

Exastro-ITA_(Reference) Configuration settings during installation

1. MariaDB(server.cnf) modification list

The following setting is designed for operation on MariaDB10.4 and the minimum spec of ITA system server※1(CPU: 2 core/ Memory 4GB)
 ※1 ITA system server ※ The basic ITA configuration that associated drivers such as Ansible driver are built in other servers.

| No. | Required/ For reference | Default value | After ITA installation | Remarks |
|-----|----------------------------|----------------------|--|--|
| 1 | Required | OFF | explicit_defaults_for_timestamp = true | |
| 2 | Required | latin1 | character-set-server = utf8 | |
| 4 | Required | REPEATABLE- -READ | transaction-isolation=READ-COMMITTED | Specify the transaction isolation level. "READ-COMMITTED" is the default isolation level for many database systems(Oracle, PostgreSQL, SQL Server). The default isolation level of MariaDB is "REPEATABLE-READ", which doesn't match the usage policy of ITA. So it is required to be changed. |
| 3 | For reference | 128MB | innodb_buffer_pool_size = 512MB | Consider tuning depending on how to use ITA |
| 5 | For reference | 16MB | innodb_log_buffer_size=64M | Consider tuning depending on how to use ITA |
| 6 | For reference | 48MB | innodb_log_file_size=256M | Consider tuning depending on how to use ITA |
| 7 | For reference | 0 | min_examined_row_limit=100 | Consider tuning depending on how to use ITA |
| 8 | For reference | 256KB | join_buffer_size=128M | Consider tuning depending on how to use ITA |
| 9 | For reference | 1M | query_cache_size=512M | Consider tuning depending on how to use ITA |
| 10 | For reference | OFF | query_cache_type=1 | |
| 11 | For reference | 16MB | max_heap_table_size=64M | Consider tuning depending on how to use ITA |
| 12 | For reference | 16MB | tmp_table_size=64M | Consider tuning depending on how to use ITA |
| 13 | For reference | 256KB | mrr_buffer_size=64M | Consider tuning depending on how to use ITA |
| 14 | For reference | 151 | max_connections=256 | Consider tuning depending on how to use ITA |

Exastro-ITA_(Reference) Configuration settings during installation

2. PHP(PHP.INI) modification list

The following setting is designed for operation on MariaDB10.4 and the minimum spec of ITA system server※1(CPU: 2 core/ Memory 4GB)

※1 ITA system server … The basic ITA configuration that associated drivers such as Ansible driver are built in other servers.

| No. | Required/ For reference | Default value | After ITA installation | Remarks |
|-----|----------------------------|--------------------------------------|--|---|
| 1 | For reference | output_buffering = 4096 | output_buffering = 8192 | Consider tuning depending on how to use ITA |
| 2 | For reference | expose_php = On | expose_php = Off | Modify the setting to hide PHP version |
| 3 | For reference | max_execution_time = 30 | max_execution_time = 600 | Consider the tuning if timeout occurs when using ITA |
| 4 | For reference | max_input_time = 60 | max_input_time = 600 | Consider the tuning if timeout occurs when using ITA |
| 5 | For reference | memory_limit = 128M | memory_limit = 512M | Consider the tuning if memory allocation is not enough for PHP when using ITA |
| 6 | For reference | post_max_size = 8M | post_max_size = 4096M | Consider the tuning if large capacity registered/updated can't be performed when using ITA |
| 7 | For reference | upload_max_filesize = 2M | upload_max_filesize = 4096M | Consider the tuning according to the file size that users want to upload in ITA |
| 8 | For reference | default_socket_timeout = 60 | default_socket_timeout = 600 | Consider tuning depending on how to use ITA |
| 9 | Required | date.timezone = | date.timezone = "Asia/Tokyo" | |
| 10 | For reference | pdo_mysql.cache_size = 2000 | pdo_mysql.cache_size = 4000 | Consider tuning depending on how to use ITA |
| 11 | Required | pdo_mysql.default_socket= | pdo_mysql.default_socket=/var/lib/mysql/mysql.sock | ITA uses PHP with PDO to connect to MySQL |
| 12 | For reference | mysql.cache_size = 2000 | mysql.cache_size = 4000 | Consider tuning depending on how to use ITA |
| 13 | For reference | mysql.connect_timeout = 60 | mysql.connect_timeout = 600 | Consider tuning depending on how to use ITA |
| 14 | Required | session.save_path = "/tmp" | session.save_path = "/var/lib/php/session" | The directory mentioned in the modification is required to be created in advance. The default directory(/tmp) is not recommended |
| 15 | Required | session.gc_divisor = 1000 | session.gc_divisor = 1 | Control garbage collection of PHP session file. |
| 16 | Required | session.gc_maxlifetime = 1440 | session.gc_maxlifetime = 43200 | According to the setting on the left with the combination of the default value session.gc_probability = 1, the session file that passed 12 hours or more is in 100% probability to be performed garbage collection. |
| 17 | Required | mbstring.language = Japanese | mbstring.language = Japanese | ※Uncomment |
| 18 | Required | mbstring.internal_encoding = | mbstring.internal_encoding = UTF-8 | ※Uncomment + Modify |
| 19 | Required | mbstring.http_input = | mbstring.http_input = auto | ※Uncomment + Modify |
| 20 | Required | mbstring.http_output = | mbstring.http_output = UTF-8 | ※Uncomment + Modify |
| 21 | Required | mbstring.encoding_translation = Off | mbstring.encoding_translation = Off | ※Uncomment |
| 22 | Required | mbstring.detect_order = auto | mbstring.detect_order = auto | ※Uncomment |
| 23 | Required | mbstring.substitute_character = none | mbstring.substitute_character = none | ※Uncomment |
| 24 | Required | openssl.cafile= | openssl.cafile=/etc/pki/tls/certs/exastro-it-automation-ja.crt | |
| 25 | Required | openssl.capath= | openssl.capath=/etc/pki/tls/certs/exastro-it-automation-ja.crt | |
| 26 | Required | none | extension=yaml.so | ※Add |

Exastro-ITA_(Reference) Configuration settings during installation

3. Ansible(ansible.cfg) modification list

| No. | Required/ For reference | Default value | After ITA installation | Remarks |
|-----|-------------------------------|---|--|------------------------|
| 1 | Required | #inventory = /etc/ansible/hosts | inventory = /etc/ansible/hosts | ※Uncomment |
| 2 | Required | #remote_tmp = ~/.ansible/tmp | remote_tmp = ~/.ansible/tmp | ※Uncomment |
| 3 | Required | #forks = 5 | forks = 5 | ※Uncomment |
| 4 | Required | #poll_interval = 15 | poll_interval = 15 | ※Uncomment |
| 5 | Required | #sudo_user = root | sudo_user = root | ※Uncomment |
| 6 | Required | #transport = smart | transport = smart | ※Uncomment |
| 7 | Required | #module_lang = C | module_lang = C | ※Uncomment |
| 8 | Required | #gathering = implicit | gathering = implicit | ※Uncomment |
| 9 | Required | #host_key_checking = False | host_key_checking = False | ※Uncomment |
| 10 | Required | #sudo_exe = sudo | sudo_exe = sudo | ※Uncomment |
| 11 | Required | #timeout = 10 | timeout = 10 | ※Uncomment |
| 12 | Required | #ansible_managed = Ansible managed | ansible_managed = Ansible managed | ※Uncomment |
| 13 | Required | #deprecation_warnings = True | deprecation_warnings = False | ※Uncomment + Modify |
| 14 | Required | #action_plugins = /usr/share/ansible/plugins/action | action_plugins = /usr/share/ansible/plugins/action | ※Uncomment |
| 15 | Required | #callback_plugins = /usr/share/ansible/plugins/callback | callback_plugins = /usr/share/ansible/plugins/callback | ※Uncomment |
| 16 | Required | #connection_plugins = /usr/share/ansible/plugins/connection | connection_plugins = /usr/share/ansible/plugins/connection | ※Uncomment |
| 17 | Required | #lookup_plugins = /usr/share/ansible/plugins/lookup | lookup_plugins = /usr/share/ansible/plugins/lookup | ※Uncomment |
| 18 | Required | #vars_plugins = /usr/share/ansible/plugins/vars | vars_plugins = /usr/share/ansible/plugins/vars | ※Uncomment |
| 19 | Required | #filter_plugins = /usr/share/ansible/plugins/filter | filter_plugins = /usr/share/ansible/plugins/filter | ※Uncomment |
| 20 | Required | #fact_caching = memory | fact_caching = memory | ※Uncomment |
| 21 | Required | #ssh_args = -C -o ControlMaster=auto -o ControlPersist=60s | ssh_args = -o ControlMaster=auto -o ControlPersist=60s -o StrictHostKeyChecking=no -o UserKnownHostsFile=/dev/null | ※Uncomment + Modify |
| 22 | Required | #accelerate_port = 5099 | accelerate_port = 5099 | ※Uncomment |
| 23 | Required | #accelerate_timeout = 30 | accelerate_timeout = 30 | ※Uncomment |
| 24 | Required | #accelerate_connect_timeout = 5.0 | accelerate_connect_timeout = 5.0 | ※Uncomment |
| 25 | Required | #accelerate_daemon_timeout = 30 | accelerate_daemon_timeout = 30 | ※Uncomment |

Exastro-ITA(Reference) Configuration settings during installation

4 . ITA setting file description

| No. | Installed system/ associated driver | | | | | | Setting file name | Description |
|-----|-------------------------------------|---------|---------|-----------|-----|--------------|---|--|
| | ITA-BASE | Ansible | Cobbler | OpenStack | DSG | AnsibleTower | | |
| 1 | | | ○ | | | | (ITA installed directory)/ita-root/conf/backupconf/cobbler_driver/path_DATA_RELAY_STRAGE_side_Cobbler | Define the root path of data relay storage in Cobbler server |
| 2 | ○ | | | | | | (ITA installed directory)/ita-root/conf/backupconf/ita_base/data_portability_running_limit.txt | The execution time limit of data portability import process. The process during execution will be determined as failed if the execution time passed the setting value. The unit is second.Default value is 300 |
| 3 | ○ | ○ | | | ○ | ○ | (ITA installed directory)/ita-root/conf/backupconf/ita_base/hide_menu_column_list.txt | Describe the column to be excluded from the item display of substitution auto-registration setting. The line starting with "■" is ignored. |
| 4 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/backupconf/ita_env | Describe the log level of backyard function and the root directory(ita-root) of ITA |
| 5 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/backupconf/path_PHP_MODULE.txt | Describe the path of PHP module. Example: /bin/php |
| 6 | ○ | | | | | | (ITA installed directory)/ita-root/conf/backupconf/sysmail.list | Describe the setting when using system mail(ky.mail). ※Not required if the mail sending function(ky.mail) of ITA is not used. |
| 7 | | ○ | | | | ○ | (ITA installed directory)/ita-root/conf/commonconf/ansible_vault_accesskey.txt | The password of ansible-vault command. The behavior of password changing is guaranteed only right after ITA is installed. Behavior is not guaranteed when changing password while system is operating or exporting/importing menus to environments whose password are the same. Example: The string encrypted from "ANSIBLE-VAULT-PASSWORD" Refer to ※1 for the encryption specification |
| 8 | ○ | | | | | | (ITA installed directory)/ita-root/conf/commonconf/app_mail_from.txt | When using system mail (ky.mail) from WebDBCore, the file content becomes the sender's address. ※In the case of sending mail to 00 loadtable.php when action occurs. ※Not required if the mail sending function(ky.mail) of ITA is not used. |
| 9 | ○ | ○ | | | ○ | ○ | (ITA installed directory)/ita-root/conf/commonconf/itms_language.txt | Define the language of ITA. |
| 10 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/commonconf/db_connection_string.txt | The string to connect to MySQL. Example: The string encrypted from "mysql dbname=ITA_DB host=localhost" Refer to ※1 for the encryption specification |
| 11 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/commonconf/db_model_string.txt | Define the type of RDB 0: OracleDB 1: MySQL/MariaDB |
| 12 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/commonconf/db_password.txt | The password to connect to MySQL. Example: The string encrypted from "ITA_PASSWORD" Refer to ※1 for the encryption specification |
| 13 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/commonconf/db_username.txt | The user to connect to MySQL. Example: The string encrypted from "ITA_USER" Refer to ※1 for the encryption specification |
| 14 | ○ | ○ | | | | ○ | (ITA installed directory)/ita-root/conf/commonconf/ansible_MODULE.txt | Describe the path where ansible commands are installed(ansible-playbook/ansible-vault) This sample describes "/usr/local/bin" |
| 15 | | ○ | | | | | (ITA installed directory)/ita-root/conf/restapiconf/ansible_driver/accesskey.txt | The access key used in the RestAPI of Ansible server. Example: The string encrypted from "AccessKeyld" Refer to ※1 for the encryption specification |
| 16 | | ○ | | | | | (ITA installed directory)/ita-root/conf/restapiconf/ansible_driver/secret_accesskey.txt | The secret key used in the RestAPI of Ansible server. Example: The string encrypted from "SecretAccessKey" Refer to ※1 for the encryption specification |
| 17 | | ○ | | | | | (ITA installed directory)/ita-root/conf/restapiconf/ansible_driver/ansible_playbook_watch_time.txt | Describe the period for the RestAPI of Ansible server to check if ansible-playbook command is operating. (Unit: Millisecond) In this period, maximum operation check performed is 3 times. Example: "10" |
| 18 | ○ | | | | | | (ITA installed directory)/ita-root/conf/commonconf/admin_mail_addr.txt | Describe the contact information (e-mail address) of the system administrator. If the file doesn't exist ⇒The link of "Contact administrator" will disappear |
| 19 | ○ | | | | | | (ITA installed directory)/ita-root/conf/webconf/ExternalAuthSettings.ini | Describe the information of the association target of ActiveDirectory. |
| 20 | ○ | | | | | | (ITA installed directory)/ita-root/conf/webconf/path_HTML_AJAX.txt | Describe the path of HTML AJAX. Example: /usr/share/nginx/ |
| 21 | ○ | ○ | ○ | ○ | ○ | ○ | (ITA installed directory)/ita-root/conf/webconf/path_PhpSpreadsheet.txt | Describe the path of Phipspreadsheet. This sample: "/usr/share/ohu" ※1 The value encoded by base64 then converted by rot13 |