General-purpose Rental Server

User's manual （ver9.2）

1/8/2017（Common to each site）
Academic Computing & Communications Center
University of Tsukuba

Index

About This Manual

In this manual, we will describe on how to use various services provided on the generic server, aimed for the users who has created an account on this server.(If you are the system administrator, please take a look at the administrator manual also.)

This manual can be used on any server. So we have written the common hostname (***.***.tsukuba.ac.jp) as shown below. Please replace the "***" to your server name.

●For manual and server information and logging in to "System Management" menu, please refer to the page below.

https://***.***.tsukuba.ac.jp:8443/

※ If you do not know what the *** part(server name) is, please contact the system administrator. The PDF below will provide you with information also.
For server name (mail, web, etc.) and available service, please refer to the web page below.

https://rose.cc.tsukuba.ac.jp/manual/service/server.pdf
（Can be accessed from the university）

※ Please delete the port number [:8443] on the next site when accessing.
https://ob.md.tsukuba.ac.jp/

●For information about the generic rental server please refer to the web page below.

https://rose.cc.tsukuba.ac.jp/manual/

http://www.cc.tsukuba.ac.jp/wp/service/rental/

1. Logging in to Administration Menu

To access the Secup-BSD management screen, use the URL below to access.

https://***.***.tsukuba.ac.jp:8443/

Click the "System Administration" link in the URL above. Next, insert your username and

password in the authentication screen as shown below.

After the authentication, you will be sent to the administration menu top page.

2. Changing Password

Password is centrally controlled, and is used for accessing the administration menu, sending and receiving e-mail, and when transferring web page. Password can be changed using the password change screen.

Pressing the [Password] button in the administration menu will take you to the password change screen.

Type in your current password, your new password twice, and press [Update] button to change your password. **Your password should be 10 characters or more**.

3. Sending and Receiving E-mail

General configuration information about sending and receiving e-mail using Secup-BSD is listed below.

| Outgoing(SMTP) server name	***.***.tsukuba.ac.jp
Incoming(IMAP/POP) server name	***.***.tsukuba.ac.jp
Authentication system when sending e-mail	◎Securing connection : ・**Encrypted** connection is required(**SSL**) ・Port number(SMTP over SSL: **No.465**) ◎Authentication method : ・Outgoing server(SMTP) **needs authentication** ・"Normal password authentication" or "Encrypted password authentication(CRAM-MD5)"
Authentication system when receiving e-mail	◎Securing connection : ・**Encrypted** connection is required(**SSL**) ・Port number(POP over SSL: **No.995** or IMAP over SSL: **No.993**) ◎Authentication system : ・Outgoing server(SMTP) **needs authentication** ・"Normal password authentication" or "Encrypted password authentication(CRAM-MD5)"

● Online manual for more detailed settings like Outlook, please refer to the web page below.

https://rose.cc.tsukuba.ac.jp/manual/

https://***.***.tsukuba.ac.jp:8443/Manual/Mail/index.html

● You may access the **web mail system (SquirrelMail)** using the link below.

https://***.***.tsukuba.ac.jp/webmail/

4. Settings for E-mail Forwarding

To set the mail forwarding, press the [Mail Forwarding] button on the administration menu.

In the e-mail forwarding setup menu you may,

- setup leave or delete e-mail from server after forwarding
- setup condition discarding e-mail when reaching the server
- forward mail to the specified e-mail address

To access more advanced settings for each forwarding address, go from "Edit" link in each row of "List of Forwarding Addresses".

※ **Incorrect forwarding settings will lead to e-mail loss, so be careful and please check the settings once more after setting up. Loss of e-mail by a forwarding mistake cannot be recovered, so you will have to have your sender resend your mail.**

5. Settings for Retaining E-mail on the Server

You can set to retain the e-mail on the server after forwarding, from "Keep on Server" section in the "List of Forwarding Addresses" field.

Click [All] on the condition column to change the condition for retaining e-mail on the server.

Select the condition on the pulldown menu and press [Update] to select how to retain your e-mail on the server. Each condition operates as follows.

- All   :   Retain all e-mail on the server.(Default)
- Custom   :   Retain e-mail which suits the forward rule.

                        (We will mention on how to manage the forward rule later.)

- None   :   Will not retain any e-mail on the server.

                        E-mail which does not suit the forward rule will be retained

                            on the server exceptionally.

6. Settings for Discarding E-mails

You can set certain e-mail that meets the condition to be sent to the Trash folder with the "Discarding without reading" advanced settings.

※1 This setting does not actually delete the e-mail, so empty the Trash folder regularly.

※2 "Trash" folder should be set as Trash bin correctly in the mail client settings. Depending on the settings some mail client cannot see the e-mail that has been moved to the Trash folder, so please be careful when setting. For setting up the mail client, please refer to the manual individually.

Click [None] on the condition column to change the condition for discarding e-mails.

Select the condition on the pulldown menu and press [Update] to select how to discard your e-mail. Each condition operates as follows.

- All   : Discard all e-mail.
- Custom   : Discard e-mail which suits the forward rule. (We will mention on how to manage the forward rule later.)
- None   :   Will not discard any e-mail.(Default)

7. Registering Forwarding Address

Input your e-mail address in the "Create Forwarding Address" form and click the [Create] button to register your e-mail address to the forwarding address list.

After successfully adding a new address, new forwarding address advanced setting page will be shown. **In default, forwarding will not occur because the condition is set to "Custom" with "no rule". To enable forwarding, you will need to change the setting.**

8. Settings for Forwarding Address

You can change your forward address by advanced setting screen's e-mail address column. Additionally, you can change the forward condition from the "Condition" column. Click the "Update" button to confirm the change.

Edit Forwarding Address

Please input forwarding address and forwarding condition.
Please set "Condition" to "ALL" if you want forwarding all e-mails.

* Mail Address	test01@example.org
Condition	Custom ∨

You can specify the settings for the forwarding condition as below.

- All : Forward all e-mail to the specified address.
- Custom : Discard e-mail which suits the forward rule. (We will mention on how to manage the forward rule later.)
- None : Disable the forwarding to the specified address.

In "Custom Forwarding Rules" field, configurable forward rule list will be shown. Forward rule must be created beforehand (Described later).

Custom Forwarding Rules

Please select rules applied when "Condition" is "Custom."
Mail forwarding is not executed when no rule is selected.

Rule Name	Enable
rule01	☐
rule02	☐

Check the "Enable" checkbox on which rule you want to enable, and press the [Update] button to save the changes.

★ E-mail filter

Spam marks are added to headers and subjects as follows for mails delivered via the university firewall's virus removal device (also as a role of spam filter) and judged as spam.

∗ Add "X-Ironport: Positive" header to spam - judged e-mail and add [Spam] mark to subject.

∗ If you suspect spam, add the "X-Ironport: Suspected" header and add the [Suspected Spam] mark to the subject line.

By using this, it is possible to isolate it into "junk mail" folder, etc. as the sorting condition when mails with [Spam] mark in the subject and keywords such as Positive match with X-Ironport header. However, there is also spam misjudgment so you need to periodically check the "junk mail" folder.

Mail software (Thunderbird etc) had installed on your computer, you can isolate spam mail to junk folders by using mail filtering function. For details, please see PDF below.
(Ex) https://rose.cc.tsukuba.ac.jp/manual/en/mail/thunderbird-win-en.pdf

In addition, although it is possible to find and delete spam mails on the mail server side, there are also erroneous judgment, so it is better to avoid deleting automatically.

9. Managing the Forwarding Rule

When clicking the "Rules" tab, currently registered forward rule list will be shown.

Forward rule list will be evaluated from top to bottom. Click the arrow on the order column to shift the rules. For each rule, click the "Edit" link to edit the setting, and "Delete" link to delete the forwarding rule.

To register a new forward rule, input a new rule name into the "Create Forwarding Rule" and click the "Create" button.

■ Setting for the forward rule

When clicking the "Edit" in the forward rule list, forward rule advanced setting screen will be shown.

Input a rule name in the "Rule Name" column, and click the "Update" button to change the rule name for the forwarding rule.

In the "List of Forwarding Conditions", forward condition for each forwarding rule will be shown. Click the "Edit" link for each row, to reveal the forward condition settings. To delete the forward condition, click the "Delete" link.

Clicking the "Create New Entry" link in the "List of Forwarding Conditions" will show the forward condition register screen.

Each input box is described as follows.

- Target:　Select the field for the forward rule condition to take place. If you select "Other ", an entry field will appear below, so input your target header field name there.

- Keyword: Input the condition and keyword to match the rule. Each conditions behavior is as follows.

> IS:　　　　　　　Perfectly matches the input on any row.
>
> NOT IS:　　　　　Does not match with the input on any row.
>
> INCLUDE:　　　　Includes the input on any row.
>
> NOT INCLUDE:　　Does not include the input on any row.

Clicking the "Edit" link on the "List of Forwarding Conditions" will show the exact same page, and will enable to take change on the conditions.

★ Notice

Regular expressions can be used in the "**keyword**" column.

Regular expressions conform to the rules of egrep.

If you use special characters such as **[ ] ( ) . * ?** as they are, escape them with a **¥** mark or **backslash**.

If you can not enter ¥ mark, you can escape backslashes in the same way instead.

(Ex) To specify the keyword [Spam], write it as **¥**[Spam**¥**].

If you specify [Spam] without ¥ (backslash), the brackets are interpreted as regular expressions, so **"S", "p", "a", "m"**, please note that it will be interpreted as a regular expression matching one of the characters.

10. Updating the Web Page

●Registered users homepage on the server will be released on the URL below(if the public setting of the homepage is enabled by the administrator).

http://***.***.tsukuba.ac.jp/~\<Username\>/

※ ~ is tilde. Replace the \<Username\> to your account name.

●To transfer files to the opened webpage server file, you will need to use SFTP.

●Account and password, uploaded web contents must be appropriately.
   ※ When using the CMS to release the webpage, to prevent unauthorized access from abusing the CMS's bug or security hole, always keep the CMS and plugins updated.
   ※ Please be careful NOT to have any personal information leakage.
      Any data that should not be revealed should not be saved on the server and must be carefully managed by other means.

10.1 File Transfer using the SFTP/FTP Service

Please use SFTP to upload files on to the server. We recommend the software called "WinSCP" which supports SFTP on the Windows system.

You may also use FTP instead of SFTP, but Secup-BSD's ftp service forbids plain text password authentication. For this reason, you will need to use the ftp client software which supports the one-time password (OTP).

On Windows, we recommend software called ffftp supports OTP. For other environments, you will need to find a ftp client software which supports the OTP or use software called OTP calculator. In a ftp client software which supports the OTP, you can transfer files just by typing in your configured password. When using the OTP calculator, you will need to input the string calculated by the OTP calculator as the password.

10.2　File Transfer using the WinSCP

Here, we will explain how to update the webpage using WinSCP.

After starting up the WinSCP, the login dialog will appear as shown below.
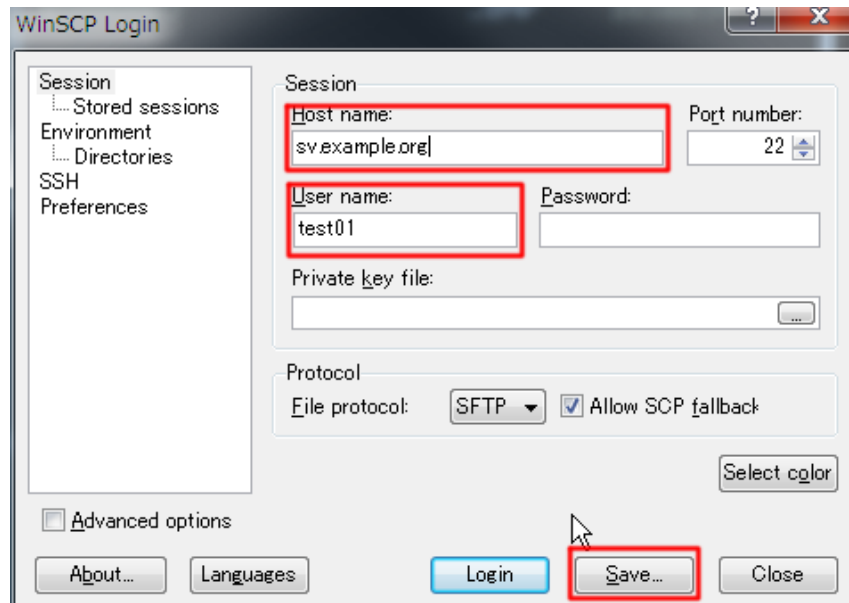

To register the Secup-BSD server, input the information in each item and click "Save".
- [Host name]: Input your server's hostname.
- [User name]: Input your account name.
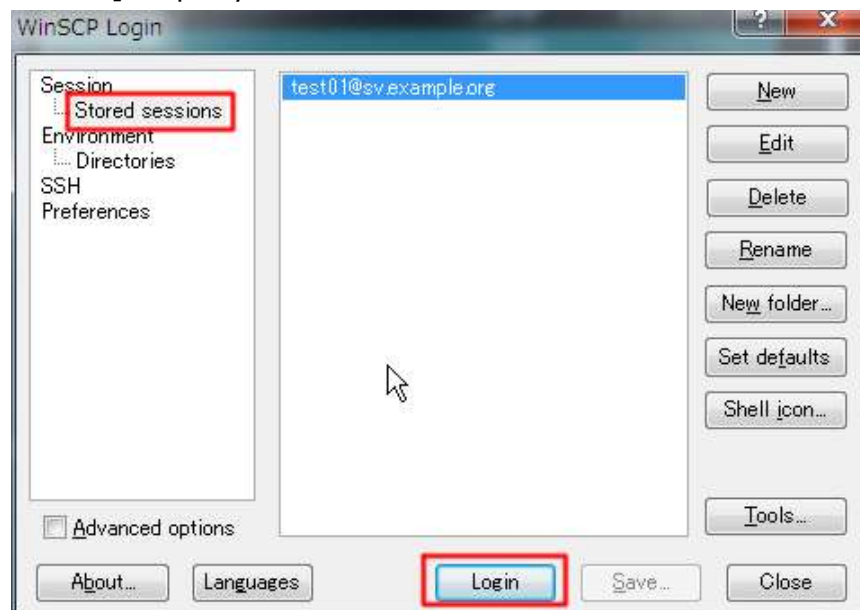
After saving, the left tree will change from "Session" to "Stored Session", and the registered session will be shown. Select the registered session from the tree, and click the "Login" to start the connection.

When connecting for the first time, the warning dialog as shown below will pop up.
If you trust this host, press "Yes". (This dialog box will not appear from the second time on)
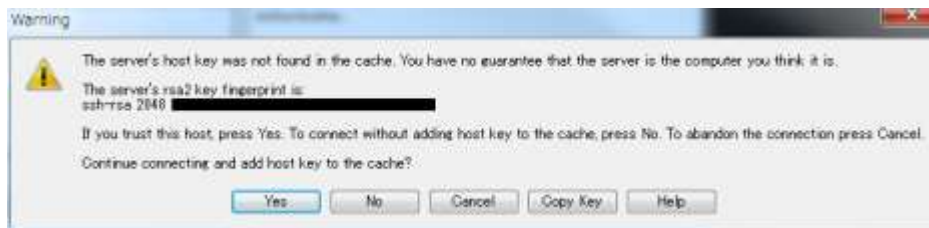
When the connection starts, you will be required to enter your password for the server.
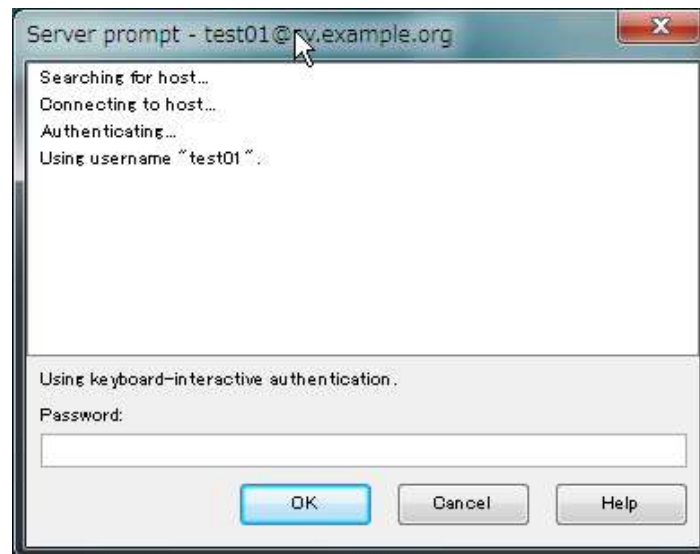
After successfully connecting, the following screen will be shown.
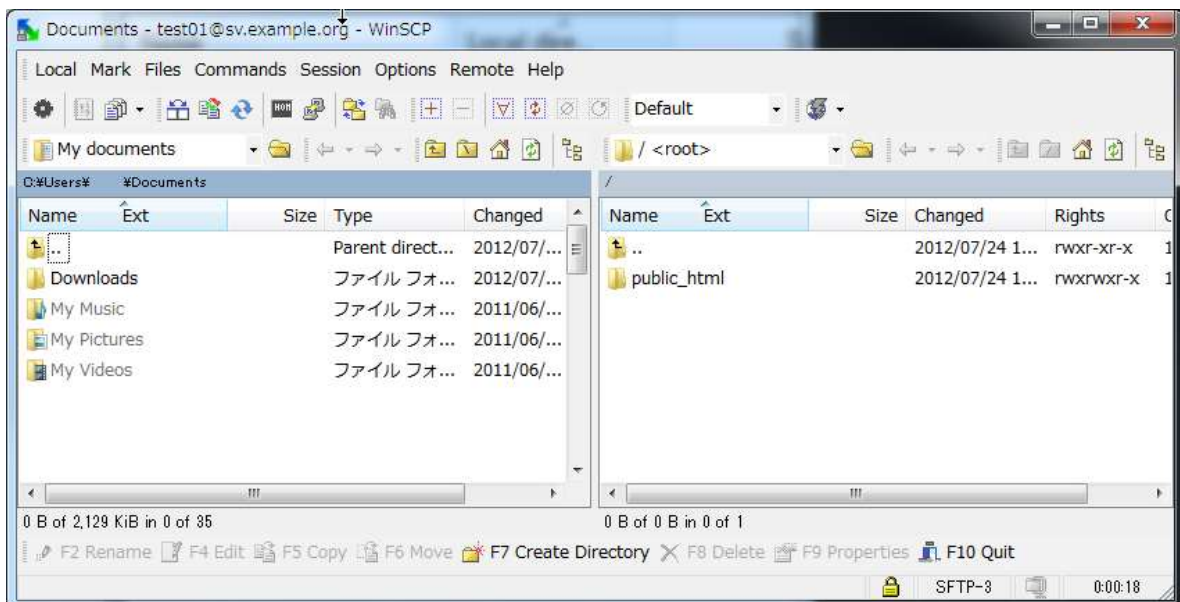
Left side of the window is the list of files on your local default folder, and the right side of the window is the list of files placed on the server. "public_html" folder is the destination for the server's webpage.

When you want to copy and overwrite all of the file/folders on the local machine to the server, select the "public_html" directory on the server window and press the [Synchronize] button, enclosed by the red line as shown below.
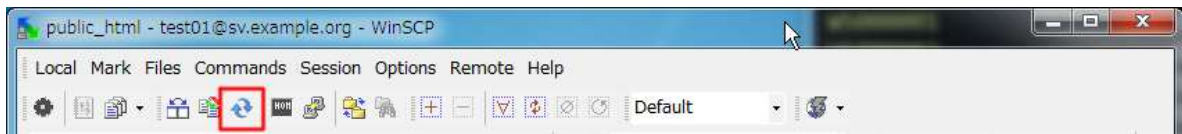
Synchronize upload setting dialog will show up, so press [OK].
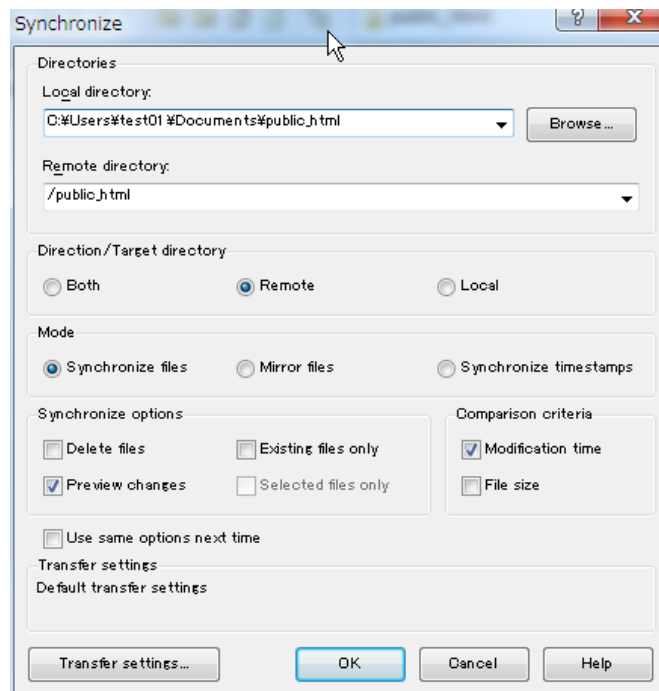
Confirmation dialog box will show up, and after confirming press [OK] and start the upload.

After copying all the files, the dialog will close and return to the original window.
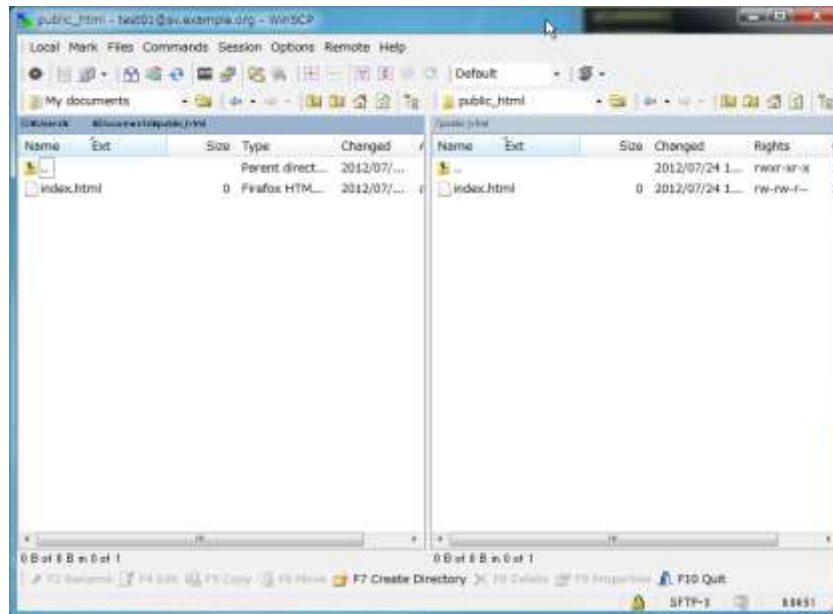
10.3   File Transfer using common FTP Command and OTP Generator

Here, we will explain how to transfer files using common ftp command and otp-md4 software packaged in the OPIE [1]. User's input is represented in blue, and computers output is in black and red.

1. Access through ftp normally.

```
% ftp sv.example.com
Connected to sv.example.com
220 sv.example.com FTP server (Version 6.00LS) ready.
Name (sv.example.com:user1): user1
331 s/key 987 zy6543
Password:
```

2. Calculate the OTP using the red text written in step 1.

```
% otp-md4 987 zy6543
Using the MD4 algorithm to compute response.
Reminder: Don't use opiekey from telnet or dial-in sessions.
Enter secret pass phrase: (user1's password)
AB CDEF GHI JKL MNOP QR
```

3. Use the red text on the step 2 as the password for the ftp.

```
% ftp sv.example.com
Connected to sv.example.com
220 sv.example.com FTP server (Version 6.00LS) ready.
Name (sv.example.com:user1): user1
331 s/key 987 zy6543
Password: AB CDEF GHI JKL MNOP QR (Input will not be shown)
230 User user1 logged in, access restrictions apply.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```

---

[1] OPIE package is available from http://inner.net/pub/opie/opie-2.4.tar.gz

This completes the login, the file transfer is left.

When accessing the server for the first time using the ftp service, an empty folder will be displayed. Transfer the necessary HTML files to open your web page.

If you have skipped to input the file name, the server will search for the index.html and show the contents.

10.4   Exhaustion of the One Time Password and Handling

Registering an account and changing password will create massive one-time passwords (OTP). Calculated one-time password can be safely used because it will be discarded every time it has been used for file transferring. But also OTP has a problem of exhausting the passwords. This makes the ftp connection unavailable temporarily. To resolve this problem, change your password from the personal setting menu as mentioned before. This creates new one-time password and enables you to connect to ftp again.

※ Changing to the same password can also create new one-time password.

10.5   Using the CGI

On the web server, it is possible to run CGI. Perl and Ruby is supported for script language.

◎When using the Perl script, the 1st line of the CGI should be written as below.

#!/usr/local/bin/perl

◎When using the Ruby script, it should be written as below.

#!/usr/local/bin/ruby

10.6   Sending an E-mail through CGI and other web application

So far, our rental server's mailing application using CGI or other web application, has asked the user to connect to the localhost using SMTP, but now we have installed the mail transfer agent called ssmtp which supports mailing by command execution.
By this, using the ssmtp command instead of sendmail command will allow you to send e-mail through the CGI. Command path using the CGI etc. is shown below.

/usr/local/sbin/ssmtp

When using PHP, function like send_mail/sb_send_mail can be used to send an e-mail.

CMS such as Drupal and WordPress, you can mail by using ssmtp command as mentioned above.

- For more information for ssmtp, please refer to the URL below.
  http://packages.debian.org/stable/mail/ssmtp

- The existing method (sending an e-mail by smtp connecting to smtp port No.25) will not be affected the ssmtp command, and is still available. Using the ssmtp results in one more intermediate process when sending an e-mail. Thus we still recommend you to connect to the smtp port No.25.

- When sending an e-mail from the mail form, you will need to handle such as escaping from illegal codes and html tags. When an e-mail including malicious codes has been sent, the system might be exploited using cross site scripting. Exploiting this vulnerability, the user might have a risk of running illegal script on his/her browser.

11.   Web access restriction

To restrict Web access, Click the [Web] button on the administration menu.

On the web public directory (public_html), you can set the access permission using the [Directory] tab and [Web User] tab. You can set the access restriction to 2 types of users.

- [System User] is the user(account) who is registered in the system.
- [Web User] is the user who has restricted access to the web. Can be registered from the [Web User] tab.

11.1.   Adding a Web User

To add a Web user, input username and password in the [Create New Web User] column in the [Web User] tab and press [Create] button.

11.2.   Deleting a Web User

To delete a Web user, select the target user from the [Web User] tab list and click [Delete].

11.3.   Change password for a Web User

To change the password for the Web user, select the target user from the [List of Web Users] in the [Web User] tab and click [Edit]. Type your password in the input column and click [Update].


11.4.   Selecting the Target Directory

The left pane of the [Directory] tab is the list of the directory. You can click and select the directory for access restriction target.

11.5. Begin Access Restriction on Directories

If the target directory has no access restriction, text will be shown in the right pane of the [Directory] tab as below.

Selecting the target and clicking the [Restrict access for the directory] will start the access restriction on the directory.

11.6. Setting Access Restriction on Directories

You can set the next 2 conditions for the access restriction for the directory.
- [Auth Name] is the title for the authentication dialog.
- [Auth Required] is the policy for the access permission target. You can select from [All Users] and [Custom].
- [SSL Only] checkbox requires SSL(https) connection on the directory.

After editing, click the [Change] link to apply the change.

11.7. Add/Delete Permitted Users

If you have selected the [Custom] option in the [Auth Required], you can select the user to permit access.

Allow	Deny
(NONE)	42jsnr admin test01 tsnr11 tsnr66 tsnr77 tsnr99
Deny selected users	Allow selected users

Select target user from "Allow" and "Deny" from the list and click the [Deny selected users] and [Allow selected users] to change the access permission. While pressing the CTRL key, click multiple users to select multiple users at once.

11.8. Lift the Restriction on Directories

To lift the access restriction on directories, click the [Remove the access restriction for the directory] on the bottom of the right pane.

Remove the access restriction for the directory

11.9. Example of .htaccess file

You can directly upload the .htaccess file without using the simple setup feature described as above. By using the following example you can install an access restriction depending on the purpose. The authentication information used in this example is targeted for the registered Web user above. This example shows how to setup a system which grants access, which requires https access and satisfies the Basic authentication and IP address restriction. Please modify the setting if necessary.

```
SSLRequireSSL
AuthType Basic
AuthName "Members only"
AuthUserFile /var/db/htpwd/<Username>/.htpasswd.local
Require valid-user
Order deny,allow
Deny from all
Allow from 130.158.0.0/16 133.51.0.0/16
Satisfy all
```

12. SSH Public key management

To manage SSH Public-key for SCP/SFTP authentication, Click the [SSH Public Key] button on the administration menu.

First, create SSH public key by ssh-keygen command etc. and upload your SSH public key using "Add SSH Key" form.

※ **In the public key cryptosystem, a private key (no ".pub" suffix) and a public key (with ".pub" suffix) are generated. If the private key leaks to another person like a password, authentication with that key pair can easily be overcome, so manage the private key strictly and delete the public key immediately if it leaks out.**

After you specify the public key (.pub) file by clicking the "Choose File" (or "Browse" etc. depend on browser) button, you can register the public key by pressing the "Register" button. When multiple public key information is described in the file, all the public keys are registered at once.

When registration is completed, identification information and information on the public key corresponding to it will be displayed in the "List of Public Key". By clicking "Delete" in each row of the list, you can delete the registration information of that public key.

If you newly register the public key for the already registered identifier, an error shown below will be displayed and you cannot register the public key. In that case, please edit the public key file and rewrite the identifier at the end of the line to another one or overwrite the existing public key by checking "Overwrite an existing public key".

25

SSH Public Key: test01

Following ssh keys already have been created.
- line 1: test01@example.com   ✕

Add SSH Key

Register SSH public key to use SCP/SFTP file upload.
Please upload public key file generated by ssh-keygen command.

☐ **Overwrite an existing public keys.**

Choose File   No file chosen   Register

List of Public Key

Identifier▲▼	公開鍵	Operations
test01@example.com	ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTIt ... O66QDfM s4= test01@example.com	Delete

test01
Password
Mail Forwarding
Web
SSH Public Key
Logout

13. Using the WebDAV

To use the server as the fileserver, there is a function called WebDAV. This allows the user to use the server like a folder on Windows and Mac, etc.
On WebDAV, there is a "personal space" for personal account, and "shared space" for multiple users to share data.

◎ **About using the "Personal space"**

Please use the server as the fileserver for your personal account.
Example: Personal space address
　　　　https://***.***.tsukuba.ac.jp/dav/usr01/

◎ **About using the "Shared space"**

From 2012 we have started an offer for a new management menu. "WebDAV's shared space" has been an option service, but for our new feature, the administrator can now freely register for this service.

(Example)　Shared space address
　　　　https://***.***.tsukuba.ac.jp/pub/<Shared space name>/

※ For information for the shared space name and its propriety of usage, please ask the administrator.

◎ **Manual for the WebDAV**

　　　　https://rose.cc.tsukuba.ac.jp/manual/

※ Please replace and register the address as stated above, referring to the setting example for the WebDAV on this page.

◆About the filename when using the WebDAV

Please be careful for the filename and the directory name which includes the following symbols, because it will evaluate it as a specific symbol and will become inaccessible via WebDAV. If the server has become inaccessible, please contact the rental server staff.

※ Symbol that cannot be used as a filename for WebDAV
　　　　　　　　　　　　　　　　　　　※2 byte character can be used

%　Percent　　　&　Ampersand

※ It is advisable that you should not use the symbol that you cannot use on Windows

¥　Backslash Yen　　　　:　Colon　　　　　　　*　Asterisk
?　Question mark　　　　"　Double quotation mark
>　Greater-than sign　　<　Less-than sign　　　|　Pipe

◆About the response speed on WebDAV

When using WebDAV on Windows, there are some cases when response speed becomes very slow. This can be resolved by the following method.

(1) Open the browser(Internet Explorer) and select the "Internet option" in the "tool"

from the menu bar.
(2) Click the "LAN settings" under the "Connection" tab.
(3) Disable the "Detect the setting automatically" checkbox in the "Auto Configuration" column.
(4) Press OK to save the settings.
(5) Make sure to restart the system, and after restarting and accessing the WebDAV again will mostly recover the response speed.