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# Intelligent Workload Distribution Private Edition Guide

IWD metrics and alerts

10/6/2024

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- [2 Alerts](#)

Find the metrics *No results* exposes and the alerts defined for *No results*.

## Related documentation:

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Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
IWD	Both or either, depends on harvester	Default is 4024 (overridden by values)	/iwd/v3/metrics	15 sec recommended, depends on harvester

See details about:

- IWD metrics
- IWD alerts

## Metrics

Metric and description	Metric details	Indicator of
<b>iwd_redis_connections_established</b> Current number of established Redis connections	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 0	
<b>iwd_redis_connections_reconnecting</b> Current number of reconnecting Redis connections	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 0	
<b>iwd_redis_connections_ready</b> Current number of ready Redis connections	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1	
<b>iwd_redis_duration_until_ready</b> Duration until ready state reached	<b>Unit:</b> <b>Type:</b> histogram <b>Label:</b> 'le' <b>Sample value:</b> 0, 1, 39	
<b>iwd_redis_errors_total</b>	<b>Unit:</b>	

Metric and description	Metric details	Indicator of
Total number of Redis connection errors	<b>Type:</b> counter <b>Label:</b> <b>Sample value:</b> 0	
<b>iwdTenantDB_db_connect_total</b> The total number of all database connection requests	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'db' <b>Sample value:</b> 1252424, 1457770	
<b>iwdTenantDB_db_disconnect_total</b> The total number of all database disconnection requests	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'db' <b>Sample value:</b> 1252424, 1457770	
<b>iwdTenantDB_db_request_total</b> The total number of all Database requests sent	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'db' <b>Sample value:</b> 4850730, 5056452	
<b>iwdTenantDB_db_success_total</b> The total number of all all Database requests executed successfully	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'db', 'command' <b>Sample value:</b> 2307896, 2126805, 1221394, 1450355	
<b>iwdTenantDB_db_errors_total</b> The total number of all Database errors	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'db', 'code' <b>Sample value:</b> 131, 5, 4	
<b>iwdTenantDB_db_request_duration_milliseconds</b> Database transaction duration	<b>Unit:</b> <b>Type:</b> histogram <b>Label:</b> 'le', 'db', 'method' <b>Sample value:</b> 2290844, 2306385, 2307241, 2307894	
<b>iwd_process_cpu_user_seconds_total</b> Total user CPU time spent in seconds.	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> <b>Sample value:</b> 1634045655571	
<b>iwd_process_cpu_system_seconds_total</b> Total system CPU time spent in seconds.	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> <b>Sample value:</b> 1634045655571	
<b>iwd_process_cpu_seconds_total</b> Total user and system CPU time spent in seconds.	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> <b>Sample value:</b> 1634045655571	
<b>iwd_process_start_time_seconds</b>	<b>Unit:</b>	

Metric and description	Metric details	Indicator of
Start time of the process since unix epoch in seconds.	<b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1633992102	
<b>iwd_process_resident_memory_bytes</b> Resident memory size in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iwd_process_virtual_memory_bytes</b> Virtual memory size in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iwd_process_heap_bytes</b> Process heap size in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iwd_process_open_fds</b> Number of open file descriptors.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iwd_process_max_fds</b> Maximum number of open file descriptors.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 197176	
<b>iwd_nodejs_eventloop_lag_seconds</b> Lag of event loop in seconds.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iwd_nodejs_active_handles</b> Number of active libuv handles grouped by handle type. Every handle type is C++ class name.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'type' <b>Sample value:</b> 17, 1, 69	
<b>iwd_nodejs_active_handles_total</b> Total number of active handles.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iwd_nodejs_active_requests</b> Number of active libuv requests grouped by request type. Every request type is C++ class name.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'type' <b>Sample value:</b> 2	
<b>iwd_nodejs_active_requests_total</b>	<b>Unit:</b>	

Metric and description	Metric details	Indicator of
Total number of active requests.	<b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iw_d_nodejs_heap_size_total_bytes</b> Process heap size from node.js in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iw_d_nodejs_heap_size_used_bytes</b> Process heap size used from node.js in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iw_d_nodejs_external_memory_bytes</b> Nodejs external memory size in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> <b>Sample value:</b> 1634045655572	
<b>iw_d_nodejs_heap_space_size_total_bytes</b> Process heap space size total from node.js in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'space' <b>Sample value:</b> 262144, 16777216, 130428928, 6721536	
<b>iw_d_nodejs_heap_space_size_used_bytes</b> Process heap space size used from node.js in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'space' <b>Sample value:</b> 32808, 1479672, 92634792, 4852384	
<b>iw_d_nodejs_heap_space_size_available_bytes</b> Process heap space size available from node.js in bytes.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'space' <b>Sample value:</b> 0, 6899976, 37040456, 1542496	
<b>iw_d_nodejs_version_info</b> Node.js version info.	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'version', 'major', 'minor', 'patch' <b>Sample value:</b> 1	
<b>iw_d_request_total</b> The total number of all API requests received	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> <b>Sample value:</b> 177186	
<b>iw_d_success_total</b> The total number of all API requests with success response	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'ccid' <b>Sample value:</b> 21400, 46769, 48539	

Metric and description	Metric details	Indicator of
<b>ibd_errors_total</b> The total number of all API requests with error response	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'ccid' <b>Sample value:</b> 438, 49, 4	
<b>ibd_client_error_total</b> The total number of all API requests with client error response	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'ccid' <b>Sample value:</b> 204, 49, 2	
<b>ibd_server_error_total</b> The total number of all API requests with server error response	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'ccid' <b>Sample value:</b> 234, 2	
<b>ibd_api_request_total</b> The total number of all API requests	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'method', 'path', 'code', 'ccid' <b>Sample value:</b> 3570, 3584, 25079, 19500	
<b>ibd_api_request_long</b> Number of API requests that took long time to execute	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> <b>Sample value:</b>	
<b>ibd_api_request_closed</b> Number of API requests that expired before response was sent	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'method', 'path' <b>Sample value:</b> 3, 14, 4, 9	
<b>ibd_api_request_duration_milliseconds</b> API requests duration	<b>Unit:</b> <b>Type:</b> histogram <b>Label:</b> 'le', 'method', 'path', 'code', 'ccid' <b>Sample value:</b> 6, 2708, 3502, 3570	
<b>ibd_api_blacklist</b> Total number of blacklisted requests	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> <b>Sample value:</b>	
<b>ibd_cometd_connections_total</b> The current number of client cometd connections to GWS	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'type', 'ccid' <b>Sample value:</b> 27, 1, 41	
<b>ibd_cometd_errors_total</b> The total number of client cometd errors	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'type', 'ccid' <b>Sample value:</b> 1	
<b>ibd_cometd_request_errors_total</b>	<b>Unit:</b>	

Metric and description	Metric details	Indicator of
The total number of client cometd error response from GWS	<b>Type:</b> counter <b>Label:</b> 'type', 'name', 'ccid', 'domain' <b>Sample value:</b> 13026, 64, 1, 102	
<b>iw_d_cometd_request_current</b> The current number of client cometd requests to GWS	<b>Unit:</b> <b>Type:</b> gauge <b>Label:</b> 'type', 'name', 'ccid', 'domain' <b>Sample value:</b> -6318, -11825, 0	
<b>iw_d_cometd_request_duration_milliseconds</b> The cometd request duration (to GWS)	<b>Unit:</b> <b>Type:</b> histogram <b>Label:</b> 'le', 'type', 'name', 'ccid', 'domain' <b>Sample value:</b> 6298, 6320, 6345, 6395	
<b>iw_d_cometd_request_duration_milliseconds_summary</b> The cometd request duration (to GWS): summary	<b>Unit:</b> <b>Type:</b> summary <b>Label:</b> 'quantile', 'type', 'name', 'ccid', 'domain' <b>Sample value:</b> 0, 930700, 6577, 89959	
<b>iw_d_cometd_events_total</b> The total number of client cometd events from GWS	<b>Unit:</b> <b>Type:</b> counter <b>Label:</b> 'type', 'name', 'ccid', 'domain' <b>Sample value:</b> 80, 443, 346, 17	

## Alerts

The following alerts are defined for IWD.

Alert	Severity	Description	Based on	Threshold
IWD error rate	CRITICAL	Triggered when the number of errors in IWD exceeds the threshold for 15 min period.		Default number of errors: 2
IWD DB errors	CRITICAL	Triggered when IWD experiences more than 2 errors within 1 minute during operations with database.		Default number of errors: 2
Memory usage is above 3000 Mb	CRITICAL	Triggered when the pod memory usage is above 3000 MB.		Default memory usage: 3000 MB
Database connections above	HIGH	Triggered when pod database		Default number of connections: 75



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Alert	Severity	Description	Based on	Threshold
75		connections number is above 75.		