Microsoft SQL Server 2016 and Azure SQL Database
Database Engine Permissions

NOTES:
- The CONTROL SERVER permission has all permissions on the instance of SQL Server or SQL Database.
- The CONTROL DATABASE permission has all permissions on the database.
- Permissions do not imply role memberships and role memberships do not grant permissions. (E.g. CONTROL SERVER does not imply membership in the sysadmin fixed server role. Membership in the db_owner role does not grant the CONTROL DATABASE permission.) However, it is sometimes possible to impersonate between roles and equivalent permissions.
- Granting any permission on a securable allows VIEW DEFINITION on that securable. It is an implied permissions and it cannot be revoked, but it can be explicitly denied by using the DENY VIEW DEFINITION statement.
- SQL Database permissions refer to version 12.
- Object owners can delete them but they do not have full permissions on them.
- A DENY on a table is overridden by a GRANT on a column. However, a subsequent DENY on the table will remove the column GRANT.

Permission Syntax

Most permission statements have the format :

AUTHORIZATION PERMISSION ON SECURABLE::NAME TO PRINCIPAL

- AUTHORIZATION must be GRANT, REVOKE or DENY.
- PERMISSION is listed in the charts below.
- ON SECURABLE::NAME is the server, server object, database, or database object and its name. (ON SECURABLE::NAME is omitted for server-wide and database-wide permissions.)
- PRINCIPAL is the login, user, or role which receives or loses the permission. Grant permissions to roles whenever possible.

Sample grant statement: GRANT UPDATE ON OBJECT::Production.Parts TO PartsTeam

Denying a permission at any level, overrides a related grant.

To remove a previously granted permission, use REVOKE, not DENY.

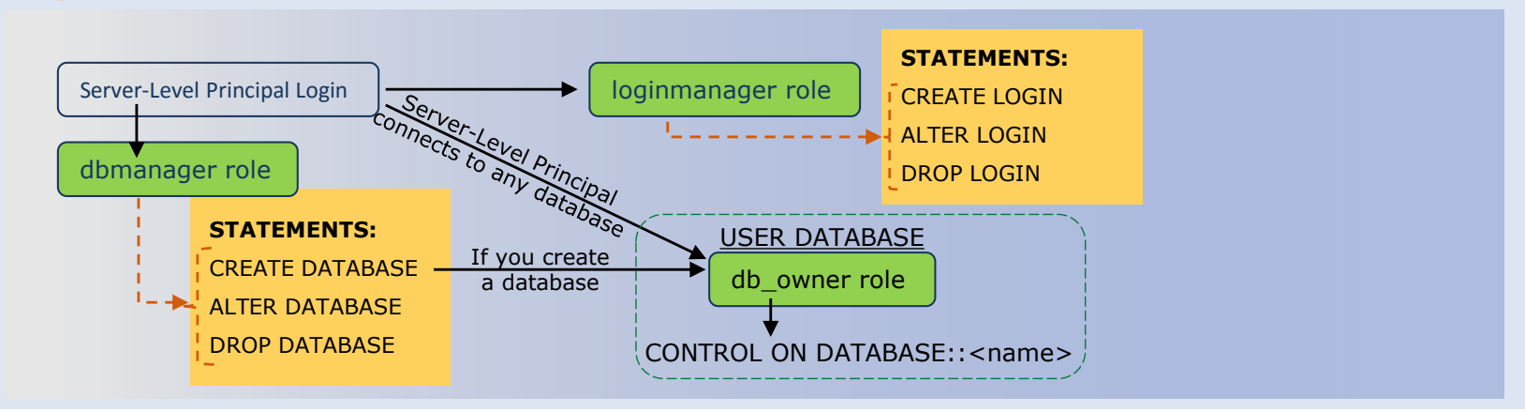
How to Read this Chart

- Most of the more granular permissions are included in more than one higher level scope permission. So permissions can be inherited from more than one type of higher scope.
- Black, green, and purple arrows and boxes point to subordinate permissions that are included in the scope of higher a level permission.
- Brown arrows and boxes indicate some of the statements that can use the permission.
- Permissions in black apply to both SQL Server 2016 and Azure SQL Database
- Permissions in red apply only to SQL Server 2016
- Permissions in blue apply only to Azure SQL Database
- The newest permissions are underlined

Azure SQL Database Permissions Outside the Database

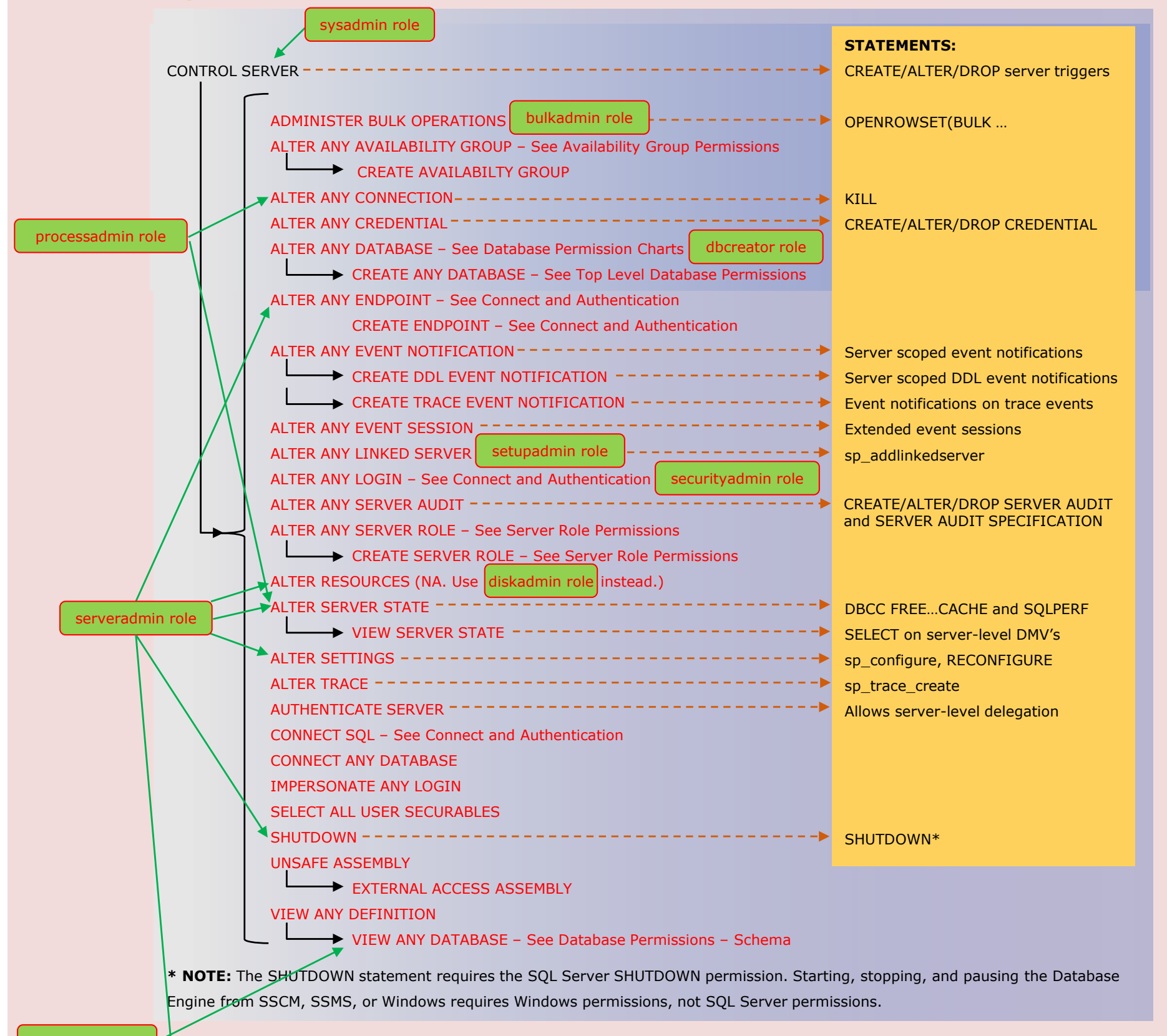
Notes:
- Server-level permissions cannot be granted on SQL Database. Use the **loginmanager** and **dbmanager** roles in the master database instead.

Top Level Server Permissions


Server-Level Principal Login
loginmanager role
STATEMENTS:
CREATE LOGIN
ALTER LOGIN
DROP LOGIN
dbmanager role
Server-Level Principal connects to any database
STATEMENTS:
CREATE DATABASE
ALTER DATABASE
DROP DATABASE
If you create a database
USER DATABASE
db_owner role
CONTROL ON DATABASE::<name>

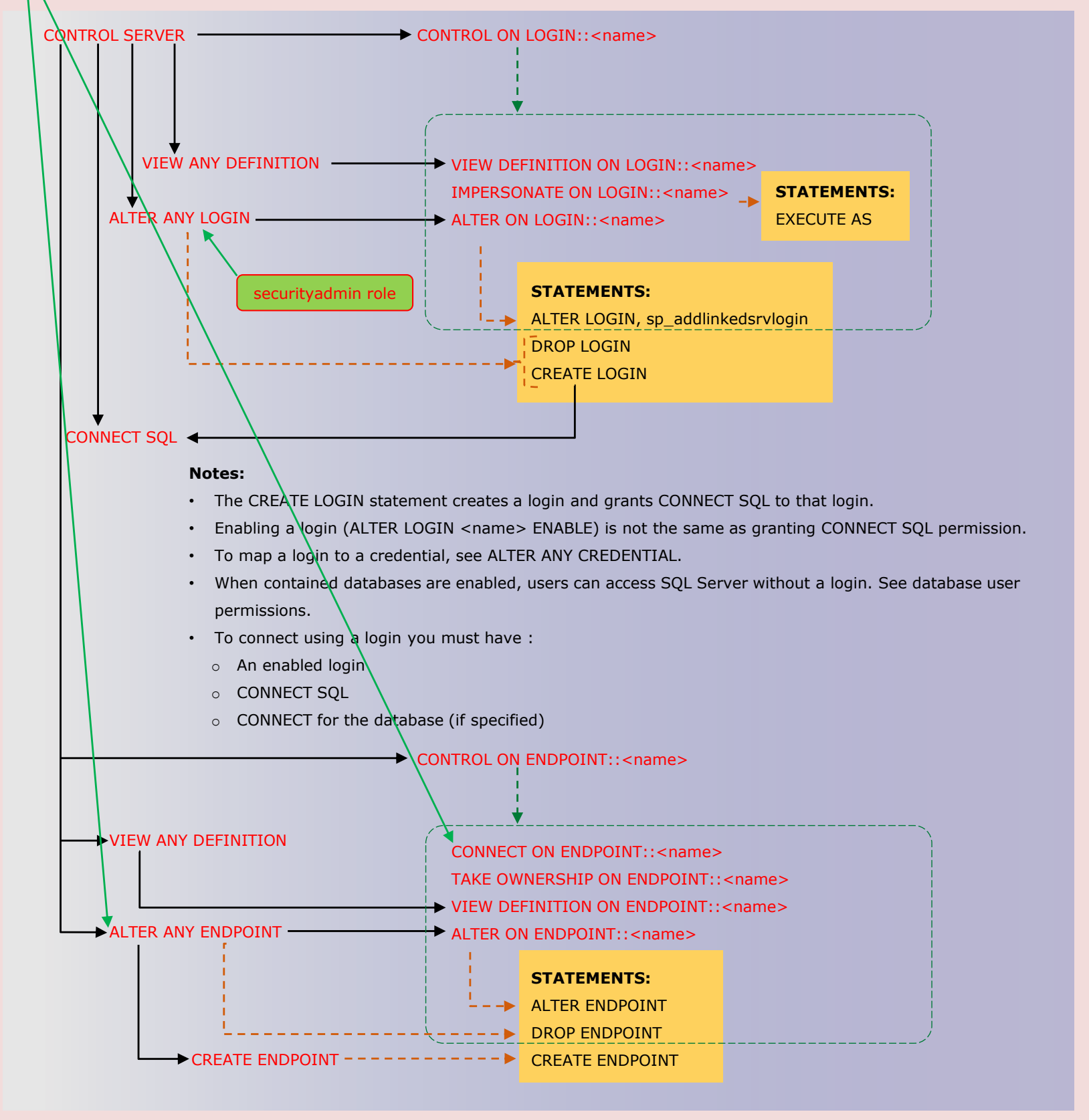
Server Level Permissions for SQL Server

Top Level Server Permissions


sysadmin role
CONTROL SERVER
ADMINISTER BULK OPERATIONS
bulkadmin role
ALTER ANY AVAILABILITY GROUP – See Availability Group Permissions
CREATE AVAILABILTY GROUP
processadmin role
ALTER ANY CONNECTION
ALTER ANY CREDENTIAL
ALTER ANY DATABASE – See Database Permission Charts
dbcreator role
CREATE ANY DATABASE – See Top Level Database Permissions
ALTER ANY ENDPOINT – See Connect and Authentication
CREATE ENDPOINT – See Connect and Authentication
ALTER ANY EVENT NOTIFICATION
CREATE DDL EVENT NOTIFICATION
CREATE TRACE EVENT NOTIFICATION
ALTER ANY EVENT SESSION
ALTER ANY LINKED SERVER
setupadmin role
ALTER ANY LOGIN – See Connect and Authentication
securityadmin role
ALTER ANY SERVER AUDIT
ALTER ANY SERVER ROLE – See Server Role Permissions
CREATE SERVER ROLE – See Server Role Permissions
ALTER RESOURCES (NA. Use diskadmin role instead.)
serveradmin role
ALTER SERVER STATE
VIEW SERVER STATE
ALTER SETTINGS
ALTER TRACE
AUTHENTICATE SERVER
CONNECT SQL – See Connect and Authentication
CONNECT ANY DATABASE
IMPERSONATE ANY LOGIN
SELECT ALL USER SECURABLES
SHUTDOWN
UNSAFE ASSEMBLY
EXTERNAL ACCESS ASSEMBLY
VIEW ANY DEFINITION
VIEW ANY DATABASE – See Database Permissions – Schema
public role
STATEMENTS:
CREATE/ALTER/DROP server triggers
OPENROWSET(BULK …
KILL
CREATE/ALTER/DROP CREDENTIAL
Server scoped event notifications
Server scoped DDL event notifications
Event notifications on trace events
Extended event sessions
sp_addlinkedserver
CREATE/ALTER/DROP SERVER AUDIT and SERVER AUDIT SPECIFICATION
DBCC FREE…CACHE and SQLPERF
SELECT on server-level DMV's
sp_configure, RECONFIGURE
sp_trace_create
Allows server-level delegation
SHUTDOWN*

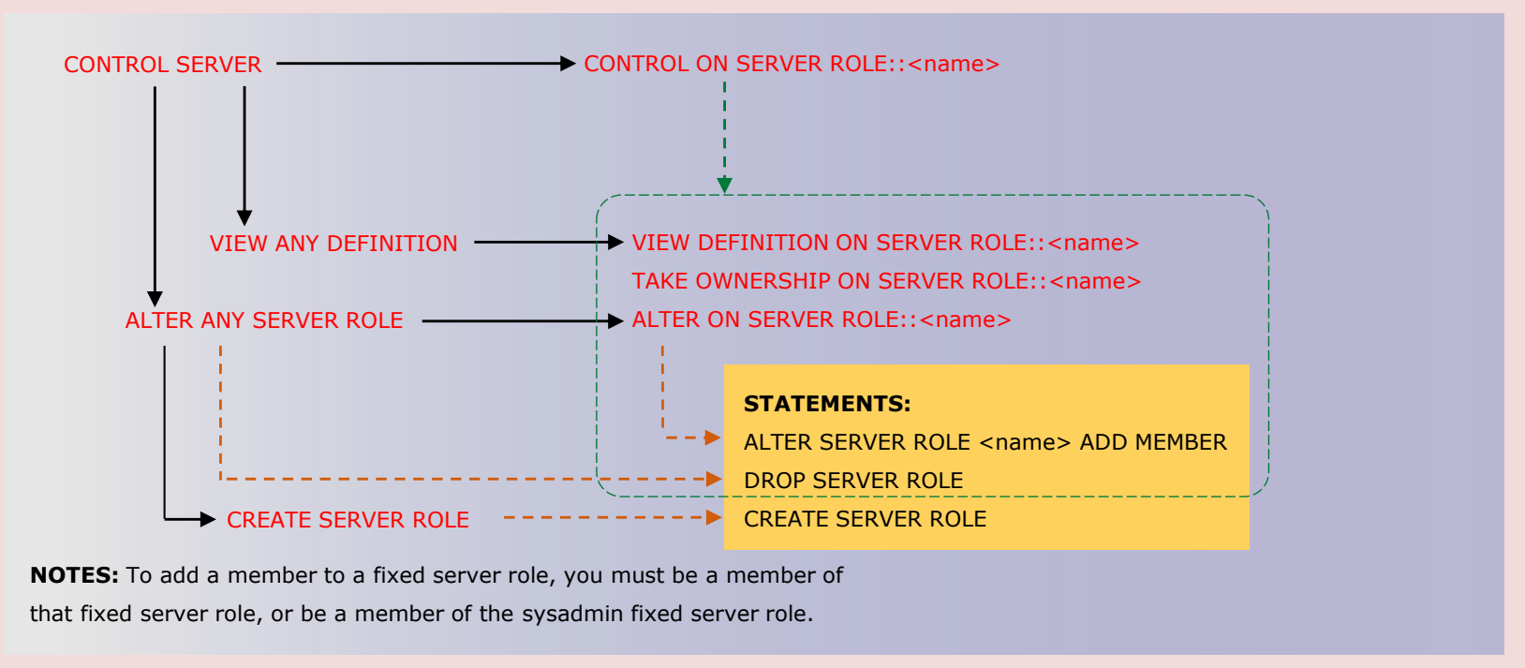
*** NOTE:** The SHUTDOWN statement requires the SQL Server SHUTDOWN permission. Starting, stopping, and pausing the Database Engine from SSCM, SSMS, or Windows requires Windows permissions, not SQL Server permissions.

Connect and Authentication – Server Permissions


CONTROL SERVER
CONTROL ON LOGIN::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON LOGIN::<name>
IMPERSONATE ON LOGIN::<name>
STATEMENTS:
EXECUTE AS
ALTER ANY LOGIN
ALTER ON LOGIN::<name>
securityadmin role
STATEMENTS:
ALTER LOGIN, sp_addlinkedsrvlogin
DROP LOGIN
CREATE LOGIN
CONNECT SQL
CONTROL ON ENDPOINT::<name>
VIEW ANY DEFINITION
CONNECT ON ENDPOINT::<name>
TAKE OWNERSHIP ON ENDPOINT::<name>
VIEW DEFINITION ON ENDPOINT::<name>
ALTER ANY ENDPOINT
ALTER ON ENDPOINT::<name>
STATEMENTS:
ALTER ENDPOINT
DROP ENDPOINT
CREATE ENDPOINT
CREATE ENDPOINT

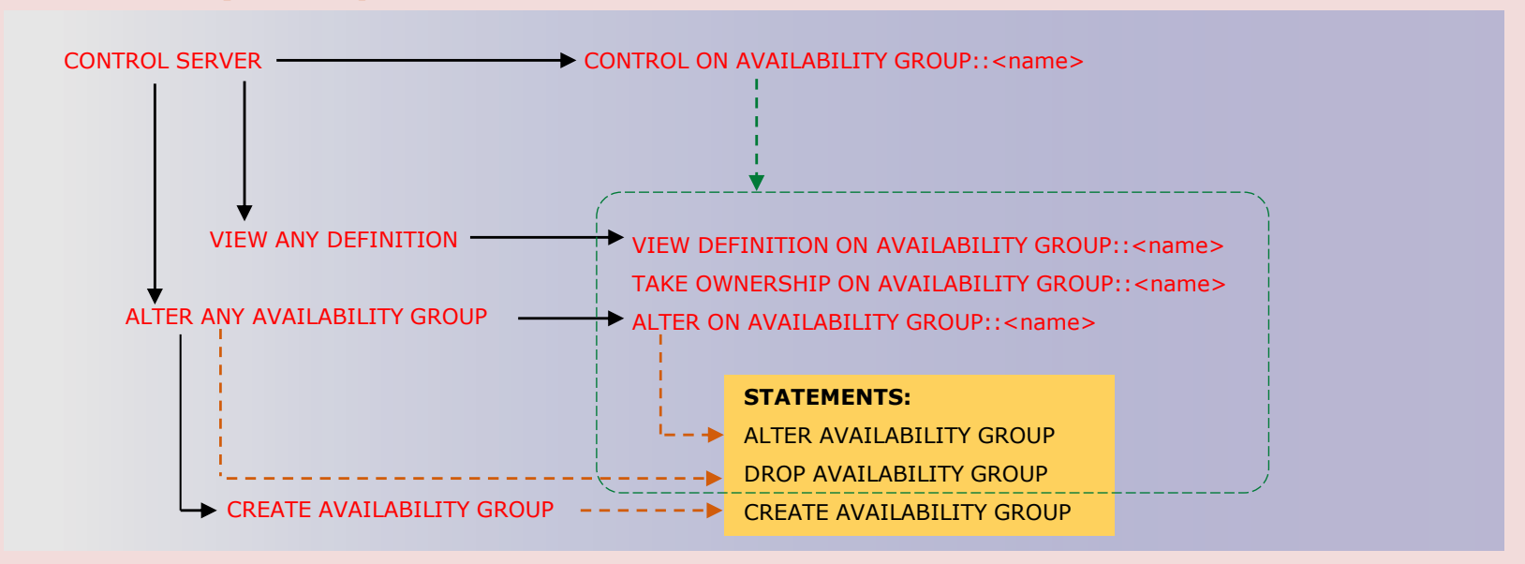
Notes:
- The CREATE LOGIN statement creates a login and grants CONNECT SQL to that login.
- Enabling a login (ALTER LOGIN <name> ENABLE) is not the same as granting CONNECT SQL permission.
- To map a login to a credential, see ALTER ANY CREDENTIAL.
- When contained databases are enabled, users can access SQL Server without a login. See database user permissions.
- To connect using a login you must have :
  - An enabled login
  - CONNECT SQL
  - CONNECT for the database (if specified)

Server Role Permissions


CONTROL SERVER
CONTROL ON SERVER ROLE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON SERVER ROLE::<name>
TAKE OWNERSHIP ON SERVER ROLE::<name>
ALTER ANY SERVER ROLE
ALTER ON SERVER ROLE::<name>
STATEMENTS:
ALTER SERVER ROLE <name> ADD MEMBER
DROP SERVER ROLE
CREATE SERVER ROLE
CREATE SERVER ROLE

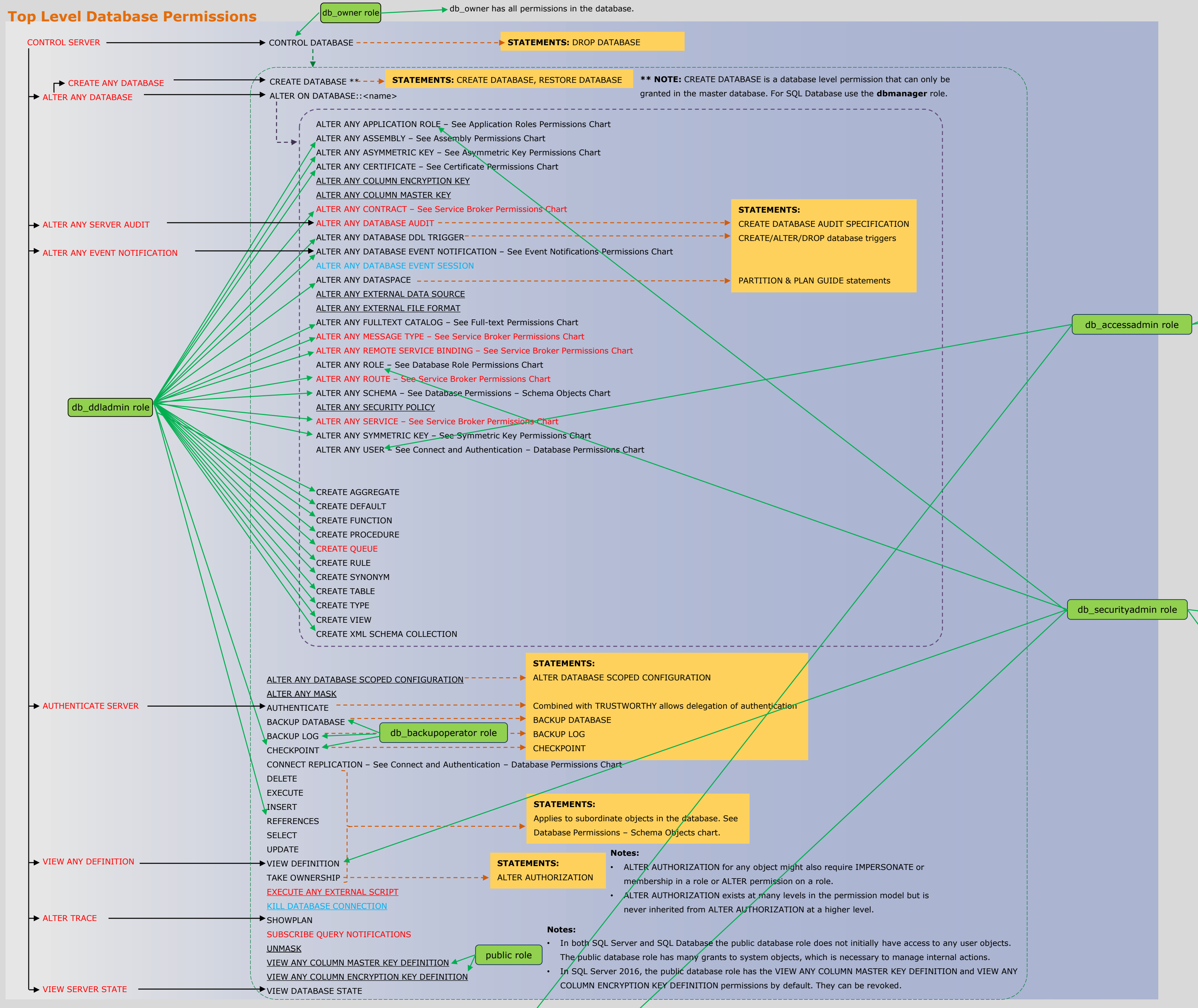
NOTES: To add a member to a fixed server role, you must be a member of that fixed server role, or be a member of the sysadmin fixed server role.

Availability Group Permissions


CONTROL SERVER
CONTROL ON AVAILABILITY GROUP::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON AVAILABILITY GROUP::<name>
TAKE OWNERSHIP ON AVAILABILITY GROUP::<name>
ALTER ANY AVAILABILITY GROUP
ALTER ON AVAILABILITY GROUP::<name>
STATEMENTS:
ALTER AVAILABILITY GROUP
DROP AVAILABILITY GROUP
CREATE AVAILABILITY GROUP
CREATE AVAILABILITY GROUP

Database Level Permissions

Top Level Database Permissions

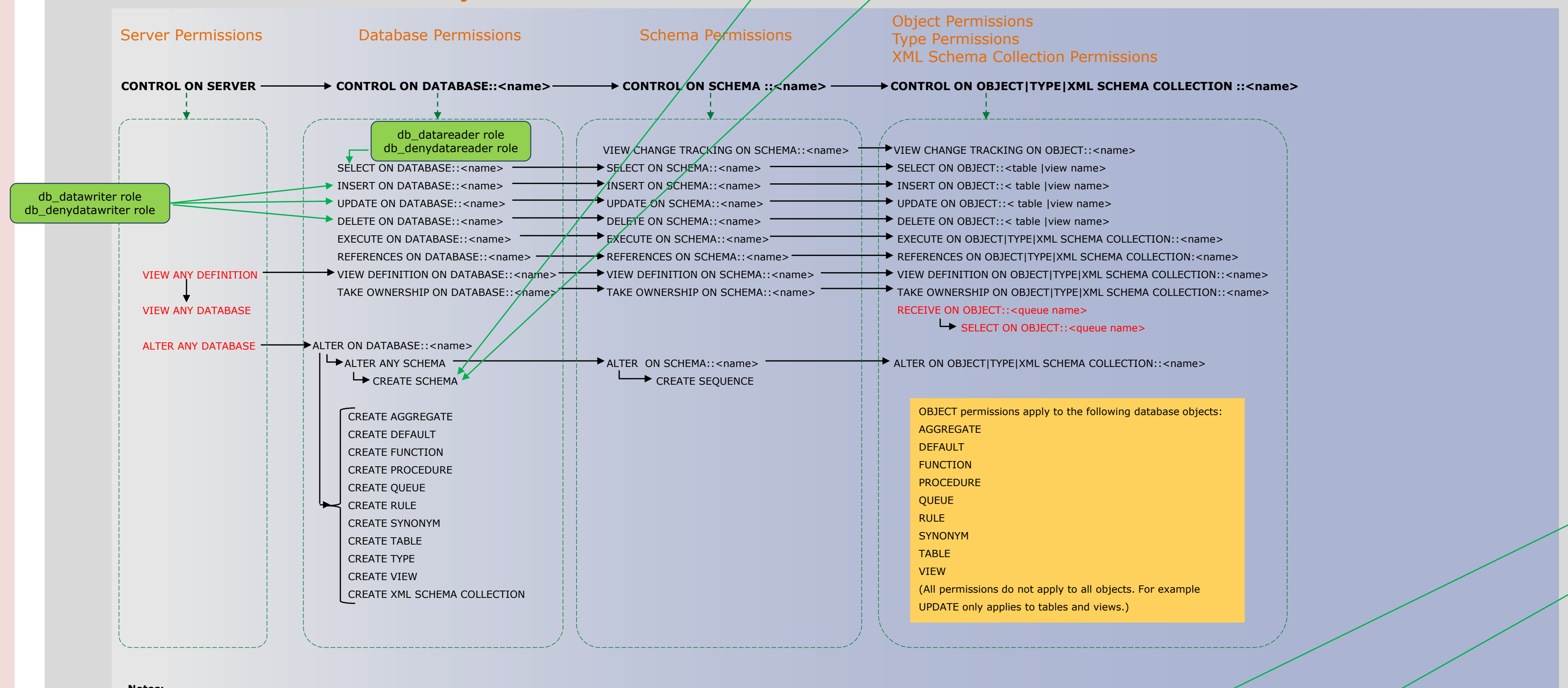

db_owner role
db_owner has all permissions in the database.
CONTROL SERVER
CONTROL DATABASE
STATEMENTS: DROP DATABASE
CREATE ANY DATABASE
CREATE DATABASE **
STATEMENTS: CREATE DATABASE, RESTORE DATABASE
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY APPLICATION ROLE – See Application Roles Permissions Chart
ALTER ANY ASSEMBLY – See Assembly Permissions Chart
ALTER ANY ASYMMETRIC KEY – See Asymmetric Key Permissions Chart
ALTER ANY CERTIFICATE – See Certificate Permissions Chart
ALTER ANY COLUMN ENCRYPTION KEY
ALTER ANY COLUMN MASTER KEY
ALTER ANY CONTRACT – See Service Broker Permissions Chart
ALTER ANY SERVER AUDIT
ALTER ANY DATABASE AUDIT
ALTER ANY DATABASE DDL TRIGGER
ALTER ANY EVENT NOTIFICATION
ALTER ANY DATABASE EVENT NOTIFICATION – See Event Notifications Permissions Chart
ALTER ANY DATABASE EVENT SESSION
ALTER ANY DATASPACE
ALTER ANY EXTERNAL DATA SOURCE
ALTER ANY EXTERNAL FILE FORMAT
ALTER ANY FULLTEXT CATALOG – See Full-text Permissions Chart
ALTER ANY MESSAGE TYPE – See Service Broker Permissions Chart
ALTER ANY REMOTE SERVICE BINDING – See Service Broker Permissions Chart
ALTER ANY ROLE – See Database Role Permissions Chart
ALTER ANY ROUTE – See Service Broker Permissions Chart
ALTER ANY SCHEMA – See Database Permissions – Schema Objects Chart
ALTER ANY SECURITY POLICY
ALTER ANY SERVICE – See Service Broker Permissions Chart
ALTER ANY SYMMETRIC KEY – See Symmetric Key Permissions Chart
ALTER ANY USER – See Connect and Authentication – Database Permissions Chart
STATEMENTS:
CREATE DATABASE AUDIT SPECIFICATION
CREATE/ALTER/DROP database triggers
PARTITION & PLAN GUIDE statements
db_ddladmin role
db_accessadmin role
db_securityadmin role
CREATE AGGREGATE
CREATE DEFAULT
CREATE FUNCTION
CREATE PROCEDURE
CREATE QUEUE
CREATE RULE
CREATE SYNONYM
CREATE TABLE
CREATE TYPE
CREATE VIEW
CREATE XML SCHEMA COLLECTION
ALTER ANY DATABASE SCOPED CONFIGURATION
ALTER ANY MASK
AUTHENTICATE SERVER
AUTHENTICATE
BACKUP DATABASE
BACKUP LOG
db_backupoperator role
CHECKPOINT
STATEMENTS:
ALTER DATABASE SCOPED CONFIGURATION
Combined with TRUSTWORTHY allows delegation of authentication
BACKUP DATABASE
BACKUP LOG
CHECKPOINT
CONNECT REPLICATION – See Connect and Authentication – Database Permissions Chart
DELETE
EXECUTE
INSERT
REFERENCES
SELECT
UPDATE
STATEMENTS:
Applies to subordinate objects in the database. See Database Permissions – Schema Objects chart.
VIEW ANY DEFINITION
VIEW DEFINITION
TAKE OWNERSHIP
STATEMENTS:
ALTER AUTHORIZATION
EXECUTE ANY EXTERNAL SCRIPT
KILL DATABASE CONNECTION
ALTER TRACE
SHOWPLAN
SUBSCRIBE QUERY NOTIFICATIONS
UNMASK
public role
VIEW ANY COLUMN MASTER KEY DEFINITION
VIEW ANY COLUMN ENCRYPTION KEY DEFINITION
VIEW SERVER STATE
VIEW DATABASE STATE

**** NOTE:** CREATE DATABASE is a database level permission that can only be granted in the master database. For SQL Database use the **dbmanager** role.

Notes:
- ALTER AUTHORIZATION for any object might also require IMPERSONATE or membership in a role or ALTER permission on a role.
- ALTER AUTHORIZATION exists at many levels in the permission model but is never inherited from ALTER AUTHORIZATION at a higher level.

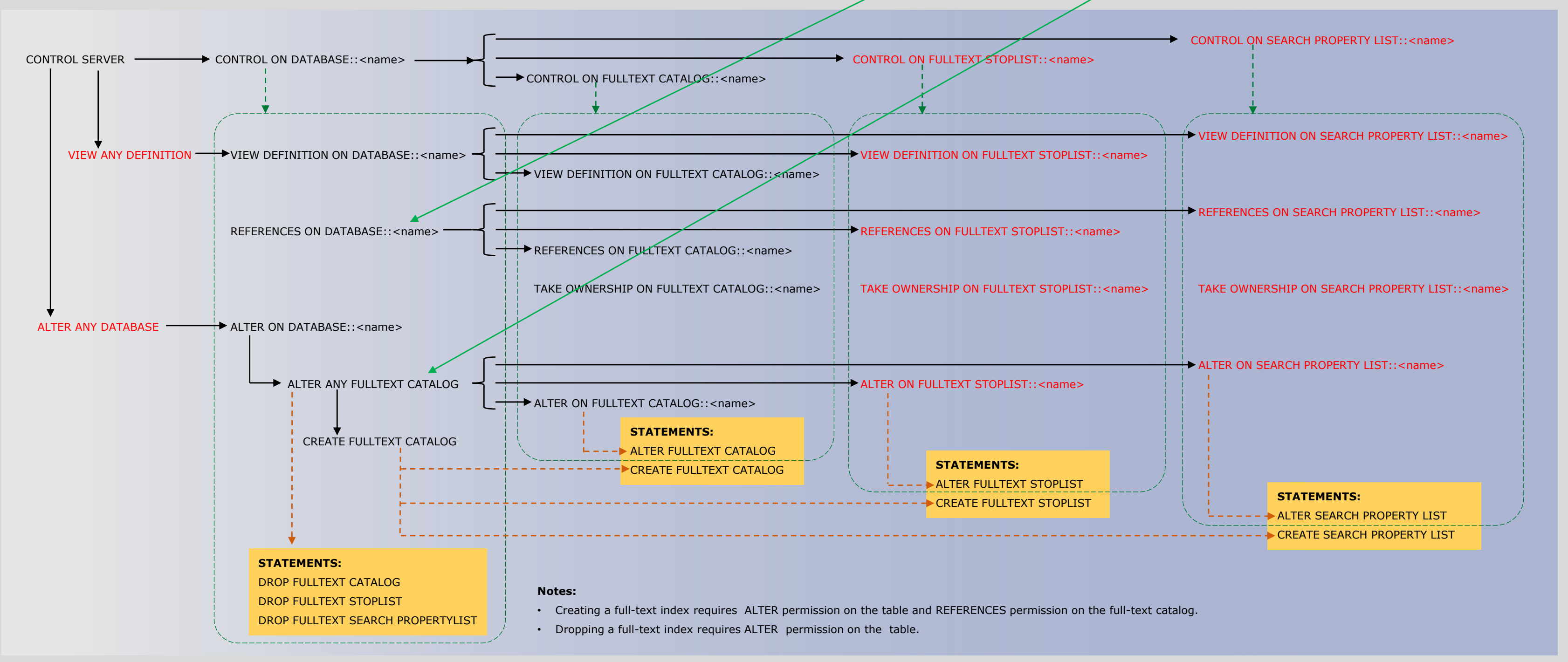
Notes:
- In both SQL Server and SQL Database the public database role does not initially have access to any user objects. The public database role has many grants to system objects, which is necessary to manage internal actions.
- In SQL Server 2016, the public database role has the VIEW ANY COLUMN MASTER KEY DEFINITION and VIEW ANY COLUMN ENCRYPTION KEY DEFINITION permissions by default. They can be revoked.

Database Permissions – Schema Objects


Server Permissions
Database Permissions
Schema Permissions
Object Permissions
Type Permissions
XML Schema Collection Permissions
CONTROL ON SERVER
CONTROL ON DATABASE::<name>
CONTROL ON SCHEMA ::<name>
CONTROL ON OBJECT|TYPE|XML SCHEMA COLLECTION ::<name>
db_datareader role
db_denydatareader role
db_datawriter role
db_denydatawriter role
SELECT ON DATABASE::<name>
INSERT ON DATABASE::<name>
UPDATE ON DATABASE::<name>
DELETE ON DATABASE::<name>
EXECUTE ON DATABASE::<name>
REFERENCES ON DATABASE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
TAKE OWNERSHIP ON DATABASE::<name>
VIEW ANY DATABASE
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY SCHEMA
CREATE SCHEMA
CREATE AGGREGATE
CREATE DEFAULT
CREATE FUNCTION
CREATE PROCEDURE
CREATE QUEUE
CREATE RULE
CREATE SYNONYM
CREATE TABLE
CREATE TYPE
CREATE VIEW
CREATE XML SCHEMA COLLECTION
VIEW CHANGE TRACKING ON SCHEMA::<name>
SELECT ON SCHEMA::<name>
INSERT ON SCHEMA::<name>
UPDATE ON SCHEMA::<name>
DELETE ON SCHEMA::<name>
EXECUTE ON SCHEMA::<name>
REFERENCES ON SCHEMA::<name>
VIEW DEFINITION ON SCHEMA::<name>
TAKE OWNERSHIP ON SCHEMA::<name>
ALTER ON SCHEMA::<name>
CREATE SEQUENCE
VIEW CHANGE TRACKING ON OBJECT::<name>
SELECT ON OBJECT::<table |view name>
INSERT ON OBJECT::< table |view name>
UPDATE ON OBJECT::< table |view name>
DELETE ON OBJECT::< table |view name>
EXECUTE ON OBJECT|TYPE|XML SCHEMA COLLECTION::<name>
REFERENCES ON OBJECT|TYPE|XML SCHEMA COLLECTION:<name>
VIEW DEFINITION ON OBJECT|TYPE|XML SCHEMA COLLECTION::<name>
TAKE OWNERSHIP ON OBJECT|TYPE|XML SCHEMA COLLECTION::<name>
RECEIVE ON OBJECT::<queue name>
SELECT ON OBJECT::<queue name>
ALTER ON OBJECT|TYPE|XML SCHEMA COLLECTION::<name>
OBJECT permissions apply to the following database objects:
AGGREGATE
DEFAULT
FUNCTION
PROCEDURE
QUEUE
RULE
SYNONYM
TABLE
VIEW
(All permissions do not apply to all objects. For example UPDATE only applies to tables and views.)

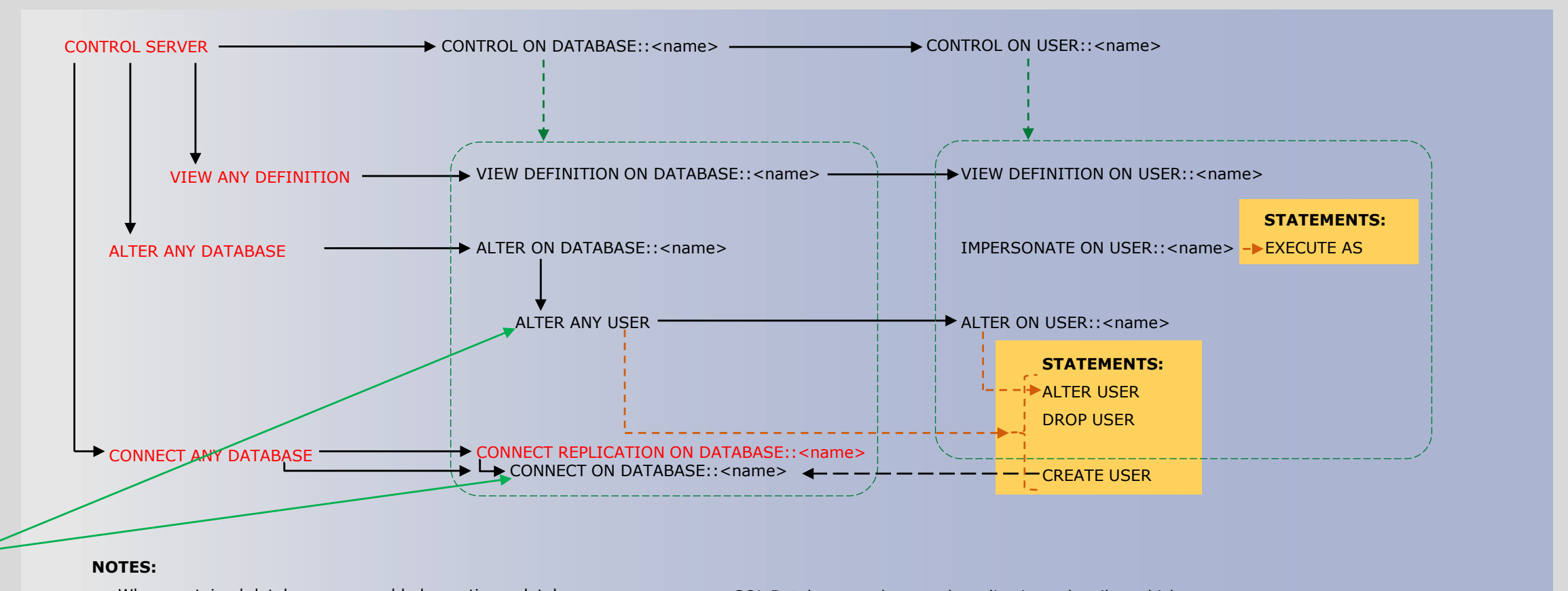
Notes:
- To create a schema object (such as a table) you must have CREATE permission for that object type plus ALTER ON SCHEMA::<name> for the schema of the object. Might require REFERENCES ON OBJECT::<name> for any referenced CLR type or XML schema collection.
- To alter an object (such as a table) you must have ALTER permission on the object (or schema), or CONTROL permission on the object.
- To drop an object (such as a table) you must have ALTER permission on the schema or CONTROL permission on the object.
- To create an index requires ALTER OBJECT::<name> permission on the table or view.
- To create or alter a trigger on a table or view requires ALTER OBJECT::<name> on the table or view.
- To create statistics requires ALTER OBJECT::<name> on the table or view.

Full-text Permissions


CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON SEARCH PROPERTY LIST::<name>
CONTROL ON FULLTEXT STOPLIST::<name>
CONTROL ON FULLTEXT CATALOG::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON SEARCH PROPERTY LIST::<name>
VIEW DEFINITION ON FULLTEXT STOPLIST::<name>
VIEW DEFINITION ON FULLTEXT CATALOG::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON SEARCH PROPERTY LIST::<name>
REFERENCES ON FULLTEXT STOPLIST::<name>
REFERENCES ON FULLTEXT CATALOG::<name>
TAKE OWNERSHIP ON FULLTEXT CATALOG::<name>
TAKE OWNERSHIP ON FULLTEXT STOPLIST::<name>
TAKE OWNERSHIP ON SEARCH PROPERTY LIST::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ON SEARCH PROPERTY LIST::<name>
ALTER ANY FULLTEXT CATALOG
ALTER ON FULLTEXT STOPLIST::<name>
ALTER ON FULLTEXT CATALOG::<name>
CREATE FULLTEXT CATALOG
STATEMENTS:
ALTER FULLTEXT CATALOG
CREATE FULLTEXT CATALOG
STATEMENTS:
ALTER FULLTEXT STOPLIST
CREATE FULLTEXT STOPLIST
STATEMENTS:
ALTER SEARCH PROPERTY LIST
CREATE SEARCH PROPERTY LIST
STATEMENTS:
DROP FULLTEXT CATALOG
DROP FULLTEXT STOPLIST
DROP FULLTEXT SEARCH PROPERTYLIST

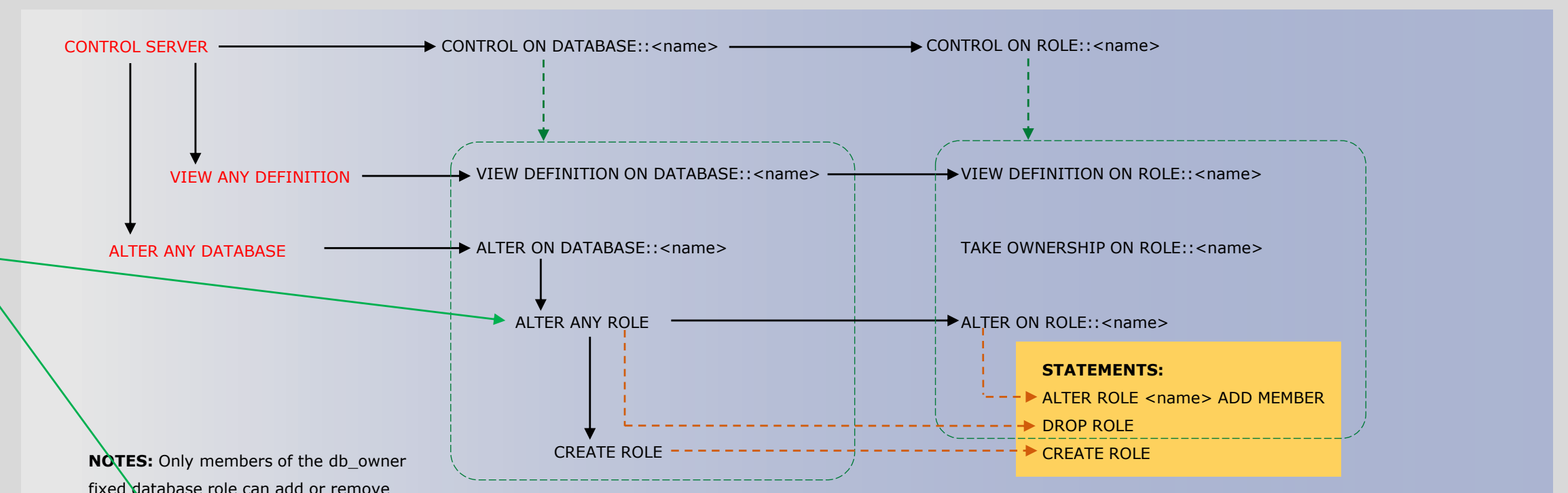
Notes:
- Creating a full-text index requires ALTER permission on the table and REFERENCES permission on the full-text catalog.
- Dropping a full-text index requires ALTER permission on the table.

Connect and Authentication – Database Permissions


CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON USER::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON USER::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
IMPERSONATE ON USER::<name>
STATEMENTS:
EXECUTE AS
ALTER ANY USER
ALTER ON USER::<name>
STATEMENTS:
ALTER USER
DROP USER
CREATE USER
CONNECT ANY DATABASE
CONNECT REPLICATION ON DATABASE::<name>
CONNECT ON DATABASE::<name>
db_accessadmin role

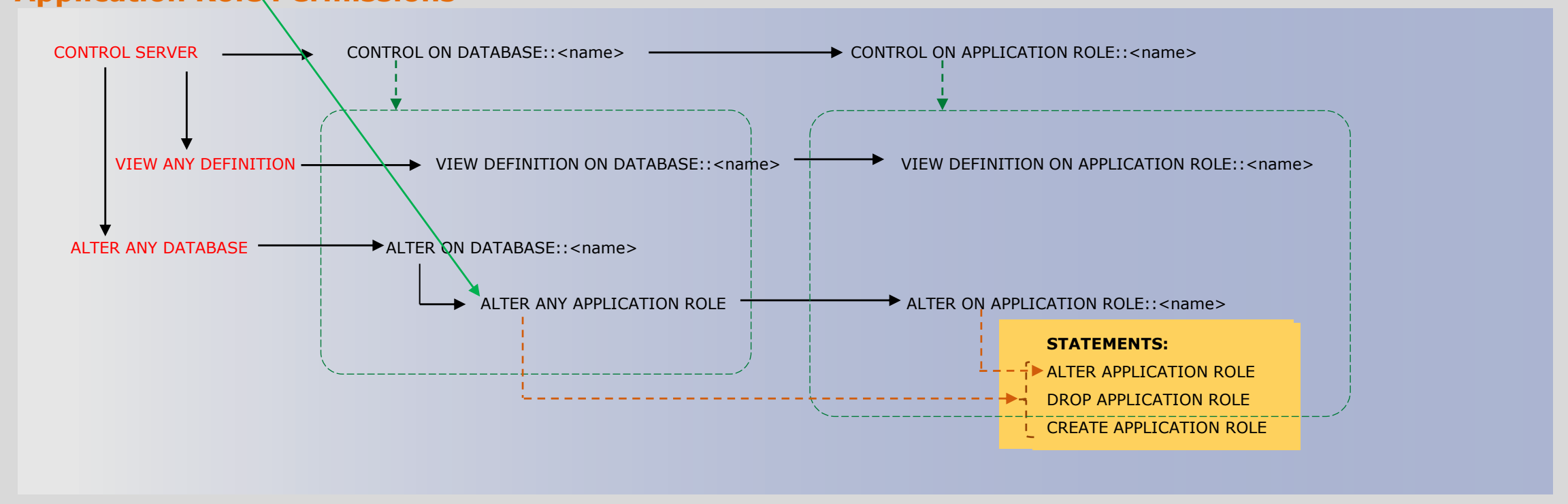
NOTES:
- When contained databases are enabled, creating a database user that authenticates at the database, grants CONNECT ON DATABASE to that user, and it can access SQL Server without a login.
- Granting ALTER ANY USER allows a principal to create a user based on a login, but does not grant the server level permission to view information about logins.
- SQL Database can be a push replication subscriber which requires no special permissions.

Database Role Permissions

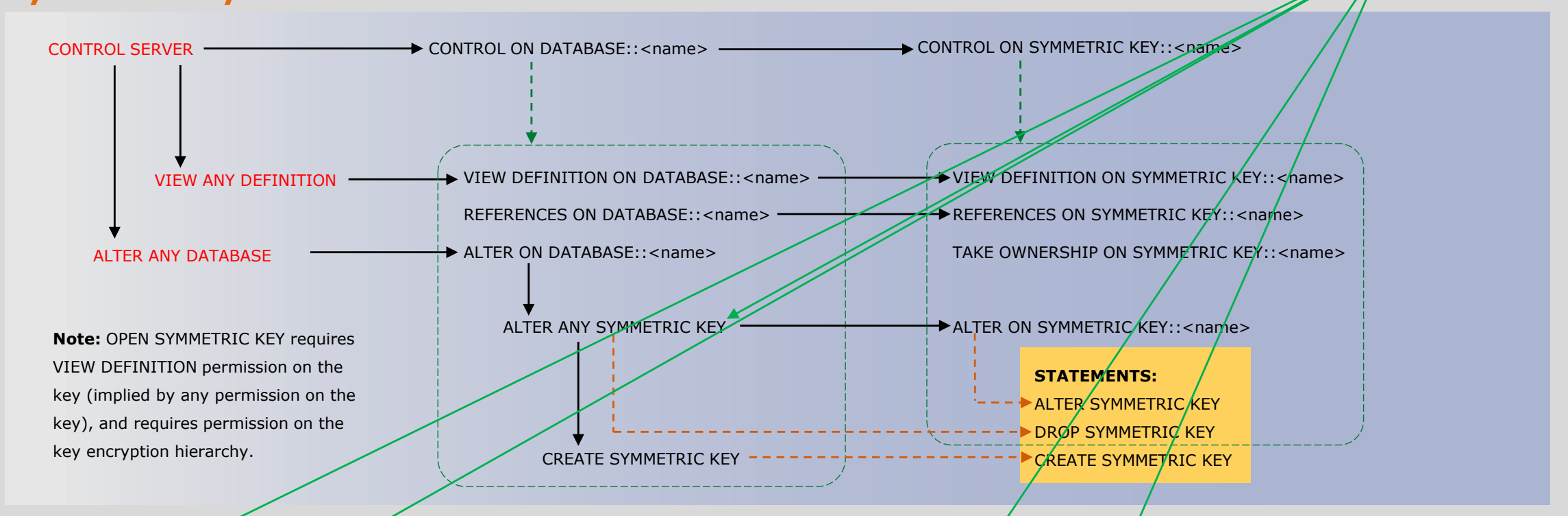

CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON ROLE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON ROLE::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
TAKE OWNERSHIP ON ROLE::<name>
db_securityadmin role
ALTER ANY ROLE
ALTER ON ROLE::<name>
STATEMENTS:
ALTER ROLE <name> ADD MEMBER
DROP ROLE
CREATE ROLE
CREATE ROLE

NOTES: Only members of the db_owner fixed database role can add or remove members from fixed database roles.

Application Role Permissions

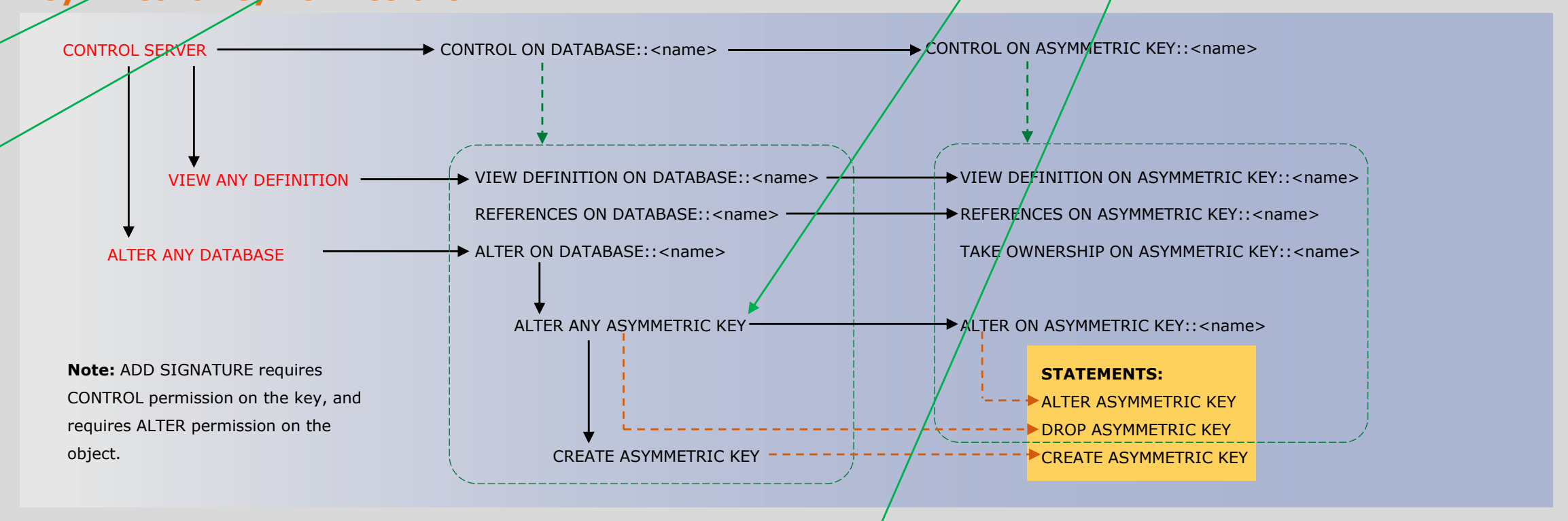

CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON APPLICATION ROLE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON APPLICATION ROLE::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY APPLICATION ROLE
ALTER ON APPLICATION ROLE::<name>
STATEMENTS:
ALTER APPLICATION ROLE
DROP APPLICATION ROLE
CREATE APPLICATION ROLE

Symmetric Key Permissions


db_ddladmin role
CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON SYMMETRIC KEY::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON SYMMETRIC KEY::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON SYMMETRIC KEY::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
TAKE OWNERSHIP ON SYMMETRIC KEY::<name>
ALTER ANY SYMMETRIC KEY
ALTER ON SYMMETRIC KEY::<name>
STATEMENTS:
ALTER SYMMETRIC KEY
DROP SYMMETRIC KEY
CREATE SYMMETRIC KEY
CREATE SYMMETRIC KEY

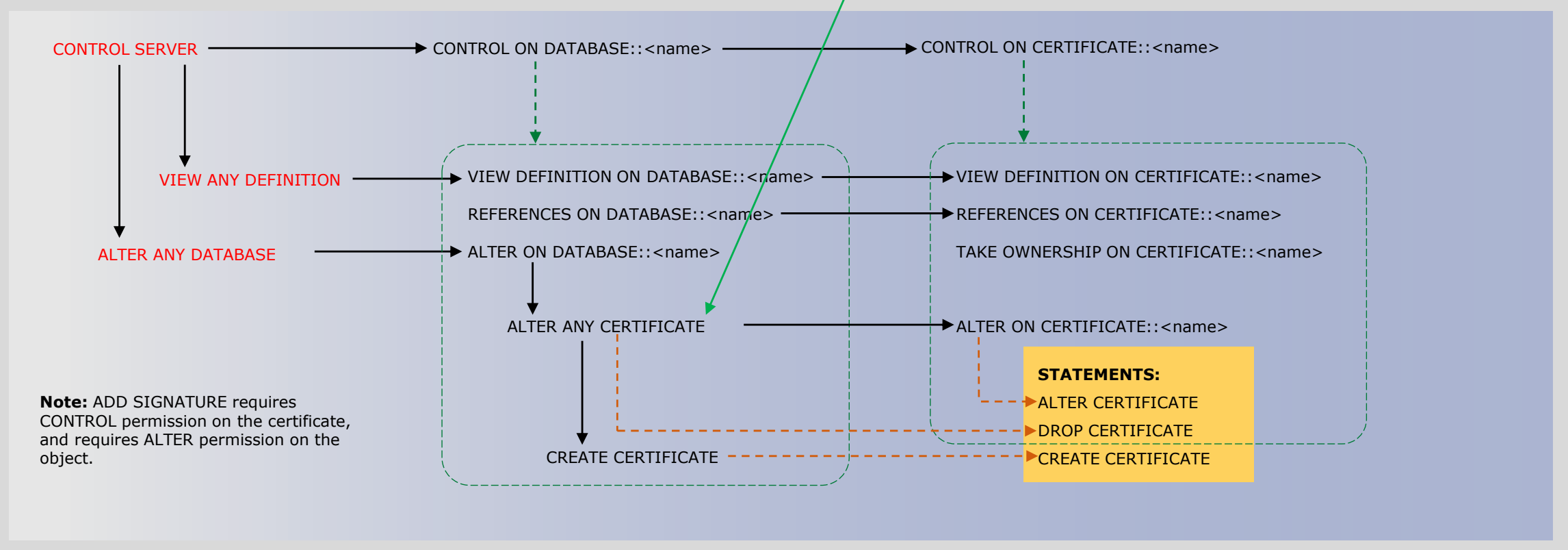
Note: OPEN SYMMETRIC KEY requires VIEW DEFINITION permission on the key (implied by any permission on the key), and requires permission on the key encryption hierarchy.

Asymmetric Key Permissions


CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON ASYMMETRIC KEY::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON ASYMMETRIC KEY::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON ASYMMETRIC KEY::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
TAKE OWNERSHIP ON ASYMMETRIC KEY::<name>
ALTER ANY ASYMMETRIC KEY
ALTER ON ASYMMETRIC KEY::<name>
STATEMENTS:
ALTER ASYMMETRIC KEY
DROP ASYMMETRIC KEY
CREATE ASYMMETRIC KEY
CREATE ASYMMETRIC KEY

Note: ADD SIGNATURE requires CONTROL permission on the key, and requires ALTER permission on the object.

Certificate Permissions


CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON CERTIFICATE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON CERTIFICATE::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON CERTIFICATE::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
TAKE OWNERSHIP ON CERTIFICATE::<name>
ALTER ANY CERTIFICATE
ALTER ON CERTIFICATE::<name>
STATEMENTS:
ALTER CERTIFICATE
DROP CERTIFICATE
CREATE CERTIFICATE
CREATE CERTIFICATE

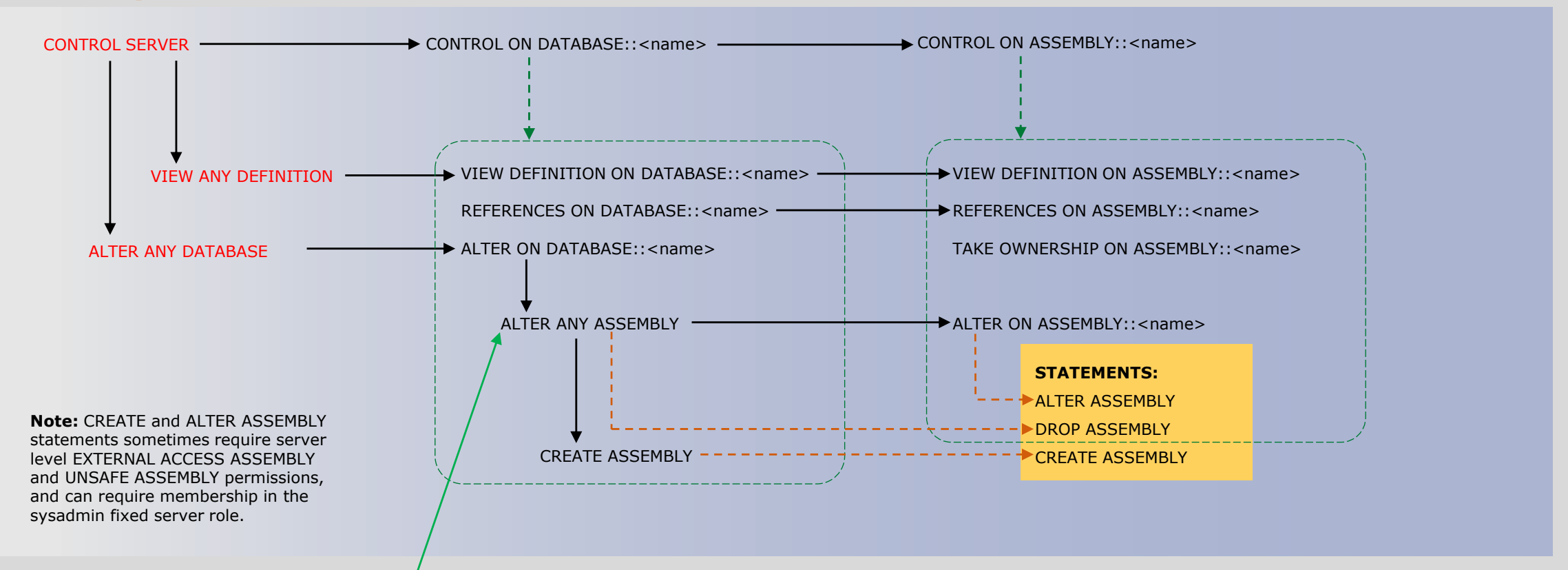
Note: ADD SIGNATURE requires CONTROL permission on the certificate, and requires ALTER permission on the object.

Questions and comments to
Rick.Byham@Microsoft.com

Microsoft

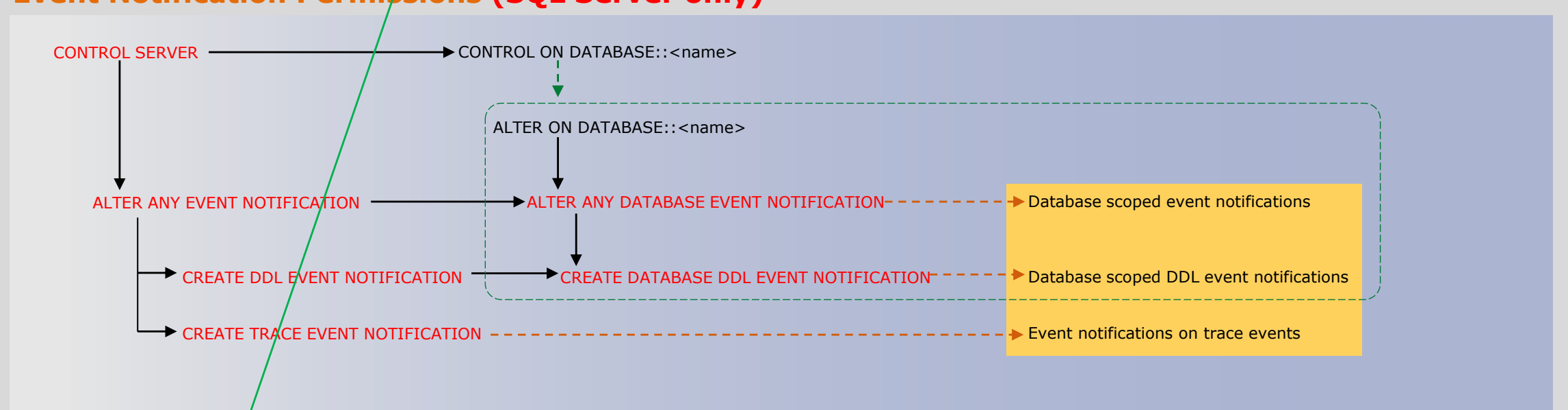
May 25, 2016

Assembly Permissions


CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON ASSEMBLY::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON ASSEMBLY::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON ASSEMBLY::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
TAKE OWNERSHIP ON ASSEMBLY::<name>
ALTER ANY ASSEMBLY
ALTER ON ASSEMBLY::<name>
STATEMENTS:
ALTER ASSEMBLY
DROP ASSEMBLY
CREATE ASSEMBLY
CREATE ASSEMBLY

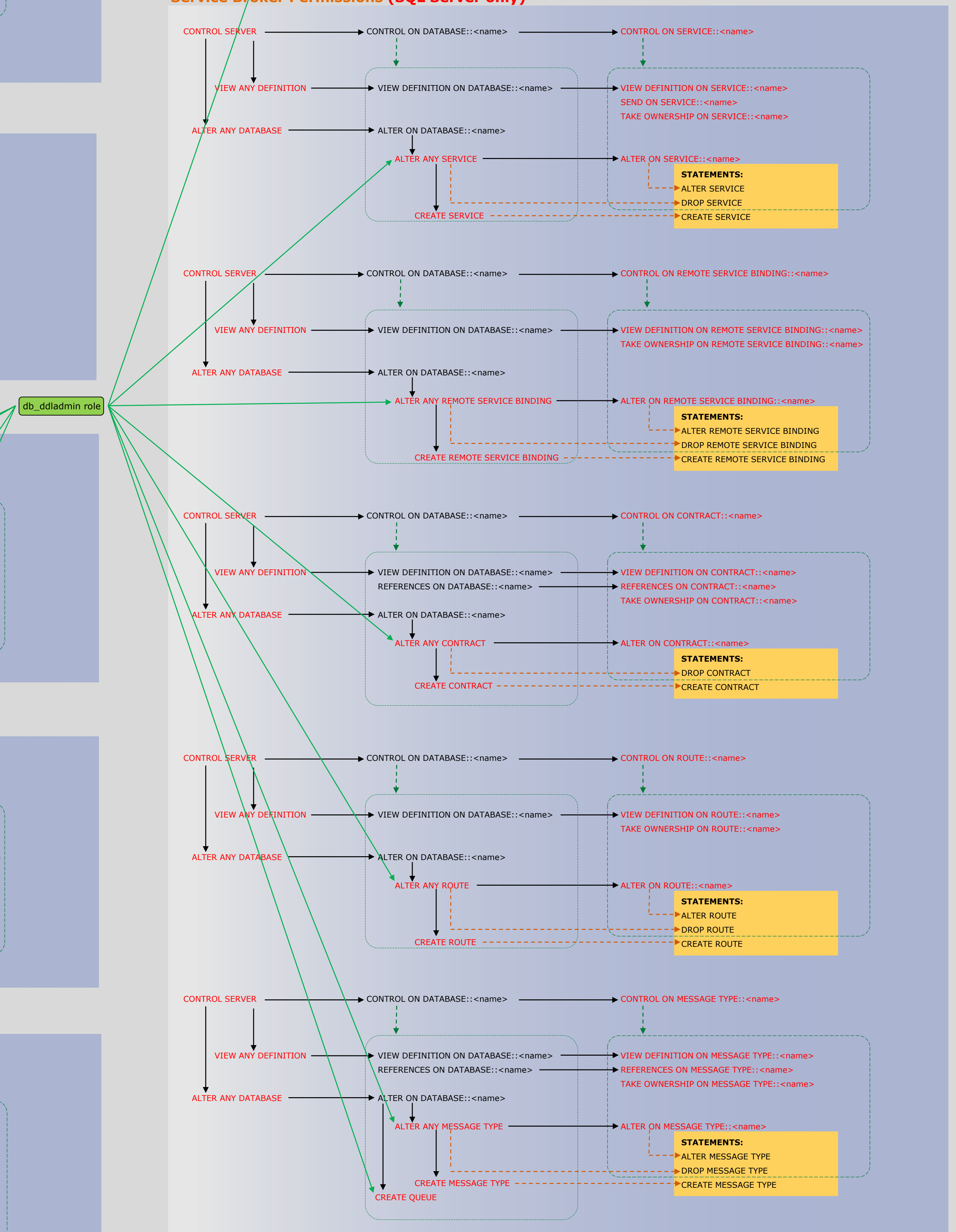
Note: CREATE and ALTER ASSEMBLY statements sometimes require server level EXTERNAL ACCESS ASSEMBLY and UNSAFE ASSEMBLY permissions, and can require membership in the sysadmin fixed server role.

Event Notification Permissions (SQL Server only)


CONTROL SERVER
CONTROL ON DATABASE::<name>
ALTER ON DATABASE::<name>
ALTER ANY EVENT NOTIFICATION
ALTER ANY DATABASE EVENT NOTIFICATION
Database scoped event notifications
CREATE DDL EVENT NOTIFICATION
CREATE DATABASE DDL EVENT NOTIFICATION
Database scoped DDL event notifications
CREATE TRACE EVENT NOTIFICATION
Event notifications on trace events

Note: EVENT NOTIFICATION permissions also affect service broker. See the service broker chart for more into.

Service Broker Permissions (SQL Server only)


dmin role
CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON SERVICE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON SERVICE::<name>
SEND ON SERVICE::<name>
TAKE OWNERSHIP ON SERVICE::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY SERVICE
ALTER ON SERVICE::<name>
STATEMENTS:
ALTER SERVICE
DROP SERVICE
CREATE SERVICE
CREATE SERVICE
CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON REMOTE SERVICE BINDING::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON REMOTE SERVICE BINDING::<name>
TAKE OWNERSHIP ON REMOTE SERVICE BINDING::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY REMOTE SERVICE BINDING
ALTER ON REMOTE SERVICE BINDING::<name>
STATEMENTS:
ALTER REMOTE SERVICE BINDING
DROP REMOTE SERVICE BINDING
CREATE REMOTE SERVICE BINDING
CREATE REMOTE SERVICE BINDING
CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON CONTRACT::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON CONTRACT::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON CONTRACT::<name>
TAKE OWNERSHIP ON CONTRACT::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY CONTRACT
ALTER ON CONTRACT::<name>
STATEMENTS:
DROP CONTRACT
CREATE CONTRACT
CREATE CONTRACT
CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON ROUTE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON ROUTE::<name>
TAKE OWNERSHIP ON ROUTE::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY ROUTE
ALTER ON ROUTE::<name>
STATEMENTS:
ALTER ROUTE
DROP ROUTE
CREATE ROUTE
CREATE ROUTE
CONTROL SERVER
CONTROL ON DATABASE::<name>
CONTROL ON MESSAGE TYPE::<name>
VIEW ANY DEFINITION
VIEW DEFINITION ON DATABASE::<name>
VIEW DEFINITION ON MESSAGE TYPE::<name>
REFERENCES ON DATABASE::<name>
REFERENCES ON MESSAGE TYPE::<name>
TAKE OWNERSHIP ON MESSAGE TYPE::<name>
ALTER ANY DATABASE
ALTER ON DATABASE::<name>
ALTER ANY MESSAGE TYPE
ALTER ON MESSAGE TYPE::<name>
STATEMENTS:
ALTER MESSAGE TYPE
DROP MESSAGE TYPE
CREATE MESSAGE TYPE
CREATE MESSAGE TYPE
CREATE QUEUE

Notes:
- The user executing the CREATE CONTRACT statement must have REFERENCES permission on all message types specified.
- The user executing the CREATE SERVICE statement must have REFERENCES permission on the queue and all contracts specified.
- To execute the CREATE or ALTER REMOTE SERVICE BINDING the user must have impersonate permission for the principal specified in the statement.
- When the CREATE or ALTER MESSAGE TYPE statement specifies a schema collection, the user executing the statement must have REFERENCES permission on the schema collection specified.
- See the ALTER ANY EVENT NOTIFICATION chart for more permissions related to Service Broker.
- See the SCHEMA OBJECTS chart for QUEUE permissions.
- The ALTER CONTRACT permission exists but at this time there is no ALTER CONTRACT statement.