

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

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2. PHP(phi.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	

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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

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4 . ITA setting file description

No.	Installed system/ associated driver						Setting file name	Description
	ITA-BASE	Ansible	Cobbler	OpenStack	DSO	Ansible Tower		
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.txt	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 00loadtable.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/app_msg_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/path_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/commonconf/path_PHPSpnc_Classes.txt	Describe the path of Spyc. This sample describes “/usr/share/php/spyc-master”
16		○					(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
17		○					(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
18		○					(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”
19	○						(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
20	○						(ITA installed directory)/ita-root/conf/webconf/ExternalAuthSettings.ini	Describe the information of the association target of ActiveDirectory.
21	○						(ITA installed directory)/ita-root/conf/webconf/L7Protocol.txt	Used when the protocol of client →server is unknown, such as using HTTPS termination before ITA etc. In the case that the file exists and the protocol(HTTP/HTTPS) is described ⇒ The protocol (HTTP/HTTPS) described in the file is adopted. In the case that the file doesn't exist or the file size is zero byte ⇒ Determine HTTP/HTTPS from the environment variable(\$ SERVER)
22	○						(ITA installed directory)/ita-root/conf/webconf/path_HTML AJAX.txt	Describe the path of HTML AJAX. Example: /usr/share/php/
23	○	○	○	○	○	○	(ITA installed directory)/ita-root/conf/webconf/path_Phpspreadsheet.txt	Describe the path of Phpspreadsheet. This sample: /usr/share/php/ ※1 The value encoded by base64 then converted by rot13