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)
The tuning reference value is the recommende value for CPU: 4 cores/Memory: 8GB
※1 ITA system server ⋯ The basic ITA configuration that associated drivers such as Ansible driver are built in other servers.

№.	Required/ For reference	Setting item	Default value	After ITA installation	Tuning reference value	Remarks
1	Required	explicit_defaults_for_timestamp	OFF	TRUE	TRUE	
2	Required	character-set-server	latin1	utf8	utf8	
3	Required	transaction-isolation	REPEATABLE-READ	READ-COMMITTED	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.
4	For reference	innodb_buffer_pool_size	128MB	512MB	1024MB	Consider tuning depending on how to use ITA
5	For reference	innodb_log_buffer_size	16MB	64M	128M	Consider tuning depending on how to use ITA
6	For reference	innodb_log_file_size	48MB	256M	384M	Consider tuning depending on how to use ITA
7	For reference	min_examined_row_limit	0	100	100	Consider tuning depending on how to use ITA
8	For reference	join_buffer_size	256KB	128M	256M	Consider tuning depending on how to use ITA
9	For reference	query_cache_size	1M	512M	1024M	Consider tuning depending on how to use ITA
10	For reference	query_cache_type	OFF	1	1	
11	For reference	max_heap_table_size	16MB	64M	128M	Consider tuning depending on how to use ITA
12	For reference	tmp_table_size	16MB	64M	128M	Consider tuning depending on how to use ITA
13	For reference	mrr_buffer_size	256KB	64M	128M	Consider tuning depending on how to use ITA
14	For reference	max_connections	151	256	5000	Consider tuning depending on how to use ITA

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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)
The tuning reference value is the recommende value for CPU: 4 cores/Memory: 8GB
※1 ITA system server ⋯ The basic ITA configuration that associated drivers such as Ansible driver are built in other servers.

№	Required/ For reference	Setting item	Default value	After ITA installation	Tuning reference value	Remarks
1	For reference	output_buffering	4096	8192	16384	Consider tuning depending on how to use ITA
2	For reference	expose_php	On	Off	Off	Modify the setting to hide PHP version
3	For reference	max_execution_time	30	600	600	Consider the tuning if timeout occurs when using ITA
4	For reference	max_input_time	60	600	600	Consider the tuning if timeout occurs when using ITA
5	For reference	memory_limit	128M	512M	1024M	Consider the tuning if memory allocation is not enough for PHP when using ITA
6	For reference	post_max_size	8M	4096M	4096M	Consider the tuning if large capacity registered/updated can't be performed when using ITA
7	For reference	upload_max_filesize	2M	4096M	4096M	Consider the tuning according to the file size that users want to upload in ITA
8	For reference	default_socket_timeout	60	600	600	Consider tuning depending on how to use ITA
9	Required	date.timezone	;date.timezone =	"Asia/Tokyo"	"Asia/Tokyo"	
10	For reference	pdo_mysql.cache_size	2000	4000	8000	Consider tuning depending on how to use ITA
11	Required	pdo_mysql.default_socket	(値空白)	/var/lib/mysql/mysql.sock	/var/lib/mysql/mysql.sock	ITA uses PHP with PDO to connect to MySQL
12	For reference	mysql.cache_size	2000	4000	8000	Consider tuning depending on how to use ITA
13	For reference	mysql.connect_timeout	60	600	600	Consider tuning depending on how to use ITA
14	Required	session.save_path	;session.save_path = "/tmp"	"/var/lib/php/session"	"/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	1	1	Control garbage collection of PHP session file.
16	Required	session.gc_maxlifetime	1440	43200	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	;mbstring.language = Japanese	Japanese	Japanese	※Uncomment
18	Required	mbstring.internal_encoding	;mbstring.internal_encoding =	UTF-8	UTF-8	※Uncomment + Modify
19	Required	mbstring.http_input	;mbstring.http_input =	auto	auto	※Uncomment + Modify
20	Required	mbstring.http_output	;mbstring.http_output =	UTF-8	UTF-8	※Uncomment + Modify
21	Required	mbstring.encoding_translation	;mbstring.encoding_translation = Off	Off	Off	※Uncomment
22	Required	mbstring.detect_order	;mbstring.detect_order = auto	auto	auto	※Uncomment
23	Required	mbstring.substitute_character	;mbstring.substitute_character = none	none	none	※Uncomment
24	Required	extension	(No such value)	yaml.so	yaml.so	※Add

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3. Ansible(ansible.cfg) modification list

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

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4 . ITA setting file description

No.	Installed system/associated driver						Setting file name	Description
	ITA-BASE	Ansible	Cobbler	OpenStack	DSC	AnsibleTower		
1			○				(ITA installed directory)/ita-root/confs/backyardconfs/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/confs/backyardconfs/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/confs/backyardconfs/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/confs/backyardconfs/ita_env	Describe the log level of backyard function and the root directory(ita-root) of ITA
5	○	○	○	○	○	○	(ITA installed directory)/ita-root/confs/backyardconfs/path_PHP_MODULE.txt	Describe the path of PHP module. Example: /bin/php
6	○						(ITA installed directory)/ita-root/confs/backyardconfs/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/confs/commonconfs/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/confs/commonconfs/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/confs/commonconfs/app_msg_language.txt	Define the language of ITA.
10	○	○	○	○	○	○	(ITA installed directory)/ita-root/confs/commonconfs/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/confs/commonconfs/db_model_string.txt	Define the type of RDB 0 : OracleDB 1 : MySQL/MariaDB
12	○	○	○	○	○	○	(ITA installed directory)/ita-root/confs/commonconfs/db_password.txt	The password to connect to MySQL. Example: The string encrypted from "ITA_PASSWD" Refer to ※1 for the encryption specification
13	○	○	○	○	○	○	(ITA installed directory)/ita-root/confs/commonconfs/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/confs/commonconfs/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/confs/restapiconfs/ansible_driver/accesskey.txt	The access key used in the RestAPI of Ansible server. Example: The string encrypted from "AccessKeyId" Refer to ※1 for the encryption specification
16		○					(ITA installed directory)/ita-root/confs/restapiconfs/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/confs/restapiconfs/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/confs/commonconfs/admin_mail_addr.txt	Describe the contact information (e-mail address) of the system administrator. If the file doesn'exist ⇒The link of "Contact administrator" will disappear
19	○						(ITA installed directory)/ita-root/confs/webconfs/ExternalAuthSettings.ini	Describe the information of the association target of ActiveDirectory.
20	○						(ITA installed directory)/ita-root/confs/webconfs/path_HTML_AJAX.txt	Describe the path of HTML_AJAX. Example: /usr/share/pear/
21	○	○	○	○	○	○	(ITA installed directory)/ita-root/confs/webconfs/path_PhpSpreadsheet.txt	Describe the path of Phpspreadsheet. This sample: "/usr/share/php"

※1 The value encoded by base64 then converted by rot13. Create it with the following co
echo -ne "(String to convert)" | base64 | tr 'A-Za-z' 'N-ZA-Mn-za-m'