2017

# JAIST Cloud Service User's Guide

RESEARCH CENTER FOR ADVANCED COMPUTING INFRASTRUCTURE,

# System overview

JAIST Cloud Service is a JAIST web service that makes it easy to create virtual machines. Depending on the function you demand, you can flexibly set performance. In addition, the created virtual machine can be automatically assigned a fixed IP address that can not only access from the campus network, but also can use administrator privileges.

Please do use it.

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2017.12.13

### 1. Login to the system

The address of JAIST Cloud Service is as follows. <u>https://vportal.jaist.ac.jp/vcac/org/JAIST/</u>

When you access the system for the first time, the domain selection screen appears. Please select "ad.jaist.ac.jp" and proceed to the next step.

| S S Workspace ONE                 |  |
|-----------------------------------|--|
| Select your domain ad.jaist.ac.jp |  |
| Remember this setting             |  |
| Next                              |  |
| <b>vm</b> ware <sup>-</sup>       |  |

Figure 1.1 Domain selection screen

Next, enter your user name and password and login. Please enter the same user name and password as JAIST's web service (such as Web-Mail).

| Souther State Stat |  |
|--|--|
| password   |  |
| ad.jaist.ac.jp   |  |
| Sign in  |  |
| Forgot password?   |  |
| Change to a different domain   |  |
| <b>vm</b> ware <sup>-</sup>  |  |

Figure 1.2 Login screen

When you log in, your homepage will be displayed. Interfaces such as calendar showing virtual machine's loan due date (freely usable expiration date) and virtual machine creation dialog are listed here.

| me Catalog Iter              | ns Requests Inbo   |                 |              |                   |                    |        |       |             |       |           |       |
|------------------------------|--------------------|-----------------|--------------|-------------------|--------------------|--------|-------|-------------|-------|-----------|-------|
| ly Open Requests             |                    |                 |              | ××                | Calendar of Events |        |       |             |       |           | X A   |
| Request                      | ltem               | Status          | Submitted    |                   | Today              |        | 4     | August 2017 | ¥     |           |       |
|                              | No i               | tems to display |              |                   |                    | Mon 31 | Aug 1 | Wed 2       | Thu 3 | Fri 4     | Sat 5 |
|                              |                    |                 |              | More              | 6                  | 7      | 8     | 9           | 10    | 11        | 12    |
| ly Items                     |                    |                 |              | X                 |                    |        |       |             |       |           |       |
| Name                         | Туре               | Description     | Expire       |                   | 13                 | 14     | 15    | 16          | 17    | 18        | 19    |
| 1506534124                   | Existing Network   |                 | 7/14/17      |                   |                    | 11     | 10    | 10          |       | 10        | 10    |
| VA-CentOS-00020              | Virtual Machine 7/ |                 | 7/14/17      |                   |                    |        |       |             |       |           |       |
| BP-CentOS-Users-<br>41069273 | Deployment         |                 | 7/14/17      |                   |                    |        |       |             |       |           |       |
|                              |                    |                 |              | More              | 20                 | 21     | Today | 23          | 24    | 25        | 26    |
| ly Inbox                     |                    |                 |              | X                 |                    |        |       |             |       |           |       |
| Item                         | Туре               |                 | Last Updated |                   | 27                 | 28     | 29    | 30          | 31    | Sep 1     |       |
|                              | No i               | tems to display |              |                   |                    |        |       |             |       |           |       |
|                              |                    |                 |              | My Recent Request | s                  |        |       |             |       | ××        |       |
|                              |                    |                 |              | More              | Request            | Item   |       | Status      |       | Submitted |       |

Figure 1.3 JAIST Cloud Service Home Screen

In this system, we guide how to create virtual machines with the concept of "borrowing (hereinafter referred to as" loaning "). In order to get the loan from the virtual machine, after selecting the desired virtual machine type from the "catalog" of the virtual machine, "apply" the loan. The virtual machine you applied and rented out will be displayed as an "item".

You can select the contents of the application, the list of items, browse the catalog of the virtual machine, etc. by selecting it from the tab on the upper left of the screen.

| Home | Catalog | Items | Requests | Inbox |
|------|---------|-------|----------|-------|
|      |         |       |          |       |

Figure 1.4 JAIST Cloud Service Features and Tab Menu

#### 2. Creating a virtual machine

From the tabs on the upper left of the screen, select "Catalog".

|  | Home | Catalog | Items | Requests | Inbox |  |
|--|------|---------|-------|----------|-------|--|
|--|------|---------|-------|----------|-------|--|

Figure 2.1 JAIST Cloud Service features and tab menu

In the catalog screen, information about virtual machines that can be created is displayed in a list. In the figure below, there is a catalog called "CentOS 7 Desktop", and you can create a virtual machine defined in this catalog. In the catalog name, the name of the virtual machine OS that can be created etc. is displayed, so please refer to it.

The catalogs named as "AWS" is using Amazon Web Service (EC2). Notice that, you don't need to pay the charge of use by yourself. It will be paid by JAIST.

For cost saving, please don't forget to shutdown the machine when it isn't in use.

Clicking on the "application" button in the displayed "CentOS 7 Desktop" will proceed to virtual machine creating label "New application".

| AIST 情報社会基礎                               | 盤研究センター<br>Research Center for Advanced Computing Infrastructure | JAIST Cloud Service | Welcome, s1610236. | Preferences He | lp   Logo | ut |
|---|--|---------------------|--------------------|----------------|-----------|----|
| Home Catalog Items Requests               | Inbox  |                     |                    |                |           |    |
| Service Catalog                           |  |                     |                    |                |           |    |
| Browse the catalog for services you need. |  |                     |                    |                |           |    |
| SV-Users (1)                              |  |                     |                    | Search         | 9         |    |
| CentOS7 Desktop<br>Request                |  |                     |                    |                |           |    |

Figure 2.2 Service catalog list

On the new application screen, you can set the duration and specifications of the virtual machine you want to use.

| JAIST : 情報社会基              | 盤研究センター<br>Reserve Comer for Advanced Compacing Infrastment | JAIST Cloud Service           | Welcome, s1610236.   Preferences   Help   Logout |
|----------------------------|---|-------------------------------|--|
| Home Catalog Items Request |   |                               |  |
| New Request                |   |                               |  |
|                            | # 🌺 CentOS7 Desktop   | Deployment: CentOS7 Desktop   |  |
|                            | <ul> <li>BP-CentOS-7</li> </ul>                             | General                       | ^  |
| CentOS7 Desktop            |   | Description:                  |  |
|                            |   | Reason for request:           |  |
|                            |   | Loase days: 7 🐡 (Select 7.38) |  |
|                            |   | Deployments: 1 🗘 (Select 1-3) |  |
|                            |   |                               |  |
|                            |   |                               |  |
|                            |   |                               |  |
|                            |   |                               |  |
|                            |   | <                             | ~  |
|                            | Total price: Update   |                               | View Price Debits                                |
|                            |   |                               | Save Submit Cancel                               |

Figure 2.3 New application screen for virtual machine lending

You can set the details by clicking on the item in the list (shown below) in the center of the screen of the new application.

| CentOS7 Desktop |     |
|-----------------|-----|
| BP-CentOS-7     | •   |
|                 | 1.4 |

Figure 2.4 New application list and items

By clicking the icon, (or with of this item, you can set the description of the virtual machine and the period you want to use. The period you want to use the virtual

machine can be set by "lease days". While using the virtual machine, the lease period can be extended any number of times. However, for one extension request for lease, the maximum number of days for extension is 30 days from the extension application date.

| 🖌 🐴 CentOS7 Desktop | Dep   | oloyment: CentOS    | 7 Desktop |               |                    |
|---------------------|-------|---------------------|-----------|---------------|--------------------|
| BP-CentOS-7         | 🔶 Ger | noral               |           |               |                    |
|                     |       | Description:        |           |               |                    |
|                     |       | Reason for request: |           |               |                    |
|                     |       | Lease days:         | 7 \$      | (Select 7-30) |                    |
|                     | 1     | Deployments:        | 1 \$      | (Select 1-3)  |                    |
|                     |       |                     |           |               |                    |
|                     |       |                     |           |               |                    |
|                     |       |                     |           |               |                    |
|                     |       |                     |           |               |                    |
|                     |       |                     |           |               |                    |
|                     |       |                     |           |               |                    |
|                     | <     |                     |           |               | >                  |
| Total price: Update |       |                     |           |               | View Price Deta    |
|                     |       |                     |           |               | Save Submit Cancel |

Figure 2.5 Lease Days Setting Screen

After that,  $\bigcirc$  or  $\bigcirc$  By clicking the icon of the virtual machine you can set the specifications of the virtual machine.

| 🔺 🛟 CentOS7 Desktop | vSphere (vCenter) M    | achine: BP-CentOS-7     |                    |
|---------------------|------------------------|-------------------------|--------------------|
| BP-CentOS-7         | General Storage        |                         | ^                  |
|                     | *Instances:            | 1 🗘 (Select 1-3)        |                    |
|                     | * CPUs:                | 1 🗘 (Select 1-2)        |                    |
|                     | * Memory (MB):         | 512 🗘 (Select 512-4096) |                    |
|                     | Storage (GB):          | 50                      |                    |
|                     | Description:           |                         |                    |
|                     | 1                      |                         |                    |
|                     | * InitialRootPassword: |                         | •                  |
|                     |                        | Re-enter value          |                    |
|                     |                        |                         | 1 -                |
|                     |                        |                         |                    |
|                     |                        |                         |                    |
|                     |                        |                         |                    |
|                     |                        |                         | ~                  |
|                     | <                      |                         | >                  |
| Total price: Update |                        |                         | View Price Details |

Figure 2.6 Specification screen of the virtual machine to be lent out

When you use JAIST Private Cloud (Not AWS)., you must set the initial password. In the item called "InitialRootPassword", enter the character string to be used as the initial password. Please note that this password will be asking compulsorily to be changed later, so please set the password to be used only for installation. So do not set it as an important password that you commonly use after installation.

When all settings are completed, please click on the "Send" button at the bottom right of the screen to confirm the entries.

In addition, there is an item "total price" on the screen, the amount may be displayed, but this is only displaying the maintenance cost of the system, please use it for free. Creation and use of virtual machines are free and will not be charged. Please do not worry. If the operation proceeds normally, you can check the processing status on the "Application" screen. The "application" screen can be selected from the tab on the upper left of the screen.

The list shows information on all the virtual machines you applied for creation in the past. The latest application will be displayed at the top.

Once the status of the item displayed in the list is "Succeeded", you can use the virtual machine.

| AIST : 情報社会基盤研究センター<br>Research Creater for Advanced Computing Infrastructure |                              |             |            | JAIST Cloud Service   |             |                         | Welcome, s1610236. | Preferences Help Logou         |
|---|------------------------------|-------------|------------|-----------------------|-------------|-------------------------|--------------------|--------------------------------|
| Home Catalog  | Items Requests               | Inbox       |            |                       |             |                         |                    |                                |
| Requests  |                              |             |            |                       |             |                         |                    | Filter by State: In Progress 👻 |
| Monitor the status of you   | ur requests and view request | details.    |            |                       |             |                         |                    |                                |
| 📄 View Details 📔 🗙  | Delete                       |             |            |                       |             |                         |                    |                                |
| Request   | Item                         | Description | Price      | Estimated Lease Price | Status      | Submitter               | Submitted -        | Last Updated                   |
| 2326  | 🍄 CentOS7 Desktop            |             | ¥600 / day | ¥4,200                | In Progress | s1610236@ad.jaist.ac.jp | 8/22/17, 11:33 AM  | 8/22/17, 11:34 AM              |
|   |                              |             |            |                       |             |                         |                    |                                |

Figure 2.7 Application list screen

#### 3. Using created virtual machine

If you select "Item" in the tab on the upper left of the screen, a list of available virtual machines will be displayed.

| Deployments         Balact an Item type from the menu on the left to view your provisioned items. Use the Actions menu to manage your items.           Machines         Www Dumbals         Www Dumbals         Www Dumbals         Wave Components.         Item Actions -   | [ <b>5]</b> 情報社会基     | :盤研究センター<br>Recent Center for Advanced Co | inguiting Infrastructure JAIS             | ST Cloud Service                    | Welcome, s1610236.      | Preferences   Help   Lo       |
|---|-----------------------|---|---|-------------------------------------|-------------------------|-------------------------------|
| Deputyments         Belact an item type from the menu on the left to view your providenced items. Use the Actions menu to manage your items           Name         Description         Sector Composents         #Address         Sector Composents         #Address         Pattern I         Description         Description           Name         Description         Description         Wing Provide Databas         Sectors         Pattern I         Description  | e Catalog Items Reque | ats Inbox                                 |   |                                     |                         |                               |
| Machines Www.Potratils  | Deployments           | Machines                                  |   |                                     |                         | Name/Description              |
| Name Description Owner Lizpense Ulueptint Component IP Address Status Platform 1 Lizpense Destroy On Unite  |                       | Select an Item type from th               | a menu on the left to view your provision | ed Items. Use the Actions menu to m | anage your Items        |                               |
|   | Machines              | 📄 View Details 📄 View                     | Parent Details 🛛 😹 View Components 🗍      | Actions •                           |                         |                               |
| Q VA.C7 Provisioned b Omman LIIND/ Not Applicable CentOS7 Des BP-CentOS-7 150.65.34.19 On vSphere (vCe 8/29/17, 11:3/ 10/28/17, 11:3/ 20/28/17, 11:3/17, 10/28/17, 10/28/17, 10/28/17, 10/28/17, 10/28/17, 10/28/17, 10/28/ |                       | Name Description                          | Owner Expense ( Bluepont                  | Component IP Address Status         | Platform L., Expires    | Destroy On Date Great         |
|   |                       | O VA-C7 Provisioned to                    | Omran HIND/ Not Applicable CentOS7 Des    | s BP-CentOS-7 150.65.34.19 On       | vSphere (vCe 8/29/17, 1 | 1:3/ 10/28/17, 11: 8/22/17, 1 |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
|   |                       |   |   |                                     |                         |                               |
| 14 4 Page 1 of 1 P Pi 2   |                       |   |   |                                     |                         |                               |

Figure 3.1 Item list screen

Here, by clicking on the icon (or ), you can browse the details of the created virtual machine. You can also manage the power of the virtual machine.

| Home Catalog Items Re  | quests Inbox  |  |
|--|---|--|
| em Details   |   |  |
| A-C7-0002<br>A-C7-0003<br>Intram HDXWI<br>Varian HDXWI<br>Varian HDXWI<br>Varian A<br>Mathine<br>Varian<br>Anthe<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Serial<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Yeari<br>Serial St Desklop-82343788<br>A-89<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Yeari<br>Ye | General Storage Network Security Snapshots         Name:       VA-C7-00002         Component:       BP-Cent/06-7         Status:       On         CPUs:       1         Memory (MB):       512         Storage (GB):       50         Description:       Provisioned by VMinare vRA         Owner:       s1610236@stijuist.nc.jp         Blueprint:       Cent/037 Desktop         Compute resource:       vRA         Bustness group:       BG-Litions | Actions:<br>Connect to Remote Co<br>Connect using SSH<br>Connect using SSH<br>Connect using VMRC<br>Connect using VMRC<br>Connect using VMRC<br>Connect using VMRC<br>Connect using VMRC<br>Connect using VMRC<br>Connect using SSH<br>Power Cytle<br>Power Cytle<br>Power Cytle<br>Power Cytle<br>Reprovision<br>Statewam<br>Statewam<br>Statewam<br>Statewam<br>Connect using VMRC<br>Connect using SSH<br>Connect using SSH<br>Power Cytle<br>Statewam<br>Statewam<br>Connect using VMRC<br>Statewam<br>Connect using SSH<br>Connect using |

Figure 3.2 Item Detail Screen

On the right side of the screen there is a menu labeled "Action". Here you can command power management such as shutting down and restarting the virtual machine.

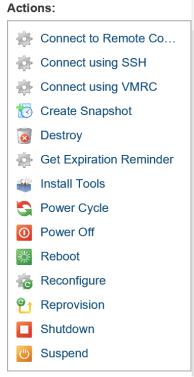


Figure 3.3 List of possible actions

In order to use the virtual machine, SSH connection is required. In order to connect with SSH, it is necessary to know the IP address. On the details screen of the item, you can know the IP address of the virtual machine by clicking the "Network" tab. In this example, it is "150.65.34.19".

| General    | Storage    | Network    | Security     | Snapshots |              |                   |
|------------|------------|------------|--------------|-----------|--------------|-------------------|
| Primary IF | P address: | 150.65.34. | 19           |           |              |                   |
| Network    | adapters:  |            |              |           |              |                   |
|            |            | ID 🔺       | Network Path |           | Address      | MAC Address       |
|            |            | 0          | ts_34.0      |           | 150.65.34.19 | 00:50:56:9a:72:cc |

Figure 3.4 Network information of the virtual machine

#### 4. SSH connection to virtual machine

Please connect to the IP address of the virtual machine with SSH. (VDI provided by Advanced Computing Research Center: Tera Term can be used in virtual desktop environment.)

| VT           | Tera Te      | erm - [di     | sconnecte        | ed] VT         |              |                    |                     |         |        | - | $\times$ |
|--------------|--------------|---------------|------------------|----------------|--------------|--------------------|---------------------|---------|--------|---|----------|
| <u>F</u> ile | <u>E</u> dit | <u>S</u> etup | C <u>o</u> ntrol | Window         | <u>H</u> elp |                    |                     |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               | Tera Te          | rm: New co     | nnection     |                    |                     |         | Х      |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               | ОT               | CP/ <u>I</u> P | Host         | 150.65.34.2        |                     |         | ~      |   |          |
|              |              |               |                  |                | -            | ⊡ Hist <u>o</u> ry |                     |         | _      |   |          |
|              |              |               |                  |                | Condens      | ⊙ Telnet           | TCP po              | rt#: 22 |        |   |          |
|              |              |               |                  |                | Service.     | -                  |                     |         | _      |   |          |
|              |              |               |                  |                |              | ◉ <u>s</u> sh      | SSH <u>v</u> ersion | SSH2    | $\sim$ |   |          |
|              |              |               |                  |                |              | ○ Other            | Proto <u>c</u> ol:  | UNSPEC  | ~      |   |          |
|              |              |               |                  |                |              |                    |                     |         | •      |   |          |
|              |              |               |                  |                |              |                    |                     |         | _      |   |          |
|              |              |               | 0 S              | <u>e</u> rial  | Port         |                    |                     |         | $\sim$ |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               |                  |                | OK           | Cancel             | <u>H</u> elp        |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |
|              |              |               |                  |                |              |                    |                     |         |        |   |          |

Figure 4.1 Tera Term: New connection

When connecting for the first time, the dialog below will appear, click "continue"

| ECURITY WARNING   | ×   |
|---|-----|
| There is no entry for the server "150.65.34.15" in your list of known<br>hosts. The machine you have contacted may be a hostile machine<br>pretending to be the server. | n   |
| If you choose to add this machine to the known hosts list and contin<br>then you will not receive this warning again.   | ue, |
| The server's host key fingerprint is:<br>Fingerprint hash algorithm: OMD5 ③ [2]HA256]<br>SHA256: +1vv2St +qSFHVSriUsw8HPEYB0DaTMD6op7XwwgGCAQ                           |     |
| +[ECDSA 256]+<br>[E   | < > |
| Add this machine and its key to the known hosts list Continue Disconnect  |     |

Figure 4.2 Tera Term: "SECURITY WARNING" notification dialog upon connecting for the first time

## 4.1. Virtual Machine of JAIST Private Cloud

The initial username of the virtual machine is "jaist". Please login with the initial user name and the initial password set earlier. Please choose plain text authentication.

| SSH Authentication         |  | - | Х |
|----------------------------|--|---|---|
| Logging in to 150.65.      | 34.15  |   |   |
| Authentication require     | ed.  |   |   |
| User <u>n</u> ame:         | jaist  |   |   |
| Passphrase:                | ••••   |   |   |
|                            | Remember password in memory                  |   |   |
|                            | Forward agent                                |   |   |
| • Use p <u>l</u> ain passw | ord to log in                                |   |   |
|                            |  |   |   |
| O Use <u>R</u> SA/DSA/E    | CDSA/ED25519 key to log in Private key file: |   |   |
| O Use rhosts to lo         | g in (SSH1) Local user name:                 |   |   |
|                            | Host private key file:                       |   |   |
|                            | hosephydre key <u>n</u> er                   |   |   |
| O Use challenge/r          | esponse to log in(keyboard-interactive)      |   |   |
|                            |  |   |   |
| OUse Pageant to            | log in                                       |   |   |
|                            | OK Disconnect                                |   |   |

Figure 4.3 Tera Term "SSH Authentication" dialog

When logging in to the virtual machine you created for the first time, you will be prompted to change your password.

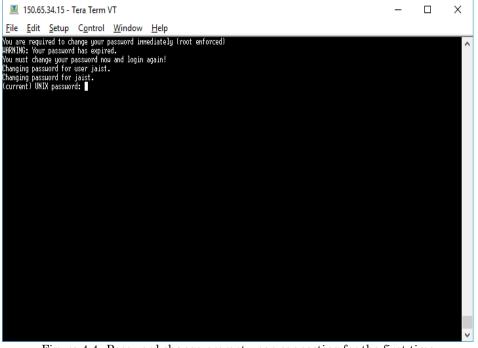


Figure 4.4 Password change prompt upon connecting for the first time

When you set the password, the connection will be closed at once. Please login again. Please use the newly set password to login.

### 4.2. Virtual Machine of AWS

Digital Certificate is required for SSH connection. Please download the certificate of the virtual machine from Action Menu (Figure 3.2)

Detail of the usage is:

From Windows: http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/putty.html

From Mac OS:

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AccessingInstancesLinux.html

#### 5. Changing the lease duration

A virtual machine created by JAIST Cloud Service has a default expiration date. This expiration date is referred to as "lease" of the system and can be up to 30 days. You can change it after the virtual machine is created.

To change the expiration, first access the corresponding item. Select "Items" tab, then click "Deployments" to display the list of virtual machines.

| G D Secure Int | tçs:/vportaljaist.ac.jp/vcxc/vrg/1451/4ci       |                         |                                     |                    |                 |                               |           | 7 🕁                  |
|----------------|---|-------------------------|-------------------------------------|--------------------|-----------------|-------------------------------|-----------|----------------------|
| ////           | 会基盤研究センター<br>Result Calago Messel Calagory      | Referen                 | JAIST Cloud Serv                    | ice                | Welcone, s16200 | Preferences                   | Hep       | Logod                |
| Cepioyments    | Deployments<br>Select an ten type from the meru | ut the left to view you | r provisioned Lems. Use the A       | dices menu to mane | çe your items   | NateDe                        | ecciption | 9                    |
| Vactines       | The same beam and same                          | Tetats to Ven Con       | provente   🔮 Actions •              |                    |                 |                               |           |                      |
| Vactines       | The second second second second                 |                         |                                     |                    |                 |                               |           | 1111                 |
| Vactines       | Nane  | Description - Over      | r Eigene (Mt.                       | Component IP       | Address Explies | Destroyed                     | Date Cit  |                      |
| Vactines       |   |                         | er Expense (Mo, .<br>Not Applicable | Component IP       |                 | Destroyed<br>C 2011/2017 st 4 |           |                      |
| Vactines       | Nane  | 1 Å                     |                                     |                    | 22/08/2017 10   |                               | £ 2546.20 | 17 18 4)             |
| Vactines       | Name  CentOST Desition 8058432                  | 1 A<br>9. A             | Not Applicable                      |                    | 2249(2917-18)   | £ 2011/2017 184               | C 234620  | 17 18 4)<br>17 18 4) |

Figure 5.1 The tabs menu with the "Items" tab and "Deployments"

When you expand an item its details get listed as shown below.

|                            | stare  | JAIST Cloud   | Service   |   |   | Welcome, s   | 16200   Prefere   | nces   Help   L  |
|----------------------------|--|---|---|---|---|--|---|--|
| ployments                  |  |   |   |   |   |  | Nar   | me/Description   |
|                            |  |   |   | e your items.   |   |  |   |  |
|                            | Description +  | Owner   |   | Component   | IP Address  | Expires  | Destroyed   | Date Created   |
| CentO \$7 Desktop-80584023 |  | A   | Not Applicable  |   |   | 22/09/2017 10:40   | 21/11/2017 10:40  | 23/08/2017 10:40   |
| CentO \$7 Desktop-43621669 |  |   | Not Applicable  |   |   | 22/09/2017 10:40   | 21/11/2017 10:40  | 23/08/2017 10:40   |
| CentO \$7 Desktop-18118768 |  | A   | Not Applicable  |   |   | 22/09/2017 10:40   | 21/11/2017 10:40  | 23/08/2017 10:40   |
| O VA-C7-00003              |  | A   | Not Applicable  | BP-CentOS-7   | 150.65.34.15  | 22/09/2017 10:40   | 21/11/2017 10:40  | 23/08/2017 10:47   |
| 1506534124                 |  | ٨   | Not Applicable  |   |   | 22/09/2017 10:40   | 21/11/2017 10:40  | 23/08/2017 10:40   |
|                            | An and a second organize to over<br>polyments<br>can item type from the menu on the<br>Vere Dealer<br>Cento 37 Deatop-4654623<br>Cento 37 Deatop-4654623<br>Cento 37 Deatop-465766<br>Cento 37 Deatop-4521669<br>Cento 37 Deatop-4521669<br>Cento 37 Deatop-1611726<br>Cento 37 Deatop-1611726 | A transfer (2 where the second of the s | Action     Cento 37 Deaktop-4552165     Cento 37 Deaktop-4551265     Cento 37 Deaktop-455126     Cento 37 Deaktop-455126 | A tore (build a blowed flowpare hybertowner)      Abox      pologioments     were Details     Were Parent Details     Were Components     Were Parent Details     Were Components     Detartplan     Detartplan | Action of a Advanced Lowpoort (New Construction of Advanced Components)     Section of a Components     Were Details     Were Details     Were Details     Were Components     Details     Detail | A table of A Advanced Concerning Advancement  polyon  polyon | Control of Addward Company Information     Control of Addward Company Information     Control of Addward Company Information       polyments       sployments       View Datable       View Datable       Were Datable       Owner       Expense (Month ta)       Cento 37 Desktop-4654423       A       Not Applicable       Cento 37 Desktop-452168       A       Not Applicable       Cento 37 Desktop-452168       A       Not Applicable       Cento 37 Desktop-452168       A       Not Applicable       Description A       Owner       Cantor 37 Desktop-452168       A       Not Applicable       Description A       Not Applicable       Description A       Owner       Description A       A       Not Applicable       Description A       Owner       Description A       Owner       Description A       A       Not Applicable       Description A       Owner       Description B       Description B       Description A       Description B       Description B       Description B | Control of Addward Company Information         Oncold Control of Addward Company Information         Net double Site Control of Addward Company         Net double Site Control of Co |

Figure 5.2 An example "Deployments" list of "Items"

The items displayed in the list are organized as shown below the mark. The virtual machine and the network are displayed under the corresponding item.

Select an item type from the menu on the left to view your provisioned items. Use

| View Details 📄 View Parent Details | 📓 View Compo  | nents   🖗 Actions |
|------------------------------------|---------------|-------------------|
| Name                               | Description + | Owner             |
| > 🚯 CentO \$7 Desktop-80584023     |               | A                 |
| CentO \$7 Desktop-43621669         |               | A                 |
| 🖌 🐴 CentO \$7 Desktop-18118768     |               | A                 |
| VA-C7-00003                        |               | Α                 |
| 1506534124                         |               | A                 |

Figure 5.3 Example of one expanded virtual machine in the "Deployments" list of "Items"

Please click the icon to display the details of the item. You can change the lease by clicking "Change lease" in the "Actions" list on the right of the screen.

| 👼 🧑 JAIST Cloud Service 🛛 🗙 🔲                 |  |   | - 🗆 ×                            |
|---|--|---|----------------------------------|
| ← → C ☆ 🔒 Secure   https://vpor               | tal.jaist.ac.jp/vcac/org/JAIST/#csp.catalog.item.det             |   | 771da 🖪 🖥 🛧 🗄                    |
| JAIST 情報社会基盤                                  | 盤研究センター<br>Research Center for Advanced Computing Infrastructure | JAIST Cloud Service Welcome, s16200 . F | references   Help   Logout       |
| Home Catalog Items Requests                   | Inbox  |   |                                  |
| Item Details                                  |  |   |                                  |
|   | Details Properties   |   | Actions:                         |
|   | Description: .   |   | Change Owner<br>Destroy          |
| CentOS7 Desktop-18118768                      |  |   | S Expire                         |
| Owner<br>A                                    |  |   |                                  |
| Provisioned<br>23/08/2017 10:40               |  |   |                                  |
| Type<br>Deployment                            |  |   |                                  |
| Lease<br>30 days                              |  |   |                                  |
| Expires 22/09/2017 10:40                      |  |   |                                  |
| Expense (Month to date)<br>NA                 |  | < Back Next >                           |                                  |
| Business Group<br>BG-Users                    |  | Close                                   |                                  |
| Research Center for Advanced Computing Infras | tructure   | version                                 | 7.3.0 (build 5804410) Contact us |

Figure 5.4 "Item Details" screen

#### 6. Removing a virtual machine

Virtual machines that are no longer needed can be deleted regardless of the lease. First, display the list of items and display the list of virtual machines from the "Deployments" list.

| U D Setae II  | tps://vportaljaist.ac.jp/vcac/org/14/57/Ho                  |                        |                                   |                            |                                    |                                    | -         |         |
|---------------|---|------------------------|-----------------------------------|----------------------------|------------------------------------|------------------------------------|-----------|---------|
| AIST : 情報社    | 会基盤研究センター<br>Result Cale of Manual Tangeng<br>Requests NDCX | léorain                | JAIST Cloud Servic                | te we                      | come, s16200                       | Preferences                        | Help      | Logoi   |
| Ceptoynarts 2 | Deployments<br>Select an ten type from the men              | on the left to view yo | ur provisioned Gerns. Use the Act | ors menu to manage your    | tens.                              | NateDe                             | conption  | 9       |
| Vactines      | Vesi Deute  | Teast to Ver Co        | rponnte   🔮 Action •              |                            |                                    |                                    |           |         |
| vactores      |   |                        | in the second second              | Component IP Address       | Extern                             | Destroyed                          | Date Cas  | 161     |
| vacros        | Nane  | Description - Our      | RL Dideate (Md                    | And Andrease in Concession |                                    |                                    |           |         |
| WICINE        | Name<br>> 😵 Cent0 S7 Desktop 8058433                        |                        | Vol Applicable                    | Andress in cases           |                                    | 2911/2017 10:40                    | 23/68/201 | 7184)   |
| vectings      |   | 3 4                    |                                   | weighters                  | 22/09/2017 10 4                    | 2011-0367 10-40<br>2011-0367 10-40 |           |         |
| witting       | > 😵 CentO S7 Desiltop 8058433                               | g 4<br>g. A            | Nol Applicable                    | vegen ( s and              | 22/09/2017 18 4<br>22/09/2017 18 4 |                                    | 23/08/201 | 7 12.40 |

Figure 6.1 The tabs menu with the "Items" tab and "Deployments"

When you click "Deployments", all of the items are listed as shown below.

|   |   |                       |                              |               |              |                  |                  | ବ 🖣 🕁            |
|---|---|-----------------------|------------------------------|---------------|--------------|------------------|------------------|------------------|
|   | uctory  | JAIST Cloud           | Service                      |               |              | Welcome, s       | 16200   Prefere  | nces   Help   Lo |
| uests Inbox                             |   |                       |                              |               |              |                  |                  |                  |
| Deployments                             |   |                       |                              |               |              |                  | Na               | me/Description   |
| Select an item type from the menu on th | e left to view your p   | rovisioned items. Use | e the Actions menu to manage | e your items. |              |                  |                  |                  |
| 📄 View Details 📄 View Parent Deta       | ils 🛛 🙀 View Comp   | onents   🚯 Action     | s <b>.</b>                   |               |              |                  |                  |                  |
| Name                                    | Description +   | Owner                 | Expense (Month to            | Component     | IP Address   | Expires          | Destroyed        | Date Created     |
| CentO \$7 Desktop-80584023              |   | A                     | Not Applicable               |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
| CentO \$7 Desktop-43621669              |   | /                     | Not Applicable               |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
| 🖌 🎂 CentO \$7 Deektop-18118768          |   | Α                     | Not Applicable               |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
| VA-C7-00003                             |   | A                     | Not Applicable               | BP-CentOS-7   | 150.65.34.15 | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:47 |
| 1506534124                              |   | ٨                     | Not Applicable               |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
| -                                       |   |                       |                              |               |              |                  |                  |                  |
|   | Useds Inbox Deployments Select an item type from the menu on th Wee Details Wee Parent Des Wee Details Wee Parent Des Wee Details Weektop-36584023  © Cent0 37 Desktop-36584023  © Cent0 37 Desktop-36584023  © V4-07-0005 © V4-07-0005 |                       |                              |               |              |                  |                  |                  |

Figure 6.2 An example "Deployments" list of "Items"

Click on the icon to display the details of the item. You can delete the virtual machine by clicking "Delete" in "Actions" list on the right side of the screen.

| 👼 🌀 JAIST Cloud Service 🛛 🗙 📃                  |   |   | - 🗆 X                            |
|--|---|---|----------------------------------|
| ← → C ☆ 🔒 Secure   https://vport               | al.jaist.ac.jp/vcac/org/JAIST/#csp.catalog.item.detail          |   | 771da 📑 🕇 🛧 🚦                    |
| 3///   | 研究センター<br>Research Center for Advanced Computing Infrastructure | JAIST Cloud Service Welcome, s16200 . P | references   Help   Logout       |
| Home Catalog Items Requests                    | Inbox   |   |                                  |
| Item Details                                   |   |   |                                  |
|  | Details Properties  |   | Actions:                         |
|  | Description:  |   | Change Lease                     |
|  |   |   | Change Owner Destroy             |
| CentOS7 Desktop-18118768                       |   |   | 📸 Expire                         |
| Owner  |   |   |                                  |
| A  |   |   |                                  |
| Provisioned<br>23/08/2017 10:40                |   |   |                                  |
| Type<br>Deployment                             |   |   |                                  |
| Lease<br>30 days                               |   |   |                                  |
| Expires<br>22/09/2017 10:40                    |   |   |                                  |
| Expense (Month to date)<br>NA                  |   | < Back Next >                           |                                  |
| Business Group<br>BG-Users                     |   | Close                                   |                                  |
| Research Center for Advanced Computing Infrast | ructure   | version                                 | 7.3.0 (build 5604410) Contact us |

Figure 6.3 "Item Details" screen

When you click "Destory", the "New Request" for "Destroy" screen is displayed. To request the deletion of the virtual machine, please push the "submit" button to send the request.

| 👼 🌀 JAIST Cloud Service 🛛 🗙  |  | :   | Х |
|--|--|---|---|
| ← → C ☆ 🏻 Secure   https://vp                                      | ortal.jaist.ac.jp/vcac/org/JAIST/#csp.cata                               | alog.item.action.request%5BactionId:=f985ec62-d3ae-42e0-9397-0dc7138de6 📴 🍷 🛧 |   |
| Home Catalog Items Reques  | 盤研究センター<br>Research Center for Advanced Computing Infrastru<br>sts Inbox | JAIST Cloud Service Welcome, s16200 .   Preferences   Help   Logout           |   |
| New Request  |  |   |   |
| Destroy<br>Destroys a deployment and all constituent<br>resources. | General Reasons  | Deployment: CentOS7 Desktop   |   |
|  |  | Save Submit Cancel  |   |
| Research Center for Advanced Computing Infr                        | astructure   | version 7.3.0 (build 5604410) Contact us                                      |   |

Figure 6.4 Request for deletion screen

When the request is sent successfully, a confirmation dialog will be displayed.



Figure 6.5 Deletion request submitting confirmation

You can check the processing status of the requested deletion in the "Requests" screen. Note that processing takes some time. When the deletion of the virtual machine is completed, the status will be "Successful".

| JAIST -  | 情報社会書                               | Basework Cire      | ンター<br>ner for Administ Computing In | Sound countrie of         | JAIST Clou                | ud Servic | • Welcome,                         | s16200 . Preter  | ences   Help  | Log |
|----------|-------------------------------------|--------------------|--------------------------------------|---------------------------|---------------------------|-----------|------------------------------------|------------------|---------------|-----|
| Requests | Items Requi                         |                    |                                      |                           |                           |           |                                    | Filter           | by State: All |     |
|          | Color requests and view             | v request details. |                                      |                           |                           |           |                                    |                  |               |     |
| Request  | Hem                                 | Description        | Price                                | Estimated Lease Pr        | Status                    | Submitte  |                                    | Submitted +      | Last Update   |     |
| 2329     | Destroy - CentOS<br>CentOS7 Desktop |                    | Not Applicable<br>9600 / day         | Not Applicable<br>#15.000 | In Progress<br>Successful | \$16200   | @ad jaist ac jp<br>@ad jaist ac.jp | 23/08/2017 11:34 | 23/08/2017    |     |

Figure 6.6 Example of the "Requests" screen

## 7. Restoring a virtual machine

After the lease expiration, a virtual machine can be restored within two months.

The restoration of the virtual machine is handled by applying for change of the lease time. First, please expand the item.

|                     | ure   https://vportal.jaist.ac.jp/vca                       |                       |                       | em.list%5BitemMe          |               |              |                  |                  | ର 🖣 🕁             |
|---------------------|---|-----------------------|-----------------------|---------------------------|---------------|--------------|------------------|------------------|-------------------|
| AIST 情報社            | 会基盤研究センター<br>Research Center for Advanced Computing Sufrait | nuclear -             | JAIST Cloud S         | Service                   |               |              | Welcome, s       | 16200 Prefere    | nces   Help   Loj |
| forme Catalog Items | Requests Inbox  |                       |                       |                           |               |              |                  |                  |                   |
| Deployments         | Deployments   |                       |                       |                           |               |              |                  | Na               | me/Description    |
|                     | Select an item type from the menu on th                     | e left to view your p | rovisioned items. Use | the Actions menu to manag | e your items. |              |                  |                  |                   |
| Machines            | View Details 🔛 View Parent Deta                             | iils 🛛 🔣 View Comp    | onents   🛞 Actions    |                           |               |              |                  |                  |                   |
|                     | Name  | Description +         | Owner                 | Expense (Month to         | Component     | IP Address   | Expires          | Destroyed        | Date Created      |
|                     | CentO \$7 Desktop-80584023                                  |                       | ۸                     | Not Applicable            |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40  |
|                     | CentO \$7 Desktop-43621669                                  |                       | /                     | Not Applicable            |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40  |
|                     | a 🚯 CentO \$7 Desktop-18118768                              |                       | A                     | Not Applicable            |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40  |
|                     | O VA-C7-00003   |                       | A                     | Not Applicable            | BP-CentOS-7   | 150.65.34.15 | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:47  |
|                     | 1506534124  |                       | ٨                     | Not Applicable            |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40  |

Figure 7.1 An example "Deployments" list of "Items"

Next, choose the details of the virtual machine you want to restore, and click "Change Lease" from the "Actions" list. Please set the desired expiration of the lease in the "Change Lease" dialog.

| 👼 🎯 JAIST Cloud Service 🛛 🗙 💽                 |  |   | - 🗆 X                            |
|---|--|---|----------------------------------|
| ← → C ☆ 🔒 Secure   https://vpor               | tal.jaist.ac.jp/vcac/org/JAIST/#csp.catalog.item.d               |   | i771da 🖪 🕇 🛧 🗄                   |
| AIST :- 情報社会基盤                                | 盤研究センター<br>Research Center for Advanced Computing Infrastructure | JAIST Cloud Service Welcome, s16200 . F | Preferences   Help   Logout      |
| Home Catalog Items Requests                   | : Inbox  |   |                                  |
| Item Details                                  |  |   |                                  |
| CentOS7 Desktop-18118768                      | Details Properties Description: .                                |   | Actions:                         |
| Owner<br>A<br>Provisioned<br>23/08/2017 10:40 |  |   |                                  |
| <b>Type</b><br>Deployment                     |  |   |                                  |
| Lease<br>30 days                              |  |   |                                  |
| Expires<br>22/09/2017 10:40                   |  |   |                                  |
| Expense (Month to date)<br>NA                 |  | < Back Next >                           |                                  |
| Business Group<br>BG-Users                    |  | Close                                   |                                  |
| Research Center for Advanced Computing Infras | structure  | version                                 | 7.3.0 (build 5604410) Contact us |

Figure 7.2 "Item Details" screen

|   | Change Lease - CentOS7 Desktop-43621669                       |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|
| ) | Change lease of a deployment and all its component resources. |  |  |  |  |  |  |  |  |  |  |
|   | リースの変更  |  |  |  |  |  |  |  |  |  |  |
|   | 有効期限: 24/08/2017 🖸 23:00 🗸 🛇                                  |  |  |  |  |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |  |  |  |  |
|   | Save Submit Cancel  |  |  |  |  |  |  |  |  |  |  |

Figure 7.3 "Changing Lease" dialog

After requesting the lease change, you can check the processing in the "Requests" screen. When the status changes to "Successful", the virtual machine can be used again.

|             | ☆ Secure   https://vportal.jaist.ac.j              | p/vcac/org/J/ |                           |                 |             |                     |                 |                  |             | ቸ 🕁   |
|-------------|--|---------------|---------------------------|-----------------|-------------|---------------------|-----------------|------------------|-------------|-------|
| Home        |  |               | Computing ExProst-softere | JAI             | ST Cloud S  | ervice <sub>W</sub> | /elcome, s162   | 00 .   Preferen  | ces   Help  | Logou |
| Reques      | sts  |               |                           |                 |             |                     |                 | Filter by        | State: All  | ÷     |
| Monitor the | e status of your requests and view request details |               |                           |                 |             |                     |                 |                  |             |       |
| View I      | Detaila   🗶 Delete                                 |               |                           |                 |             |                     |                 |                  |             |       |
| Request     | Item   | Description   | Price                     | Estimated Lease | Status      | Submitter           |                 | Submitted ~      | Last Update | d     |
| 2331        | Kange Lease - CentOS7 Desktop-43621669             |               | Not Applicable            | Not Applicable  | In Progress | \$162001            | @ad jaist ac jp | 23/08/2017 11:43 | 23/08/2017  | 11:43 |
| 2329        | Destroy - CentOS7 Desktop-18118768                 |               | Not Applicable            | Not Applicable  | Successful  | \$16200             | @ad jaist ac jp | 23/08/2017 11:34 | 23/08/2017  | 11:36 |
|             | CentOS7 Desktop                                    |               | ¥600 / day                | ¥18,000         | Successful  | s16200              | @ad.jaist.ac.jp | 23/08/2017 10:40 | 23/08/2017  | 10:48 |
| 2328        |  |               |                           |                 |             |                     |                 |                  |             |       |

Figure 7.4 Example of the "Requests" screen

The virtual machine can only be restored within 2 months after the lease. Please note that after 2 months, the virtual machine will be deleted permanently.

### 8. root privileges and password

For the virtual machines provided by this service, root privilege can be used. To use the root privilege, please use the sudo command.

The root user's password can be changed by using sudo command and passwd command. For details, refer to the example of the command below.

### [Example 1]To change "root" password

\$ sudo passwd root

[Example 2] To execute commands that require root privileges

\$ sudo [command]

To update packages using yum \$ sudo yum update

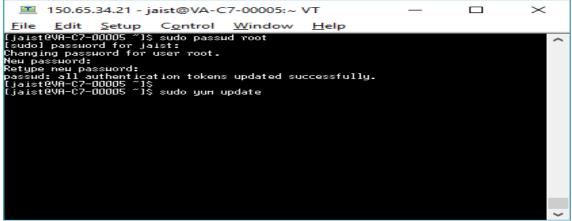
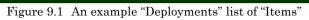


Figure 8.1 Example commands

### 9. Accessing the virtual machines remotely

To use a remote console, first display details of the item from the "Item Details" screen and click "Connect to Remote Console" from the the "Actions" menu.

| ⇒ C ☆ 🗎 Sec      | cure https://vportal.jaist.ac.jp/vca                         | ac/org/JAIST/          |                        |                             |               |              |                  |                  | ର୍ 🖣 🏠           |
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|                  | Select an item type from the menu on the                     | ne left to view your p | provisioned items. Use | e the Actions menu to manag | e your items. |              |                  |                  |                  |
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|                  | Name   | Description +          | Owner                  | Expense (Month to           | Component     | IP Address   | Expires          | Destroyed        | Date Created     |
|                  | CentO \$7 Desktop-80584023                                   |                        | A                      | Not Applicable              |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
|                  | CentO \$7 Desktop-43621669                                   |                        | /                      | Not Applicable              |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
|                  | 🖌 🌺 CentO \$7 Desktop-18118768                               |                        | Α                      | Not Applicable              |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |
|                  | VA-C7-00003  |                        | Α                      | Not Applicable              | BP-CentOS-7   | 150.65.34.15 | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:47 |
|                  | 1506534124   |                        | ٨                      | Not Applicable              |               |              | 22/09/2017 10:40 | 21/11/2017 10:40 | 23/08/2017 10:40 |



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| Item Details   |   |   |   |
| VA-C7-00003<br>VA-C7-00003<br>Owner<br>A<br>Provisioned<br>23/08/2017 10:47<br>Type<br>Virtual Machine<br>Parent<br>CentOS7 Desktop-18118788<br>Lease<br>30 days<br>Expires<br>22/02/2017 10:40<br>Expense (Month to date)<br>NA<br>Business Group<br>BG-Users | Component:<br>Status:<br>CPUs;<br>Memory (MB):<br>Storage (GB):<br>Description:<br>Owner: | 1<br>512<br>50<br>s1620001@ad.jaist.ac.jp<br>CentOS7 Desktop<br>vRA | Actions:<br>Connect to Remote Co<br>Connect using SSH<br>Connect using VMRC<br>Create Snapshot<br>Create Snapshot<br>Get Expiration Reminder<br>Install Tools<br>Power Cycle<br>Repower Cyf<br>Reconfigure<br>Preprovision<br>Shutdown<br>Suspend |
|  |   | Close   | 1   |
| Research Center for Advanced Computing Infrastr  | ucture  |   | version 7.3.0 (build 5604410) Contact us  |

Figure 9.2 "Item Details" screen



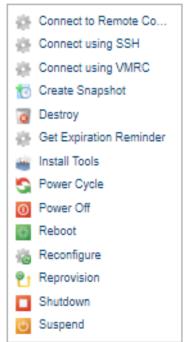


Figure 9.3 "Actions" menu list

When you click "Connect to Remote Console" link, the remote console starts up in a separate tab/window.

Make sure you enable popups for this page to get the new tab/window.

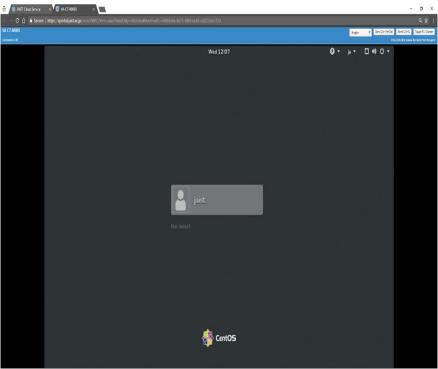


Figure 9.4 Remote console login to the virtual machine

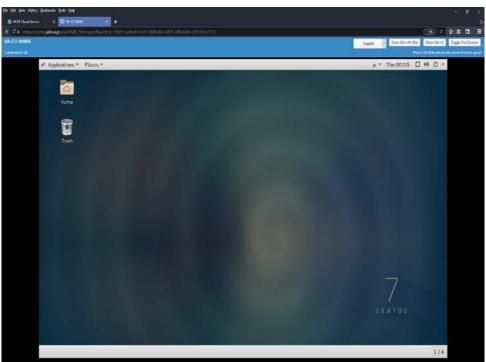


Figure 9.5 Remote console connection to the virtual machine desktop

Login to the remote console of the virtual machine using the username and password made before. After login, the desktop is displayed and can be used just as any normal machine.

When you connect remotely for the first time, a license confirmation screen may be displayed. When you accept the license, the GUI login screen will be displayed, please follow the steps above.

If the desktop is not shown, try changing the browser zooming factor.