Omnissiah database

The relational database is the backend for the entire project. Omnissiah can use Mariadb or PostgreSQL. Like programs, tables in a database are divided into layers. Each layer has its own account for access. The layer name is a prefix of the table name. Some tables after the layer prefix may also have prefixes that reflect the origin of the data, for example info_netbox_dcim_device or a connection to another layer, for example ref_zbx_macro.

cfg layer

#	*Table*	*Description*
1	cfg_parameter	configuration parameters for queries from the code layer

cfg layer tables

code layer

#	*Table*	*Description*
1	code_action	actions for logs and states
2	code_layer	layers of programs and tables
3	code_program	list of programs (name is the same as the file name without extension)
4	code_program_launch	program launch sequence
5	code_program_query	queries for each program grouped by stage and sorted by priority (startup sequence)

code layer tables

hist layer

#	*Table*	*Description*
1	hist_dump	list of created database dumps

hist layer tables

info layer

#	*Table*	*Description*
1	info_mac	IEEE MAC addresses
2	info_netbox_dcim_device	processed records Netbox DCIM device
3	info_netbox_dcim_devicerole	processed records Netbox DCIM devicerole
4	info_netbox_dcim_devicetype	processed records Netbox DCIM devicetype
5	info_netbox_dcim_interface	processed records Netbox DCIM interface
6	info_netbox_dcim_location	processed records Netbox DCIM location
7	info_netbox_dcim_manufacturer	processed records Netbox DCIM manufacturer
8	info_netbox_dcim_platform	processed records Netbox DCIM platform
9	info_netbox_dcim_rack	processed records Netbox DCIM rack
10	info_netbox_dcim_rackrole	processed records Netbox DCIM rackrole
11	info_netbox_dcim_region	processed records Netbox DCIM region
12	info_netbox_dcim_site	processed records Netbox DCIM site
13	info_netbox_dcim_sitegroup	processed records Netbox DCIM sitegroup
14	info_netbox_dcim_virtualchassis	processed records Netbox DCIM virtualchassis
15	info_netbox_ipam_ipaddress	processed records Netbox IPAM ipaddress
16	info_netbox_ipam_iprange	processed records Netbox IPAM iprange
17	info_netbox_ipam_prefix	processed records Netbox IPAM prefix
18	info_netbox_ipam_role	processed records Netbox IPAM role
19	info_netbox_ipam_vlan	processed records Netbox IPAM vlan

20	info_netbox_ipam_vlangroup	processed records Netbox IPAM vlangroup
21	info_netbox_ipam_vrf	processed records Netbox IPAM vrf
22	info_netbox_tenancy_tenant	processed records Netbox tenancy tenant
23	info_netbox_tenancy_tenantgroup	processed records Netbox tenancy tenantgroup
24	info_nnml_osclass_cpe	valid nmap osclass cpe values for neural network inputs
25	info_nnml_osclass_osfamily	valid nmap osclass osfamily values for neural network inputs
26	info_nnml_osclass_type	valid nmap osclass type values for neural network inputs
27	info_nnml_osclass_vendor	valid nmap osclass vendor values for neural network inputs
28	info_nnml_osmatch_exists	valid nmap osclass existence values for neural network inputs
29	info_nnml_script_exists	existence of nmap script for neural network inputs
30	info_nnml_script_value_exists	existence of nmap script value for neural network inputs
31	info_nnml_service_cpe	valid nmap service cpe values for neural network inputs
32	info_nnml_service_extrainfo	valid nmap service extrainfo values for neural network inputs
33	info_nnml_service_product	valid nmap service product values for neural network inputs
34	info_nnml_word	valid words from nmap scan results for neural network inputs

info layer tables

log layer

#	*Table*	*Description*
1	log_program	query launch logs for all programs

log layer tables

main layer

#	*Table*	*Description*
1	main_arp	ARP table for the network
2	main_arp_device	ARP tables on network devices
3	main_arp_site	ARP tables for network sites
4	main_host	network hosts (network map, list of all devices) This table is the main intermediate goal of omnissiah's work
5	main_host_link	non-unique identifiers associated with hosts
6	main_host_uuid	unique identifiers associated with hosts
7	main_if	Table of host interfaces (ports)
8	main_mac	MAC table (MAC-port) for the network
9	main_mac_device	MAC tables (MAC-port) on network devices
10	main_mac_site	MAC tables (MAC-port) for network sites

main layer tables

nnml layer

#	*Table*	*Description*
1	nnml_input	possible neural network inputs
2	nnml_ip	hosts for neural network recognition
3	nnml_ip_input	connection between the nnml_ip and nnml_input tables – neural network inputs for every host
4	nnml_model	neural networks stored on disk
5	nnml_model_devicetype_map	correspondence between the outputs of neural networks stored on disk and the type of device
6	nnml_model_input_map	inputs of neural networks stored on disk
7	nnml_model_manufacturer_map	correspondence between the outputs of neural networks stored on disk and the manufacturer

8	nnml_train	neural network training list
9	nnml_train_input	possible neural network inputs for training
10	nnml_train_ip	hosts for neural network training
11	nnml_train_ip_input	connection between the tables nnml_train_ip and nnml_train_input – neural network inputs for every host for training

nnml layer tables

raw layer

#	*Table*	*Description*
1	raw_activaire	raw data from Activaire API
2	raw_enplug	raw data from Enplug API
3	raw_mac	IEEE MAC address table
4	raw_mist	raw data from MIST API
5	raw_netbox_dcim_device	original entries Netbox DCIM device
6	raw_netbox_dcim_devicerole	original entries Netbox DCIM devicerole
7	raw_netbox_dcim_devicetype	original entries Netbox DCIM devicetype
8	raw_netbox_dcim_interface	original entries Netbox DCIM interface
9	raw_netbox_dcim_location	original entries Netbox DCIM location
10	raw_netbox_dcim_manufacturer	original entries Netbox DCIM manufacturer
11	raw_netbox_dcim_platform	original entries Netbox DCIM platform
12	raw_netbox_dcim_rack	original entries Netbox DCIM rack
13	raw_netbox_dcim_rackrole	original entries Netbox DCIM rackrole
14	raw_netbox_dcim_region	original entries Netbox DCIM region
15	raw_netbox_dcim_site	original entries Netbox DCIM site
16	raw_netbox_dcim_sitegroup	original entries Netbox DCIM sitegroup
17	raw_netbox_dcim_virtualchassis	original entries Netbox DCIM virtualchassis
18	raw_netbox_ipam_ipaddress	original entries Netbox IPAM ipaddress
19	raw_netbox_ipam_iprange	original entries Netbox IPAM iprange
20	raw_netbox_ipam_prefix	original entries Netbox IPAM prefix
21	raw_netbox_ipam_role	original entries Netbox IPAM role
22	raw_netbox_ipam_vlan	original entries Netbox IPAM vlan
23	raw_netbox_ipam_vlangroup	original entries Netbox IPAM vlangroup
24	raw_netbox_ipam_vrf	original entries Netbox IPAM vrf
25	raw_netbox_tenancy_tenant	original entries Netbox tenancy tenant
26	raw_netbox_tenancy_tenantgroup	original entries Netbox tenancy tenantgroup
27	raw_ruckussz	raw data from Ruckus wireless controllers
28	raw_scan_arp	ARP tables from devices
29	raw_scan_dhcp	DHCP tables from devices
30	raw_scan_ip	list of scanned hosts (ip addresses)
31	raw_scan_ip_info	additional fields to the raw_scan_ip table
32	raw_scan_osclass	list of hosts scanned by nmap osclass
33	raw_scan_osmatch	list of hosts scanned by nmap osmatch
34	raw_scan_osportused	list of host ports scanned by nmap in the OS detect process
35	raw_scan_port	list of host ports scanned by nmap
36	raw_scan_script	list of host scripts scanned by nmap
37	raw_scan_service	list of host services scanned by nmap
38	raw_snmp	raw SNMP polling results

raw layer tables

ref layer

#	*Table*	*Description*
1	ref_devicerole	device role directory
2	ref_devicetype	device type directory
3	ref_host_idtype	directory of possible host identifiers (MAC, IP, serial, ...)
4	ref_host_link	directory of possible non-unique host identifiers
5	ref_host_option	directory of host recognition options
6	ref_host_uuid	directory of possible unique host identifiers
7	ref_ipaddress	IP address directory
8	ref_ipaddress_role	IP address role directory
9	ref_ipaddress_source	directory of IP address sources and associated table
10	ref_ipfamily	IP address family directory
11	ref_ipprefix	directory of IP networks (prefixes)
12	ref_iprange	IP range directory
13	ref_mac_manufacturer_map	reference book of correspondence between the trademark and ref_manufacturer table
14	ref_manufacturer	manufacturers directory
15	ref_nnml_input_type	directory of input types for neural networks
16	ref_nnml_ip_exists_table	directory of IP address existence tables in which it can be used as an input to a neural network
17	ref_nnml_mac_exists_table	directory of MAC address existence tables in which it can be used as an input to a neural network
18	ref_nnml_modeltype	directory of neural network output types
19	ref_nnml_word_source	directory of word sources for neural network inputs
20	ref_osclass_manufacturer_map	nmap osclass correspondence reference to the ref_manufacturer table
21	ref_platform	platform directory
22	ref_region	directory of regions
23	ref_scan_ip_info	directory of additional fields of scanned hosts
24	ref_scan_snmp_oid	reference book SNMP oids that need to be polled when scanning
25	ref_site	directory of sites
26	ref_site_info	directory of additional site fields
27	ref_sitegroup	site group directory
28	ref_static_device	static host directory
29	ref_subdevice_role	device/card role directory
30	ref_subnet_role	subnet (VLAN) role directory
31	ref_tenant	directory of departments
32	ref_tenantgroup	directory of department groups
33	ref_vlan	VLAN directory
34	ref_vlangroup	VLAN group directory
35	ref_vrf	VRF directory
36	ref_wlc_type	directory of types of wireless controllers
37	ref_zbx_device_template	directory of used Zabbix templates depending on device type, role, etc.
38	ref_zbx_group	directory of Zabbix group (statistical) host types
39	ref_zbx_group_template	directory of templates for group (statistical) Zabbix hosts
40	ref_zbx_host_tag	directory of valid Zabbix tags
41	ref_zbx_macro	directory of valid Zabbix macros
42	ref_zbx_omni_map	directory of connections between zbx_omni and zbx_zbx tables
43	ref_zbx_tech_group	Zabbix group directory for maintenance

ref layer tables

shot layer

#	*Table*	*Description*
1	shot_host	network hosts (network map, list of all devices) in the current cycle
2	shot_host_link	non-unique identifiers associated with hosts in the current cycle
3	shot_host_option	options for recognizing network hosts (network map, list of all devices) in the current cycle
4	shot_host_option_link	non-unique recognition variant identifiers associated with hosts in the current cycle
5	shot_host_option_uuid	unique recognition variant identifiers associated with hosts in the current cycle
6	shot_host_uuid	unique identifiers associated with hosts in the current cycle

shot layer tables

src layer

#	*Table*	*Description*
1	src_activaire	processed data from Activaire API
2	src_arp	ARP table for the network
3	src_arp_device	ARP tables on devices
4	src_arp_site	ARP tables for sites
5	src_enplug_edu	Enplug devices
6	src_enplug_venue	Enplug sites
7	src_if	host interfaces from the src_ip table
8	src_ip	filtered list of hosts (ip addresses)
9	src_ip_info	additional fields to the src_ip table
10	src_mac	MAC table (MAC-port) for the network
11	src_mac_device	MAC tables (MAC-port) on devices
12	src_mac_site	MAC tables (MAC-port) for sites
13	src_mist	processed data from MIST API
14	src_ruckussz_wap	access points on Ruckus wireless controllers
15	src_ruckussz_wlc	Ruckus wireless controllers
16	src_scan_arp	processed ARP tables from devices
17	src_scan_dhcp	processed DHCP tables from devices
18	src_scan_ip	processed list of scanned hosts (ip addresses)
19	src_scan_ip_info	additional fields to the src_scan_ip table
20	src_scan_osclass	processed list of scanned nmap osclass hosts
21	src_scan_osmatch	processed list of scanned nmap osmatch hosts
22	src_scan_port	processed list of scanned nmap ports hosts
23	src_scan_script	processed list of scanned nmap scripts hosts
24	src_scan_service	processed list of scanned nmap services hosts
25	src_snmp	processed SNMP polling results
26	src_snmp_arp	ARP tables from SNMP responses
27	src_snmp_cdp	CDP tables from SNMP responses
28	src_snmp_dhcp	DHCP tables from SNMP responses
29	src_snmp_if	interfaces (ports) tables from SNMP responses
30	src_snmp_ipaddr	IP address tables from SNMP responses
31	src_snmp_lldp	LLDP tables from SNMP responses
32	src_snmp_mac	MAC address tables from SNMP responses
33	src_snmp_portif_map	table of correspondence between port indexes on devices
34	src_snmp_router	routers from SNMP responses
35	src_snmp_sysor	sysor from SNMP responses
36	src_snmp_system	system from SNMP responses

37	src_snmp_vlan	VLAN tables from SNMP responses
38	src_snmp_wap	wireless access points from SNMP responses
39	src_snmp_wlc	wireless controllers from SNMP responses
40	src_vlan	VLAN table for the network
41	src_vlan_device	device VLAN table
42	src_vlan_site	VLAN table for site

src layer tables

zbx layer

#	*Table*	*Description*
1	zbx_omni_host_inventory	Zabbix inventory from Omnissiah's point of view
2	zbx_omni_host_tag	Zabbix tags from Omnissiah's point of view
3	zbx_omni_hostmacro	Zabbix host macros from Omnissiah's perspective
4	zbx_omni_hosts	Zabbix hosts from Omnissiah's point of view
5	zbx_omni_hosts_groups	host membership in Zabbix groups from Omnissiah's perspective
6	zbx_omni_hosts_templates	linking hosts with templates Zabbix templates from Omnissiah's point of view
7	zbx_omni_hstgrp	Zabbix inventory groups from Omnissiah's perspective
8	zbx_omni_interface	Zabbix host interfaces from Omnissiah's point of view
9	zbx_omni_maintenances	Zabbix maintenance periods from Omnissiah's point of view
10	zbx_omni_map	relationship between records of Omnissiah tables and Zabbix tables
11	zbx_zbx_history	Zabbix history table fragment
12	zbx_zbx_history_log	Zabbix history_log table fragment
13	zbx_zbx_history_str	Zabbix history_str table fragment
14	zbx_zbx_history_text	Zabbix history_text table fragment
15	zbx_zbx_history_uint	Zabbix history_uint table fragment
16	zbx_zbx_host_inventory	current Zabbix inventory table
17	zbx_zbx_host_tag	current Zabbix tag table
18	zbx_zbx_hostmacro	current Zabbix host macro table
19	zbx_zbx_hosts	current Zabbix host table
20	zbx_zbx_hosts_groups	current Zabbix host group membership table
21	zbx_zbx_hosts_templates	current table connection between hosts and Zabbix templates
22	zbx_zbx_hstgrp	current Zabbix group table
23	zbx_zbx_interface	current Zabbix host interface table
24	zbx_zbx_items	current Zabbix hosts items table
25	zbx_zbx_maintenances	current table of Zabbix maintenance periods
26	zbx_zbx_proxies	current Zabbix proxies table
27	zbx_zbx_triggers	current Zabbix trigger table

zbx layer tables