



IBM Spectrum LSF RTM 10.2
Entity relationships for the RTM database

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IBM Spectrum RTM database tables

IBM Spectrum LSF RTM (IBM Spectrum RTM, or simply, RTM) uses a database to store data from IBM Spectrum LSF, IBM Spectrum LSF License Scheduler, and third-party license managers.

About this document

This document details the schema of many of the database tables for this data. Use this document to understand and extract data from those table; it covers the relationships between tables that RTM uses to render the RTM web GUI (console) pages.

This document provides various entity relationship diagrams (ERD) for the database tables used by IBM Spectrum RTM. By using the data in this document, you can construct SQL queries to extract data of interest. This document, therefore, assumes familiarity with database tables and how to join them.

Note that there are relationships in the tables that are not apparent given the field names. For example, the `exec_host` field in the `grid_jobs` table has a relationship with the `host` field in the `gridalarms_alarm_log` table. This document details those relationships along with others that are used by RTM.

The RTM database is large and complex. Some Entity relationships: do not fit into a single diagram. To understand the relationships, it might be necessary to look at two or more diagrams.

Common fields and their use

Take note of these common database fields:

- `clusterid`: most of the IBM Spectrum RTM specific database tables contain a `clusterid` field. If not explicitly listed in the relationships, the `clusterid` field is related to every other table that also has a `clusterid` field.
- `jobid` and `submit_time`: most of the IBM Spectrum RTM specific database tables contain the `jobid` and `submit_time` fields. If not explicitly listed in the relationships, the `jobid` and `submit_time` fields are related to every other table that also have the `jobid` and `submit_time` fields.
- `present`: the `present` field is used for housekeeping. It is used by various pollers or ETLs (exact, transfer, and load processes) to remove records that are no longer found.

grid_arrays

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
jobid	int unsigned	NO	PRI	NULL	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
stat	int unsigned	NO		0	
jType	int unsigned	NO		0	
jName	varchar(3000)	NO			
user	varchar(60)	NO			
userGroup	varchar(60)	YES			
queue	varchar(60)	NO			
projectName	varchar(256)	NO		0	
numJobs	int unsigned	NO		0	
numPEND	int unsigned	NO		0	
numPSUSP	int unsigned	NO		0	
numRUN	int unsigned	NO		0	
numSSUSP	int unsigned	NO		0	
numUSUSP	int unsigned	NO		0	
numEXIT	int unsigned	NO		0	
numDONE	int unsigned	NO		0	
minMemory	double	NO		0	
maxMemory	double	NO		0	
avgMemory	double	NO		0	
minSwap	double	NO		0	
maxSwap	double	NO		0	
avgSwap	double	NO		0	
totalCPU	double	NO		0	
totalUtime	double	NO		0	
totalSTime	double	NO		0	
totalEfficiency	decimal(9,5)	NO		0.00000	
first_seen	timestamp	NO		0000-00-00 00:00:00	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_arrays.clusterid	grid_jobs.clusterid
grid_arrays.jobid	grid_jobs.jobid
grid_arrays.submit_time	grid_jobs.submit_time

grid_arrays_finished

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
jobid	int unsigned	NO	PRI	NULL	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
stat	int unsigned	NO		0	
jType	int unsigned	NO		0	
jName	varchar(3000)	NO			
user	varchar(60)	NO			
userGroup	varchar(60)	YES			
queue	varchar(60)	NO			
projectName	varchar(256)	NO		0	
numJobs	int unsigned	NO		0	
numPEND	int unsigned	NO		0	
numPSUSP	int unsigned	NO		0	
numRUN	int unsigned	NO		0	
numSSUSP	int unsigned	NO		0	
numUSUSP	int unsigned	NO		0	
numEXIT	int unsigned	NO		0	
numDONE	int unsigned	NO		0	
minMemory	double	NO		0	
maxMemory	double	NO		0	
avgMemory	double	NO		0	
minSwap	double	NO		0	
maxSwap	double	NO		0	
avgSwap	double	NO		0	
totalCPU	double	NO		0	
totalUTime	double	NO		0	
totalSTime	double	NO		0	
totalEfficiency	decimal(9,5)	NO		0.00000	
first_seen	timestamp	NO		0000-00-00 00:00:00	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships:

This table is a copy of the data in the [grid_arrays](#) table, where the job is finished. It has the same relationships as [grid_arrays](#).

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_clusters

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	auto_increment
poller_id	int unsigned	NO	MUL	1	
cacti_host	int unsigned	NO		0	
cacti_tree	int unsigned	NO		0	
clustername	varchar(128)	NO			
cluster_timezone	varchar(64)	NO			
efficiency_state	tinyint unsigned	NO		1	
efficiency	double	NO		100	
efficiency_queues	varchar(256)	YES			
efficiency_warn_count	int unsigned	NO		0	
efficiency_alarm_count	int unsigned	NO		0	
efficiency_clear_count	int unsigned	NO		0	
disabled	char(2)	NO			
total_hosts	int unsigned	NO		0	
total_cpus	int unsigned	NO		0	
total_clients	int unsigned	NO		0	
hourly_started_jobs	double	NO		0	
hourly_done_jobs	double	NO		0	
hourly_exit_jobs	double	NO		0	
daily_started_jobs	double	NO		0	
daily_done_jobs	double	NO		0	
daily_exit_jobs	double	NO		0	
lim_timeout	int unsigned	NO		10	
mbd_timeout	int unsigned	NO		10	
mbd_job_timeout	int unsigned	NO		1	
mbd_job_retries	int unsigned	NO		1	
lsf_envdir	varchar(256)	YES			
lsf_confdir	varchar(256)	YES			
ego_confdir	varchar(256)	NO			
lsf_version	int unsigned	NO		10	
lsf_clustername	varchar(128)	NO			
lsf_ls_error	int unsigned	NO		0	
lsf_lsb_error	int unsigned	NO		0	
lsf_lsb_jobs_error	int unsigned	NO		0	
lsf_lim_response	float	NO		0	
lsf_lsb_response	float	NO		0	
lsf_lsb_jobs_response	float	NO		0	
lsf_admins	varchar(256)	NO			
lsb_debug	varchar(20)	NO			
lsf_lim_debug	varchar(20)	NO			
lsf_res_debug	varchar(20)	NO			
lsf_log_mask	varchar(50)	NO			
lsf_master	varchar(64)	NO			
lsf_masterhosts	varchar(1024)	NO			
lsf_serverhosts	varchar(1024)	NO			
lsf_lic_schedhosts	varchar(1024)	NO			
lsf_unit	varchar(4)	NO			
collection_timing	int unsigned	NO		NULL	
max_nonjob_runtime	int unsigned	NO		NULL	
job_minor_timing	int unsigned	NO		NULL	
job_major_timing	int unsigned	NO		NULL	
ha_timing	int unsigned	NO		NULL	
max_job_runtime	int unsigned	NO		NULL	
ip	varchar(255)	NO			
lim_port	varchar(10)	NO			
lsf_ego	char(3)	YES		N	
lsf_strict_checking	varchar(10)	NO		N	
lsf_krb_auth	varchar(3)	NO			
lsf_master_hostname	varchar(255)	NO			
username	varchar(255)	NO			
credential	varchar(512)	NO			
communication	varchar(10)	NO		ssh	
privatekey_path	varchar(255)	NO			
LSF_TOP	varchar(255)	NO			
add_frequency	int unsigned	NO		NULL	
host_template_id	mediumint unsigned	NO		14	
add_graph_frequency	int unsigned	NO		0	
advanced_enabled	char(2)	NO			
email_domain	varchar(64)	NO			
email_admin	varchar(512)	NO			
grididle_enabled	char(2)	NO			
grididle_notify	int	NO		0	
grididle_runtime	int	NO		3600	
grididle_window	int	NO		3600	
grididle_cputime	int	NO		24	
grididle_jobtypes	varchar(20)	NO		all	
grididle_jobcommands	varchar(255)	NO			
grididle_exclude_queues	varchar(255)	NO			
perfmon_run	char(3)	YES			
perfmon_interval	int unsigned	YES		0	
exec_host_res_req	varchar(512)	NO			

Entity relationships:

Due to the complexity and large number of relationships between tables, the entity relationship diagram for this table has not been included.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_clusters.poller_id	grid_pollers.poller_id
grid_clusters.clusterid	grid_elim_template_instances.clusterid
grid_clusters.clusterid	grid_hosts.clusterid
grid_clusters.clusterid	grid_applications.clusterid
grid_clusters.clusterid	grid_hostgroups.clusterid
grid_clusters.clusterid	grid_hostinfo.clusterid
grid_clusters.clusterid	grid_queues_hosts.clusterid
grid_clusters.clusterid	grid_load.clusterid
grid_clusters.clusterid	grid_hosts_resources.clusterid
grid_clusters.clusterid	grid_groups.clusterid
grid_clusters.clusterid	grid_queues.clusterid
grid_clusters.clusterid	grid_queues_users_stats.clusterid
grid_clusters.clusterid	grid_guarantee_pool.clusterid
grid_clusters.clusterid	grid_service_class.clusterid
grid_clusters.clusterid	grid_user_group_stats.clusterid
grid_clusters.clusterid	grid_users_or_groups.clusterid
grid_clusters.clusterid	host.clusterid
grid_clusters.clusterid	grid_license_projects.clusterid
grid_clusters.clusterid	grid_params.clusterid
grid_clusters.clusterid	grid_projects.clusterid
grid_clusters.clusterid	grid_queues_distrib.clusterid
grid_clusters.clusterid	grid_jobs.clusterid
grid_clusters.clusterid	grid_jobs_finished.clusterid
grid_clusters.clusterid	grid_clusters_reportdata.clusterid
grid_clusters.clusterid	grid_clusters_perfmon_metrics.clusterid
grid_clusters.clusterid	grid_clusters_benchmark.clusterid
grid_clusters.clusterid	grid_clusters_benchmark_summary.clusterid
grid_clusters.clusterid	grid_heuristics.clusterid
grid_clusters.clusterid	grid_heuristics_user_stats.clusterid

grid_clusters.clusterid	grid_job_daily_stats.clusterid
grid_clusters.clusterid	grid_metadata.clusterid
grid_clusters.cacti_host	graph_local.host_id *
grid_clusters.cacti_host	data_local.host_id *
grid_clusters.clusterid	grid_limits_usage.clusterid
grid_clusters.clusterid	grid_limits.clusterid
grid_clusters.clusterid	grid_limits_history.clusterid
grid_clusters.clusterid	grid_queues_stats.clusterid
grid_clusters.clusterid	grid_hostgroups_stats.clusterid

grid_clusters_perfmon_metrics

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
metric	varchar(40)	NO	PRI		
current	double	NO		0	
max	double	NO		0	
min	double	NO		0	
avg	double	NO		0	
total	double	NO		0	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

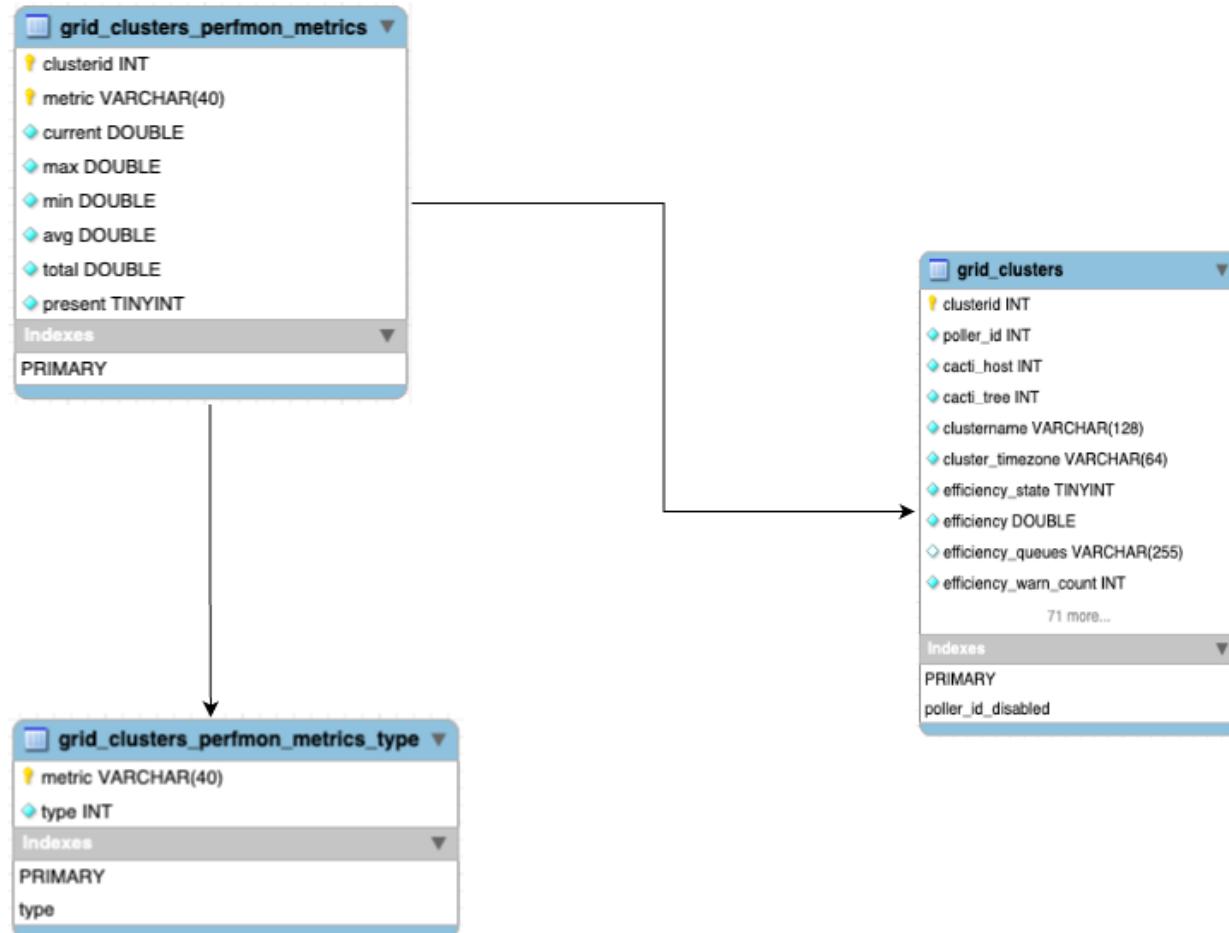


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_clusters_perfmon_metrics.clusterid	grid_cluster.clusterid
grid_clusters_perfmon_metrics.metric	grid_clusters_perfmon_metrics_type.metric

grid_clusters_perfmon_metrics_type

Table schema:

Field	Type	Null	Key	Default	Extra
metric	varchar(40)	NO	PRI		
type	int(10) unsigned	NO	MUL	0	

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_clusters_perfmon_metrics.metric	grid_clusters_perfmon_metrics_type.metric
--------------------------------------	---

grid_clusters_perfmon_status

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
clients	int(10) unsigned	NO		0	
clients_peak	int(10) unsigned	NO		0	
servers	int(10) unsigned	NO		0	
servers_peak	int(10) unsigned	NO		0	
cpus	int(10) unsigned	NO		0	
cpus_peak	int(10) unsigned	NO		0	
cores	int(10) unsigned	NO		0	
cores_peak	int(10) unsigned	NO		0	
slots	int(10) unsigned	NO		0	
slots_peak	int(10) unsigned	NO		0	
serv_all	int(10) unsigned	NO		0	
serv_ok	int(10) unsigned	NO		0	
serv_closed	int(10) unsigned	NO		0	
serv_unreachable	int(10) unsigned	NO		0	
serv_unavail	int(10) unsigned	NO		0	
dc_servers	int(10) unsigned	NO		0	
dc_servers_peak	int(10) unsigned	NO		0	
dc_cores	int(10) unsigned	NO		0	
dc_cores_peak	int(10) unsigned	NO		0	
dc_vm_containers	int(10) unsigned	NO		0	
dc_vm_containers_peak	int(10) unsigned	NO		0	
num_jobs	int(10) unsigned	NO		0	
num_run	int(10) unsigned	NO		0	
num_susp	int(10) unsigned	NO		0	
num_pend	int(10) unsigned	NO		0	
num_finished	int(10) unsigned	NO		0	
num_users	int(10) unsigned	NO		0	
num_active_users	int(10) unsigned	NO		0	
num_groups	int(10) unsigned	NO		0	
last_mbatchd_start	timestamp	NO		0000-00-00 00:00:00	
active_mbd_pid	int(10) unsigned	NO		0	
last_mbatchd_reconfig	timestamp	NO		0000-00-00 00:00:00	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

This table contains LSF performance monitoring (perfmon) data and is related to other tables by way of the [clusterid](#) field.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_clusters_perfmon_summary

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
last_jobid	int(10) unsigned	NO		0	
start_time	timestamp	NO		0000-00-00 00:00:00	
last_run	timestamp	NO		0000-00-00 00:00:00	
poller_interval	int(10) unsigned	NO		0	
pjob_submitTime	double	NO		0	
pjob_seenTime	double	NO		0	
pjob_runTime	int(10) unsigned	NO		0	
pjob_doneTime	double	NO		0	
pjob_seenDoneTime	double	NO		0	
pjob_startTime	double	NO		0	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

This table contains LSF performance monitoring (perfmon) data and is related to other tables by way of the [clusterid](#) field.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_hosts

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
hStatus	int(10) unsigned	NO		0	
hCtrlMsg	varchar(255)	NO			
status	varchar(20)	YES	MUL	NULL	
prev_status	varchar(20)	NO	MUL		
time_in_state	int(10) unsigned	NO		0	
cpuFactor	float	NO		0	
windows	varchar(255)	YES		NULL	
userJobLimit	varchar(20)	YES		NULL	
maxJobs	int(11)	NO		0	
numJobs	int(10) unsigned	NO		0	
numRun	int(10) unsigned	NO		0	
numSSUSP	int(10) unsigned	NO		0	
numUSUSP	int(10) unsigned	NO		0	
mig	int(10) unsigned	NO		0	
attr	int(10) unsigned	NO		0	
numRESERVE	int(10) unsigned	NO		0	
ngpus	int(10) unsigned	NO		0	
avail_shared_ngpus	int(10) unsigned	NO		0	
avail_excl_ngpus	int(10) unsigned	NO		0	
alloc_jssexcl_ngpus	int(10) unsigned	NO		0	
present	tinyint(3) unsigned	NO		1	
exceptional	tinyint(1) unsigned	NO		0	

Entity relationships:

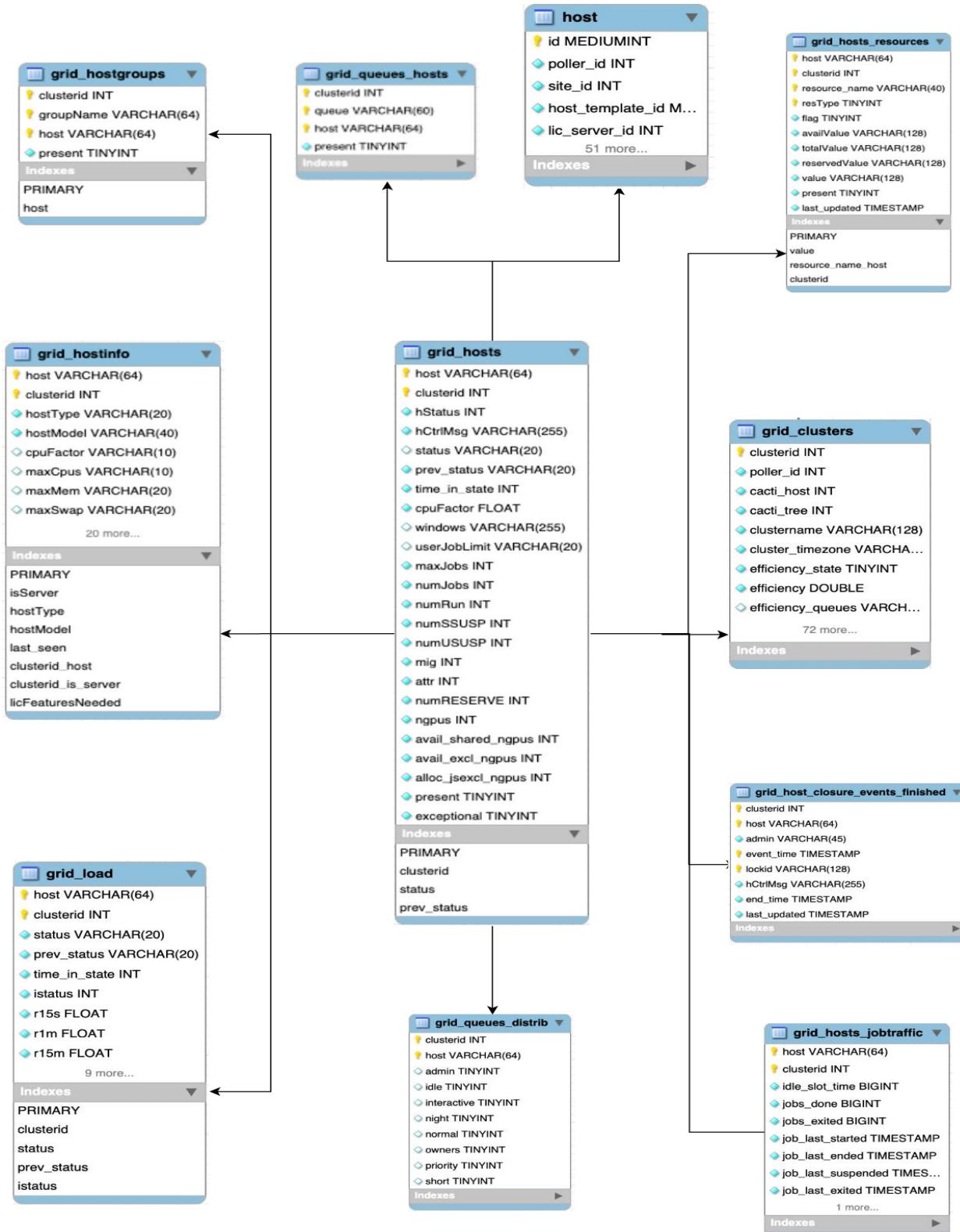


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hosts.host	grid_hostgroups.host
grid_hosts.clusterid	grid_hostgroups.clusterid
grid_hosts.clusterid	grid_clusters.clusterid
grid_hosts.host	grid_hostinfo.host
grid_hosts.clusterid	grid_hostinfo.clusterid
grid_hosts.host	grid_hosts_resources.host
grid_hosts.clusterid	grid_hosts_resources.clusterid
grid_hosts.clusterid	grid_host_closure_events.clusterid
grid_hosts.host	grid_host_closure_events.host
grid_hosts.clusterid	grid_load.clusterid
grid_hosts.host	grid_load.host
grid_hosts.clusterid	grid_queues_host.clusterid
grid_hosts.host	grid_queues_host.host
grid_hosts.host	grid_queues_distrib.host
grid_hosts.clusterid	grid_queues_distrib.clusterid
grid_hosts.host	grid_hosts_jobtraffic.host
grid_hosts.clusterid	grid_hosts_jobtraffic.clusterid
grid_hosts.clusterid	host.clusterid
grid_hosts.host	host.hostname

grid_host_closure_events

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
host	varchar(64)	NO	PRI		
admin	varchar(45)	NO			
event_time	timestamp	NO	PRI	0000-00-00 00:00:00	
lockid	varchar(128)	NO	PRI		
hCtrlMsg	varchar(255)	NO			
end_time	timestamp	NO		0000-00-00 00:00:00	
last_updated	timestamp	NO	MUL	current_timestamp()	on update current_timestamp()

Entity relationships:

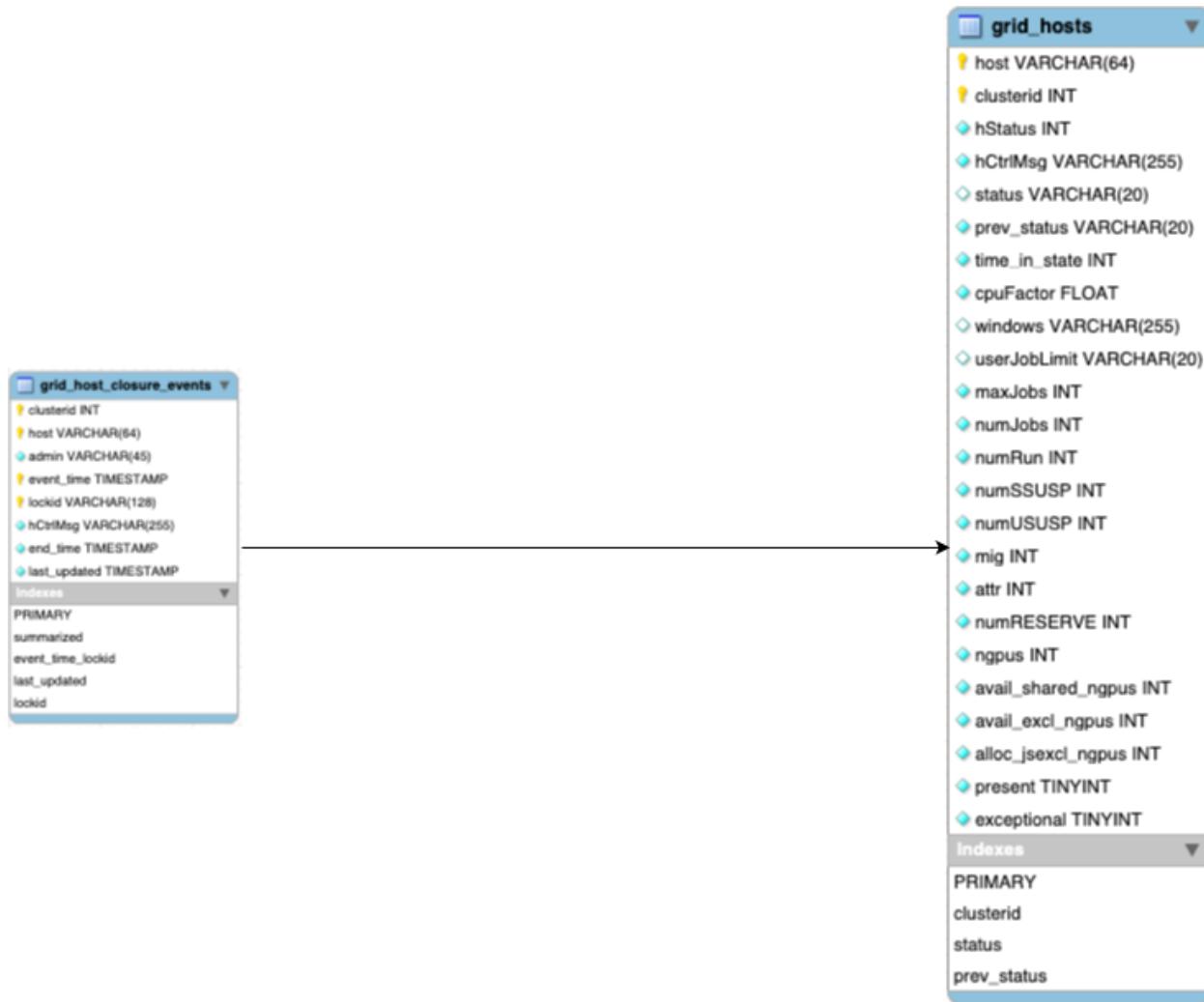


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hosts.clusterid	grid_host_closure_events.clusterid
grid_hosts.host	grid_host_closure_events.host

grid_host_closure_events_finished

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
host	varchar(64)	NO	PRI		
admin	varchar(45)	NO			
event_time	timestamp	NO	PRI	0000-00-00 00:00:00	
lockid	varchar(128)	NO	PRI		
hCtrlMsg	varchar(255)	NO			
end_time	timestamp	NO		0000-00-00 00:00:00	
last_updated	timestamp	NO	MUL	current_timestamp()	on update current_timestamp()

Entity relationships: [Refer to this entity relationship diagram](#).

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_host_closure_lockids

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
lockid	varchar(128)	NO	PRI		
last_seen	timestamp	NO		0000-00-00 00:00:00	

Entity relationships:

This table contains LSF host closure data and is related to other tables by way of the [clusterid](#) field.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_hostgroups

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
groupName	varchar(64)	NO	PRI		
host	varchar(64)	NO	PRI		
present	tinyint(3) unsigned	NO		1	

Entity relationships:

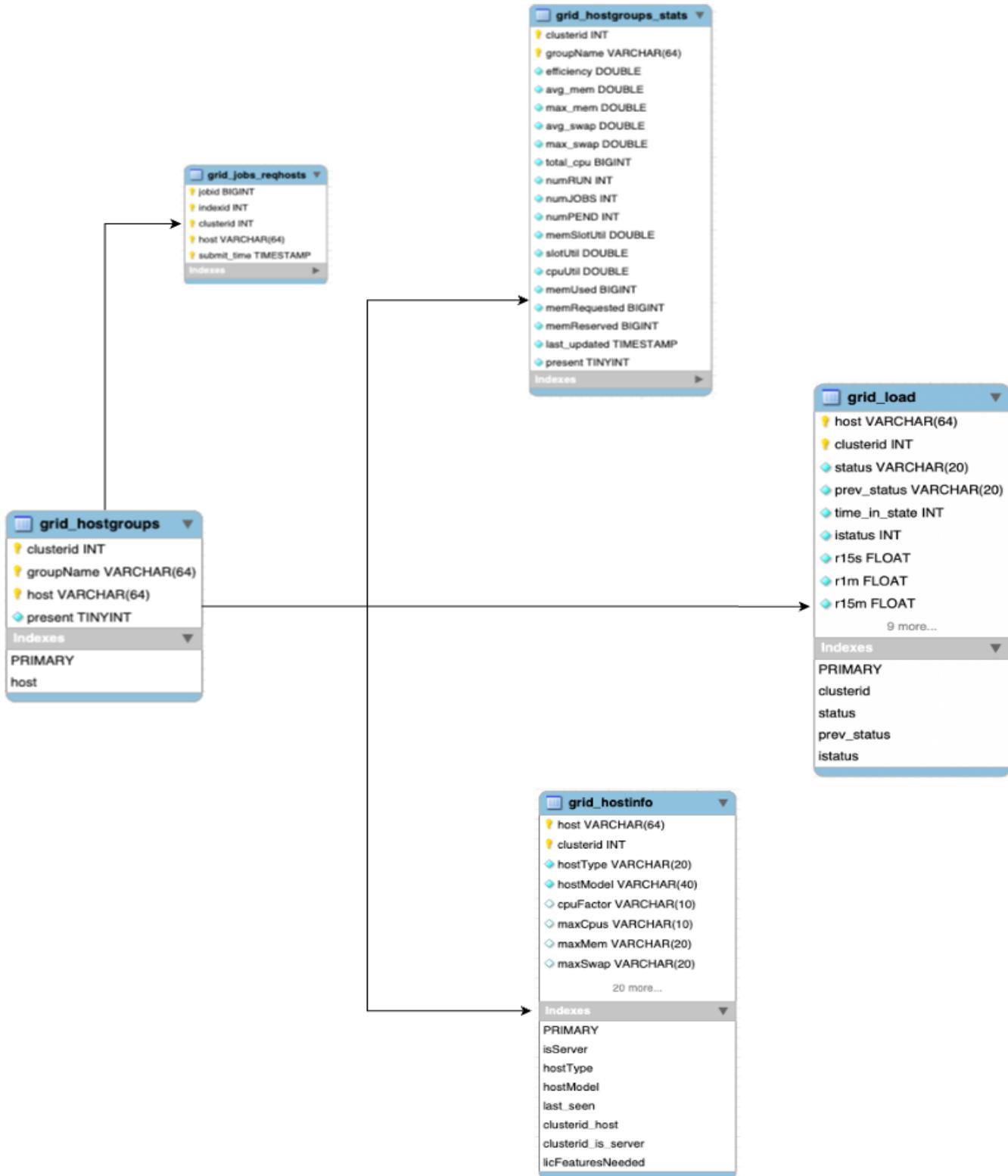


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hostgroups.clusterid	grid_hosts.clusterid
grid_hostgroups.host	grid_hosts.host
grid_hostgroups.clisterid	grid_cluster.clusterid
grid_hostgroups.host	grid_load.host
grid_hostgroups_stats.groupName	grid_hostgroups.groupName
grid_hostgroups_stats.clusterid	grid_hostgroups.clusterid
grid_hostgroups.host	grid_host_info.host
grid_hostgroups.clusterid	grid_host_info.clusterid
grid_hostgroups.host	grid_summary.host
grid_hostgroups.clusterid	grid_summary.clusterid
grid_hostgroups.clusterid	grid_jobs_reqhosts.clusterid

grid_hostgroups_stats

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int(10) unsigned	NO	PRI	0	
groupName	varchar(64)	NO	PRI	NULL	
efficiency	double	NO		0	
avg_mem	double	NO		0	
max_mem	double	NO		0	
avg_swap	double	NO		0	
max_swap	double	NO		0	
total_cpu	bigint(20) unsigned	NO		0	
numRUN	int(10) unsigned	NO		0	
numJOBS	int(10) unsigned	NO		0	
numPEND	int(10) unsigned	NO		0	
memSlotUtil	double	NO		0	
slotUtil	double	NO		0	
cpuUtil	double	NO		0	
memUsed	bigint(20) unsigned	NO		0	
memRequested	bigint(20) unsigned	NO		0	
memReserved	bigint(20) unsigned	NO		0	
last_updated	timestamp	NO		current_timestamp()	
present	tinyint(3) unsigned	NO		1	

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

<code>grid_hostgroups_stats.groupName</code>	<code>grid_hostgroups.groupName</code>
<code>grid_hostgroups_stats.clusterid</code>	<code>grid_cluster.clusterid</code>

grid_hostinfo

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
hostType	varchar(20)	NO	MUL		
hostModel	varchar(40)	NO	MUL	0	
cpuFactor	varchar(10)	YES		NULL	
maxCpus	varchar(10)	YES		NULL	
maxMem	varchar(20)	YES		NULL	
maxSwap	varchar(20)	YES		NULL	
maxTmp	varchar(20)	YES		NULL	
nDisks	varchar(10)	NO		0	
resources	varchar(255)	NO			
excl_resources	varchar(255)	NO			
windows	varchar(255)	NO		0	
isServer	char(1)	NO	MUL		
licensed	char(1)	NO			
rexPriority	int(10) unsigned	NO		0	
licFeaturesNeeded	int(10) unsigned	NO	MUL	0	
licClass	int(10) unsigned	NO		0	
nProcs	int(10) unsigned	NO		0	
cores	int(10) unsigned	NO		0	
nThreads	int(10) unsigned	NO		0	
ngpus	int(10) unsigned	NO		0	
gMaxFactor	float	NO		0	
gpu_shared_avg_mut	float	NO		0	
gpu_shared_avg_ut	float	NO		0	
first_seen	timestamp	NO		0000-00-00 00:00:00	
last_seen	timestamp	NO	MUL	0000-00-00 00:00:00	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

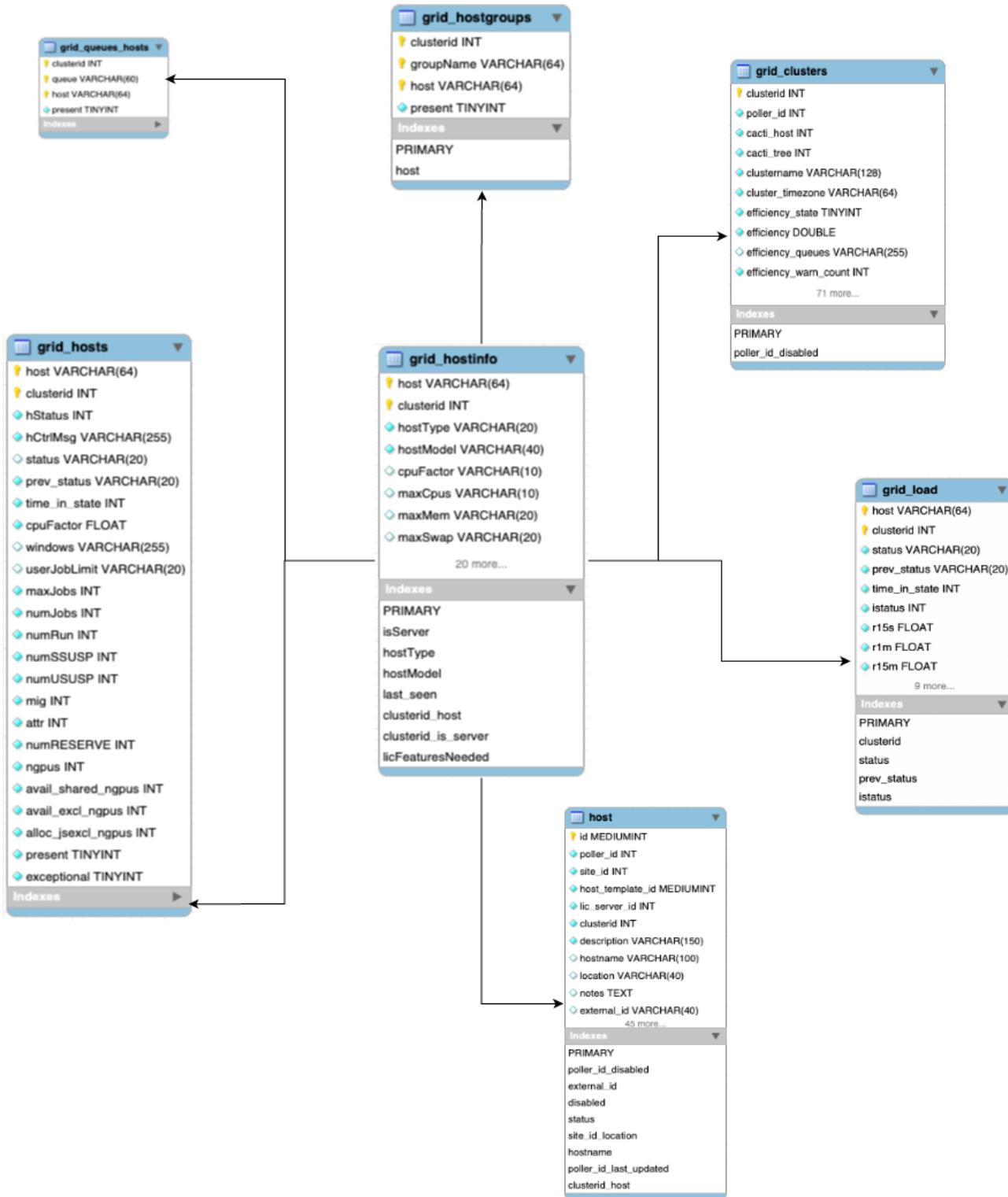


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hostinfo.clusterid	grid_hosts.clusterid
grid_hostinfo.host	grid_hosts.host
grid_hostinfo.host	grid_hostgroups.host
grid_hostinfo.clusterid	grid_hostgroups.clusterid
grid_hostinfo.clusterid	grid_clusters.clusterid
grid_hostinfo.clusterid	grid_queues_hosts.clusterid
grid_hostinfo.host	grid_load.host
grid_hostinfo.clusterid	grid_load.clusterid
grid_hostinfo.host	host.hostname
grid_hostinfo.clusterid	host.clusterid

grid_hostinfo_gpu

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
gpu_id	int(10) unsigned	NO	PRI	0	
gBrand	varchar(20)	NO			
gModel	varchar(20)	NO			
gpu_mode	int(10) unsigned	NO		0	
pstatus	int(10) unsigned	NO		0	
status	varchar(20)	YES		NULL	
gpu_error	varchar(255)	NO			
gpu_driver	varchar(64)	NO			
gpu_factor	varchar(64)	NO			
gpu_temp	int(10) unsigned	NO		0	
gpu_ecc	float	NO		0	
gpu_ut	float	NO		0	
gpu_mut	float	NO		0	
gpu_power_ut	float	NO		0	
gpu_mtotal	float	NO		0	
gpu_mused	float	NO		0	
gvendor	int(10) unsigned	NO		0	
driverVersion	varchar(256)	NO			
present	tinyint(3) unsigned	NO		1	
last_updated	timestamp	NO		current_timestamp()	on update current_timestamp()

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

<code>grid_hostinfo_gpu.cluster_id</code>	<code>grid_jobs_gpu_rusage.cluster_id</code>
<code>grid_hostinfo_gpu.host</code>	<code>grid_jobs_gpu_rusage.host</code>

grid_hostresources

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
rtype	tinyint(3) unsigned	NO		0	
resource_name	varchar(50)	NO	PRI		
present	tinyint(3) unsigned	NO		1	

Entity relationships:

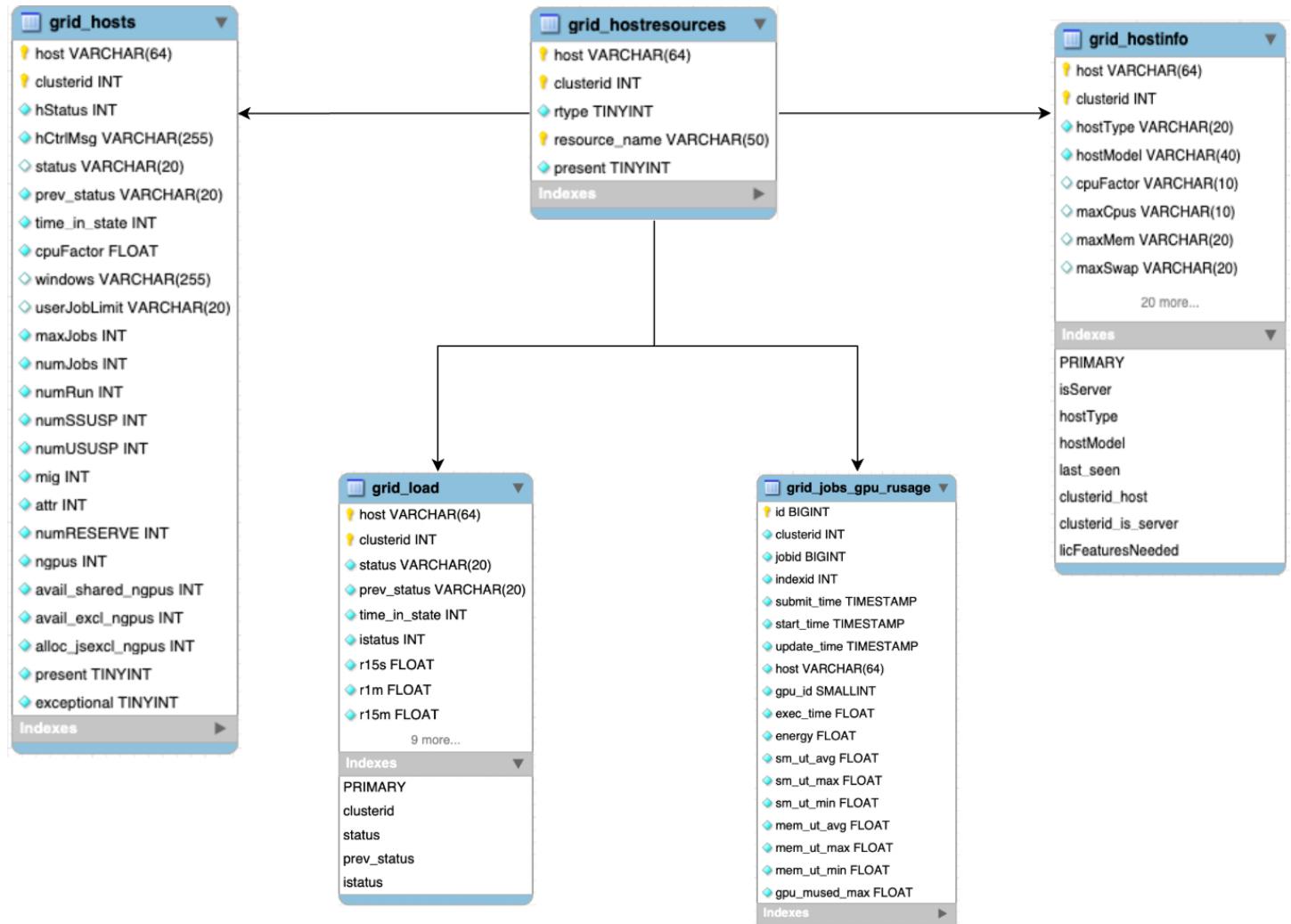


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hostresources.host	grid_hostinfo.host
grid_hostresources.clusterid	grid_hostinfo.clusterid
grid_hostresources.host	grid_load.host
grid_hostresources.clusterid	grid_load.clusterid
grid_hostresources.host	grid_host.host
grid_hostresources.clusterid	grid_host.clusterid
grid_hostresources.host	grid_jobs_gpu_rusage.host
grid_hostresources.clusterid	grid_jobs_gpu_rusage.clusterid

grid_hosts_alarm

Table schema:

Field	Type	Null	Key	Default	Extra
type_id	bigint(20)	NO	PRI	0	
name	varchar(100)	NO			
hostname	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
type	int(11)	NO	PRI	0	
message	varchar(1024)	NO		NULL	
acknowledgement	char(3)	NO		off	
alert_time	timestamp	NO		current_timestamp()	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

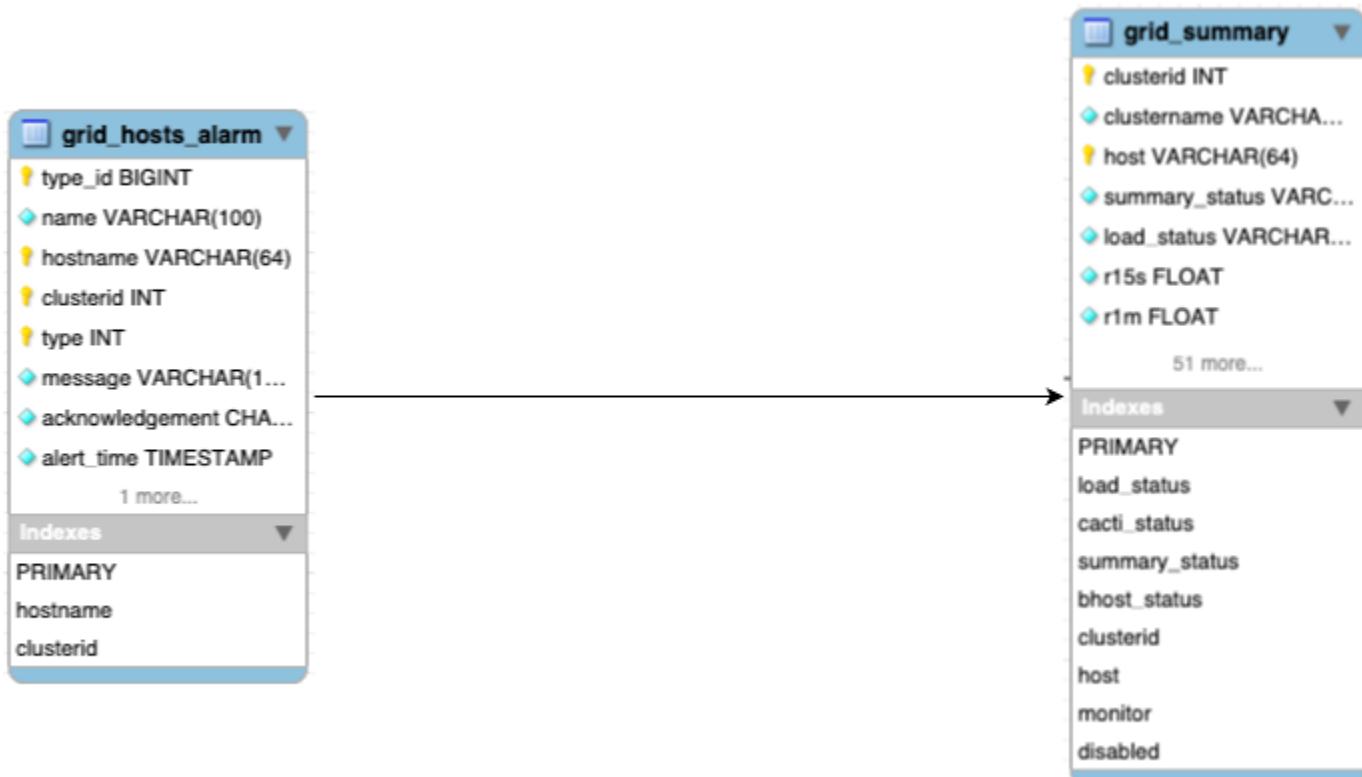


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hosts_alarm.hostname	grid_summary.host
grid_hosts_alarm.clusterid	grid_summary.clusterid

grid_hosts_gpu

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
gpu_id	int(10) unsigned	NO	PRI	0	
gpu_model	varchar(40)	NO			
gpu_mode	int(10) unsigned	NO		0	
pstatus	int(10) unsigned	NO		0	
status	varchar(20)	YES		NULL	
gpu_error	varchar(255)	NO			
prev_status	varchar(20)	NO			
time_in_state	int(10) unsigned	NO		0	
mem_used	int(10) unsigned	NO		0	
mem_rsv	int(10) unsigned	NO		0	
numJobs	int(10) unsigned	NO		0	
numRun	int(10) unsigned	NO		0	
numSUSP	int(10) unsigned	NO		0	
numRSV	int(10) unsigned	NO		0	
socketid	int(10) unsigned	NO		0	
present	tinyint(3) unsigned	NO		1	
last_updated	timestamp	NO		current_timestamp()	on update current_timestamp()

Entity relationships:

This table contains LSF GPU host data and is related to the [grid_hosts](#) table by way of the `host` and `clusterid` fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_hosts_jobtraffic

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(10) unsigned	NO	PRI	0	
idle_slot_time	bigint(20) unsigned	NO		0	
jobs_done	bigint(20) unsigned	NO		0	
jobs_exited	bigint(20) unsigned	NO		0	
job_last_started	timestamp	NO		0000-00-00 00:00:00	
job_last_ended	timestamp	NO		0000-00-00 00:00:00	
job_last_suspended	timestamp	NO		0000-00-00 00:00:00	
job_last_exited	timestamp	NO		0000-00-00 00:00:00	
date_recorded	timestamp	NO		0000-00-00 00:00:00	

Entity relationships: [Refer to this entity relationship diagram](#).

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hosts_jobtraffic.clusterid	interval_data.clusterid
grid_hosts_jobtraffic.host	interval_data.host
grid_hosts_jobtraffic.clusterid	grid_hosts.clusterid
grid_hosts_jobtraffic.host	grid_hosts.host
grid_hosts_jobtraffic.host	grid_load.host
grid_hosts_jobtraffic.clusterid	grid_load.clusterid

grid_hosts_resources

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI	NULL	
clusterid	int(10) unsigned	NO	PRI	NULL	
resource_name	varchar(40)	NO	PRI	NULL	
resType	tinyint(3) unsigned	NO	PRI	0	
flag	tinyint(3) unsigned	NO		0	
availValue	varchar(128)	NO			
totalValue	varchar(128)	NO			
reservedValue	varchar(128)	NO			
value	varchar(128)	NO	MUL		
present	tinyint(3) unsigned	NO		1	
last_updated	timestamp	NO		current_timestamp()	

Entity relationships:

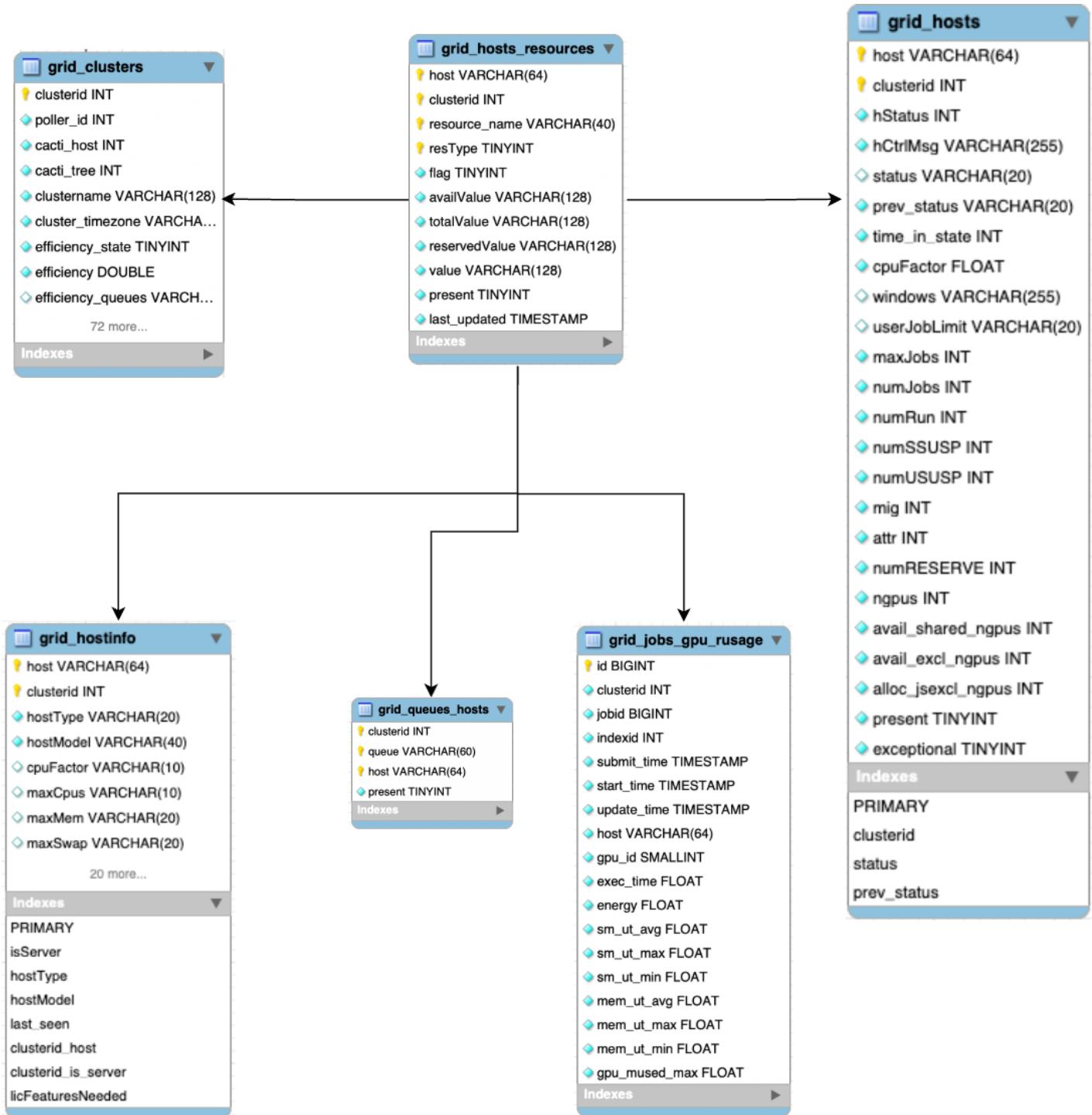


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains

the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hosts_resources.clusterid	grid_clusters.clusterid
grid_hosts_resources.host	grid_clusters.host
grid_hosts_resources.host	grid_hosts.host
grid_hosts_resources.clusterid	grid_hostinfo.clusterid
grid_hosts_resources.host	grid_hostinfo.host
grid_hosts_resources.clusterid	grid_queues_hosts.clusterid
grid_hosts_resources.host	grid_queues_hosts.host
grid_hosts_resources.clusterid	grid_jobs_gpu_rusage.clusterid
grid_hosts_resources.host	grid_jobs_gpu_rusage.host

grid_host_threshold

Table schema:

Field	Type	Null	Key	Default	Extra
id	bigint(20) unsigned	NO	MUL	NULL	auto_increment
clusterid	int(10) unsigned	NO	PRI	0	
hostname	varchar(64)	NO	PRI		
resource_name	varchar(40)	NO	PRI		
loadSched	double	NO		0	
loadStop	double	NO		0	
busySched	int(11)	NO		0	
busyStop	int(11)	NO		0	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

This table contains LSF load thresholds for busy hosts. It is related to the [grid_hosts](#) table by way of the host and [clusterid](#) fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_hosts.host	grid_host_threshold.hostname
-----------------	------------------------------

grid_job_daily_stats

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
user	varchar(60)	NO	PRI		
stat	varchar(45)	NO	PRI		
queue	varchar(60)	NO	PRI		
app	varchar(40)	NO	PRI		
from_host	varchar(64)	NO	PRI		
exec_host	varchar(64)	NO	PRI		
projectName	varchar(256)	NO	PRI		
jobs_in_state	int unsigned	NO		0	
jobs_wall_time	int unsigned	NO		0	
gpu_wall_time	int unsigned	NO		0	
jobs_stime	double	NO		NULL	
jobs_utime	double	NO		NULL	
slots_in_state	int unsigned	NO		0	
gpus_in_state	int unsigned	NO		0	
avg_memory	double	NO		0	
max_memory	double	NO		0	
gpu_avg_mem	double	NO		0	
gpu_max_mem	double	NO		0	
interval_start	timestamp	NO	MUL	0000-00-00 00:00:00	
interval_end	timestamp	NO	MUL	0000-00-00 00:00:00	
date_recorded	timestamp	NO	PRI	0000-00-00 00:00:00	

Entity relationships:

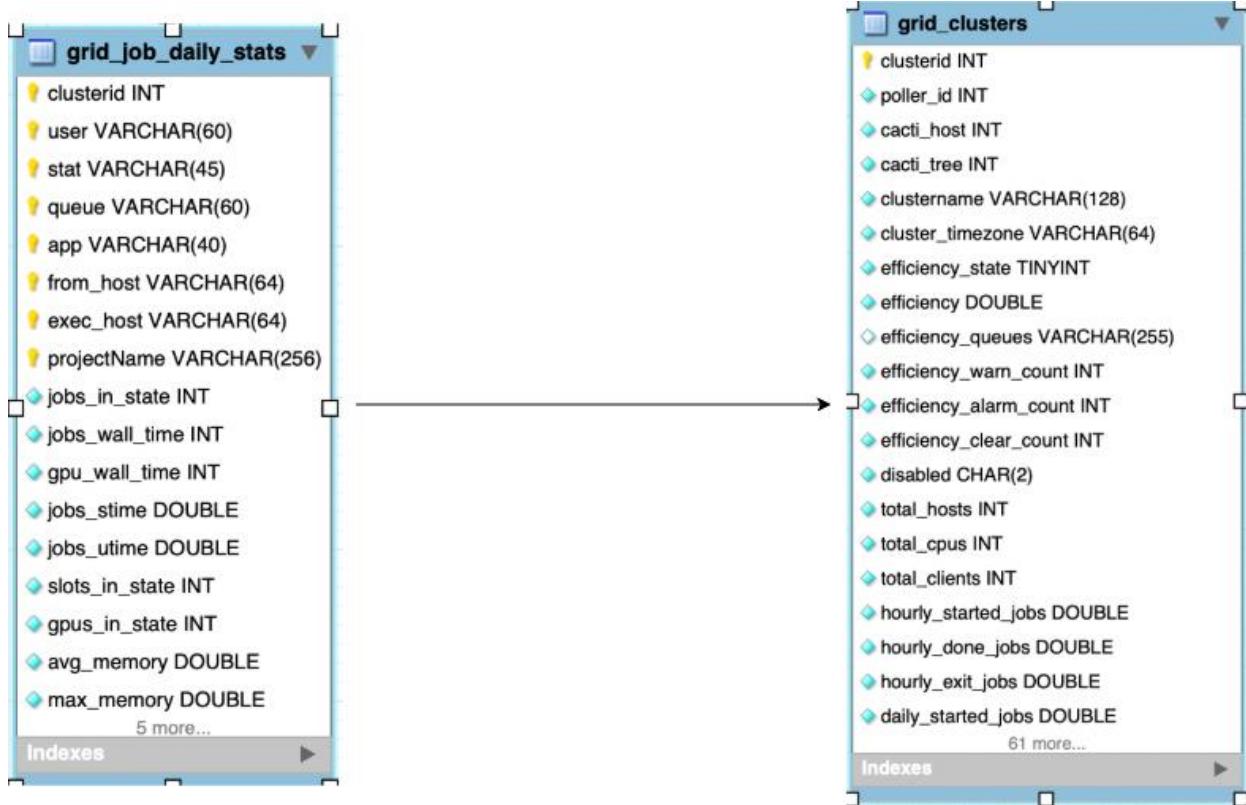


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_job_daily_stats.clusterid	grid_clusters.clusterid
--------------------------------	-------------------------

grid_job_daily_user_stats

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
user	varchar(60)	NO	PRI		
wall_time	bigint unsigned	NO		0	
total_wall_time	bigint unsigned	NO		0	
cpu_time	bigint unsigned	NO		0	
total_cpu_time	bigint unsigned	NO		0	
slots_done	int unsigned	NO		0	
slots_exited	int unsigned	NO		0	
interval_start	timestamp	NO	PRI	0000-00-00 00:00:00	
interval_end	timestamp	NO	PRI	0000-00-00 00:00:00	
date_recorded	timestamp	NO	MUL	0000-00-00 00:00:00	

Entity relationships:

This table contains LSF user statistics and is related to all the `grid_jobs_*` tables by way of the [clusterid](#) and [user](#) fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_job_daily_usergroup_stats

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
usergroup	varchar(60)	NO	PRI		
wall_time	bigint unsigned	NO		0	
total_wall_time	bigint unsigned	NO		0	
cpu_time	bigint unsigned	NO		0	
total_cpu_time	bigint unsigned	NO		0	
slots_done	int unsigned	NO		0	
slots_exited	int unsigned	NO		0	
interval_start	timestamp	NO	PRI	0000-00-00 00:00:00	
interval_end	timestamp	NO	PRI	0000-00-00 00:00:00	
date_recorded	timestamp	NO	MUL	0000-00-00 00:00:00	

Entity relationships:

This table contains LSF user group statistics and is related to all the `grid_jobs_*` tables by way of the `clusterid` and `userGroup` fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_job_interval_stat

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
user	varchar(60)	NO	PRI		
stat	varchar(45)	NO	PRI		
queue	varchar(60)	NO	PRI		
app	varchar(40)	NO	PRI		
from_host	varchar(64)	NO	PRI		
exec_host	varchar(64)	NO	PRI		
projectName	varchar(256)	NO	PRI		
jobs_reaching_state	int unsigned	NO		0	
jobs_wall_time	int unsigned	NO		0	
gpu_wall_time	int unsigned	NO		0	
jobs_stime	double	NO		NULL	
jobs_utime	double	NO		NULL	
slots_in_state	int unsigned	NO		0	
gpus_in_state	int unsigned	NO		0	
avg_memory	double	NO		0	
max_memory	double	NO		0	
gpu_avg_mem	double	NO		0	
gpu_max_mem	double	NO		0	
interval_start	timestamp	NO	MUL	0000-00-00 00:00:00	
interval_end	timestamp	NO	MUL	0000-00-00 00:00:00	
date_recorded	timestamp	NO	PRI	0000-00-00 00:00:00	

Entity relationships:

This is an intermediate table used by the extract, transform, and load (ETL) process to aggregate data from the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs

Table schema:

Field	Type	Null	Key	Default	Extra
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
clusterid	int unsigned	NO	PRI	0	
options	int unsigned	NO		0	
options2	int unsigned	NO		0	
options3	int unsigned	NO		0	
options4	int unsigned	NO		0	
user	varchar(60)	NO	MUL		
stat	varchar(10)	NO	MUL		
prev_stat	varchar(10)	NO	MUL		
stat_changes	int unsigned	NO	MUL	0	
flapping_logged	tinyint unsigned	NO	MUL	0	
exitStatus	int unsigned	NO		0	
pendReasons	varchar(512)	NO			
queue	varchar(60)	NO	MUL		
nice	varchar(4)	NO	MUL		
from_host	varchar(64)	NO	MUL		
exec_host	varchar(64)	YES	MUL	NULL	
execUid	int unsigned	NO		0	
loginShell	varchar(20)	YES		NULL	
execHome	varchar(255)	NO			
execCwd	varchar(255)	NO			
cwd	varchar(255)	NO			
exceptMask	int	NO		0	
exitInfo	int	NO	MUL	0	
postExecCmd	varchar(3000)	NO			
app	varchar(40)	NO	MUL		
execUsername	varchar(60)	NO			
mailUser	varchar(512)	YES		NULL	
jobname	varchar(3000)	YES	MUL	NULL	
jobPriority	int unsigned	NO		0	
jobPid	int unsigned	NO		0	
userPriority	int	YES		0	
projectName	varchar(256)	NO	MUL		
parentGroup	varchar(128)	NO			
sla	varchar(60)	NO	MUL		
jobGroup	varchar(512)	NO	MUL		
licenseProject	varchar(256)	NO	MUL		
command	varchar(3000)	YES		NULL	
inFile	varchar(255)	YES		NULL	
outFile	varchar(255)	YES		NULL	
errFile	varchar(255)	YES		NULL	
preExecCmd	varchar(3000)	YES		NULL	
res_requirements	varchar(512)	YES		NULL	
gpuResReq	varchar(512)	YES		NULL	
dependCond	varchar(1024)	YES			
mem_used	double	YES	MUL	NULL	
swap_used	double	NO	MUL	0	

max_memory	double	YES	0
gpu_mem_used	double	YES	0
gpu_max_memory	double	YES	0
max_swap	double	YES	0
mem_requested	double	YES	0
mem_requested_oper	varchar(8)	YES	
mem_reserved	double	YES	0
cpu_used	double	NO	MUL 0
utime	double	NO	0
stime	double	NO	0
efficiency	decimal(9,5)	NO	MUL 0.00000
effic_logged	tinyint unsigned	NO	MUL 0
numPIDS	int unsigned	NO	0
numPGIDS	int unsigned	NO	0
numThreads	int unsigned	NO	0
pid_alarm_logged	tinyint unsigned	NO	MUL 0
num_nodes	int unsigned	NO	MUL 1
num_cpus	int unsigned	NO	MUL 1
max_allocated_processes	int unsigned	NO	0
maxNumProcessors	int unsigned	NO	0
num_gpus	int unsigned	NO	0
gpu_mode	int unsigned	NO	0
submit_time	timestamp	NO	PRI 0000-00-00 00:00:00
reserveTime	timestamp	NO	0000-00-00 00:00:00
predictedStartTime	timestamp	NO	0000-00-00 00:00:00
start_time	timestamp	NO	MUL 0000-00-00 00:00:00
end_time	timestamp	NO	MUL 0000-00-00 00:00:00
beginTime	timestamp	NO	0000-00-00 00:00:00
termTime	timestamp	NO	0000-00-00 00:00:00
runtimeEstimation	int unsigned	YES	0
pend_time	int unsigned	NO	MUL 0
psusp_time	int unsigned	NO	MUL 0
run_time	int unsigned	NO	MUL 0
gpu_exec_time	int unsigned	NO	0
ususp_time	int unsigned	NO	MUL 0
ssusp_time	int unsigned	NO	MUL 0
unkwn_time	int unsigned	NO	MUL 0
prov_time	int unsigned	NO	MUL 0
acJobWaitTime	int unsigned	NO	0
hostSpec	varchar(48)	YES	NULL
rlimit_max_cpu	int unsigned	NO	0
rlimit_max_wallt	int unsigned	NO	0
rlimit_max_swap	float unsigned	NO	0
rlimit_max_fsize	float unsigned	NO	0
rlimit_max_data	float unsigned	NO	0
rlimit_max_stack	float unsigned	NO	0
rlimit_max_core	float unsigned	NO	0
rlimit_max_rss	float unsigned	NO	0
job_start_logged	tinyint unsigned	NO	MUL 0
job_end_logged	tinyint unsigned	NO	MUL 0
job_scan_logged	tinyint unsigned	NO	MUL 0
userGroup	varchar(60)	NO	MUL NULL
jobDescription	varchar(512)	YES	
combinedResreq	varchar(512)	YES	
effectiveResreq	varchar(512)	YES	
gpuCombinedResreq	varchar(512)	YES	
gpuEffectiveResreq	varchar(512)	YES	
chargedSAAP	varchar(256)	YES	MUL
ineligiblePendingTime	int unsigned	NO	MUL 0
pendState	int	NO	-1
effectivePendingTimeLimit	int unsigned	NO	MUL 0
effectiveEligiblePendingTimeLimit	int unsigned	NO	MUL 0
isLoaningOSLA	tinyint unsigned	NO	0
cpuPeak	decimal(9,5)	NO	0.00000
peakEfficiency	decimal(9,5)	NO	0.00000
memEfficiency	decimal(9,5)	NO	0.00000
cpuPeakReachedTime	double	NO	0
last_updated	timestamp	NO	MUL CURRENT_TIMESTAMP DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships:

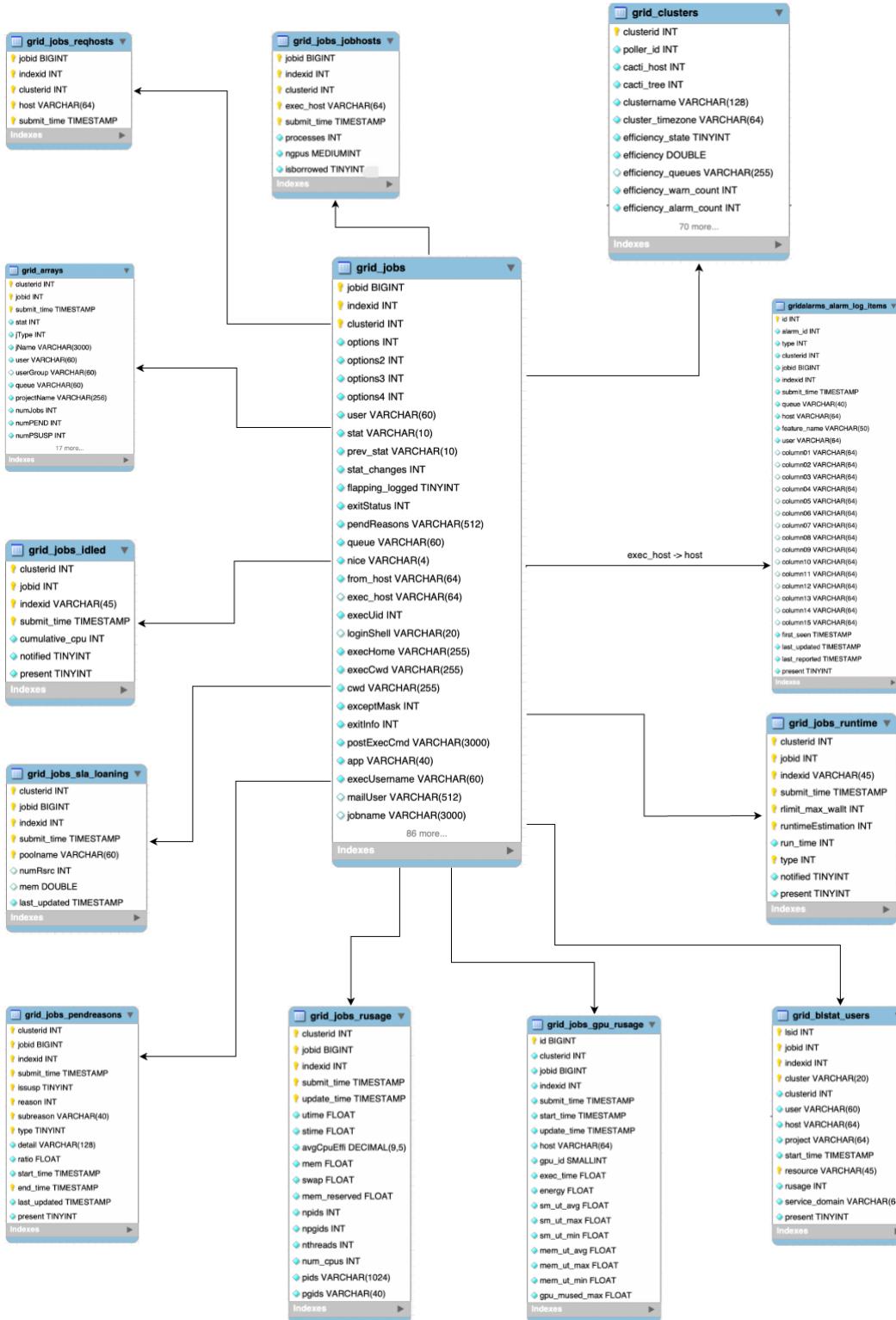


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs.clusterid	grid_clusters.clusterid
grid_jobs.clusterid	grid_jobs_pendreasons.clusterid
grid_jobs.jobid	grid_jobs_pendreasons.jobid
grid_jobs.indexid	grid_jobs_pendreasons.indexid
grid_jobs.submit_time	grid_jobs_pendreasons.submit_time
grid_jobs.clusterid	grid_jobs_reqhosts.clusterid
grid_jobs.jobid	grid_jobs_reqhosts.jobid
grid_jobs.indexid	grid_jobs_reqhosts.indexid
grid_jobs.submit_time	grid_jobs_reqhosts.submit_time
grid_jobs.clusterid	grid_jobs_jobhosts.clusterid
grid_jobs.jobid	grid_jobs_jobhosts.jobid
grid_jobs.indexid	grid_jobs_jobhosts.indexid
grid_jobs.submit_time	grid_jobs_jobhosts.submit_time
grid_jobs.clusterid	grid_arrays.clusterid
grid_jobs.jobid	grid_arrays.jobid
grid_jobs.submit_time	grid_arrays.submit_time
grid_jobs.clusterid	grid_jobs_idled.clusterid
grid_jobs.jobid	grid_jobs_idled.jobid
grid_jobs.indexid	grid_jobs_idled.indexid
grid_jobs.submit_time	grid_jobs_idled.submit_time
grid_jobs.clusterid	grid_jobs_runtime.clusterid
grid_jobs.jobid	grid_jobs_runtime.jobid
grid_jobs.indexid	grid_jobs_runtime.indexid
grid_jobs.submit_time	grid_jobs_runtime.submit_time
grid_jobs.exec_host	gridalarms_alarm_log_items.host
grid_jobs.clusterid	gridalarms_alarm_log_items.clusterid
grid_jobs.jobid	gridalarms_alarm_log_items.jobid
grid_jobs.indexid	gridalarms_alarm_log_items.indexid
grid_jobs.submit_time	gridalarms_alarm_log_items.submit_time
grid_jobs.clusterid	grid_blstat_users.clusterid
grid_jobs.jobid	grid_blstat_users.jobid
grid_jobs.indexid	grid_blstat_users.indexid
grid_jobs.clusterid	grid_jobs_rusage.clusterid

grid_jobs.indexid	grid_jobs_rusage.indexid
grid_jobs.submit_time	grid_jobs_rusage.submit_time
grid_jobs.clusterid	grid_jobs_gpu_rusage.clusterid
grid_jobs.jobid	grid_jobs_gpu_rusage.jobid
grid_jobs.indexid	grid_jobs_gpu_rusage.indexid
grid_jobs.submit_time	grid_jobs_gpu_rusage.submit_time
grid_jobs.clusterid	grid_jobs_sla_loaning.clusterid
grid_jobs.jobid	grid_jobs_sla_loaning.jobid
grid_jobs.indexid	grid_jobs_sla_loaning.indexid
grid_jobs.submit_time	grid_jobs_sla_loaning.submit_time

grid_jobs_exec_hosts

Table schema:

Field	Type	Null	Key	Default	Extra
exec_host	varchar(64)	NO	PRI		
clusterid	int unsigned	NO	PRI	0	
present	tinyint unsigned	NO		1	

Entity relationships:

This table contains data for tracking LSF execution hosts and is related to all the `grid_jobs_*` tables by way of the `clusterid` and `exec_host` fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_finished

Table schema:

jobid	bigint unsigned	NO	PRI	0
indexid	int unsigned	NO	PRI	0
clusterid	int unsigned	NO	PRI	0
options	int unsigned	NO		0
options2	int unsigned	NO		0
options3	int unsigned	NO		0
options4	int unsigned	NO		0
user	varchar(60)	NO	MUL	
stat	varchar(10)	NO	MUL	
prev_stat	varchar(10)	NO		
stat_changes	int unsigned	NO	MUL	0
flapping_logged	tinyint unsigned	NO		0
exitStatus	int unsigned	NO		0
pendReasons	varchar(512)	NO		
queue	varchar(60)	NO	MUL	
nice	varchar(4)	NO		
from_host	varchar(64)	NO	MUL	
exec_host	varchar(64)	YES	MUL	NULL
execUid	int unsigned	NO		0
loginShell	varchar(20)	YES		NULL
execHome	varchar(255)	NO		
execCwd	varchar(255)	NO		
cwd	varchar(255)	NO		
exceptMask	int	NO		0
exitInfo	int	NO		0
postExecCmd	varchar(3000)	NO		
app	varchar(40)	NO		
execUsername	varchar(60)	NO		
mailUser	varchar(512)	YES		NULL
jobname	varchar(3000)	YES	MUL	NULL
jobPriority	int unsigned	NO		0
jobPid	int unsigned	NO		0
userPriority	int	YES		0
projectName	varchar(256)	NO	MUL	
parentGroup	varchar(128)	NO		
sla	varchar(60)	NO	MUL	
jobGroup	varchar(512)	NO	MUL	
licenseProject	varchar(256)	NO	MUL	
command	varchar(3000)	YES		NULL
infile	varchar(255)	YES		NULL
outFile	varchar(255)	YES		NULL
errFile	varchar(255)	YES		NULL
preExecCmd	varchar(3000)	YES		NULL
res_requirements	varchar(512)	YES		NULL
gpuResReq	varchar(512)	YES		NULL
dependCond	varchar(1024)	YES		
mem_used	double	YES	MUL	NULL
swap_used	double	NO		0
max_memory	double	YES		0
gpu_mem_used	double	YES		0
gpu_max_memory	double	YES		0
max_swap	double	YES		0
mem_requested	double	YES		0
mem_requested_oper	varchar(8)	YES		
mem_reserved	double	YES		0
cpu_used	double	NO	MUL	0
utime	double	NO		0
stime	double	NO		0
efficiency	decimal(9,5)	NO	MUL	0.00000
effic_logged	tinyint unsigned	NO		0
numPIDS	int unsigned	NO		0
numPGIDS	int unsigned	NO		0
numThreads	int unsigned	NO		0
pid_alarm_logged	tinyint unsigned	NO		0
num_nodes	int unsigned	NO	MUL	1
num_cpus	int unsigned	NO	MUL	1
max_allocated_processes	int unsigned	NO		0
maxNumProcessors	int unsigned	NO		0
num_gpus	int unsigned	NO		0
gpu_mode	int unsigned	NO		0

submit_time	timestamp	NO	PRI	0000-00-00 00:00:00		
reserveTime	timestamp	NO		0000-00-00 00:00:00		
predictedStartTime	timestamp	NO		0000-00-00 00:00:00		
start_time	timestamp	NO	MUL	0000-00-00 00:00:00		
end_time	timestamp	NO	MUL	0000-00-00 00:00:00		
beginTime	timestamp	NO		0000-00-00 00:00:00		
termTime	timestamp	NO		0000-00-00 00:00:00		
runtimeEstimation	int unsigned	YES		0		
pend_time	int unsigned	NO	MUL	0		
psusp_time	int unsigned	NO		0		
run_time	int unsigned	NO	MUL	0		
gpu_exec_time	int unsigned	NO		0		
ususp_time	int unsigned	NO		0		
ssusp_time	int unsigned	NO		0		
unkwn_time	int unsigned	NO		0		
prov_time	int unsigned	NO		0		
acJobWaitTime	int unsigned	NO		0		
hostSpec	varchar(40)	YES		NULL		
rlimit_max_cpu	int unsigned	NO		0		
rlimit_max_wallt	int unsigned	NO		0		
rlimit_max_swap	float unsigned	NO		0		
rlimit_max_fsize	float unsigned	NO		0		
rlimit_max_data	float unsigned	NO		0		
rlimit_max_stack	float unsigned	NO		0		
rlimit_max_core	float unsigned	NO		0		
rlimit_max_rss	float unsigned	NO		0		
job_start_logged	tinyint unsigned	NO		0		
job_end_logged	tinyint unsigned	NO		0		
job_scan_logged	tinyint unsigned	NO		0		
userGroup	varchar(60)	NO	MUL	NULL		
jobDescription	varchar(512)	YES				
combinedResreq	varchar(512)	YES				
effectiveResreq	varchar(512)	YES				
gpuCombinedResreq	varchar(512)	YES				
gpuEffectiveResreq	varchar(512)	YES				
chargedSAP	varchar(256)	YES				
ineligiblePendingTime	int unsigned	NO		0		
pendState	int	NO		-1		
effectivePendingTimeLimit	int unsigned	NO		0		
effectiveEligiblePendingTimeLimit	int unsigned	NO		0		
isLoaningGSLA	tinyint unsigned	NO		0		
cpuPeak	decimal(9,5)	NO		0.00000		
peakEfficiency	decimal(9,5)	NO		0.00000		
memEfficiency	decimal(9,5)	NO		0.00000		
cpuPeakReachedTime	double	NO		0		
last_updated	timestamp	NO	MUL	CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP	

Entity relationships:

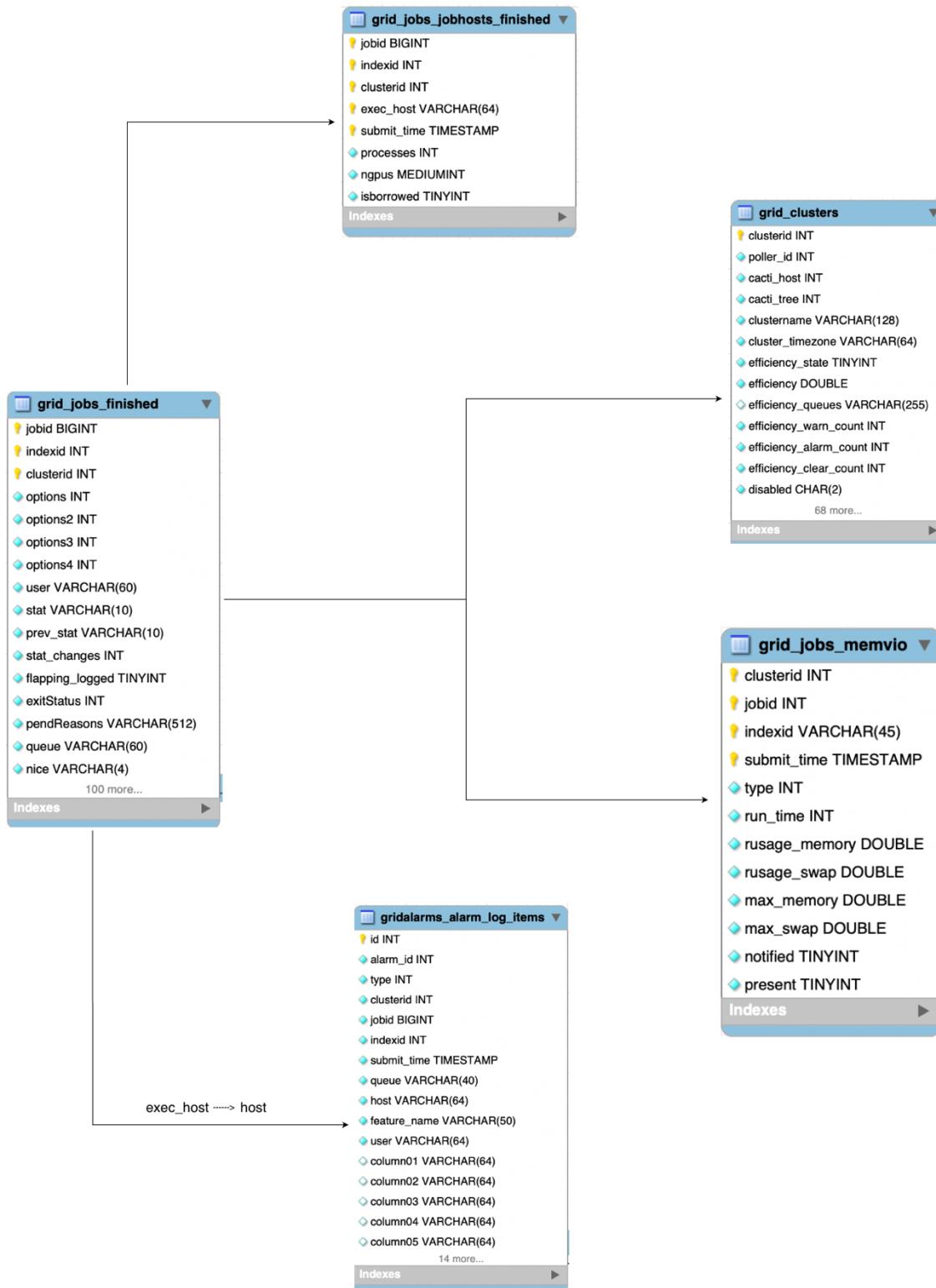


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_finished.clusterid	grid_jobs_jobhosts_finished.clusterid
grid_jobs_finished.jobid	grid_jobs_jobhosts_finished.jobid
grid_jobs_finished.indexid	grid_jobs_jobhosts_finished.indexid
grid_jobs_finished.submit_time	grid_jobs_jobhosts_finished.submit_time
grid_jobs_finished.clusterid	grid_jobs_memvio.clusterid
grid_jobs_finished.jobid	grid_jobs_memvio.jobid
grid_jobs_finished.indexid	grid_jobs_memvio.indexid
grid_jobs_finished.submit_time	grid_jobs_memvio.submit_time
grid_jobs_finished.exec_host	gridalarms_alarm_log_items.host
grid_jobs_finished.clusterid	gridalarms_alarm_log_items.clusterid
grid_jobs_finished.jobid	gridalarms_alarm_log_items.jobid
grid_jobs_finished.indexid	gridalarms_alarm_log_items.indexid
grid_jobs_finished.submit_time	gridalarms_alarm_log_items.submit_time
grid_jobs_finished.clusterid	grid_clusters.clusterid

grid_jobs_from_hosts

Table schema:

Field	Type	Null	Key	Default	Extra
from_host	varchar(64)	NO	PRI		
clusterid	int unsigned	NO	PRI	0	
present	tinyint unsigned	NO		1	

Entity relationships:

This table contains data for tracking LSF job submission hosts and is related to all the `grid_jobs_*` tables by way of the `clusterid` and `from_host` fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_gpu_rusage

Table schema:

Field	Type	Null	Key	Default	Extra
id	bigint unsigned	NO	PRI	NULL	auto_increment
clusterid	int unsigned	NO	MUL	0	
jobid	bigint	NO		0	
indexid	int unsigned	NO		0	
submit_time	timestamp	NO		0000-00-00 00:00:00	
start_time	timestamp	NO		0000-00-00 00:00:00	
update_time	timestamp	NO		0000-00-00 00:00:00	
host	varchar(64)	NO			
gpu_id	smallint	NO		0	
exec_time	float	NO		0	
energy	float	NO		0	
sm_ut_avg	float	NO		0	
sm_ut_max	float	NO		0	
sm_ut_min	float	NO		0	
mem_ut_avg	float	NO		0	
mem_ut_max	float	NO		0	
mem_ut_min	float	NO		0	
gpu_mused_max	float	NO		0	

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_gpu_rusage.clusterid	grid_jobs.clusterid
grid_jobs_gpu_rusage.jobid	grid_jobs.jobid
grid_jobs_gpu_rusage.indexid	grid_jobs.indexid
grid_jobs_gpu_rusage.submit_time	grid_jobs.submit_time
grid_jobs_gpu_rusage.clusterid	grid_hosts_resources.clusterid
grid_jobs_gpu_rusage.host	grid_hosts_resources.host
grid_jobs_gpu_rusage.clusterid	grid_hostinfo_gpu.clusterid
grid_jobs_gpu_rusage.host	grid_hostinfo_gpu.host
grid_jobs_gpu_rusage.gpu_id	grid_hostinfo_gpu.gpu_id

grid_jobs_host_rusage

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
jobid	bigint	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
update_time	timestamp	NO	PRI	0000-00-00 00:00:00	
host	varchar(64)	NO	PRI		
utime	float	NO		0	
stime	float	NO		0	
mem	float	NO		0	
swap	float	NO		0	
processes	int	NO		0	

Entity relationships:

This table contains the LSF data from a job running on an execution host. It is related to the [grid_jobs](#) table by way of the [clusterid](#), jobid, indexid, and submit_time fields. This table is also related to all the grid_hosts_* tables by way of the [clusterid](#) and host fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_jobhosts

Table schema:

Field	Type	Null	Key	Default	Extra
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
clusterid	int unsigned	NO	PRI	0	
exec_host	varchar(64)	NO	PRI		
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
processes	int	NO		0	
ngpus	mediumint	NO		0	
isborrowed	tinyint unsigned	NO		0	

Entity relationships:

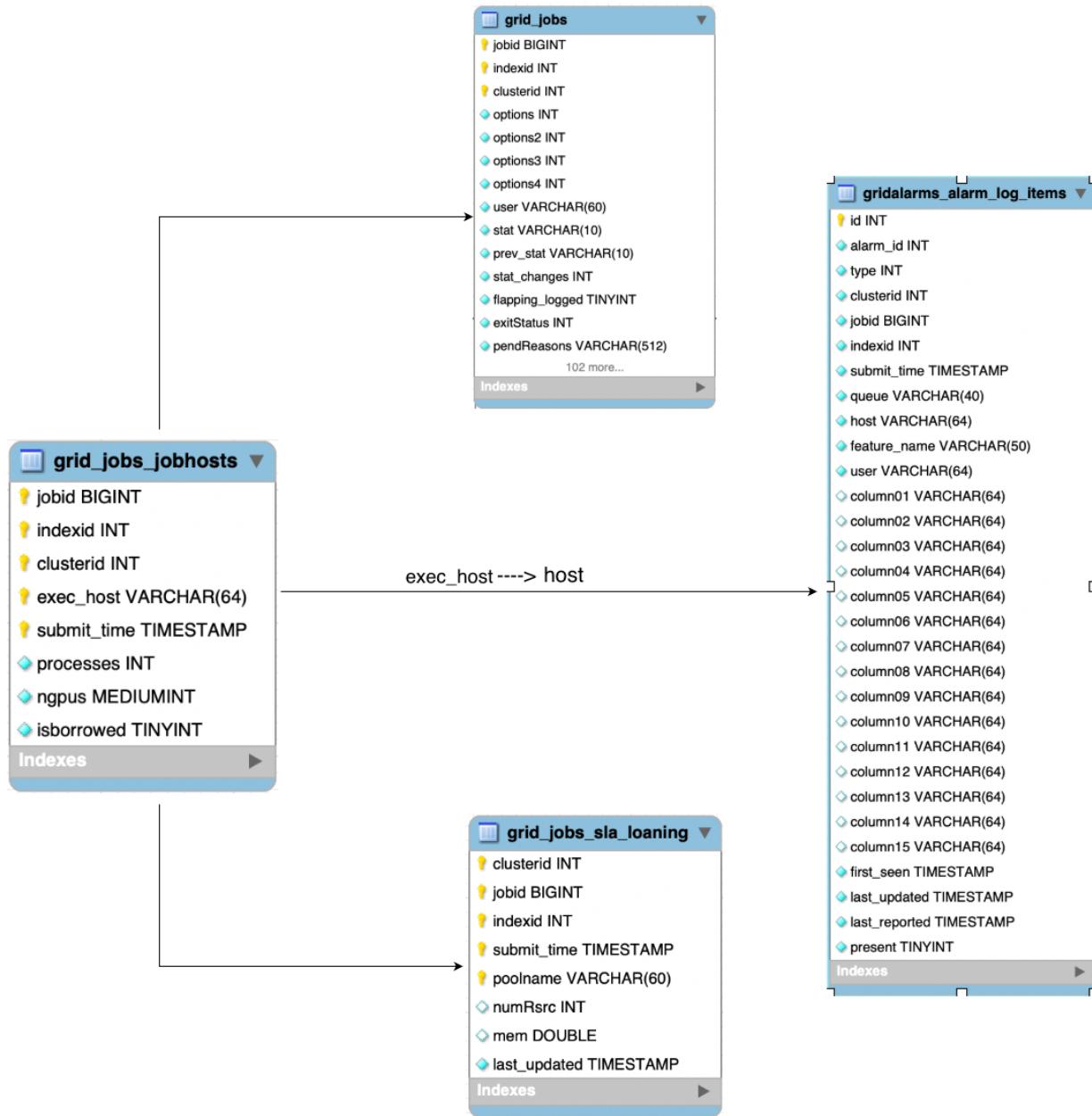


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_jobhosts.clusterid	grid_jobs.clusterid
grid_jobs_jobhosts.jobid	grid_jobs.jobid
grid_jobs_jobhosts.indexid	grid_jobs.indexid
grid_jobs_jobhosts.submit_time	grid_jobs.submit_time
grid_jobs_jobhosts.clusterid	gridalarms_alarm_log_items.clusterid
grid_jobs_jobhosts.exec_host	gridalarms_alarm_log_items.host
grid_jobs_jobhosts.clusterid	grid_jobs_sla_loaning.clusterid
grid_jobs_jobhosts.jobid	grid_jobs_sla_loaning.jobid
grid_jobs_jobhosts.indexid	grid_jobs_sla_loaning.indexid
grid_jobs_jobhosts.submit_time	grid_jobs_sla_loaning.submit_time

grid_jobs_jobhosts_finished

Table schema:

Field	Type	Null	Key	Default	Extra
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
clusterid	int unsigned	NO	PRI	0	
exec_host	varchar(64)	NO	PRI		
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
processes	int	NO		0	
ngpus	mediumint	NO		0	
isborrowed	tinyint unsigned	NO		0	

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_jobhosts_finished.clusterid	grid_jobs_finished.clusterid
grid_jobs_jobhosts_finished.jobid	grid_jobs_finished.jobid
grid_jobs_jobhosts_finished.indexid	grid_jobs_finished.indexid
grid_jobs_jobhosts_finished.submit_time	grid_jobs_finished.submit_time

grid_jobs_pendhist_daily

Table schema:

Field	Type	Null	Key	Default	Extra
reason	int unsigned	NO	MUL	NULL	
subreason	varchar(40)	NO			
detail_type	varchar(15)	NO			
clusterid	int unsigned	NO	MUL	NULL	
stat	varchar(5)	NO	MUL	NULL	
projectName	varchar(256)	NO	MUL	NULL	
queue	varchar(40)	NO	MUL	NULL	
user	varchar(60)	NO	MUL	NULL	
total_pend	int unsigned	NO		NULL	
total_slots	int unsigned	NO		NULL	
year_day	int	NO	MUL	2011001	

Entity relationships:

This is a daily table populated by the extract, transform, and load (ETL) process to aggregate pending job data from the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_pendhist_hourly

Table schema:

Field	Type	Null	Key	Default	Extra
reason	int unsigned	NO	MUL	NULL	
subreason	varchar(40)	NO			
detail_type	varchar(15)	NO			
clusterid	int unsigned	NO	MUL	NULL	
stat	varchar(5)	NO	MUL	NULL	
projectName	varchar(256)	NO	MUL	NULL	
queue	varchar(40)	NO	MUL	NULL	
user	varchar(60)	NO	MUL	NULL	
total_pend	int unsigned	NO		NULL	
total_slots	int unsigned	NO		NULL	
date_recorded	timestamp	NO	MUL	0000-00-00 00:00:00	

Entity relationships:

This is an hourly table populated by the extract, transform, and load (ETL) process to aggregate pending job data from the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_pendhist_yesterday

Table schema:

Field	Type	Null	Key	Default	Extra
reason	int unsigned	NO	MUL	NULL	
subreason	varchar(40)	NO			
detail_type	varchar(15)	NO			
clusterid	int unsigned	NO	MUL	NULL	
stat	varchar(5)	NO	MUL	NULL	
projectName	varchar(256)	NO	MUL	NULL	
queue	varchar(40)	NO	MUL	NULL	
user	varchar(60)	NO	MUL	NULL	
total_pend	int unsigned	NO		NULL	
total_slots	int unsigned	NO		NULL	
date_recorded	timestamp	NO	MUL	0000-00-00 00:00:00	

Entity relationships:

This is a table populated by the extract, transform, and load (ETL) process to aggregate pending job data from the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_pendreason_maps

Table schema:

Field	Type	Null	Key	Default	Extra
issusp	tinyint unsigned	NO	PRI	0	
reason_code	int unsigned	NO	PRI	0	
sub_reason_code	varchar(40)	NO	PRI		
reason	varchar(256)	NO			

Entity relationships:

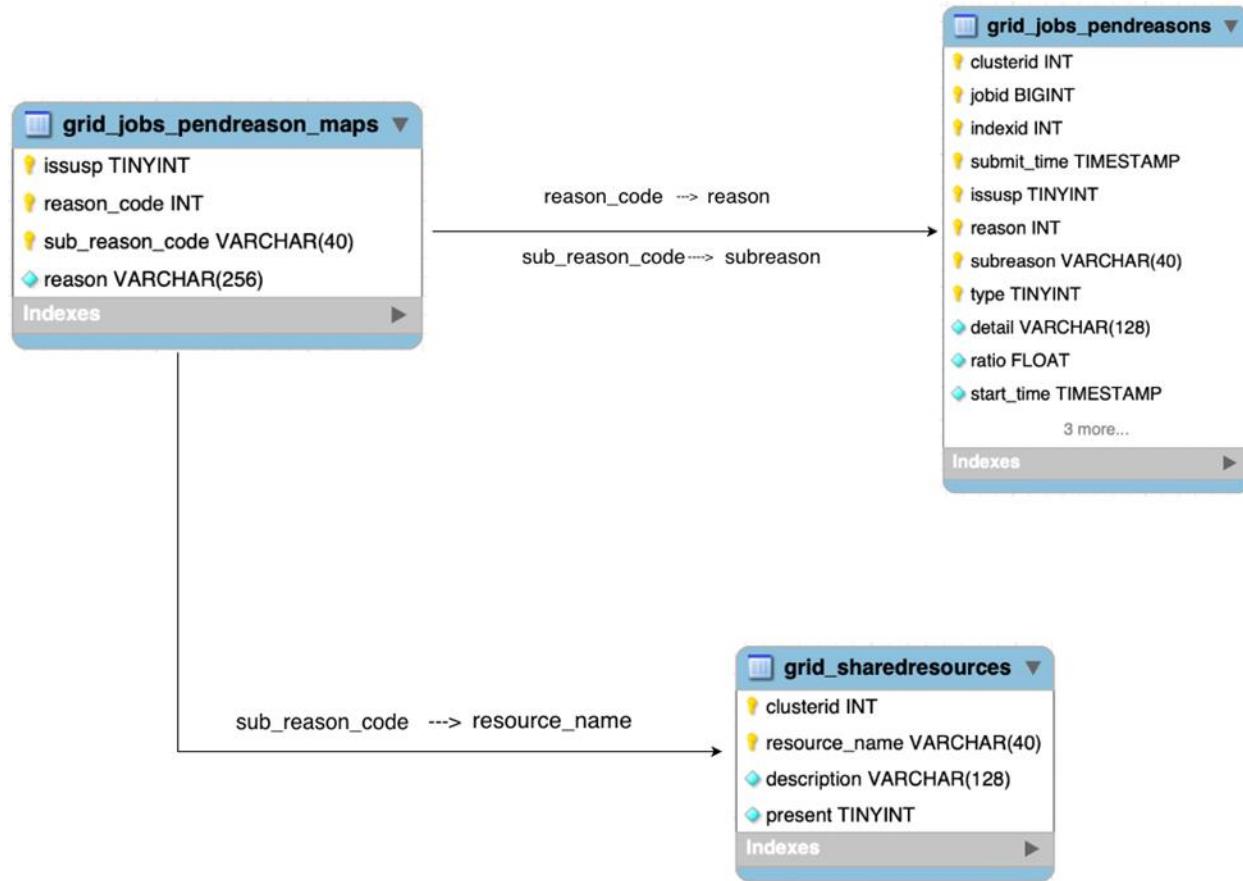


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_pendreason_maps.reason_code	grid_jobs_pendreasons.reason
grid_jobs_pendreason_maps.issusp	grid_jobs_pendreasons.issusp
grid_jobs_pendreason_maps.sub_reason_code	grid_jobs_pendreasons.subreason
grid_jobs_pendreason_maps.sub_reason_code	grid_sharedresources.resource_name

grid_jobs_pendreasons

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
issusp	tinyint unsigned	NO	PRI	0	
reason	int unsigned	NO	PRI	0	
subreason	varchar(40)	NO	PRI		
type	tinyint unsigned	NO	PRI	0	
detail	varchar(128)	NO			
ratio	float	NO		0	
start_time	timestamp	NO		0000-00-00 00:00:00	
end_time	timestamp	NO	PRI	0000-00-00 00:00:00	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP
present	tinyint unsigned	NO		1	

Entity relationships:

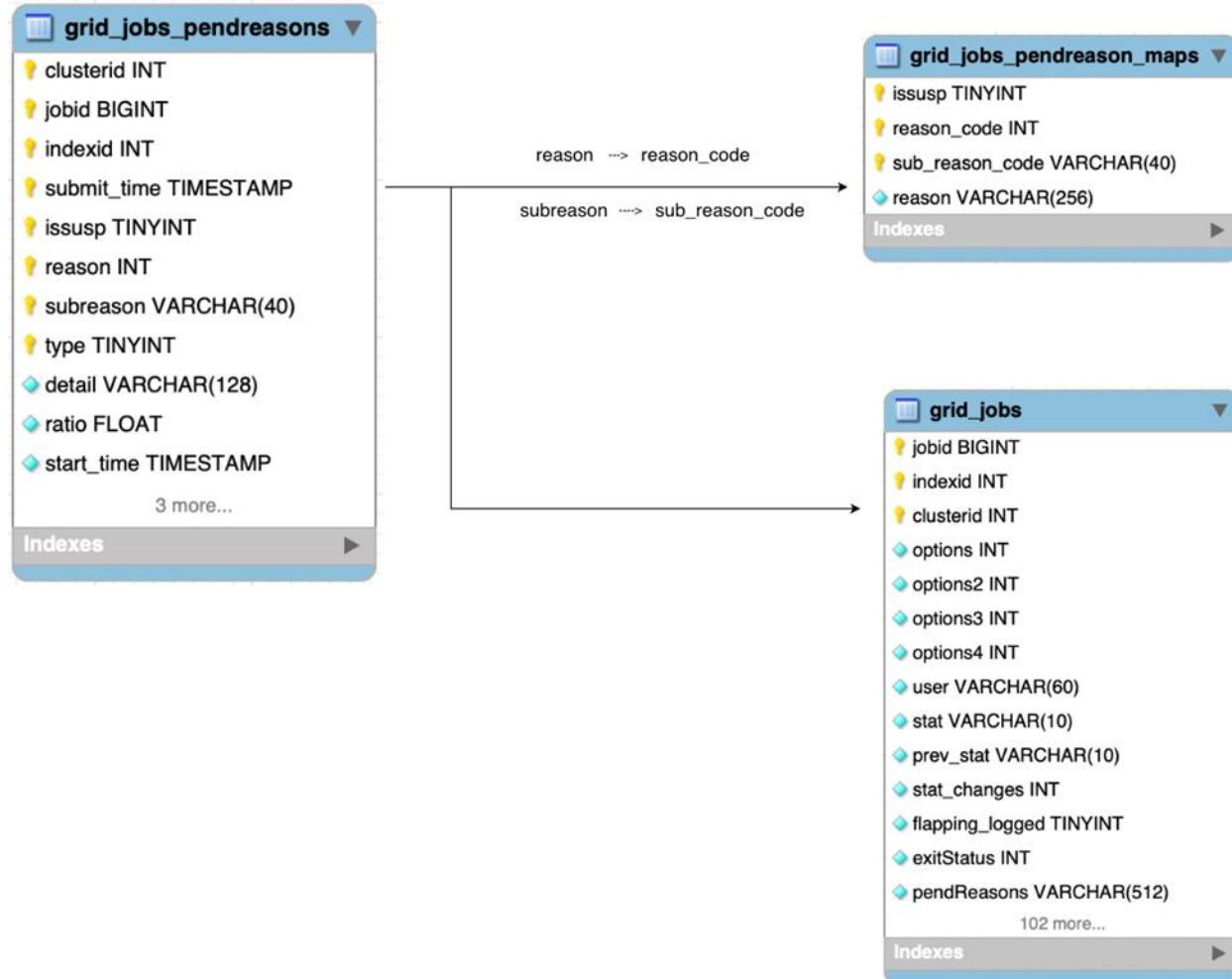


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_pendreasons.reason	grid_jobs_pendreason_maps.reason_code
grid_jobs_pendreasons.issusp	grid_jobs_pendreason_maps.issusp
grid_jobs_pendreasons.subreason	grid_jobs_pendreason_maps.sub_reason_code
grid_jobs_pendreasons.clusterid	grid_jobs.clusterid
grid_jobs_pendreasons.jobid	grid_jobs.jobid
grid_jobs_pendreasons.indexid	grid_jobs.indexid
grid_jobs_pendreasons.submit_time	grid_job.submit_time

grid_jobs_pendreasons_finished

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
issusp	tinyint unsigned	NO	PRI	0	
reason	int unsigned	NO	PRI	0	
subreason	varchar(40)	NO	PRI		
type	tinyint unsigned	NO	PRI	0	
detail	varchar(128)	NO			
ratio	float	NO		0	
start_time	timestamp	NO		0000-00-00 00:00:00	
end_time	timestamp	NO	PRI	0000-00-00 00:00:00	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP
present	tinyint unsigned	NO		1	

Entity relationships:

This table is a copy of the data in the [grid_jobs_pendreasons](#) table, where the job is finished.

Table sand field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_processes

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
host	varchar(64)	NO	PRI		
PID	int unsigned	NO	PRI	0	
PGID	int unsigned	NO		0	
mem	double	YES		NULL	
swap	double	YES		NULL	
utime	double	YES		NULL	
stime	double	YES		NULL	
first_seen	timestamp	NO		0000-00-00 00:00:00	
last_seen	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships:

This table contains the processing information for processes that are started by jobs. It is related to the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_queues

Table schema:

Field	Type	Null	Key	Default	Extra
queue	varchar(60)	NO	PRI		
clusterid	int unsigned	NO	PRI	0	
present	tinyint unsigned	NO		1	

Entity relationships:

This table is for tracking queue removal. It is related to all the `grid_queues*` tables and to the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_reqhosts

Table schema:

Field	Type	Null	Key	Default	Extra
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
clusterid	int unsigned	NO	PRI	0	
host	varchar(64)	NO	PRI		
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	

Entity relationships:

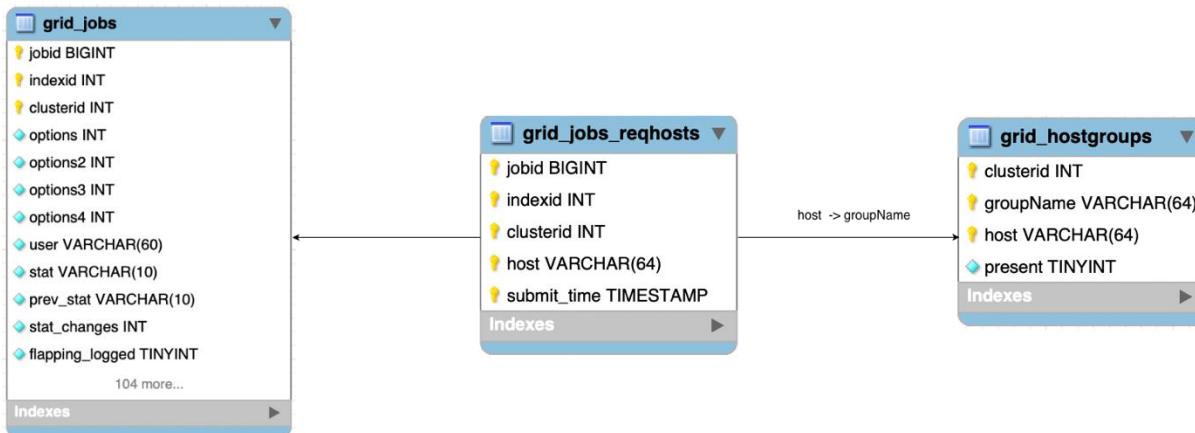


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_reqhosts.clusterid	grid_jobs.clusterid
grid_jobs_reqhosts.jobid	grid_jobs.jobid
grid_jobs_reqhosts.indexid	grid_jobs.indexid
grid_jobs_reqhosts.submit_time	grid_jobs.submit_time
grid_jobs_reqhosts.host	grid_hostgroups.groupName
grid_jobs_reqhosts.host	grid_hostgroups.host
grid_jobs_reqhosts.clusterid	grid_hostgroups.clusterid

grid_jobs_reqhosts_finished

Table schema:

Field	Type	Null	Key	Default	Extra
jobid	bigint unsigned	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
clusterid	int unsigned	NO	PRI	0	
host	varchar(64)	NO	PRI		
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	

Entity relationships:

This table is populated by data from the [grid_jobs_reqhosts](#) table, when the associated job is finished. It has the same relationships as the [grid_jobs_reqhosts](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_runtime

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
jobid	int unsigned	NO	PRI	0	
indexid	varchar(45)	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
rlimit_max_wallt	int unsigned	NO	PRI	0	
runtimeEstimation	int unsigned	NO	PRI	0	
run_time	int unsigned	NO		0	
type	int unsigned	NO	PRI	0	
notified	tinyint unsigned	NO		0	
present	tinyint unsigned	NO		1	

Entity relationships:

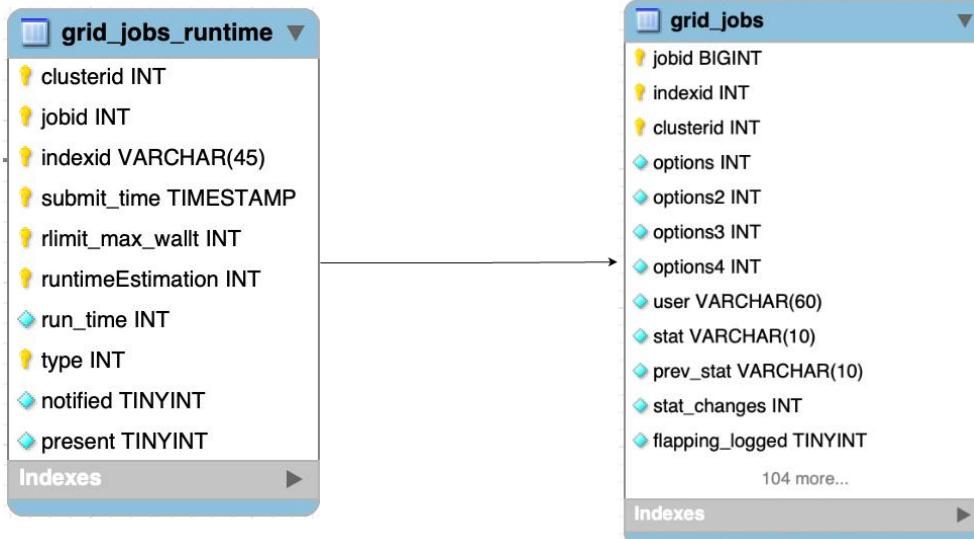


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_runtime.clusterid	grid_jobs.clusterid
grid_jobs_runtime.jobid	grid_jobs.jobid
grid_jobs_runtime.indexid	grid_jobs.indexid
grid_jobs_runtime.submit_time	grid_jobs.submit_time

grid_jobs_rusage

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
jobid	bigint	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
update_time	timestamp	NO	PRI	0000-00-00 00:00:00	
utime	float	NO		0	
stime	float	NO		0	
avgCpuEffi	decimal(9,5)	NO		0.00000	
mem	float	NO		0	
swap	float	NO		0	
mem_reserved	float	NO		0	
npids	int unsigned	NO		0	
npgids	int unsigned	NO		0	
nthreads	int unsigned	NO		0	
num_cpus	int unsigned	NO		0	
pids	varchar(1024)	NO			
pgids	varchar(40)	NO			

Entity relationships:

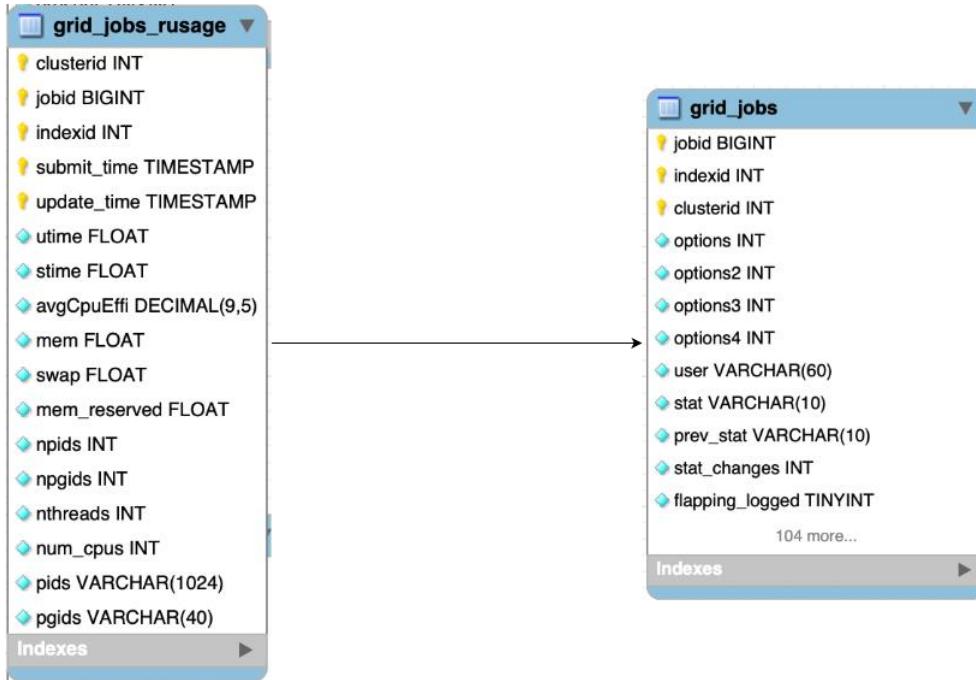


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

<code>grid_jobs_rusage.clusterid</code>	<code>grid_jobs.clusterid</code>
<code>grid_jobs_rusage.indexid</code>	<code>grid_jobs.indexid</code>
<code>grid_jobs_rusage.submit_time</code>	<code>grid_jobs.submit_time</code>

grid_jobs_sla_loaning

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
jobid	bigint	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
poolname	varchar(60)	NO	PRI		
numRsrc	int	YES		0	
mem	double	YES		0	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships:

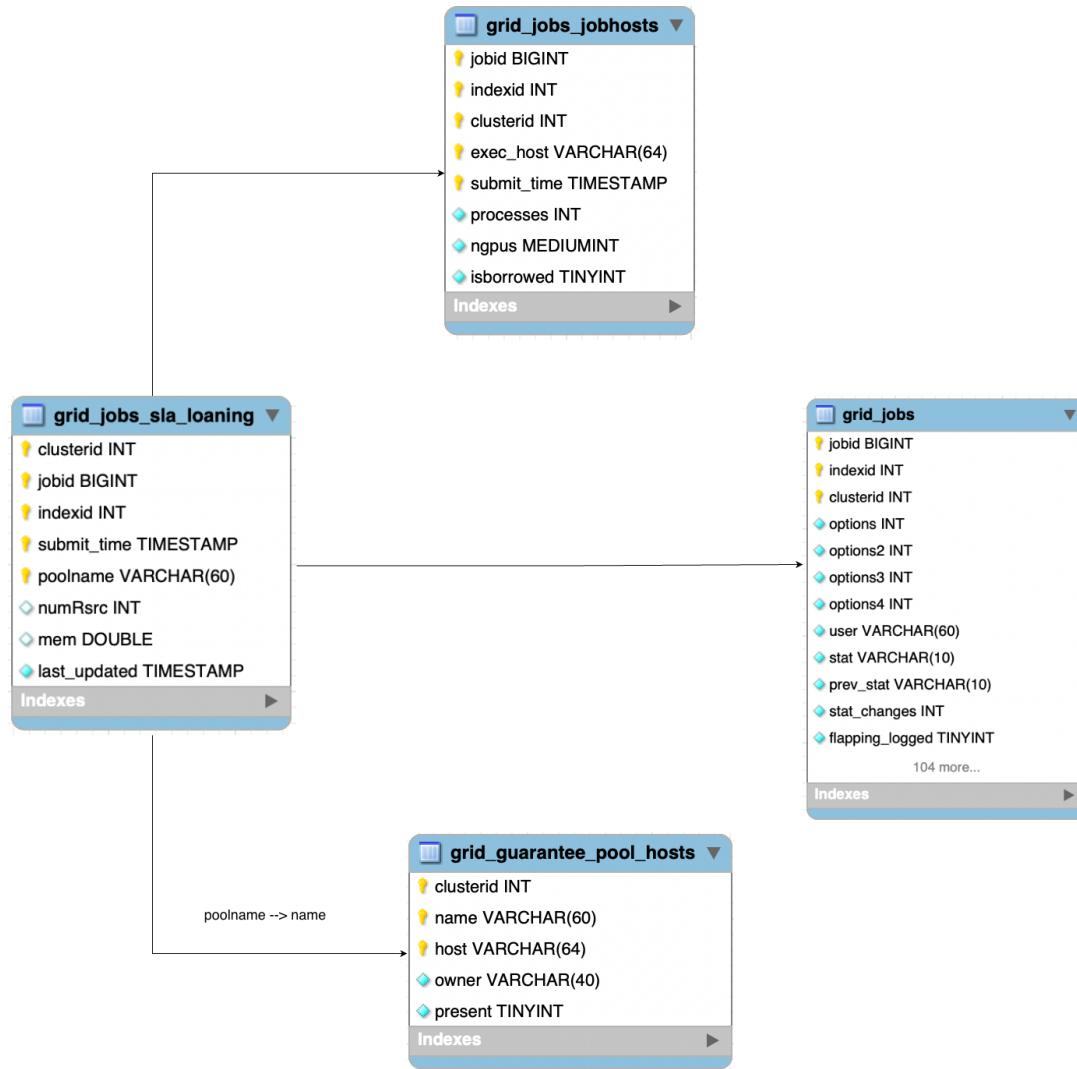


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_sla_loaning.clusterid	grid_jobs.clusterid
grid_jobs_sla_loaning.jobid	grid_jobs.jobid
grid_jobs_sla_loaning.indexid	grid_jobs.indexid
grid_jobs_sla_loaning.submit_time	grid_jobs.submit_time
grid_jobs_sla_loaning.clusterid	grid_jobs_jobhosts.clusterid
grid_jobs_sla_loaning.jobid	grid_jobs_jobhosts.jobid
grid_jobs_sla_loaning.indexid	grid_jobs_jobhosts.indexid
grid_jobs_sla_loaning.submit_time	grid_jobs_jobhosts.submit_time
grid_jobs_sla_loaning.clusterid	grid_guarantee_pool_hosts.clusterid
grid_jobs_sla_loaning.poolname	grid_guarantee_pool_hosts.name

grid_jobs_sla_loaning_finished

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
jobid	bigint	NO	PRI	0	
indexid	int unsigned	NO	PRI	0	
submit_time	timestamp	NO	PRI	0000-00-00 00:00:00	
poolname	varchar(60)	NO	PRI		
numRsrc	int	YES		0	
mem	double	YES		0	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships: [Refer to this entity relationship diagram.](#)

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_stats

Table schema:

Field	Type	Null	Key	Default	Extra
stat	varchar(10)	NO	PRI		
clusterid	int unsigned	NO	PRI	0	
present	tinyint unsigned	NO		1	

Entity relationships:

This table contains a list of possible job states. It is not for general use.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_jobs_users

Table schema:

Field	Type	Null	Key	Default	Extra
user	varchar(60)	NO	PRI		
clusterid	int unsigned	NO	PRI	0	
present	tinyint unsigned	NO		1	

Entity relationships:

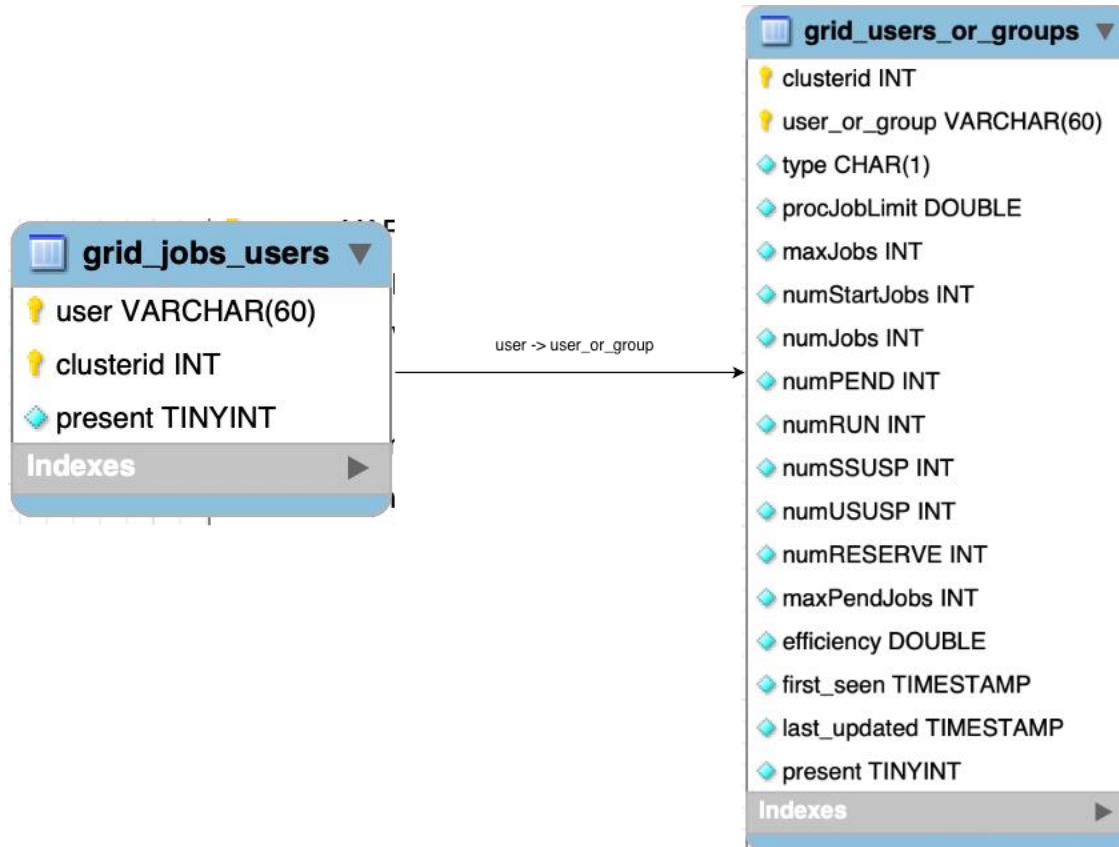


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_jobs_users.clusterid	grid_users_or_groups.clusterid
grid_jobs_users.user	grid_users_or_groups.user_or_group

grid_load

Table schema:

Field	Type	Null	Key	Default	Extra
host	varchar(64)	NO	PRI		
clusterid	int(11)	NO	PRI	0	
status	varchar(20)	NO	MUL		
prev_status	varchar(20)	NO	MUL		
time_in_state	int(10) unsigned	NO		0	
istatus	int(10) unsigned	NO	MUL	0	
r15s	float	NO		0	
r1m	float	NO		0	
r15m	float	NO		0	
ut	float	NO		0	
pg	float	NO		0	
io	float	NO		0	
ls	float	NO		0	
it	float	NO		0	
tmp	float	NO		0	
swp	float	NO		0	
mem	float	NO		0	
present	tinyint(3) unsigned	NO		1	

Entity relationships:

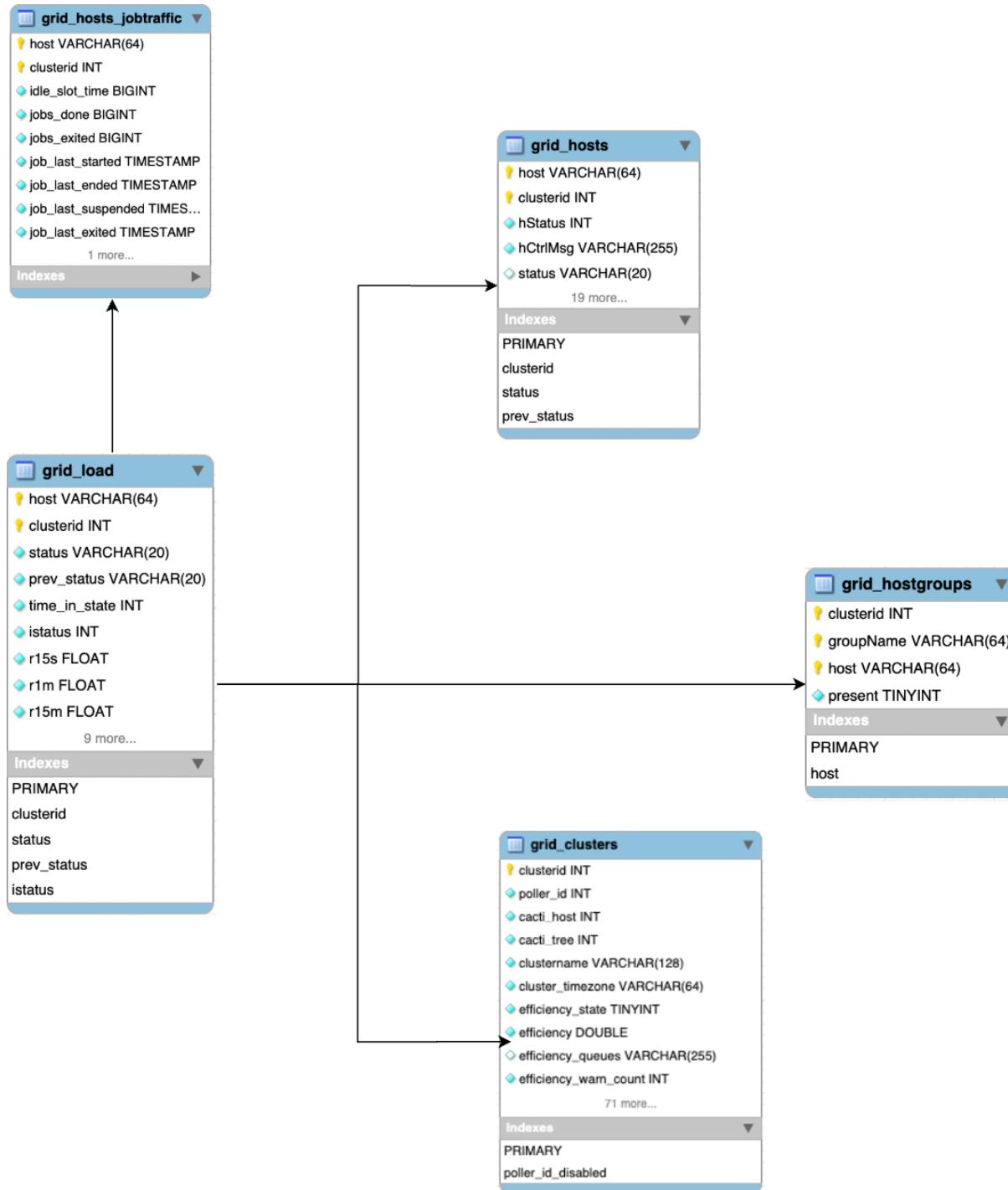


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_load.clusterid	grid_hosts.clusterid
grid_load.host	grid_hosts.host
grid_load.clusterid	grid_hostgroups.clusterid
grid_load.host	grid_hostgroups.host
grid_load.clusterid	grid_clusters.clusterid
grid_load.host	grid_hostinfo.host
grid_load.clusterid	grid_hostinfo.clusterid
grid_load.host	grid_hosts_resources.host
grid_load.clusterid	grid_hosts_resources.clusterid
grid_load.host	host.hostname
grid_load.host	host.clusterid
grid_load.host	grid_hosts_jobtraffic.clusterid
grid_load.host	grid_hosts_jobtraffic.host
grid_load.host	grid_summary_hhist.clusterid
grid_load.host	grid_summary_hhist.host

grid_projects

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
projectName	varchar(256)	NO	PRI	NULL	
numRUN	int unsigned	NO		0	
numPEND	int unsigned	NO		0	
numJOBS	int unsigned	NO		0	
pendJOBS	int unsigned	NO		0	
runJOBS	int unsigned	NO		0	
totalJOBS	int unsigned	NO		0	
efficiency	double	NO		0	
avg_mem	double	NO		0	
max_mem	double	NO		0	
avg_swap	double	NO		0	
max_swap	double	NO		0	
total_cpu	bignum unsigned	NO		0	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED on update CURRENT_TIMESTAMP
present	tinyint unsigned	NO	MUL	1	

Entity relationships:

This table contains LSF project statistics and is populated from the [grid_jobs](#) table.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_projects.clusterid	grid_clusters.clusterid
grid_projects.projectName	grid_metadata.object_id

grid_queues

Table schema:

Field	Type	Null	Key	Default	Extra
queueusername	varchar(60)	NO	PRI		
clusterid	int	NO	PRI	0	
description	varchar(255)	YES		NULL	
priority	int unsigned	NO		0	
nice	int unsigned	NO	MUL	0	
status	varchar(20)	NO	MUL		
reason	varchar(20)	NO	MUL		
numslots	int unsigned	NO		0	
maxjobs	varchar(10)	NO			
userJobLimit	varchar(20)	NO			
procJobLimit	varchar(5)	NO			
hostJobLimit	varchar(5)	NO			
nojobs	int unsigned	NO		0	
pendjobs	int unsigned	NO		0	
runjobs	int unsigned	NO		0	
suspjobs	int unsigned	NO		0	
present	tinyint unsigned	NO		1	
avg_pend_time	int unsigned	NO		0	
max_pend_time	int unsigned	NO		0	
avg_psusp_time	int unsigned	NO		0	
max_psusp_time	int unsigned	NO		0	
avg_run_time	int unsigned	NO		0	
max_run_time	int unsigned	NO		0	
avg_ususp_time	int unsigned	NO		0	
max_ususp_time	int unsigned	NO		0	
avg_ssusp_time	int unsigned	NO		0	
max_ssusp_time	int unsigned	NO		0	
avg_unkwn_time	int unsigned	NO		0	
max_unkwn_time	int unsigned	NO		0	
avg_disp_time	int unsigned	NO		0	
max_disp_time	int unsigned	NO		0	
hourly_started_jobs	double	NO		0	
hourly_done_jobs	double	NO		0	
hourly_exit_jobs	double	NO		0	
daily_started_jobs	double	NO		0	
daily_done_jobs	double	NO		0	
daily_exit_jobs	double	NO		0	
efficiency	double	NO		0	

avg_mem	double	NO	0
max_mem	double	NO	0
avg_swap	double	NO	0
max_swap	double	NO	0
total_cpu	double	NO	0
dedicatedSlots	int	NO	0
sharedSlots	int	NO	0
openDedicatedSlots	int	NO	0
openSharedSlots	int	NO	0
windows	varchar(255)	NO	NULL
windowsD	varchar(255)	NO	NULL
hostSpec	varchar(64)	NO	NULL
qAttrib	int	NO	0
qStatus	int unsigned	NO	NULL
userShares	varchar(255)	NO	NULL
defaultHostSpec	varchar(64)	NO	NULL
procLimit	varchar(5)	NO	
admins	varchar(255)	NO	NULL
preCmd	varchar(255)	NO	NULL
postCmd	varchar(255)	NO	NULL
requeueEValues	varchar(64)	NO	NULL
resReq	varchar(255)	NO	NULL
slotHoldTime	int unsigned	NO	NULL
sndJobsTo	varchar(255)	NO	NULL
rcvJobsFrom	varchar(255)	NO	NULL
resumeCond	varchar(255)	NO	NULL
stopCond	varchar(255)	NO	NULL
jobStarter	varchar(255)	NO	NULL
suspendActCmd	varchar(255)	NO	NULL
resumeActCmd	varchar(255)	NO	NULL
terminateActCmd	varchar(255)	NO	NULL
preemption	varchar(255)	NO	NULL
maxRschedTime	int unsigned	NO	NULL
maxJobRequeue	int unsigned	NO	NULL
chkpntDir	varchar(255)	NO	NULL
chkpntPeriod	int	NO	0
imptJobBklg	int	NO	0
chunkJobSize	int unsigned	NO	NULL
minProcLimit	int	NO	0
defProcLimit	int	NO	0
fairshareQueues	varchar(255)	NO	NULL
defExtSched	varchar(255)	NO	NULL
mandExtSched	varchar(255)	NO	NULL
slotShare	int	NO	0
slotPool	varchar(255)	NO	NULL
underRCond	int unsigned	NO	NULL
overRCond	int unsigned	NO	NULL
idleCond	double	NO	NULL
underRJobs	int unsigned	NO	NULL
overRJobs	int unsigned	NO	NULL
idleJobs	int unsigned	NO	NULL
warningTimePeriod	int	NO	0
warningAction	varchar(255)	NO	NULL
qCtrlMsg	varchar(255)	NO	NULL
rlimit_max_cpu	int unsigned	NO	0
rlimit_max_wallt	int unsigned	NO	0
rlimit_max_swap	float unsigned	NO	0
rlimit_max_fsize	float unsigned	NO	0
rlimit_max_data	float unsigned	NO	0
rlimit_max_stack	float unsigned	NO	0
rlimit_max_core	float unsigned	NO	0
rlimit_max_rss	float unsigned	NO	0
last_updated	timestamp	NO	CURRENT_TIMESTAMP DEFAULT_GENERATED on update CURRENT_TIMESTAMP

Entity relationships:

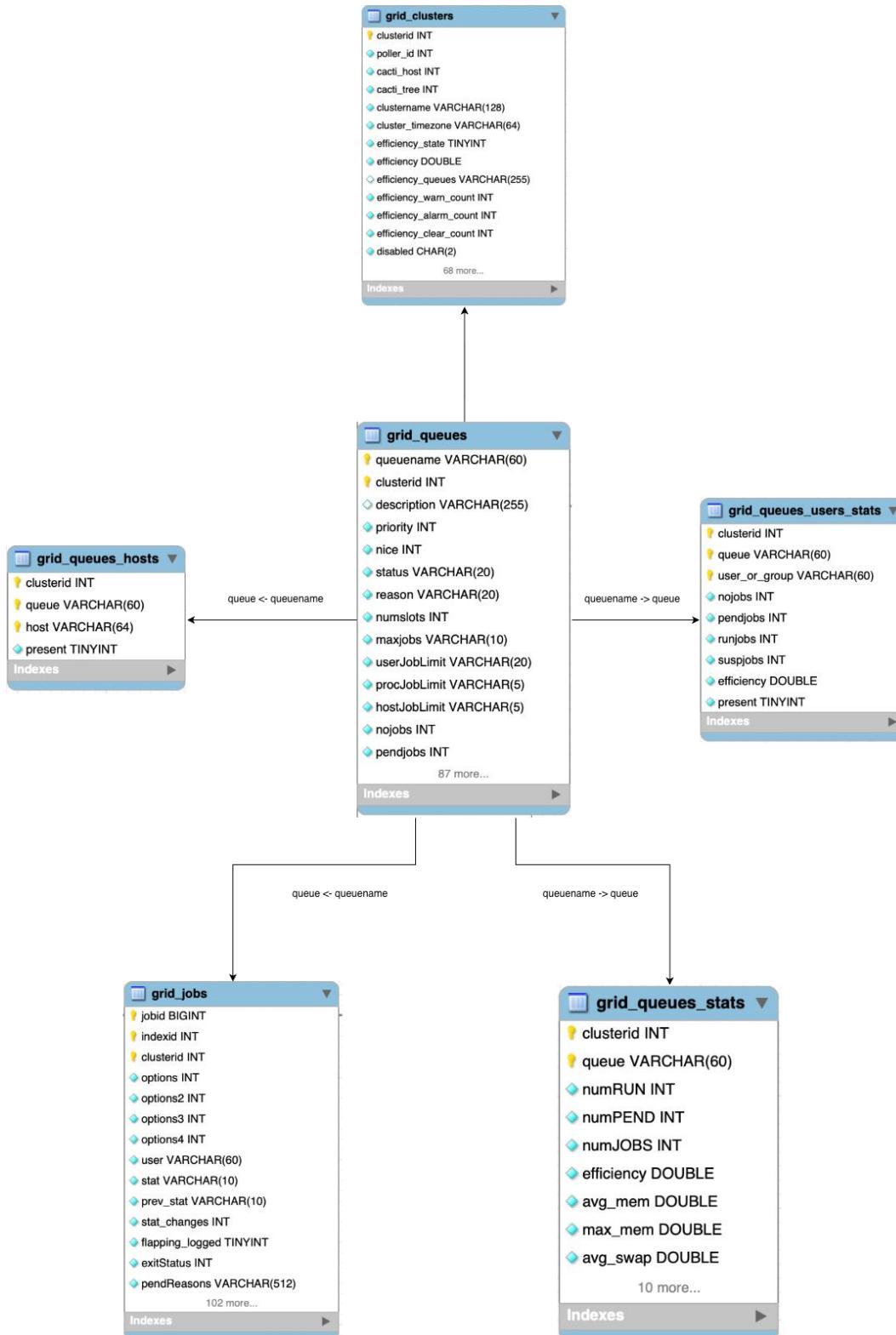


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_queues.queuename	grid_queues_hosts.queue
grid_queues.clusterid	grid_queues_hosts.clusterid
grid_queues.clusterid	grid_clusters.clusterid
grid_queues.queuename	grid_queues_users_stats.queue
grid_queues.clusterid	grid_queues_users_stats.clusterid
grid_queues.queuename	grid_jobs.queue
grid_queues.clusterid	grid_jobs.clusterid
grid_queues.queuename	grid_queues_stats.queue
grid_queues.clusterid	grid_queues_stats.clusterid

grid_queues_distrib

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
host	varchar(64)	NO	PRI		
admin	tinyint	YES		0	
idle	tinyint	YES		0	
interactive	tinyint	YES		0	
night	tinyint	YES		0	
normal	tinyint	YES		0	
owners	tinyint	YES		0	
priority	tinyint	YES		0	
short	tinyint	YES		0	

Entity relationships:

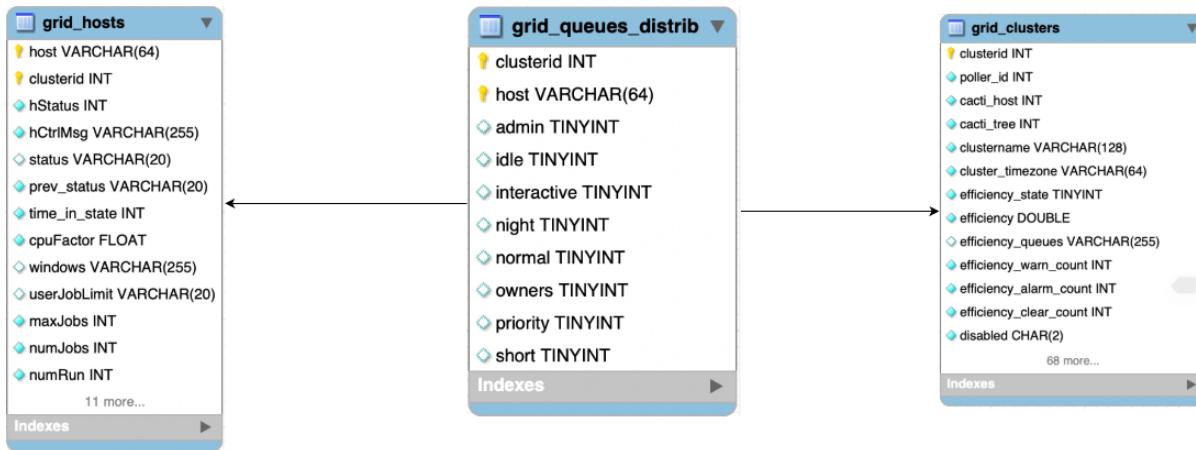


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_queues_distrib.clusterid	grid_clusters.clusterid
grid_queues_distrib.host	grid_hosts.host
grid_queues_distrib.clusterid	grid_hosts.clusterid

grid_queues_hosts

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
queue	varchar(60)	NO	PRI		
host	varchar(64)	NO	PRI		
present	tinyint unsigned	NO		1	

Entity relationships:

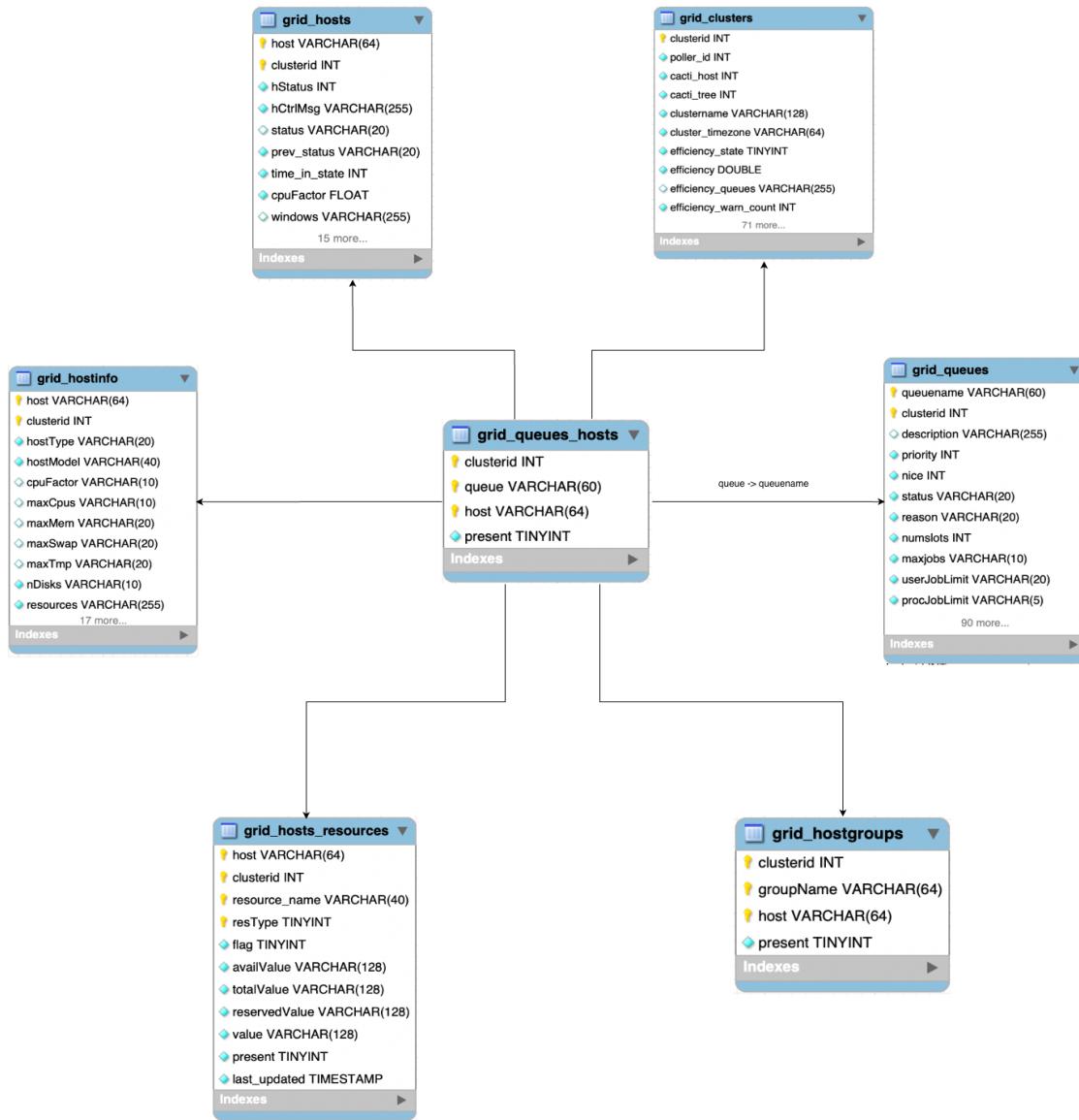


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_queues_hosts.queue	grid_queues.queuename
grid_queues_hosts.clusterid	grid_queues.clusterid
grid_queues_hosts.clusterid	grid_clusters.clusterid
grid_queues_hosts.host	grid_hosts.host
grid_queues_hosts.clusterid	grid_hosts.clusterid
grid_queues_hosts.host	grid_hostinfo.host
grid_queues_hosts.clusterid	grid_hostinfo.clusterid
grid_queues_hosts.host	grid_hosts_resources.host
grid_queues_hosts.clusterid	grid_hosts_resources.clusterid
grid_queues_hosts.host	grid_hostgroups.host
grid_queues_hosts.clusterid	grid_hostgroups.clusterid

grid_queues_shares

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
queue	varchar(60)	NO	PRI	NULL	
user_or_group	varchar(60)	NO	PRI		
shareAcctPath	varchar(200)	NO	PRI		
shares	int unsigned	NO		NULL	
priority	double	NO		NULL	
parent_slots	int unsigned	YES		NULL	
leaf_share	double	YES		NULL	
started	int unsigned	NO		NULL	
reserved	int unsigned	NO		NULL	
cpu_time	double	NO		NULL	
run_time	bigint unsigned	NO		NULL	
pend_jobs	int unsigned	YES		NULL	
pend_slots	int unsigned	YES		NULL	
run_jobs	int unsigned	YES		NULL	
run_slots	int unsigned	YES		NULL	
relative_share	double	YES		NULL	
slot_share	int unsigned	YES		NULL	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED
present	tinyint unsigned	NO		1	

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_queues_shares.user_or_group	grid_users_or_groups.user_or_group
grid_queues_shares.clusterid	grid_users_or_groups.clusterid
grid_queues_shares.user_or_group	grid_queues_users_stats.user_or_group
grid_queues_shares.clusterid	grid_queues_users_stats.clusterid
grid_queues_shares.queue	grid_queues_users_stats.queue

grid_queues_stats

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
queue	varchar(60)	NO	PRI		
numRUN	int unsigned	NO		0	
numPEND	int unsigned	NO		0	
numJOBS	int unsigned	NO		0	
efficiency	double	NO		0	
avg_mem	double	NO		0	
max_mem	double	NO		0	
avg_swap	double	NO		0	
max_swap	double	NO		0	
total_cpu	bigint unsigned	NO		0	
memSlotUtil	double	NO		0	
slotUtil	double	NO		0	
cpuUtil	double	NO		0	
memUsed	bigint unsigned	NO		0	
memRequested	bigint unsigned	NO		0	
memReserved	bigint unsigned	NO		0	
last_updated	timestamp	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED
present	tinyint unsigned	NO	MUL	1	

Entity relationships:

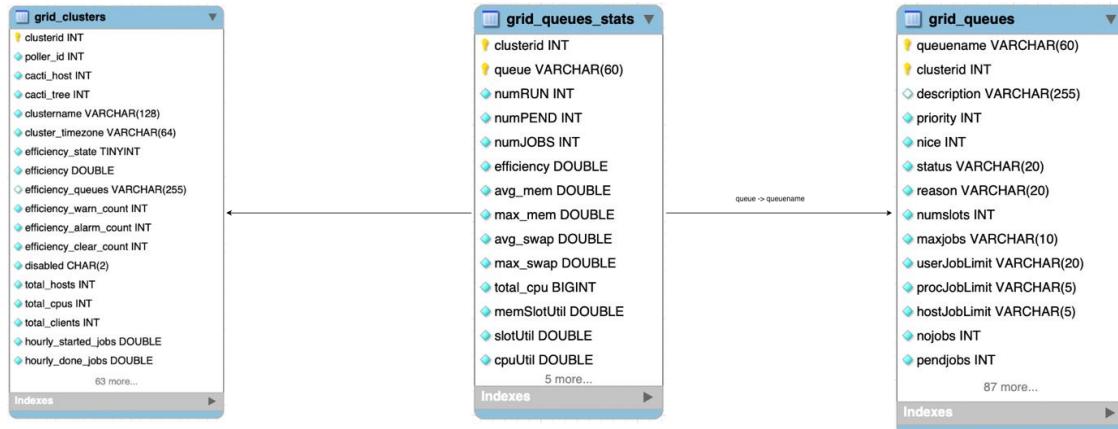


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_queues_stats.queue	grid_queues.queuename
grid_queues_stats.clusterid	grid_queues.clusterid
grid_queues_stats.clusterid	grid_clusters.clusterid

grid_queues_thresholds

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
queue	varchar(60)	NO	PRI	NULL	
loadSched	double	NO		NULL	
loadStop	double	NO		NULL	

Entity relationships:

This table is related all the other `grid_queues*` tables by way of the `clusterid` and `queue` fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_queues_users

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	0	
queue	varchar(60)	NO	PRI		
user	varchar(60)	NO	PRI		
present	tinyint unsigned	NO		1	

Entity relationships:

This table is related all the other `grid_queues*` tables by way of the `clusterid` and `queue` fields.

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

grid_queues_users_stats

Table schema:

Field	Type	Null	Key	Default	Extra
clusterid	int unsigned	NO	PRI	NULL	
queue	varchar(60)	NO	PRI	NULL	
user_or_group	varchar(60)	NO	PRI	NULL	
nojobs	int unsigned	NO		NULL	
pendjobs	int unsigned	NO		NULL	
runjobs	int unsigned	NO		NULL	
suspjobs	int unsigned	NO		NULL	
efficiency	double	NO		NULL	
present	tinyint unsigned	NO		1	

Entity relationships:

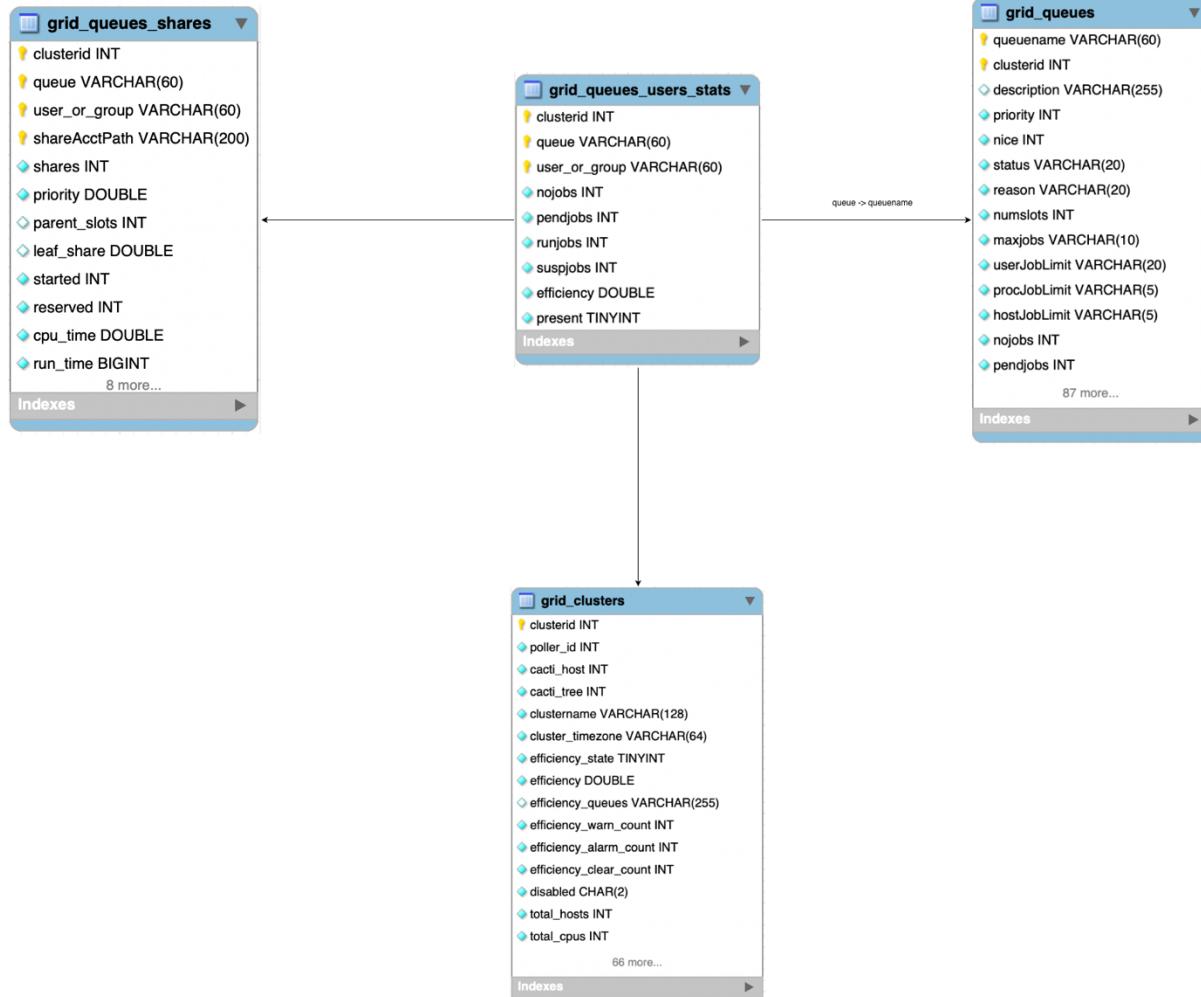


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

grid_queues_users_stats.queue	grid_queues.queuename
grid_queues_users_stats.clusterid	grid_queues.clusterid
grid_queues_users_stats.clusterid	grid_clusters.clusterid
grid_queues_users_stats.user_or_group	grid_queues_shares.user_or_group
grid_queues_users_stats.clusterid	grid_queues_shares.clusterid
grid_queues_users_stats.queue	grid_queues_shares.queue

lic_daily_project_stats

Table schema:

Field	Type	Null	Key	Default	Extra
id	bigint(20)	NO	PRI	NULL	auto_increment
service_id	int(10) unsigned	NO	MUL	0	
feature_name	varchar(50)	NO	MUL	0	
projectName	varchar(50)	NO	MUL		
token_minutes	int(10) unsigned	NO		0	
feature_max_licenses	int(10) unsigned	NO		0	
poll_time	timestamp	NO		0000-00-00 00:00:00	

Entity relationships:

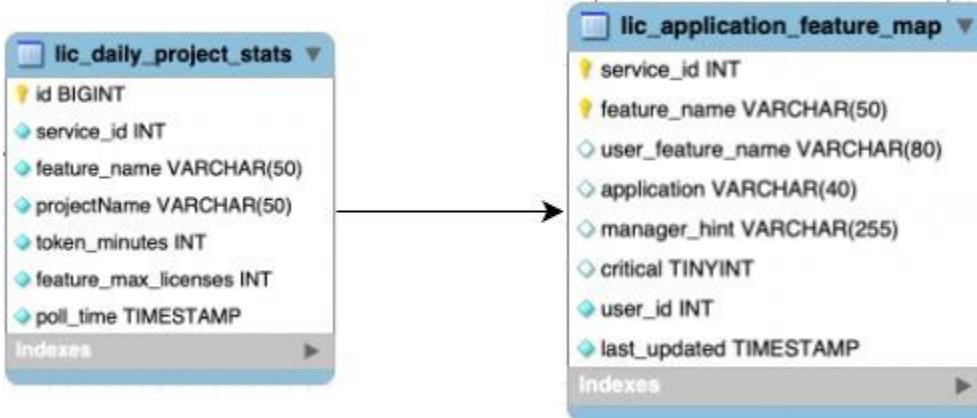


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_daily_project_stats.feature_name	lic_application_feature_map.feature_name
--------------------------------------	--

lic_daily_project_stats_today

Table schema:

Field	Type	Null	Key	Default	Extra
id	bigint(20)	NO	PRI	NULL	auto_increment
service_id	int(10) unsigned	NO	MUL	0	
feature_name	varchar(50)	NO	MUL	0	
projectName	varchar(50)	NO	MUL		
token_minutes	int(10) unsigned	NO		0	
feature_max_licenses	int(10) unsigned	NO		0	
poll_time	timestamp	NO		0000-00-00 00:00:00	

Entity relationships: [Refer to this entity relationship diagram](#).

Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

lic_services

Table schema:

Field	Type	Null	Key	Default	Extra
service_id	int(10) unsigned	NO	PRI	NULL	auto_increment
poller_interval	int(10) unsigned	NO		300	
poller_date	timestamp	NO		0000-00-00 00:00:00	
poller_id	int(10) unsigned	NO		NULL	
poller_trigger	int(11)	NO		0	
server_portatserver	varchar(512)	NO			
server_timezone	varchar(64)	NO		NULL	
server_name	varchar(256)	NO			
server_vendor	varchar(60)	NO			
server_licensetype	varchar(20)	YES		NULL	
server_licensefile	varchar(255)	NO			
server_department	varchar(45)	YES		NULL	
server_location	varchar(100)	NO	MUL		
server_region	varchar(100)	NO	MUL		
server_support_info	varchar(255)	NO			
enable_checkouts	varchar(20)	NO			
timeout	int(10) unsigned	NO		1	
errno	int(10)	NO		0	
disabled	varchar(2)	NO			
options_path	varchar(2048)	NO			
retries	int(10) unsigned	NO		3	
status	int(10) unsigned	NO		0	
status_event_count	int(10) unsigned	NO		0	
cur_time	decimal(10,5)	NO		0.00000	
min_time	decimal(10,5)	NO		0.00000	
max_time	decimal(10,5)	NO		0.00000	
avg_time	decimal(10,5)	NO		0.00000	
total_polls	int(10) unsigned	NO		0	
failed_polls	int(10) unsigned	NO		0	
status_fail_date	timestamp	NO		0000-00-00 00:00:00	
status_rec_date	timestamp	NO		0000-00-00 00:00:00	
availability	decimal(8,5)	NO		0.00000	
server_subisv	varchar(40)	NO			
file_path	varchar(255)	NO			
prefix	varchar(255)	NO			

Entity relationships:

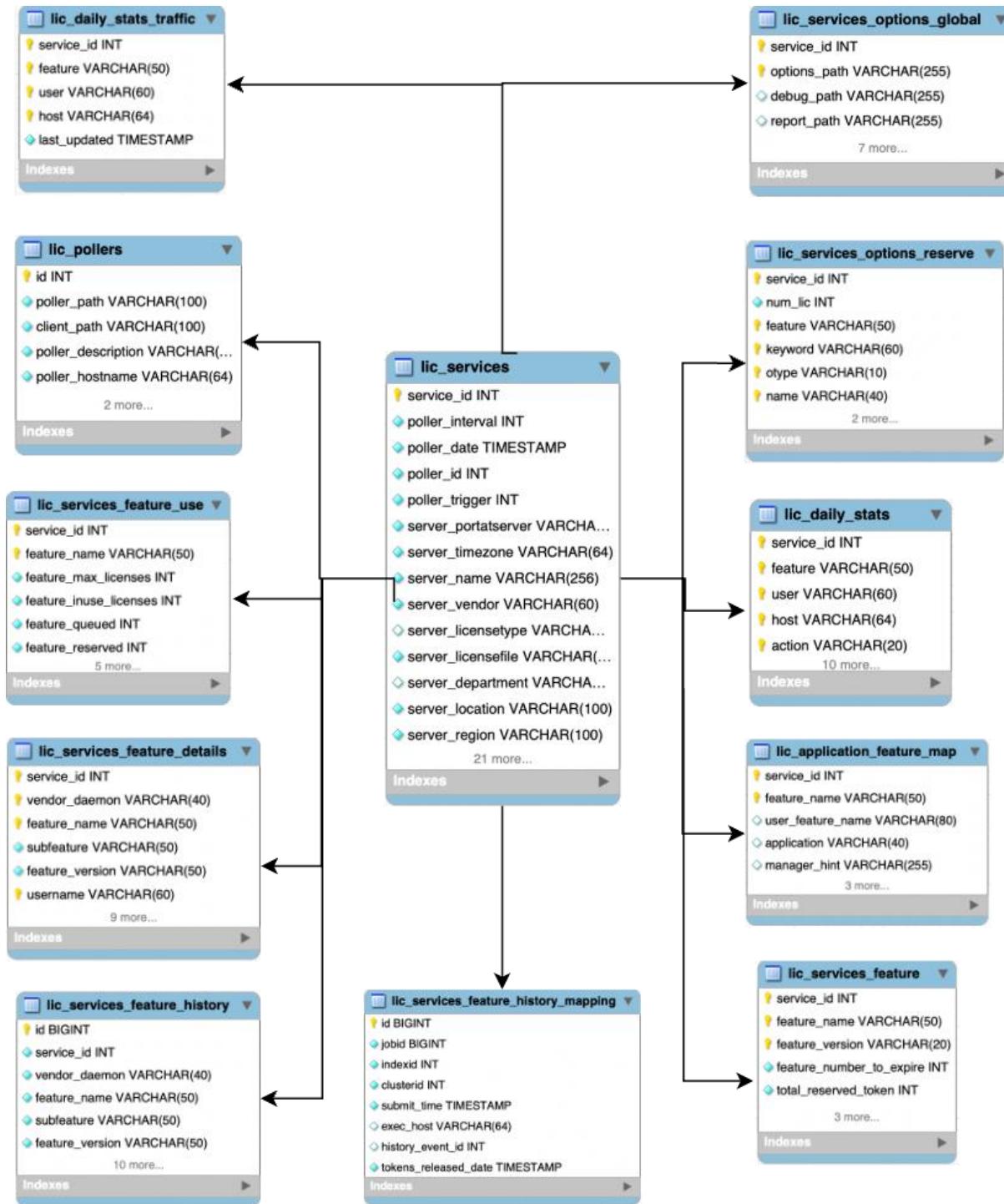


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_services.service_id	lic_daily_stats_traffic.service_id
lic_services.poller_id	lic_pollers.id
lic_services.service_id	lic_services_feature_use.service_id
lic_services.service_id	lic_services_feature_details.service_id
lic_services.service_id	lic_services_feature_history_mapping.service_id
lic_services.service_id	lic_services_feature.service_id
lic_services.service_id	lic_application_feature_map.service_id
lic_services.service_id	lic_daily_stats.service_id
lic_services.service_id	lic_services_options_reserve.service_id
lic_services.service_id	lic_services_options_global.service_id

lic_services_feature

Table schema:

Field	Type	Null	Key	Default	Extra
service_id	int unsigned	NO	PRI	0	
feature_name	varchar(50)	NO	PRI		
feature_version	varchar(20)	NO	PRI		
feature_number_to_expire	int unsigned	NO		0	
total_reserved_token	int unsigned	NO		0	
feature_expiration_date	timestamp	NO	PRI	0000-00-00 00:00:00	
vendor_daemon	varchar(45)	NO	PRI		
present	tinyint unsigned	NO		1	

Entity relationships:

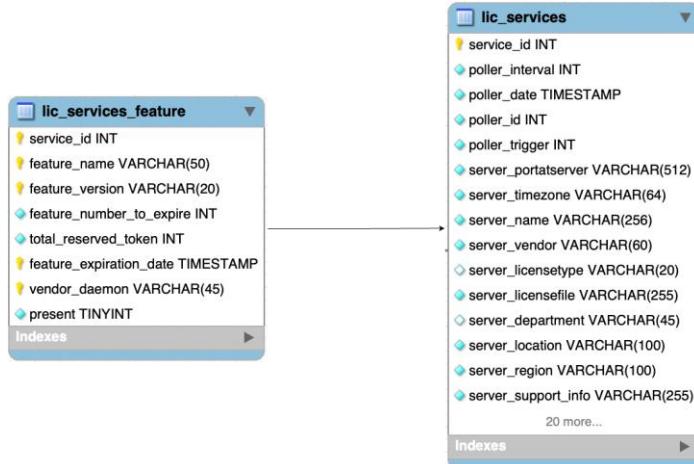


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_services_feature.service_id	lic_services.service_id
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lic_services_feature_details

Table schema:

Field	Type	Null	Key	Default	Extra
service_id	int(10) unsigned	NO	PRI	0	
vendor_daemon	varchar(40)	NO	PRI		
feature_name	varchar(50)	NO	PRI	0	
subfeature	varchar(50)	NO			
feature_version	varchar(50)	NO			
username	varchar(60)	NO	PRI		
groupname	varchar(60)	NO	PRI		
hostname	varchar(64)	NO	PRI		
chkoutid	varchar(20)	NO	PRI		
restype	int(10) unsigned	NO	PRI	0	
status	varchar(20)	NO	PRI		
tokens_acquired	int(10) unsigned	NO		0	
tokens_acquired_date	timestamp	NO	PRI	0000-00-00 00:00:00	
last_updated	timestamp	NO		current_timestamp()	on update current_timestamp()
present	tinyint(1)	NO		1	
lm_job_pid	int(10) unsigned	YES		0	
clustername	varchar(128)	NO			
jobid	bigint(20)	YES		0	
indexid	int(10)	YES		0	
projectName	varchar(255)	YES			

Entity relationships:

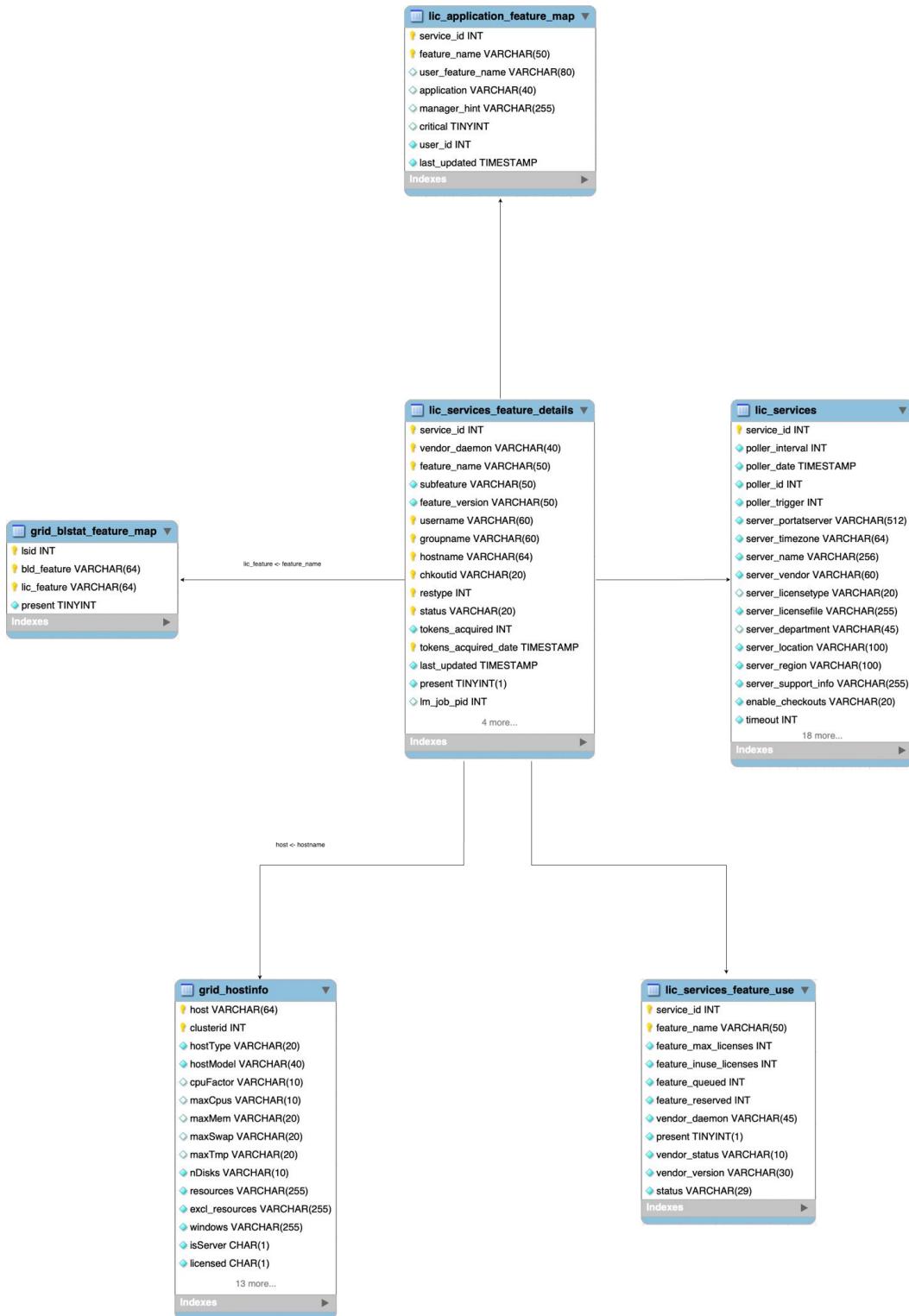


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_services_feature_details.service_id	lic_services.service_id
lic_services_feature_details.feature_name	grid_blistat_feature_map.lic_feature
lic_services_feature_details.hostname	grid_hostinfo.host
lic_services_feature_details.service_id	lic_services_feature_use.service_id
lic_services_feature_details.feature_name	lic_services_feature_use.feature_name
lic_services_feature_details.vendor_daemon	lic_services_feature_use.vendor_daemon
lic_services_feature_details.feature_name	lic_application_feature_map.feature_name
lic_services_feature_details.service_id	lic_application_feature_map.service_id

lic_services_feature_history

Table schema:

Field	Type	Null	Key	Default	Extra
id	bigint(20)	NO	PRI	NULL	auto_increment
service_id	int(10) unsigned	NO		0	
vendor_daemon	varchar(40)	NO	MUL		
feature_name	varchar(50)	NO	MUL	0	
subfeature	varchar(50)	NO			
feature_version	varchar(50)	NO			
username	varchar(60)	NO	MUL		
groupname	varchar(50)	NO			
hostname	varchar(64)	NO	MUL		
chkoutid	varchar(20)	NO			
restype	int(10) unsigned	NO		0	
status	varchar(20)	NO	MUL		
tokens_acquired	int(10) unsigned	NO		0	
tokens_acquired_date	timestamp	NO		0000-00-00 00:00:00	
last_poll_time	timestamp	NO		0000-00-00 00:00:00	
tokens_released_date	timestamp	NO		current_timestamp()	
lm_job_pid	int(10) unsigned	YES		0	
clustername	varchar(128)	NO			
jobid	bigint(20)	YES		0	
indexid	int(10)	YES		0	
projectName	varchar(255)	YES			

Entity relationships:

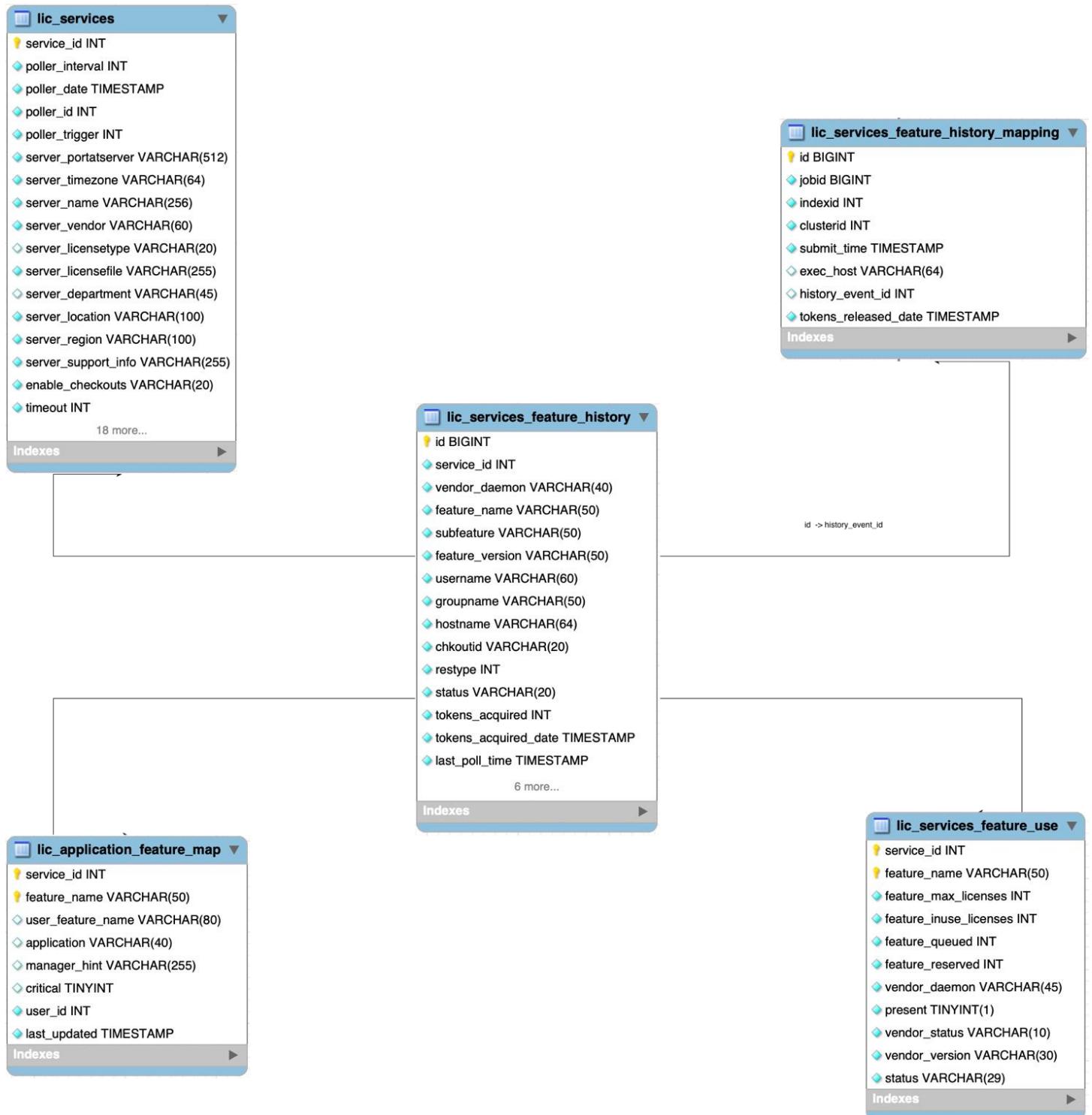


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_services_feature_history.service_id	lic_services.service_id
lic_services_feature_history.id	lic_services_feature_history_mapping.history_event_id
lic_services_feature_history.feature_name	lic_application_feature_map.feature_name
lic_services_feature_history.service_id	lic_application_feature_map.service_id
lic_services_feature_history.feature_name	lic_services_feature_use.feature_name
lic_services_feature_history.service_id	lic_services_feature_use.service_id

lic_services_feature_history_mapping

Table schema:

Field	Type	Null	Key	Default	Extra
id	bigint(20) unsigned	NO	PRI	NULL	auto_increment
jobid	bigint(20) unsigned	NO	MUL	NULL	
indexid	int(10)	NO		NULL	
clusterid	int(10)	NO		NULL	
submit_time	timestamp	NO		0000-00-00 00:00:00	
exec_host	varchar(64)	YES		NULL	
history_event_id	int(15)	YES	MUL	NULL	
tokens_released_date	timestamp	NO		0000-00-00 00:00:00	

Entity relationships:



Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_services_feature_history_mapping.history_event_id	lic_services_feature_history.id
---	---------------------------------

lic_services_feature_use

Table schema:

Field	Type	Null	Key	Default	Extra
service_id	int(10) unsigned	NO	PRI	0	
feature_name	varchar(50)	NO	PRI		
feature_max_licenses	int(10) unsigned	NO		0	
feature_inuse_licenses	int(10) unsigned	NO		0	
feature_queued	int(10) unsigned	NO	MUL	0	
feature_reserved	int(10) unsigned	NO	MUL	0	
vendor_daemon	varchar(45)	NO	MUL	TBD	
present	tinyint(1)	NO		1	
vendor_status	varchar(10)	NO			
vendor_version	varchar(30)	NO			
status	varchar(29)	NO			

Entity relationships:

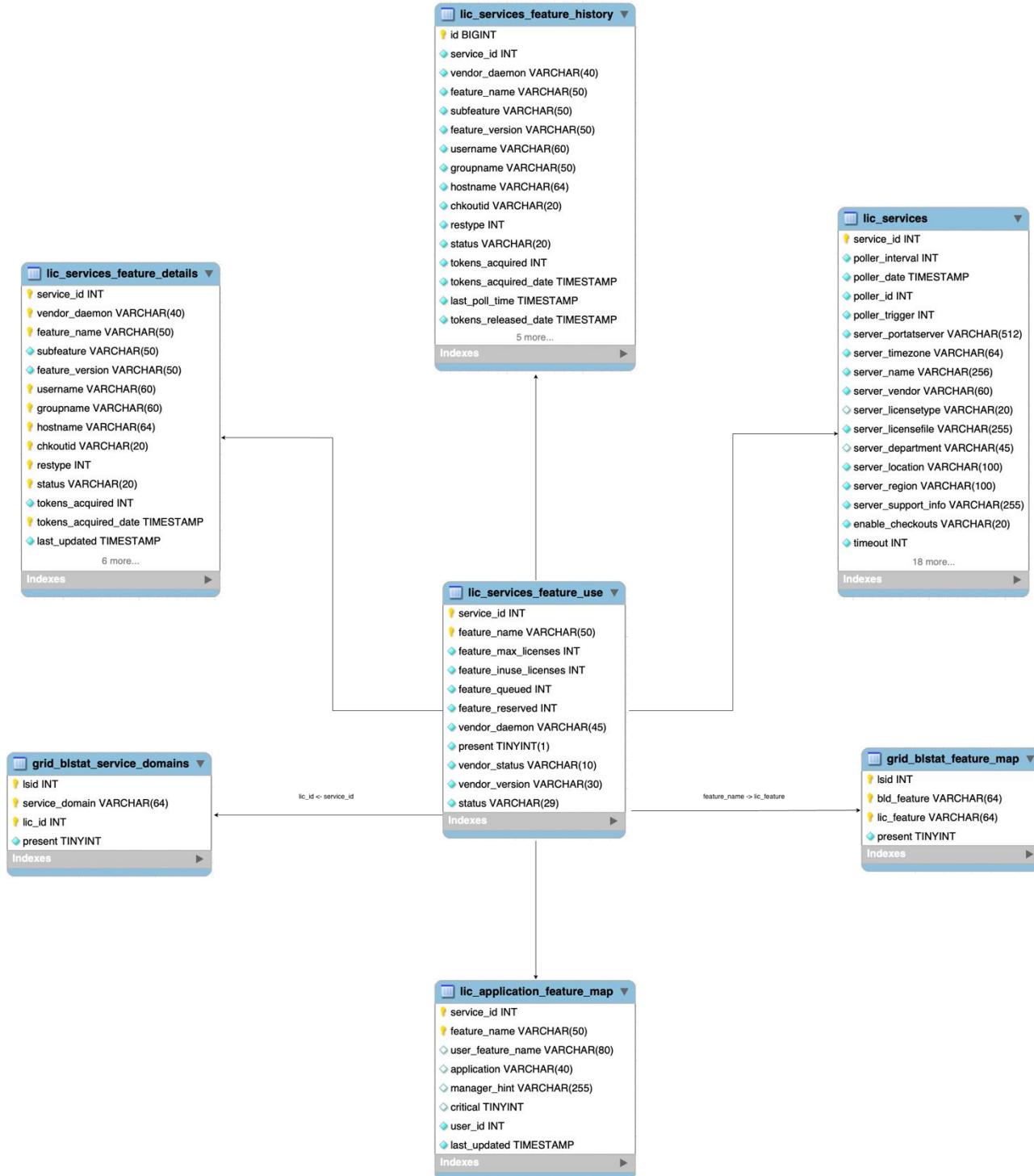


Table and field relationships:

Some [common fields](#) are in most tables; those fields are related to every other table that also contains the common fields.

For this table, additionally, the tables and fields in the first column are related to the tables and fields in the second column:

lic_services_feature_use.service_id	lic_services.service_id
lic_services_feature_use.service_id	lic_application_feature_map.service_id
lic_services_feature_use.feature_name	lic_application_feature_map.feature_name
lic_services_feature_use.feature_name	grid_blistat_feature_map.lic_feature
lic_services_feature_use.service_id	grid_blistat_service_domains.lic_id
lic_services_feature_use.service_id	lic_services_feature_details.service_id
lic_services_feature_use.feature_name	lic_services_feature_details.feature_name
lic_services_feature_use.vendor_daemon	lic_services_feature_details.vendor_daemon
lic_services_feature_use.service_id	lic_services_feature_history.service_id
lic_services_feature_use.feature_name	lic_services_feature_history.feature_name

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