Exastro

IT Automation

version update

※ **In this document, "Exastro IT Automation" is described as "ITA".**

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1. Introduction

1.1 About this guide

About this guide

- This document describes the procedure to update the ITA environment constructed in all-in-one configuration.

2. System configuration

2.1 System requirement

About the environment of ITA to perform update

- The procedure in this document can be performed on ITA environment constructed in all-in-one configuration.

- The version of ITA that supports version update is **1.4.0 or later**.
The environment of ITA version 1.4.0 or later can be updated by executing the procedure in this document.

3. ITA construction procedure

3.1 Preparation（1/1）

List of ITA construction tool
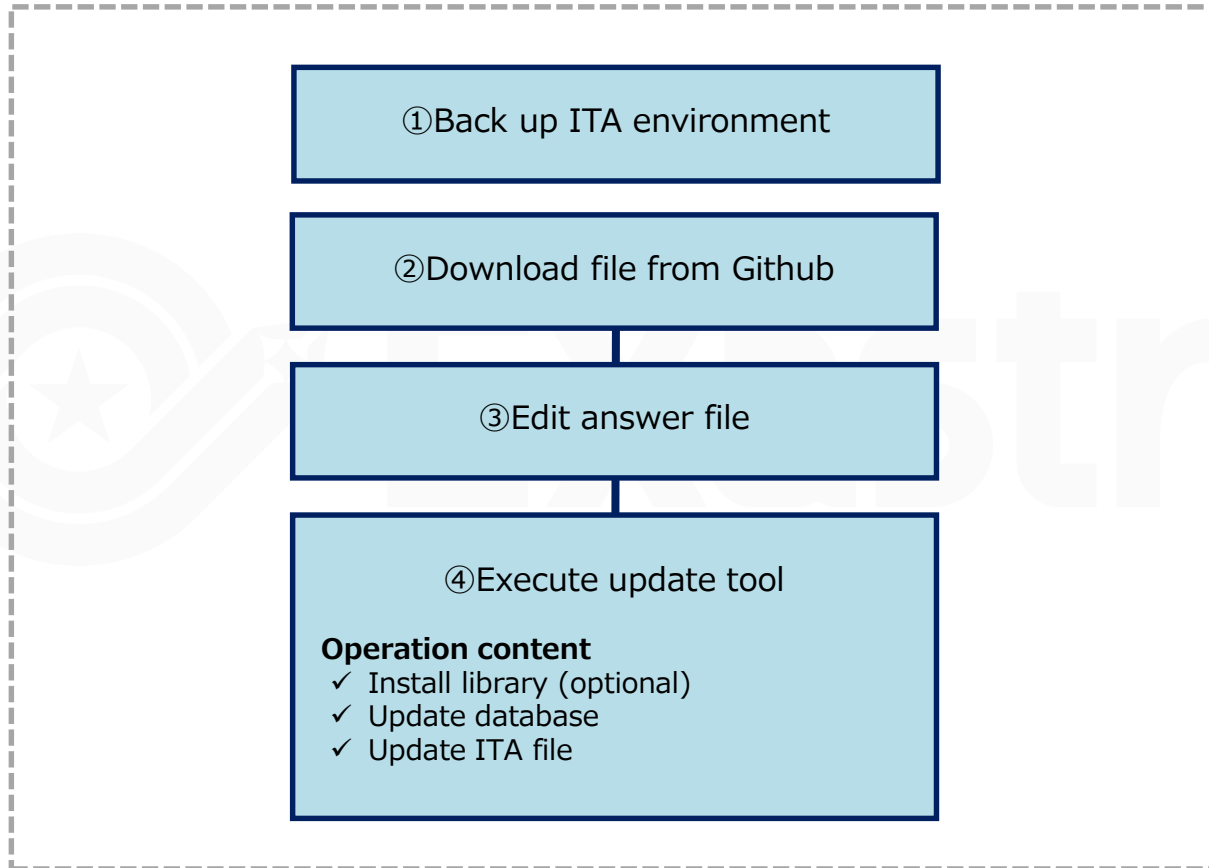
- The list of ITA construction tool is as follows.

Description	File	Storage path
Library collection script	ita_gather_library.sh	/(Installation file extract path)/ita_install_package/install_scripts/
Environment construction tool (For offline installation)	ita_builder_offline.sh	/(Installation file extract path)/ita_install_package/install_scripts/
Environment construction tool (For online installation)	ita_builder_online.sh	/(Installation file extract path)/ita_install_package/install_scripts/
Setting file	ita_builder_setting.txt	/(Installation file extract path)/ita_install_package/install_scripts/
ITA installer	ita_installer.sh	/(Installation file extract path)/ita_install_package/install_scripts/
Answer file	ita_answers.txt	/(Installation file extract path)/ita_install_package/install_scripts/
Update tool	ita_version_up.sh	/(Installation file extract path)/ita_install_package/install_scripts/

Not used for version update

Version update work flow

- The work flow of version update is as follows.


```
┌─────────────────────────────────────────────────┐
│                                                 │
│        ①Back up ITA environment                │
│                                                 │
│        ②Download file from Github              │
│                                                 │
│        ③Edit answer file                       │
│                                                 │
│        ④Execute update tool                    │
│                                                 │
│        Operation content                        │
│        ✓ Install library (optional)             │
│        ✓ Update database                        │
│        ✓ Update ITA file                        │
│                                                 │
└─────────────────────────────────────────────────┘
```

*Execute update as root user.

Back up ITA environment
- Please back up ITA environment before update.

Download file from Github
- Download file with the following command

    # curl -OL https://github.com/exastro-suite/it-automation/releases/download/vx.x.x/exastro-it-automation-x.x.x.tar.gz

    ※Please install curl command beforehand.
    ※Please change the version (x.x.x) according to the file.

Deploying the materials.
- Unzip the .tar.gz file.

    # tar zxf exastro-it-automation-x.x.x.tar.gz

Change directory
- Switch current directory to the directory where the answer file and shell is located.

    # cd it-automation-x.x.x/ita_install_package/install_scripts

Edit answer file (ita_answers.txt)

- Please edit the answer file to set ITA update.
- "ita_directory" is the only item used for update, other items are not used.

Item	Required	Default value	Description
install_mode	—	install	**Not used for version update**
ita_directory	○	–	Specify the absolute path to the directory where IT Automation will be installed. If the directory does not exist, it will be newly created.
ita_language	—	en_US	IT Automation display language: **ja_JP** (Japanese) or **en_US** (English)
ita_os	—	RHEL7	OS for IT Automation: **RHEL7** or **RHEL8**
db_root_password	—	–	Root password for MariaDB
db_name	—	–	Database name for MariaDB
db_username	—	–	Database username for MariaDB
db_password	—	–	Database password for MariaDB
ita_base	—	yes	Only yes can be specified to install IT Automation.
Material	—	no	Whether the **Management of configuration materials** function is to be installed
create_param	—	yes	Whether the **Creation of menus** function is to be installed
Hostgroup	—	yes	Whether the **Host grouping** function is to be installed
ansible_driver	—	yes	Whether the Ansible driver is to be installed
cobbler_driver	—	no	Whether the Cobbler driver is to be installed
openstack_driver	—	no	Whether the OpenStack driver is to be installed
terraform_driver	—	no	Whether the Terraform driver is to be installed

Not used for version update

Sample of the answer file (ita_answers.txt)

- The following shows an example of the answer file (ita_answers.txt)

```
#Select install mode. ("Install" or "Uninstall")
# e.g) install_mode:Install
install_mode:

#Enter install directory.
# e.g) ita_directory:/exastro
ita_directory:/exastro

# Select language. ("en_US" or "ja_JP")
# e.g) ita_language:en_US
ita_language:

# Select Operation System. ("RHEL7" or "RHEL8")
# e.g) ita_os:RHEL8
ita_os:

# Enter the MariaDB root user's password
# e.g) db_root_password:sample_root_password
db_root_password:

# Decide the database name, username, and password for ITA.
# e.g) db_name:sample_db_name
db_name:
# e.g) db_username:sample_db_username
db_username:
# e.g) db_password:sample_db_password
db_password:

# Select the target you need to install.
# yes : need
# no  : no need
ita_base:
material:
createparam:
hostgroup:
ansible_driver:
cobbler_driver:
openstack_driver:
terraform_driver:
```

POINT

"ita_directory" is the only item used for update, other items are not used.

Execute update tool

- Execute the update tool with the following command

    # sh ita_version_up.sh

- The following confirmation message will be displayed during execution, please enter yes or no to decided install libraries required for ITA or not.

> QUESTION : Automatically install the libraries that are required for ITA? Enter "yes" or "no".

Enter "yes" to automatically install libraries in online environment.
Enter "no" for offline environment or not install libraries automatically.
For the libraries that is installed for each version, please refer to next page.

Check operation

- If the operation is ended normally, the version will be updated to the version of the downloaded file.
- The content of operation executed by update tool is output to ita_version_up.log
- Log storage path

    /(Installation file extract path)/ita_install_package/install_scripts/log/

List of libraries that will be installed during update

- If "yes" is entered for library installation during install, the following libraries will be automatically installed according to the installed driver.
  If "no" is entered, please install the libraries manually.

Version	Installed driver	Library name	Install command	Required	Usage
1.5.0	ita_base	php-devel	yum install –y php-devel	○	Used for YAML analysis library (yaml)
		libyaml	yum install –y libyaml	○	Used for YAML analysis library (yaml)
		libyaml-devel	yum install –y libyaml-devel	○	Used for YAML analysis library (yaml)
		make	yum install –y make	○	Used for YAML analysis library (yaml)
		yaml	pecl install yaml	○	Used for YAML analysis library (yaml)
	ansible-driver	nc	yum install –y nc	-	Used for SSH command option when executing Ansible Playbook by connecting SSH from ITA under proxy environment to external server such as AWS via proxy server.
		paramiko	pip3 install paramiko	-	Required to connect to a network device by specifying network_cli for ansible_connection.
1.6.0			There are no libraries added in Version 1.6.0.		
1.6.1			There are no libraries added in Version 1.6.1.		
1.6.2			There are no libraries added in Version 1.6.2.		
1.6.3			There are no libraries added in Version 1.6.3.		
1.7.0	ansible-driver	boto	Pip3 install boto	-	Used for community.aws.iam of Ansible module.
1.7.1			There are no libraries added in Version 1.7.1.		
1.7.2			There are no libraries added in Version 1.7.2.		

Version	Installed driver	Library name	Install command	Required	Usage
1.8.0			There are no libraries added in Version 1.8.0.		
1.8.1			There are no libraries added in Version 1.8.1.		
1.8.2			There are no libraries added in Version 1.8.2.		
1.9.0			There are no libraries added in Version 1.9.0.		
1.9.1			There are no libraries added in Version 1.9.1.		
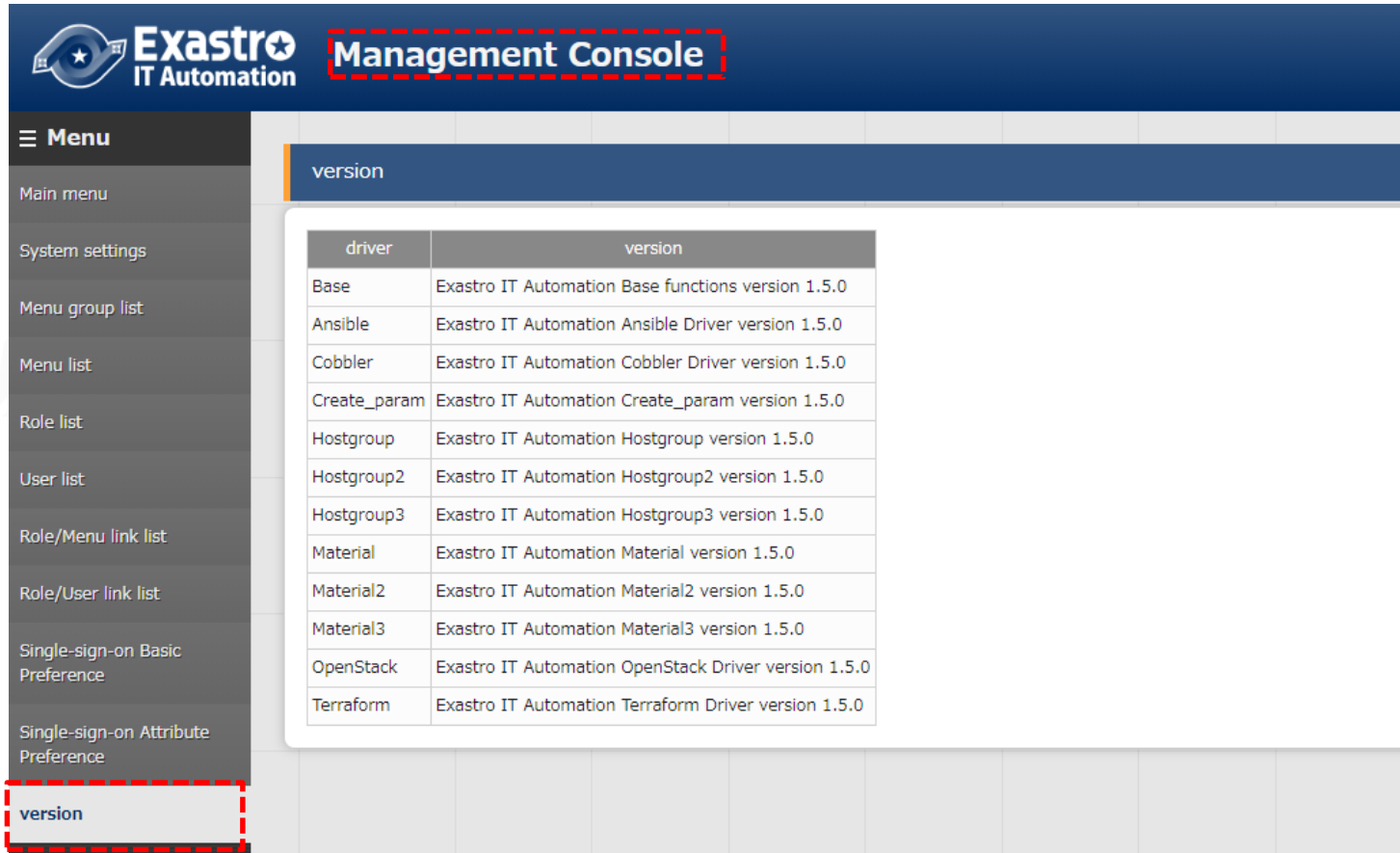
4. ITA Operation check

Check version

- After logging into ITA, check if the version is updated in "Management console" - "Version".