※ For the version(x.x.x) in Setting, Notes column, please replace with the ITA version to be installed.
For strings such as "ITA installation target directory name", "IP address of external storage server", "Host name of Ansible server", please replace them according to the installation environment.

No.	Target	Common	File manage	Create menu	Host group	Ansible	Cobbler	Terraform	Setting	Notes
					Target					
	Deploy ITA installation file									
1	Deploy ITA installation file					●			Please place the ITA file vx.x.x.tar.gz in the installation file deployment directory cd /(installation file deployment directory) ls -l vx.x.x.tar.gz	The deployment directory of the installation file can be any directory. Please acquire the file via the following command when performing online installation wget https://github.com/exastro-suite/it-automation/archive/vx.x.x.tar.gz
2									Please extract ITA installation file tar -zxf vx.x.x.tar.gz	
3									Set the ITA installation directory find it-automation-x.x.x -type f | xargs -I{} sed -i -e "s:%%%%%ITA_DIRECTORY%%%%%:/(ITA installation target directory):g" {}	
	Install yum-utils									
4	【For CentOS7、RHEL7】 Install yum-utils					●			Please install the following package yum-utils	Please install via the following command when performing online installation yum install -y yum-utils
	Install Apache									
5	Install Apache					●			Please install the following package httpd mod_ssl	Please install via the following command when performing online installation yum install -y httpd mod_ssl
6	Set autostart of Apache					●			systemctl enable httpd	
	Install PHP									
7	Install PHP					●			Please install the following package php php-bcmath php-cli php-ldap php-mbstring php-mysqlnd php-pear php-pecl-zip php-process php-snmp php-xml zip telnet mailx unzip php-json php-gd python3 php-devel libyaml libyaml-devel make sudo crontabs	Please enable the repository via the following command when performing online installation 【For CentOS7、RHEL7】 yum install -y http://rpms.remirepo.net/enterprise/remi-release-7.rpm yum-config-manager --enable remi-php72 【For CentOS8、RHEL8】 No need to add repository. Please install via the following command when performing online installation yum install -y php php-bcmath php-cli php-ldap php-mbstring php-mysqlnd php-pear php-pecl-zip php-process php-snmp php-xml zip telnet mailx unzip php-json php-gd python3 php-devel libyaml libyaml-devel make sudo crontabs
8	Install PEAR library					●			Please install the following PEAR package HTML_AJAX-beta	Please install via the following command when performing online installation pear install HTML_AJAX-beta
9	Set HTML_AJAX-beta					●			ln -s /usr/share/pear-data/HTML_AJAX/js /usr/share/pear/HTML/js	
10	Install php-yaml					●			Please install the following package php-yaml	Please install via the following command when performing online installation pecl channel-update pecl.php.net echo "" | pecl install YAML
11	Install PhpSpreadsheet					●			Please create the following directory mkdir -p /usr/share/php/vendor	
12									Please install PhpSpreadsheet package in /usr/share/php/vendor directory	Please install via the following command when performing online installation curl -sS https://getcomposer.org/installer | php -- --install-dir=/usr/bin /usr/bin/composer.phar require "phpoffice/phpspreadsheet":"1.14.1" mv vendor /usr/share/php/
	Set PHP									
13	【For CentOS7、RHEL7】 Set php.ini					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS7.x/etc/php.ini /etc/	
14	【For CentOS8、RHEL8】 Set php.ini					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS8.x/etc/php.ini /etc/	
15	【For CentOS8、RHEL8】 Set www.conf					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS8.x/etc/php-fpm.d/www.conf /etc/php-fpm.d/	
	Edit sudo setting									
16	Create sudo setting file					●			/etc/sudoers.d/(any desired file name) Please create a file with the following content in the directory above. daemon ALL=(ALL) NOPASSWD:ALL apache ALL=(ALL) NOPASSWD:ALL	Sample Command： cat << EOS > /etc/sudoers.d/it-automation daemon ALL=(ALL) NOPASSWD:ALL apache ALL=(ALL) NOPASSWD:ALL EOS
17	Change privilege of sudo setting file					●			Please change the prvilige of the sudo setting file to 440 chmod 440 /etc/sudoers.d/(any desired file name)	

No.	Target	Common	File manage	Create menu	Host group	Ansible	Cobbler	Terraform	Setting	Notes
18	Edit sudoers file					●			vi /etc/sudoers check the sudoers file. Please comment out the following line if it exists. (If it's already commented, this procedure is not required.) Defaults requiretty	
Install ITA										
19	Create installation target directory					●			mkdir -p /(ITA installation target directory)	※Please give all parent directories of the ITA installation directory permission to execute "Other Users".
20	Create data_relay_storage directory					●			mkdir /(ITA installation target directory)/data_relay_storage	
21	Set shared directory					●			Please set the shared directory for external storage as follows. Shared directory for Ansible server: /(ITA installation target directory)/data_relay_storage Shared directory for external storage: /(any desired shared directory)/data_relay_storage	
22	Deploy ITA file					●			cp -rp /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ITA/ita-contents/ita-root /(ITA installation target directory)/.	
23	Deploy ITA setting file					●			cp -rp /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ITA/ita-confs /(ITA installation target directory)/ita-root/confs	
24	Create directory used by ITA					●			Please create one directories for each line of the paths written in /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/install_scripts/list/create_dir_list.txt by adding /(ITA installation target directory) in the front of the paths mkdir -p /(ITA installation target directory)(path written in the file)	
25	Change privilege(755)					●			Please change privilege for every line of paths written in /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/install_scripts/list/755_list.txt by adding /(ITA installation target directory) in front of the paths chmod 755 /(ITA installation target directory)(path written in the file)	
26	Change privilege(777)					●			Please change privilege for every line of paths written in /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/install_scripts/list/777_list.txt by /(ITA installation target directory) in front of the paths chmod 777 /(ITA installation target directory)(path written in the file)	
Set Apache										
27	Set /etc/hosts					●			vi /etc/hosts Please add the following content 127.0.0.1 (Host name of Ansible server)	
28	Create the key of certificate ※Although the procedure of self-signed certificate in shown, it is OK to use certificate published by certificate authority or access with http without certificate					●			cd /tmp openssl genrsa 2048 > (Hostname of Ansible server).key openssl req -new -key (Hostname of Ansible server).key > (Hostname of Ansible server).csr ~~~~~Dialog~~~~~ Country Name (2 letter code) [XX]:(Blank is OK) State or Province Name (full name) []:(Blank is OK) Locality Name (eg, city) [Default City]:(Blank is OK) Organization Name (eg, company) [Default Company Ltd]:(Blank is OK) Organizational Unit Name (eg, section) []:(Blank is OK) Common Name (eg, your name or your server's hostname) []: (Hostname of Ansible server). Email Address []:(Blank is OK) A challenge password []:(Blank is OK) An optional company name []:(Blank is OK) ~~~~~Dialog~~~~~ openssl x509 -days 3650 -req -signkey (Hostname of Ansible server).key < (Hostname of Ansible server).csr > (Hostname of Ansible server).crt rm -f (Hostname of Ansible server).csr mv (Hostname of Ansible server).key /etc/pki/tls/certs/ mv (Hostname of Ansible server).crt /etc/pki/tls/certs/	※If the server certificate comes with an intermediate certificate, create a file by connecting the intermediate certificate to the server certificate. Example of a create command cat [Server Certificate File] [Intermediate Certificate File] > [Consolidated Server Certificate File]
29	【For CentOS7、RHEL7】 Deploy conf file for Apache					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS7.x/etc_httpd_conf.d/vhosts_exastro-it-automation.conf /etc/httpd/conf.d/	
30	【For CentOS8、RHEL8】 Deploy conf file for Apache					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS8.x/etc_httpd_conf.d/vhosts_exastro-it-automation.conf /etc/httpd/conf.d/	
31	Edit the conf file for Apache					●			vi /etc/httpd/conf.d/vhosts_exastro-it-automation.conf PLease replace exastro-it-automation with (Host name of Ansible server) in the following 3 places in the file ServerName (Host name of Ansible server) ~ SSLCertificateFile /etc/pki/tls/certs/(Host name of Ansible server).crt SSLCertificateKeyFile /etc/pki/tls/certs/(Host name of Ansible server).key	
32	Restart Apache					●			systemctl restart httpd	

No.	Target	Target							Setting	Notes
		Common	File manage	Create menu	Host group	Ansible	Cobbler	Terraform		
	Install Ansible									
33	Install Ansible					●			Please install the following package via pip3 ansible pexpect pywinrm boto3	Please install via the following command when performing online installation pip3 install ansible pexpect pywinrm boto3
34	Create the directory for the setting file of Ansible					●			mkdir -p /etc/ansible/	
35	【For CentOS7、RHEL7】 Deploy the setting file of Ansible					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS7.x/etc_ansible/ansible.cfg /etc/ansible/ansible.cfg	
36	【For CentOS8、RHEL8】 Deploy the setting file of Ansible					●			cp -p /(installation file deployment directory)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS8.x/etc_ansible/ansible.cfg /etc/ansible/ansible.cfg	
37	Install required package for Ansible					●			Please install the following package sshpass expect	Please install via the following command when performing online installation yum install -y sshpass expect
38	Describe the path of Ansible-playbook in management file					●			Please destcribe the path acquired via the following command in /(ITA installation target directory)/ita-root/confs/commonconfs/path_ANSIBLE_MODULE.txt whereis ansible-playbook	Example： Please enter /usr/local/bin if /usr/local/bin/ansible-playbook is displayed.