

SQL Database Windows Fabric Metadata

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SQL Database Windows Fabric Metadata

Overview

The Cluster Metadata Store (CMS) provides a single logical point of metadata storage for a Sterling cluster. Located on the Cluster Control Manager node of the control ring, the store provides the source of 'truth' regarding the state of the cluster and its resources. Each resource being managed in the cluster is represented by a row in a table in CMS that reflects the state of that resource.

This document explains some important tables in the CMS and how to query these tables.

Use HttpQuery connected to a Sterling environment and query CmsDatabase

WinFab DMVs

dm_hadr_fabric_nodes

Returns a row for each fabric node in a cluster. Each row contains information about a fabric node in a cluster.

Column name	Data type	Description
node_name	nvarchar(256)	A node name
ip_address_or_FQDN	nvarchar(1024)	The IP address or FQDN of the node
code_version	nvarchar(128)	The code version
config_version	nvarchar(128)	The config version
node_type	nvarchar(128)	The node type
node_status	tinyint	Status of the node, one of: 0 = Invalid, 1 = Up, 2 = Down, 3 = Enabling, 4 = Disabling, 5 = Disabled
node_status_desc	nvarchar(60)	Description of the status, one of: INVALID, UP, DOWN, ENABLING, DISABLING, DISABLED.
node_up_time	bigint	The node up time in seconds.
node_health_state	tinyint	The health state of the node, one of: 0 = Invalid, 1 = Ok, 2 = Warning, 3 = Error, -1 = Unknown
node_health_state_desc	nvarchar(60)	Description of the health state, one of: INVALID, OK, WARNING, ERROR, UNKNOWN

Column name	Data type	Description
is_seed_node	bit	0 = This is not a seed node, 1 = This is a seed node
upgrade_domain	nvarchar(128)	The upgrade domain
fault_domain	nvarchar(1024)	The fault domain. It is defined as Uri.

Example:

List all the nodes on a Service Ring

```
select * from fn_hadr_fabric_get_nodes('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```

node_name	ip_address_or_FQDN	code_version	config_version	node_type	node_status	node_status_desc	node_up_ti
DB.0	10.98.129.35	2.1.44.9493	1.8	DB	1	UP	220514
DB.32	10.98.131.166	2.1.44.9493	1.8	DB	1	UP	541333
DB.16	10.98.129.164	2.1.44.9493	1.8	DB	1	UP	538859
DB.48	10.98.128.37	2.1.44.9493	1.8	DB	1	UP	543791
DB.8	10.98.128.33	2.1.44.9493	1.8	DB	1	UP	532271
DB.40	10.98.129.39	2.1.44.9493	1.8	DB	1	UP	542171
DB.24	10.98.130.166	2.1.44.9493	1.8	DB	1	UP	540491
DB.4	10.98.130.164	2.1.44.9493	1.8	DB	1	UP	542163
DB.36	10.98.129.166	2.1.44.9493	1.8	DB	1	UP	531487
DB.20	10.98.129.37	2.1.44.9493	1.8	DB	1	UP	543788

dm_hadr_fabric_application_types

Returns a list of application types

Column name	Data type	Description
application_type_name	nvarchar(128)	The application type name
application_type_version	nvarchar(128)	The application type version
default_parameters	xml	A list of parameters, each of them is a name and value pair.

Example:

```
select * from fn_hadr_fabric_get_application_types ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```

application_type_name	application_type_version	default_parameters
NodeMdsAgentTenant	2318a63d1889aef7fb20b14def287bea	NULL
NodeMdsAgentTenant	f4753f430f02eaae29cbc61785db04cd	NULL
OSAuditPolicyManagerTenant	79fbf696b5de9488d4bce445ea8a8da8	NULL
OSAuditPolicyManagerTenant	ca7b4ca8ef2cff234072a713161b3534	NULL
RepairServiceTenant	55ce94d68f382b1f97be647288bc5466	NULL
RepairServiceTenant	ae057c05a58fbed2ca1e5eb10d17736d	NULL
WatchdogsTenant	afb381ed00f504da0ca6ee5e7e6cc570	NULL
WatchdogsTenant	c2b99b07a93fb943473cba17da347948	NULL
Worker	1116fd1ac33b9eec9cf9350b3715388f	NULL
Worker	755fe4ab735adc4ec6ce774bdf0e0131	NULL
Worker	7aaa16742dfb5eb9c6f60e290f3dac64	NULL
Worker.ISO	3fddb0945afaae251af0a34ace2041b8	<ApplicationParameter><Name>SQL.BackupPath</Name><Value></Value></ApplicationParameter>
Worker.ISO	4d2942df20b30aa4613a9306393823b7	<ApplicationParameter><Name>SQL.BackupPath</Name><Value></Value></ApplicationParameter>
Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	<ApplicationParameter><Name>SQL.BackupPath</Name><Value></Value></ApplicationParameter>
(14 record(s) returned)		

default_parameters

The default_parameters is projected to xml data type. The xml fragment is defined as:

```
<ApplicationParameters>
<ApplicationParameter>;
<Name> </Name>
<Value> </Value>
</ApplicationParameter>
</ApplicationParameters>
```

dm_hadr_fabric_applications

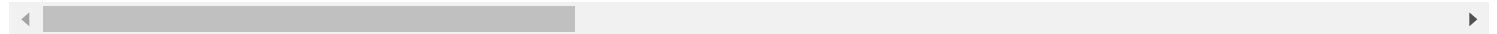
Returns a list of applications. Each row contains information about an application running in a SAWAv2 ring.

Column name	Data type	Description
application_name	nvarchar(1024)	The name of the application. It is defined as Uri.
application_type_name	nvarchar(128)	The application type.
application_type_version	nvarchar(128)	The application type version.
application_status	tinyint	Status of the application, one of: 0 = Invalid, 1 = Ready, 2 = Upgrading
application_status_desc	nvarchar(60)	Description of the status, one of: INVALID, READY, UPGRADING
application_health_state	tinyint	The health state of the application, one of: 0 = Invalid, 1 = Ok, 2 = Warning, 3 = Error, -1 = Unknown
application_health_state_desc	nvarchar(60)	Description of the health state, one of: INVALID, OK, WARNING, ERROR, UNKNOWN
application_parameters	xml	A list of parameters, each of them is a name and value pair. It is the same as default_parameters defined in dm_hadr_fabric_application_types.

Example

```
select * from fn_hadr_fabric_get_applications ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```

application_name	application_type_name	application_type_version	application
fabric:/NodeMdsAgentTenant	NodeMdsAgentTenant	f4753f430f02eaae29cbc61785db04cd	1
fabric:/OSAuditPolicyManagerTenant	OSAuditPolicyManagerTenant	79fbf696b5de9488d4bce445ea8a8da8	1
fabric:/RepairServiceTenant	RepairServiceTenant	ae057c05a58fbed2ca1e5eb10d17736d	1
fabric:/WatchdogsTenant	WatchdogsTenant	afb381ed00f504da0ca6ee5e7e6cc570	1
fabric:/Worker	Worker	7aaa16742dfb5eb9c6f60e290f3dac64	1
fabric:/Worker.ISO/a25c0f586f4d	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/a2ce81c636e6	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/a7bd46e17fe4	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/aa6b5482cdc7	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/aabc96375941	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/ad0d0a93542d	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/af45245671f2	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/b1e555b2e4c1	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/b3dc6ca70ff0	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/b42319f9c06b	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1
fabric:/Worker.ISO/b562fdde87c9	Worker.ISO	ac872a7e25c02d9495e5520414e4f5b9	1



dm_hadr_fabric_service_types

Returns a list of service types. Contains one row for each service TYPE running on a ring,

Column name	Data type	Description
application_type_name	nvarchar(128)	The application type name
application_type_version	nvarchar(128)	The application type version
service_manifest_version	nvarchar(128)	The service manifest version.
service_type_kind	Tinyint	The service type kind, one of: 0 = Invalid, 1 = Stateless, 2 = Stateful
service_type_kind_desc	nvarchar(60)	The description of the service kind, one of: INVALID, STATELESS, STATEFUL
service_type_name	nvarchar(128)	The service type name.
placement_constraints	nvarchar(256)	Constraint to be used when instantiating this service in a Windows Fabric cluster
use_implicit_host	Bit	Specifies that the service does not implement Windows Fabric interfaces. Windows Fabric should start the specified executables (EXEs). This column is only defined for Stateless Service Type. Otherwise it is NULL.
has_persisted_state	bit	Specifies that this is a persistent service which stores states on the local disk. This column is only defined for Stateful Service Type. Otherwise it is NULL.
load_metrics	xml	Describe the type of load metric is reported by the service. It is defined as collection.
Extensions	xml	Service type description extensions. It is a list of name and value pairs.

load_metrics

The load_metrics is projected to xml data type. The xml fragment is defined as:

```
<LoadMetricDescriptions>
```

```
<LoadMetricDescription>
```

<Name> </Name>

<Weight> </Weight>

<PrimaryDefaultLoad> </PrimaryDefaultLoad>

<SecondaryDefaultLoad> </SecondaryDefaultLoad>

</LoadMetricDescription>

</LoadMetricDescriptions>

Extensions

The extensions is projected to xml data type. The xml fragment is defined as:

<Extensions>

<Extension>

<Name> </Name>

<Value> </Value>

</Extension>

</Extensions>

Example:

```
select * from fn_hadr_fabric_get_service_types ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```


Column name	Data type	Description
application_name	nvarchar(1024)	The name of the application. It is defined as Uri.
service_kind	Tinyint	The service type kind, one of: 0 = Invalid, 1 = Stateless, 2 = Stateful
service_kind_desc	nvarchar(60)	The description of the service kind, one of: INVALID, STATELESS, STATEFUL
service_name	nvarchar(128)	The service name.
service_type_name	nvarchar(128)	The service type name.
service_health_state	tinyint	The health state of the service, one of: 0 = Invalid, 1 = Ok, 2 = Warning, 3 = Error, -1 = Unknown
service_health_state_desc	nvarchar(60)	Description of the health state, one of: INVALID, OK, WARNING, ERROR, UNKNOWN
service_manifest_version	nvarchar(128)	The service manifest version.
has_persisted_state	Bit	Determines whether the current service has persisted state. This column is only defined for Stateful Service. Otherwise it is NULL.

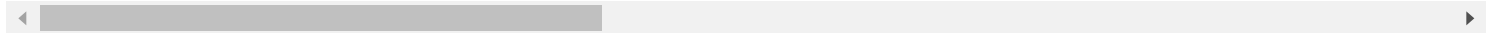
Example:

```
select top 10 * from fn_hadr_fabric_get_services ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```

Query batch completed. (1 query on 1 DB)

Successfully executed 1 query on SqlPartition 0 Elapsed Time 0.296 seconds:

Query0application_name	service_kind	service_kind_desc	service_name
-----	-----	-----	-----
fabric:/NodeMdsAgentTenant	1	STATELESS	fabric:/NodeMdsAgentTenant/MDSAgentLaunc
fabric:/OSAuditPolicyManagerTenant	1	STATELESS	fabric:/OSAuditPolicyManagerTenant/OSAud
fabric:/RepairServiceTenant	2	STATEFUL	fabric:/RepairServiceTenant/RepairServic
fabric:/WatchdogsTenant	1	STATELESS	fabric:/WatchdogsTenant/Watchdogs
fabric:/Worker	1	STATELESS	fabric:/Worker/MDSAgentLauncher
fabric:/Worker	1	STATELESS	fabric:/Worker/RgManagerProcessesOnDB
fabric:/Worker	1	STATELESS	fabric:/Worker/XDBHostProcessesOnDB
fabric:/Worker.ISO/a25c0f586f4d	2	STATEFUL	fabric:/Worker.ISO/a25c0f586f4d/SQL.Logi
fabric:/Worker.ISO/a25c0f586f4d	2	STATEFUL	fabric:/Worker.ISO/a25c0f586f4d/SQL.User
fabric:/Worker.ISO/a2ce81c636e6	2	STATEFUL	fabric:/Worker.ISO/a2ce81c636e6/SQL.Logi
(10 record(s) returned)			



dm_hadr_fabric_partitions

Returns a list of partitions. One row for each partition (SQL database) running in the ring.

Column name	Data type	Description
service_name	nvarchar(128)	The service name.
service_kind	Tinyint	The service type kind, one of: 0 = Invalid, 1 = Stateless, 2 = Stateful
service_kind_desc	nvarchar(60)	The description of the service kind, one of: INVALID, STATELESS, STATEFUL
partition_status	Tinyint	The status of the partition, one of: 0 = Invalid, 1 = Ready, 2 = NotReady, 3 = InQuorumLoss,
partition_status_desc	nvarchar(60)	Description of the status, one of: INVALID, IN_QUORUM_LOSS, NOT_READY, READY
partition_health_state	Tinyint	The health state of the partition, one of: 0 = Invalid, 1 = Ok, 2 = Warning, 3 = Error, -1 = Unknown
partition_health_state_desc	nvarchar(60)	Description of the health state, one of: INVALID, OK, WARNING, ERROR, UNKNOWN
instance_count	Int	The number of instances that the partition has. The column is only defined for Stateless Service Partition. Otherwise it is NULL.

Column name	Data type	Description
target_replica_set_size	Int	The target replica set size. The column is only defined for Stateful Service Partition. Otherwise it is NULL.
min_replica_set_size	Int	The minimum replica set size. The column is only defined for Stateful Service Partition. Otherwise it is NULL.
last_quorum_loss_duration	bigint	The last quorum loss duration in seconds. The column is only defined for Stateful Service Partition. Otherwise it is NULL.
partition_kind	Tinyint	The type of partitioning scheme that is used, one of: 0 = Invalid, 1 = Singleton, 2 = Int64Range, 3 = Named
partition_kind_desc	nvarchar(60)	The description of the partition kind, one of: INVALID, INT64_RANGE, NAMED, SINGLETON
partition_id	Guid	The partition ID for this partition
low_key	Bigint	Specifies the minimum key value for this partition. The column is only defined for Int64Range partition. Otherwise it is NULL.
high_key	Bigint	Specifies the maximum key value for this partition. The column is only defined for Int64Range partition. Otherwise it is NULL.
name	nvarchar(128)	Indicates the name of this partition of the service. The column is only defined for Named partition. Otherwise it is NULL.

Example:

```
select * from fn_hadr_fabric_get_partitions ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```

service_name	service_kind	service_kind_
-----	-----	-----
fabric:/Worker.ISO/af45245671f2/SQL.UserDb/035eafae-f62d-4935-ba70-65de66b68882	2	STATEFUL
fabric:/Worker.ISO/b1e555b2e4c1/SQL.LogicalServer/b1e555b2e4c1	2	STATEFUL
fabric:/Worker.ISO/b1e555b2e4c1/SQL.UserDb/cbb4ff9b-2df9-46da-b072-3c832bdcf405	2	STATEFUL
fabric:/Worker.ISO/b3dc6ca70ff0/SQL.LogicalServer/b3dc6ca70ff0	2	STATEFUL
fabric:/Worker.ISO/b3dc6ca70ff0/SQL.UserDb/58cfa3b9-11ee-4643-91fb-22abf429abdd	2	STATEFUL
fabric:/Worker.ISO/b42319f9c06b/SQL.LogicalServer/b42319f9c06b	2	STATEFUL
fabric:/Worker.ISO/b42319f9c06b/SQL.MasterDb/8b14d3a7-40ba-46e2-b3da-40a5381a7c2c	2	STATEFUL
fabric:/Worker.ISO/b562fdde87c9/SQL.LogicalServer/b562fdde87c9	2	STATEFUL
fabric:/Worker.ISO/b562fdde87c9/SQL.MasterDb/ba86e891-0aa2-474e-a17c-8915e30289b2	2	STATEFUL
fabric:/Worker.ISO/b5a2cc3c9ab4/SQL.LogicalServer/b5a2cc3c9ab4	2	STATEFUL
fabric:/Worker.ISO/b5a2cc3c9ab4/SQL.MasterDb/51de27b1-20ab-498a-99fc-9219d1ff30e3	2	STATEFUL
fabric:/Worker.ISO/b5e6db567dea/SQL.LogicalServer/b5e6db567dea	2	STATEFUL
fabric:/Worker.ISO/b5e6db567dea/SQL.MasterDb/a02cf73f-fd4b-4d88-9c7a-6b1c359b1368	2	STATEFUL
fabric:/Worker.ISO/b7e328254ca9/SQL.LogicalServer/b7e328254ca9	2	STATEFUL
fabric:/Worker.ISO/b7e328254ca9/SQL.UserDb/08107d53-890c-44a6-b139-4ce01b0ddec8	2	STATEFUL
fabric:/Worker.ISO/b80258024485/SQL.LogicalServer/b80258024485	2	STATEFUL
fabric:/Worker.ISO/b80258024485/SQL.MasterDb/435e4d95-d648-4fa9-bcac-8ea1a9995f09	2	STATEFUL
fabric:/Worker.ISO/b995d03e6ff3/SQL.LogicalServer/b995d03e6ff3	2	STATEFUL
fabric:/Worker.ISO/b995d03e6ff3/SQL.MasterDb/28dc78f-ce2f-4029-9ee3-7a1aef67ba1a	2	STATEFUL
fabric:/Worker.ISO/b9af56088254/SQL.LogicalServer/b9af56088254	2	STATEFUL
fabric:/Worker.ISO/b9af56088254/SQL.MasterDb/ced8e182-a583-427e-acdd-c62e9c4c3646	2	STATEFUL
fabric:/Worker.ISO/bb1b791b5e91/SQL.LogicalServer/bb1b791b5e91	2	STATEFUL
fabric:/Worker.ISO/bb1b791b5e91/SQL.UserDb/8fec29e-d130-49b9-8189-9c74aad3037b	2	STATEFUL

dm_hadr_fabric_replicas

Returns a list of replicas. Replicas are the nodes hosting the database. This table has one row for each replica

Column name	Data type	Description
partition_id	guid	The partition ID for this partition
service_kind	tinyint	The service type kind, one of: 0 = Invalid, 1 = Stateless, 2 = Stateful
service_kind_desc	nvarchar(60)	The description of the service kind, one of: INVALID, STATELESS, STATEFUL
replica_status	tinyint	The status of the replica, one of: 0 = Invalid, 1 = Inbuild, 2 = Standby, 3 = Ready, 4 = Down, 5 = Dropped
replica_status_desc	nvarchar(60)	Description of the status, one of: INVALID, DOWN, DROPPED, IN_BUILD, READY, STANDBY
replica_health_state	tinyint	The health state of the replica, one of: 0 = Invalid, 1 = Ok, 2 = Warning, 3 = Error, -1 = Unknown
replica_health_state_desc	nvarchar(60)	Description of the health state, one of: INVALID, OK, WARNING, ERROR, UNKNOWN

Column name	Data type	Description
Id	bigint	It is replica id for Stateful service. Otherwise it is instance id.
node_name	nvarchar(256)	The node name the replica is running on.
last_in_build_duration	bigint	The last in build duration.
replica_address	nvarchar(256)	The address the replica is listening on.
replica_role	tinyint	<p>Replica role, one of: 0 = UNKNOWN, 1 = NONE, 2 = PRIMARY, 3 = IDLE_SECONDARY, 4 = ACTIVE_SECONDARY</p> <p>The column is only defined for Stateful Service Replica. Otherwise it is NULL.</p>
replica_role_desc	nvarchar(60)	<p>Description of the replica role, one of: UNKNOWN, NONE, PRIMARY, IDLE_SECONDARY, ACTIVE_SECONDARY</p> <p>The column is only defined for Stateful Service Replica. Otherwise it is NULL.</p>

Example

```
select * from fn_hadr_fabric_get_replicas ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
```


partition_id	service_kind	service_kind_desc	replica_status	replica_status_desc	rep
628d0bab-fb09-49a7-9bbf-f505084cbc44	2	STATEFUL	3	READY	1
628d0bab-fb09-49a7-9bbf-f505084cbc44	2	STATEFUL	3	READY	1
628d0bab-fb09-49a7-9bbf-f505084cbc44	2	STATEFUL	3	READY	1
628d0bab-fb09-49a7-9bbf-f505084cbc44	2	STATEFUL	3	READY	1
ab397ee2-142c-4163-bac8-d26a4a41b6de	2	STATEFUL	3	READY	1
ab397ee2-142c-4163-bac8-d26a4a41b6de	2	STATEFUL	3	READY	1
ab397ee2-142c-4163-bac8-d26a4a41b6de	2	STATEFUL	3	READY	1
ab397ee2-142c-4163-bac8-d26a4a41b6de	2	STATEFUL	3	READY	1
eb79129d-4bbe-4ce6-aef9-3e2284b9d96f	2	STATEFUL	3	READY	1
eb79129d-4bbe-4ce6-aef9-3e2284b9d96f	2	STATEFUL	3	READY	1
eb79129d-4bbe-4ce6-aef9-3e2284b9d96f	2	STATEFUL	3	READY	1
eb79129d-4bbe-4ce6-aef9-3e2284b9d96f	2	STATEFUL	3	READY	1
abf87aa8-a56e-42c0-9f97-07a1c20858a2	2	STATEFUL	3	READY	1
abf87aa8-a56e-42c0-9f97-07a1c20858a2	2	STATEFUL	3	READY	1
abf87aa8-a56e-42c0-9f97-07a1c20858a2	2	STATEFUL	3	READY	1
abf87aa8-a56e-42c0-9f97-07a1c20858a2	2	STATEFUL	3	READY	1
468bb420-f148-4552-8eb5-08c53a1c51b3	2	STATEFUL	3	READY	1
468bb420-f148-4552-8eb5-08c53a1c51b3	2	STATEFUL	3	READY	1
468bb420-f148-4552-8eb5-08c53a1c51b3	2	STATEFUL	3	READY	1
468bb420-f148-4552-8eb5-08c53a1c51b3	2	STATEFUL	3	READY	1
5a045c82-f707-47b3-93e1-5ce718dd8a50	2	STATEFUL	3	READY	1
5a045c82-f707-47b3-93e1-5ce718dd8a50	2	STATEFUL	3	READY	1
5a045c82-f707-47b3-93e1-5ce718dd8a50	2	STATEFUL	3	READY	1
5a045c82-f707-47b3-93e1-5ce718dd8a50	2	STATEFUL	3	READY	1
d016a3e7-aa28-41f7-9907-721e26835b9a	2	STATEFUL	3	READY	1

WinFab Function Definitions

Each WinFab DMV has a corresponding function that can take a cluster name as an optional argument (NULL for local) and can be used to return information for the remote cluster. The function names are defined as:

sys.fn_hadr_fabric_get_(@cluster_dns_name nvarchar(260) = NULL)

List of all available query functions to use in HttpQuery:

fn_hadr_fabric_get_application_health_states (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_application_types (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_applications (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_cluster_health_states (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_node_health_states (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_nodes (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_partition_health_states (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_partitions (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_replica_health_states (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_replicas (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_service_health_states (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_service_types (<cluster_fabric_endpoint>)
 fn_hadr_fabric_get_services (<cluster_fabric_endpoint>)
 sys.fn_hadr_fabric_get_deployed_applications
 sys.fn_hadr_fabric_get_deployed_application_health_states

sys.dm_hadr_fabric_XXXX will only look at the ring the server instance running on. sys.fn_hadr_fabric_get_XXXX takes a cluster DNS name. If it is null, then it looks at the ring the server instance running on. If it is a remote ring, then it will return the query result for remote ring only.

Example:

-- Server Name for investigation

server: csstestsrv01.wasdstage05.mscds.com 

database: test2db

Environemnt: WASD-Stage05-WestEurope1-a

```
-- List the SAWA v2 rings in this environment
select name from fabric_clusters
```

```
name
-----
cr1.westeurope1-a.control.wasdstage05.mscds.com
tr1.westeurope1-a.worker.wasdstage05.mscds.com
```

```
--Get the global logical database id for our database
select
logical_server_name
,logical_database_name
,sql_instance_name
,logical_database_id
from logical_databases
where logical_server_name = 'csstestsrv01'
and logical_database_name = 'test2db'
```

logical_server_name	logical_database_name	sql_instance_name	logical_database_id
csstestsrv01	Test2Db	bdc13df6fb0f	6c7b775a-9bef-4bf9-bc40-c6e1253fbf90

```
--Get the physical SAWA v2 Instance information
select
sql_instance_name
,physical_database_id
,tenant_ring_name
,fabric_service_uri
from sql_physical_databases
where logical_database_id = '6c7b775a-9bef-4bf9-bc40-c6e1253fbf90'
```

sql_instance_name	physical_database_id	tenant_ring_name	fa
bdc13df6fb0f	751ce28c-546f-4f66-bf85-f2ef38238c31	tr1.westeurope1-a.worker.wasdstage05.mscds.com	fa

```
--See the fabric information for the database test2db
select *
from fn_hadr_fabric_get_partitions ('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
where service_name like '%bdc13df6fb0f%'
```

service_name	service_kind	service_kind_de
fabric:/Worker.ISO/bdc13df6fb0f/SQL.LogicalServer/bdc13df6fb0f	2	STATEFUL
fabric:/Worker.ISO/bdc13df6fb0f/SQL.UserDb/751ce28c-546f-4f66-bf85-f2ef38238c31	2	STATEFUL

```
-- List the nodes running this database
select *
from
fn_hadr_fabric_get_replicas <span style='color:  gray'>('tr1.westeurope1-a.worker.wasdstage05.mscds.com')
where partition_id = '3B04A362-F65A-4942-B14C-6270D8FCE896'
order by replica_role
```

partition_id	service_kind	service_kind_desc	replica_status	replica_status_desc	rep
3b04a362-f65a-4942-b14c-6270d8fce896	2	STATEFUL	3	READY	1
3b04a362-f65a-4942-b14c-6270d8fce896	2	STATEFUL	3	READY	1
3b04a362-f65a-4942-b14c-6270d8fce896	2	STATEFUL	3	READY	1
3b04a362-f65a-4942-b14c-6270d8fce896	2	STATEFUL	3	READY	1

```
--Find the Alias service information for the database test2db
select *
from fn_hadr_fabric_get_partitions ('cr1.westeurope1-a.control.wasdstage05.mscds.com')
where service_name like '%testdb2'
```

service_name	service_kind	service_kind_desc	partition_status	partition_status_desc
fabric:/Alias/XDBAlias/gwtestsrv01/testdb2	1	STATELESS	1	READY

```
-- List all the gateway nodes running Alias Services that know about this database and the fabric URL the alia
select *
from fn_hadr_fabric_get_replicas ('cr1.westeurope1-a.control.wasdstage05.mscds.com')
where partition_id = '5d7edb83-df0c-4cd3-92c4-705c741496c0'
```

partition_id	service_kind	service_kind_desc	replica_status	replica_status_desc	rep
5d7edb83-df0c-4cd3-92c4-705c741496c0	1	STATELESS	3	READY	1
5d7edb83-df0c-4cd3-92c4-705c741496c0	1	STATELESS	3	READY	1
5d7edb83-df0c-4cd3-92c4-705c741496c0	1	STATELESS	3	READY	1

How good have you found this content?

