※ Please change the the version number (x.x.x) written under "Settings" or "Remarks" to match the version of ITA being installed.
Please also change text such as "Host name" , ITA Install directory" to fit your environment.

No.	Goal	Common	Menu create	Host group	Ansible	Cobbler	Terraform	CI/CD for IaC	Settings	Remarks
					Goal					
Unpack ITA Installation files										
1	Unpack ITA Installation files	●							deploy the ITA file vx.x.x.tar.gz to the installation file directory. cd /(Install file unpack directory) ls -l vx.x.x.tar.gz	The install files can be unpacked in any directory. For online, uesr the following command to gather them. wget https://github.com/exastro-suite/it-automation/archive/vx.x.x.tar.gz
2									Unpack the ITA Installation files tar -zxf vx.x.x.tar.gz	
3									Configure ITA Installation directory find it-automation-x.x.x -type f | xargs -I{} sed -i -e "s:%%%%%ITA_DIRECTORY%%%%:/(ITA Install directory):g" {}	
Install yum-utils										
4	【For CentOS7, RHEL7】 Install yum-utils	●							Install the following package yum-utils	For Online, use the following command to install yum install -y yum-utils
Install PHP										
5	Install PHP	●							install the following packages 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	For Online, use the following command to activate Repositories 【For CentOS7, RHEL7】 yum install -y http://rpms.remirepo.net/enterprise/remi-release-7.rpm yum-config-manager --enable remi-php72 【For CentOS8, RHEL8】 Repositories will not be added For Online, use the following command to install. 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
6	Install PEAR Library	●							Install the following PEAR package HTML_AJAX-beta	For online, use the following command to install pear install HTML_AJAX-beta
7	Configure HTML_AJAX-beta settings	●							ln -s /usr/share/pear-data/HTML_AJAX/js /usr/share/pear/HTML/js	
8	Install php-yaml	●							Install the following package php-yaml	For online installation, please use the following command to install. pecl channel-update pecl.php.net echo "" | pecl install YAML
9	Install PhpSpreadsheet	●							Create the following directory mkdir -p /usr/share/php/vendor	
10									Install the PhpSpreadsheet package to the /usr/share/php/vendor directory.	For online, use the following command to install.。 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/
Configure PHP										
11	【For CentOS7, RHEL7】 Configure php.ini	●							cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS7.x/etc/php.ini /etc/	
12	【For CentOS8, RHEL8】 Configure php.ini	●							cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS8.x/etc/php.ini /etc/	
13	【For CentOS8, RHEL8】 Configure www.conf	●							cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ext_files_for_CentOS8.x/etc_php-fpm.d/www.conf /etc/php-fpm.d/	

Install ITA

No.	Goal	Common	Menu create	Host group	Ansible	Cobbler	Terraform	CI/CD for IaC	Settings	Remarks
14	Create Installation directory	●							mkdir -p /(ITA Install directory)	※Make sure that "other users" also have permission to run all the parent directories of the ITA Install directory.
15	Create Common directory	●							Create directory to share the following external storage. /(ITA Install directory)/data_relay_storage /(ITA Install directory)/ita-root/temp /(ITA Install directory)/ita-root/uploadfiles /(ITA Install directory)/ita-root/webroot/uploadfiles /(ITA Install directory)/ita-root/webroot/menus/sheets /(ITA Install directory)/ita-root/webroot/menus/users /(ITA Install directory)/ita-root/webconfs/sheets /(ITA Install directory)/ita-root/webconfs/users	
16	Configure common directory	●							Configure the external storage common directory settings to be as bellow. (see table below)	
17	Deploy ITA Files	●							cp -rp /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-contents/ita-root /(ITA Install directory)/.	
18	Deploy ITA Settings files	●							cp -rp /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-confs /(ITA Install directory)/ita-root/confs	
19	Create ITA Directory	●							For paths written in the /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/create_dir_list.txt file, create directories one line at a time with /(ITA Install directory) at the beginning. mkdir -p /(ITA Install directory)(File path written in the document)	
20	Change permission(755)	●							For paths written in the /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/755_list.txt, Change the permissions one line at a time with /(ITA Install directory) at the beginning. chmod 755 /(ITA Install directory)(File path written in the document)	
21	Change permission(777)	●							For paths written in the /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/777_list.txt, Change the permissions one line at a time with /(ITA Install directory) at the beginning. chmod 777 /(ITA Install directory)(File path written in the document)	
22	Deploy ita_base release files	●							cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_base /(ITA Install directory)/ita-root/libs/release/.	
23	Deploy createparam release file		●						cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_createparam /(ITA Install directory)/ita-root/libs/release/.	
24	Deply hostgroup release files			●					cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_hostgroup /(ITA Install directory)/ita-root/libs/release/.	
25	Deploy ansible_driver release files				●				cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_ansible-driver /(ITA Install directory)/ita-root/libs/release/.	

Nested table for row 16 (Configure common directory):

common backyard server directory	External storage common directory
/(ITA Install directory)/data_relay_storage	/(Free Directory)/data_relay_storage
/(ITA Install directory)/ita-root/temp	/(Free Directory)/ita-root/temp
/(ITA Install directory)/ita-root/uploadfiles	/(Free Directory)/ita-root/uploadfiles
/(ITA Install directory)/ita-root/webroot/uploadfiles	/(Free Directory)/ita-root/webroot/uploadfiles
/(ITA Install directory)/ita-root/webroot/menus/sheets	/(Free Directory)/ita-root/webroot/menus/sheets
/(ITA Install directory)/ita-root/webroot/menus/users	/(Free Directory)/ita-root/webroot/menus/users
/(ITA Install directory)/ita-root/webconfs/sheets	/(Free Directory)/ita-root/webconfs/sheets
/(ITA Install directory)/ita-root/webconfs/users	/(Free Directory)/ita-root/webconfs/users

No.	Goal	Common	Menu create	Host group	Ansible	Cobbler	Terraform	CI/CD for IaC	Settings	Remarks
26	Deploy cobbler_driver release files					●			cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_cobbler-driver /(ITA Install directory)/ita-root/libs/release/.	
27	Deploy terraform_driver release files						●		cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_terraform-driver /(ITA Install directory)/ita-root/libs/release/.	
28	Deply cicd_for_iac release files							●	cp -p /(Installation file unpack location)/it-automation-x.x.x/ita_install_package/ITA/ita-releasefiles/ita_cicd /(ITA Install directory)/ita-root/libs/release/.	
29	Configure MariaDB Connection information	●							①Make sure that following character string is base64 encoded and rot13 encrypted. mysql:dbname=(ITA Database name);host=(DBMS Server IP Address.) ②Write the created character string into the file below. ※Delete any value already there. /(ITA Install directory)/ita-root/confs/commonconfs/db_connection_string.txt	Example: If the ITA Database name is "ITA_DB" and the DBMS Server IP Address is 1.1.1.1, The following command can be used to retrieve the base64-encoded, rot13-encrypted string. echo -ne "mysql:dbname=ITA_DB;host=1.1.1.1" | base64 | tr '[A-Za-z]' '[N-ZA-Mn-za-m]'
30	Configure MariaDB User information	●							"①Make sure that the MariaDB Username is base64 encoded and rot13 encrypted. ②Write the created character string into the file below. ※Delete any value already there. /(ITA Install directory)/ita-root/confs/commonconfs/db_username.txt	Example: If the MariaDB Username is "ITA_USER, The following command can be used to retrieve the base64-encoded, rot13-encrypted string. echo -ne "ITA_USER" | base64 | tr '[A-Za-z]' '[N-ZA-Mn-za-m]'
31	Configure MariaDB Password information	●							①Make sure that the MariaDB Password is base64 encoded and rot13 encrypted. ②Write the created character string into the file below. ※Delete any value already there. /(ITA Install directory)/ita-root/confs/commonconfs/db_password.txt	Example: If the MariaDB password is "ITA_PASSWD, The following command can be used to retrieve the base64-encoded, rot13-encrypted string. echo -ne "ITA_PASSWD" | base64 | tr '[A-Za-z]' '[N-ZA-Mn-za-m]'
	Configure ITA backyard settings									
32	Create backyard file link.	●							ln -s /(ITA Install directory)/ita-root/confs/backyardconfs/ita_env /etc/sysconfig/ita_env	
33	Copy the ita_base backyard process service file.	●							Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/base_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in base_service_list.txt).service /usr/lib/systemd/system/.	
34	Copy the createparam backyard process service file.		●						Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/createparam_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in createparam_service_list.txt).service /usr/lib/systemd/system/.	
35	Copy the hostgroup backyard process service file.			●					Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/hostgroup_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in hostgroup_service_list.txt).service /usr/lib/systemd/system/.	
36	Copy the ansible_driver backyard process service file.				●				Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/ansible_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in ansible_service_list.txt).service /usr/lib/systemd/system/.	
37	Copy the ansible_driver (Collect function) backyard process service file. ※Only if you are installing createparam and Ansible_driver.		●		●				Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/createparam2_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in createparam2_service_list.txt).service /usr/lib/systemd/system/.	
38	Copy the cobbler driver backyard process service file.					●			Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/cobbler_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in cobbler_service_list.txt).service /usr/lib/systemd/system/.	
39	Copy the Terraform_driver backyard process service file.						●		Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/terraform_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in terraform_service_list.txt).service /usr/lib/systemd/system/.	
40	Copy the cicd_for_iac backyard process file.							●	Copy the service file written in the (Installation file unpack location)/it-automation-x.x.x/ita_install_package/install_scripts/list/cicd_service_list.txt file to /usr/lib/systemd/system/ cp -p /(ITA Install directory)/(Service file written in cicd_service_list.txt).service /usr/lib/systemd/system/.	

No.	Goal	Common	Menu create	Host group	Ansible	Cobbler	Terraform	CI/CD for IaC	Settings	Remarks
41	Configure the service resident settings.	●							ls -1 /usr/lib/systemd/system/. | grep ky_ | xargs systemctl enable	
42	Start service	●							ls -1 /usr/lib/systemd/system/. | grep ky_ | xargs systemctl start	
	Configure ITA cron									
43	Configure cron	●							crontab -e Add the following contents 01 00 * * * su - -c /(ITA Install directory)/ita-root/backyards/common/ky_execinstance_dataautoclean-workflow.sh' 02 00 * * * su - -c /(ITA Install directory)/ita-root/backyards/common/ky_file_autoclean-workflow.sh'	
	Configure hosts settings									
44	Configure /etc/hosts	●							vi /etc/hosts Add the following.(For the description of link driver server, please add only the one for the server to be used.) 127.0.0.1 (Backyard server host name) (Ansible Server IP Address) (Ansible Server Host name) (AnsibleTower Server IP Address) (AnsibleTower Server Host name) (Cobbler Server IP Address) (Cobbler Server Host Name)"	
	Install Git									
45	Install Git							●	Install the following package git	For Online, use the following command to install yum install -y git