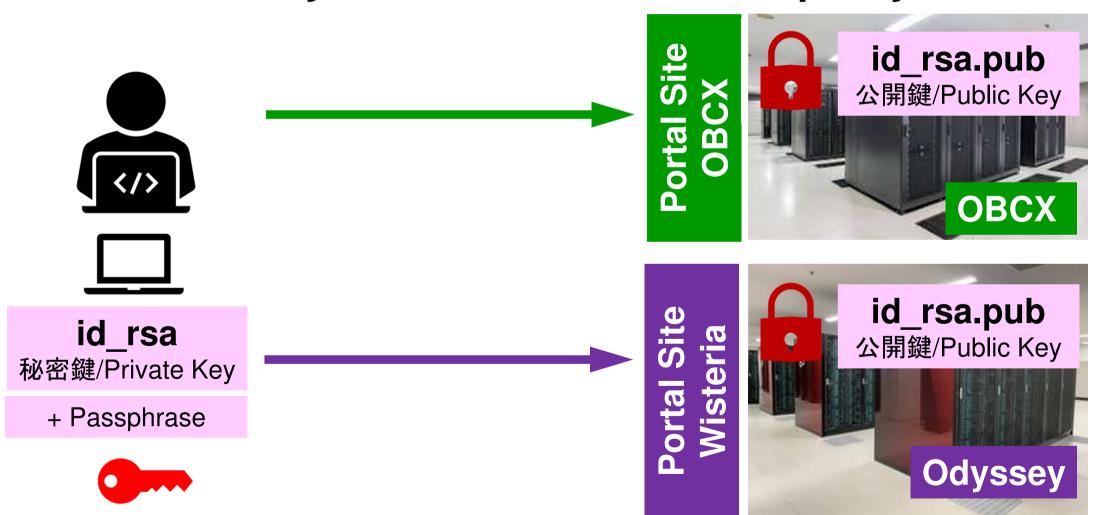
Each Public Key can be installed to multiple systems



SSH Public Key Authentication (3/4)

3 Registration of the Public Key

Each Public Key can be installed to multiple systems



SSH Public Key Authentication (4/4) 4 Login to Odyssey etc. from PC

Private Key (id_rsa) + Passphrase



SSH Public Key Authentication SSH公開鍵認証

SSH= Secure Shell

id_rsa

- Private Key(秘密鍵) on Your PC
- Keep it confidential! (e.g. do not give it to others, do not copy, do not move etc.)

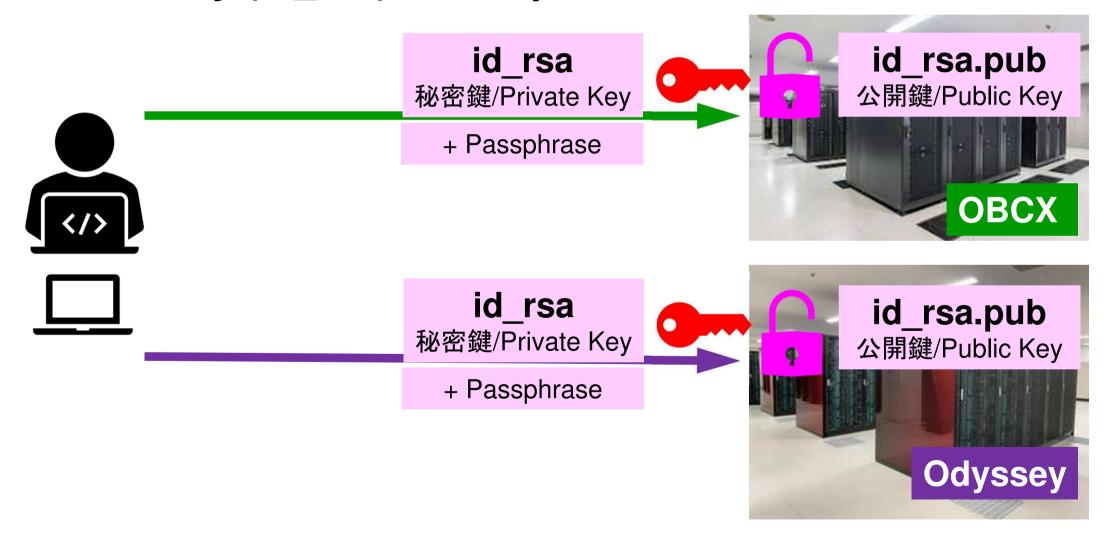
id_rsa.pub

- Public Key(公開鍵) on Supercomputers
- You can copy, can send it to others via e-mail etc.
- If the info of the Private Key on your PC and Public Key on the supercomputer matches, you can login.
- If you have multiple PC's, please create individual set of (Private/Public) keys on each PC
 - You can register multiple Public Key's on Supercomputer

SSH Public Key Authentication (4/4)

4 Login to Odyssey etc. from PC

Private Key (id_rsa) + Passphrase



If you use multiple PC's, you need to create a pair of keys (private/public) on EACH PC!!

\$> ssh-keygen -t rsa





id_rsa 秘密鍵/Private Key

+ Passphrase

id_rsa.pub 公開鍵/Public Key id_rsa 秘密鍵/Private Key

+ Passphrase

id_rsa.pub 公開鍵/Public Key

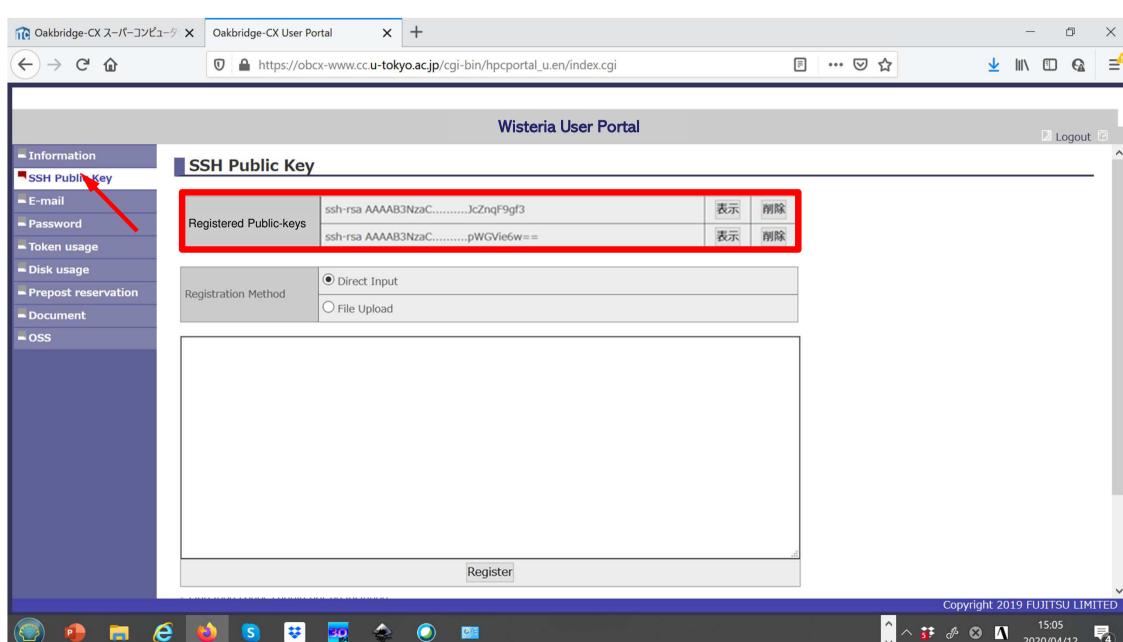




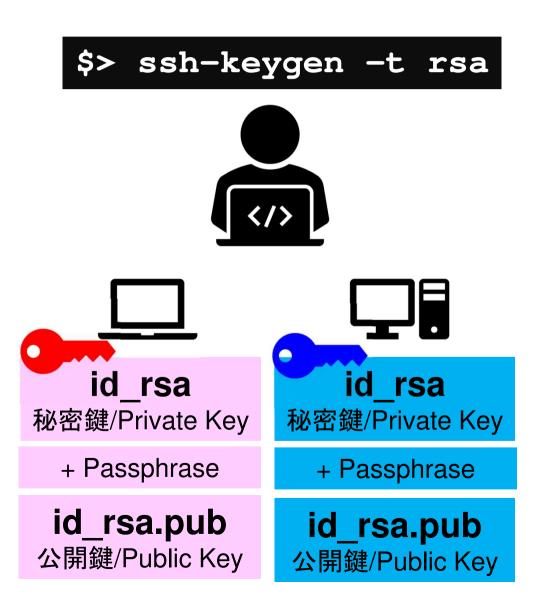
Portal Site Wisteria



Multiple public-keys can be registered!



Multiple public-keys can be registered!







- Supercomputers in ITC/U.Tokyo
 - Information Technology Center, The University of Tokyo
- Login to Odyssey
- After Login

Login to OBCX from PC

```
$ ssh t87XYZ@odyssy.cc.u-tokyo.ac.jp
Enter passphrase for key '/home/nakajima/.ssh/id_rsa: Your Passphrase <Return↓>
```

- 1. ssh t87XYZ@odyssey.cc.u-tokyo.ac.jp <Return↓>
- 2. Your Passphrase <Return \| >

After Login ...

```
pwd
        <Return↓>
/home/t87XYZ
  cd /work/gt87/t87XYZ <Return >
       <Return \( > \)
                      1. "/home/t87XYZ" is the default
/work/gt87/t87XYZ
                         login directory
                      2. Because capacity of /home is
        <Return↓>
  cd
                         very small, please move to
        <Return↓>
                         "/work/gt87/t87XYZ"
/home/t87XYZ
                      3. You can go back to
                         /home/t87XYZ by typing "cd"
```

Copy: PC to Wisteria-Odyssey (W-O)

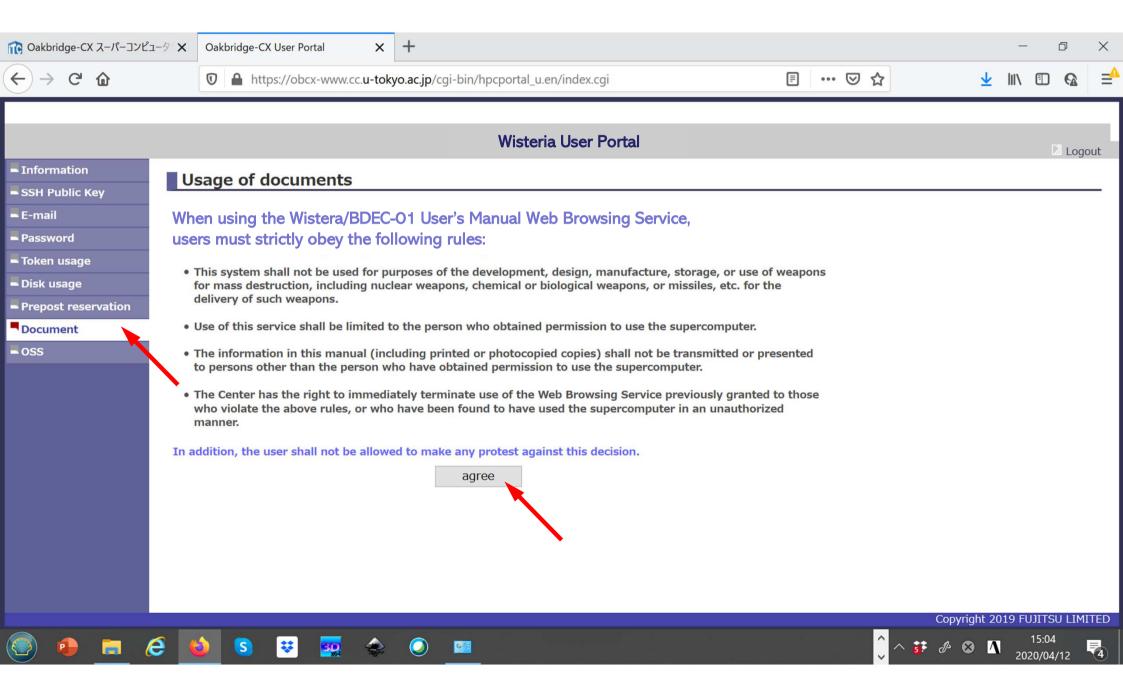
```
$ scp ./a. dat t87XYZ@wisteria.cc. u-tokyo.ac.jp: <Return >
 "a. dat" in the Current Directory of PC is copied to /home/t87XYZ on W-O
$ scp ./a. dat t87XYZ@wisteria.cc.u-tokyo.ac.jp:/work/gt87/t87XYZ/test/
 "a. dat" in the Current Directory of PC is copied to
/work/gt87/t87XYZ/test on W-0
$ scp -r ./testL t87xyz@wisteria.cc.u-tokyo.ac.jp:
 "testL" directory in the Current Directory of PC and its contents are
copied to /home/t87XYZ on W-0
```

\$ scp -r ./testL t87xyz@wisteria.cc.u-tokyo.ac.jp:/work/gt87/t87XYZ/test "testL" directory in the Current Directory of PC and its contents are copied to /work/gt87/t87XYZ/test on W-0

Copy: W-O to PC

```
$ scp t87XYZ@wisteria.cc.u-tokyo.ac.jp:~/a.dat ./
 "a.dat" on /home/t87XYZ on W-O is copied to the Current Directory of PC
$ scp t87XYZ@wisteria.cc.u-tokyo.ac.jp:/work/gt87/t87YZ/test/a.dat ./
 "a.dat" on /work/gt87/t87XYZ/test on W-O is copied to the Current
Directory of PC
$ scp -r t87XYZ@wisteria.cc.u-tokyo.ac.jp:~/L1 ./
 "L1" directory in /home/t87XYZ on W-O and its contents are copied to
 "L1" directory in the Current Directory on PC
$ scp -r t87XYZ@wisteria.cc.u-tokyo.ac.jp:/work/gt87/t87XYZ/test/L1 ./
 "L1" directory in /work/gt87/t87XYZ/test on W-O and its contents are
copied to "L1" directory in the Current Directory on PC
```

Manuals on the Portal Site



If you have any questions, please contact KN (Kengo Nakajima)

nakajima(at)cc.u-tokyo.ac.jp

Do not contact ITC support directly.

It is strictly prohibited to use the Wisteria/BDEC-01 system for purposes other than this class. You cannot use Aquarius (GPU part).