

Basic Analysis Services Security

Granting user permissions to access Analysis Services

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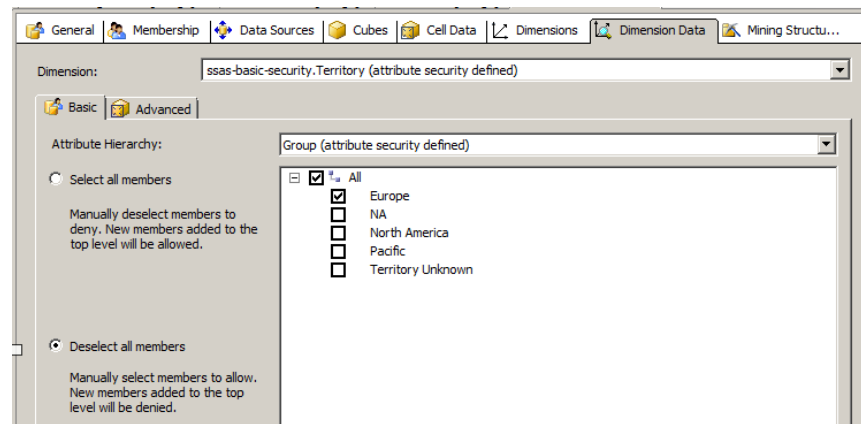
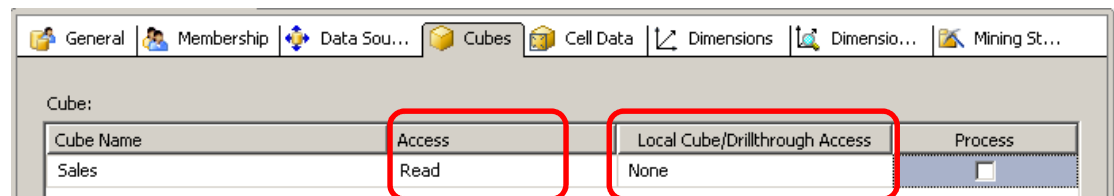


Overview

- User Security
- Administrator Security
- Service Account Configuration

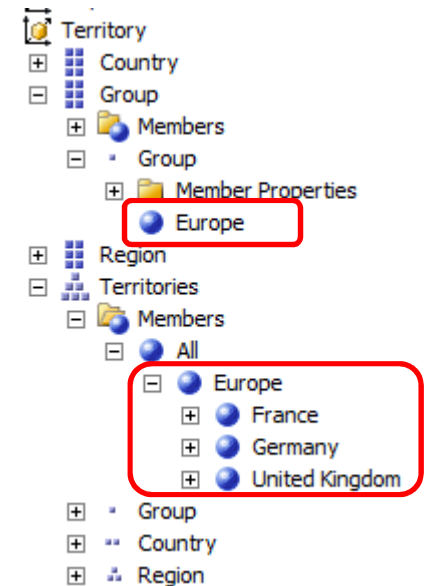
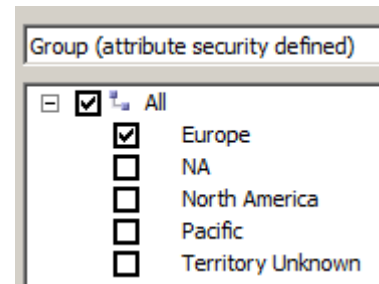
User Security

- Add security roles to cube using Windows groups
- Grant permissions
 - Cube
 - Drill-through
 - Creation of local cube
- Apply granular security, if necessary
 - Dimension level
 - Cell level



Dimension Security

- **Allowed set or denied set**
 - Restricts access to members
- **Default member**
 - Automatic filter
- **Visual totals**
 - Filters grand total when enabled



Group	Sales Amount
Europe	\$19,800,577.06
Grand Total	\$109,809,274.20

☐ Enable Visual Totals

Group	Sales Amount
Europe	\$19,800,577.06
Grand Total	\$19,800,577.06

☒ Enable Visual Totals

Cell Security

Boolean
expression

General Membership Data Sources Cubes **Cell Data** Dimensions Dimension Data Mining Structu...

Cube: Sales [Test cube security](#)

☒ Enable read permissions

Allow reading of cube content: Edit MDX: ...

NOT [Measures].CurrentMember IS [Measures].[Cost]

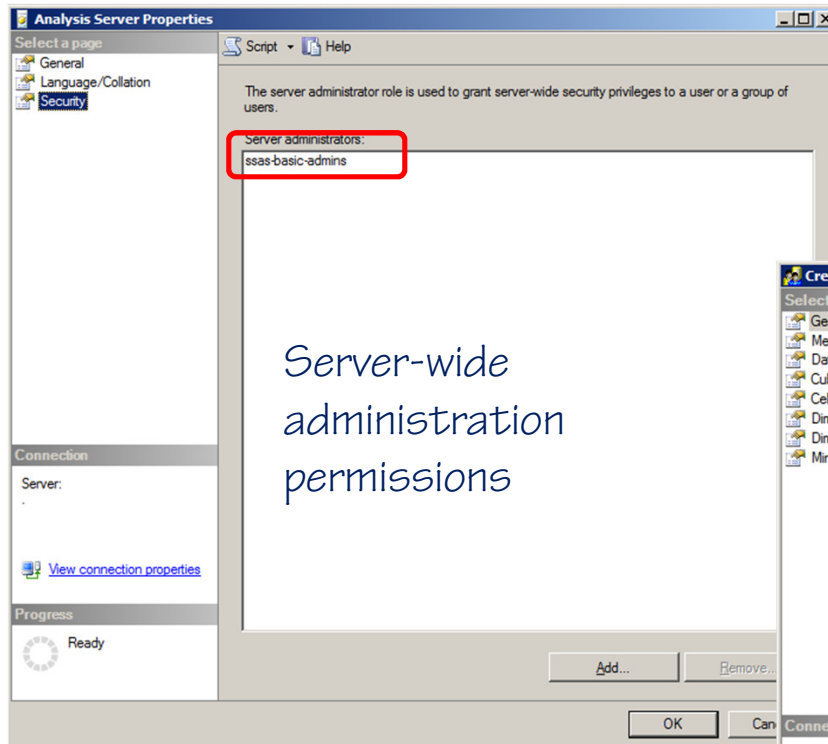
☐ Enable read-contingent permissions

Allow reading of cell content contingent on cell security: Edit MDX: ...

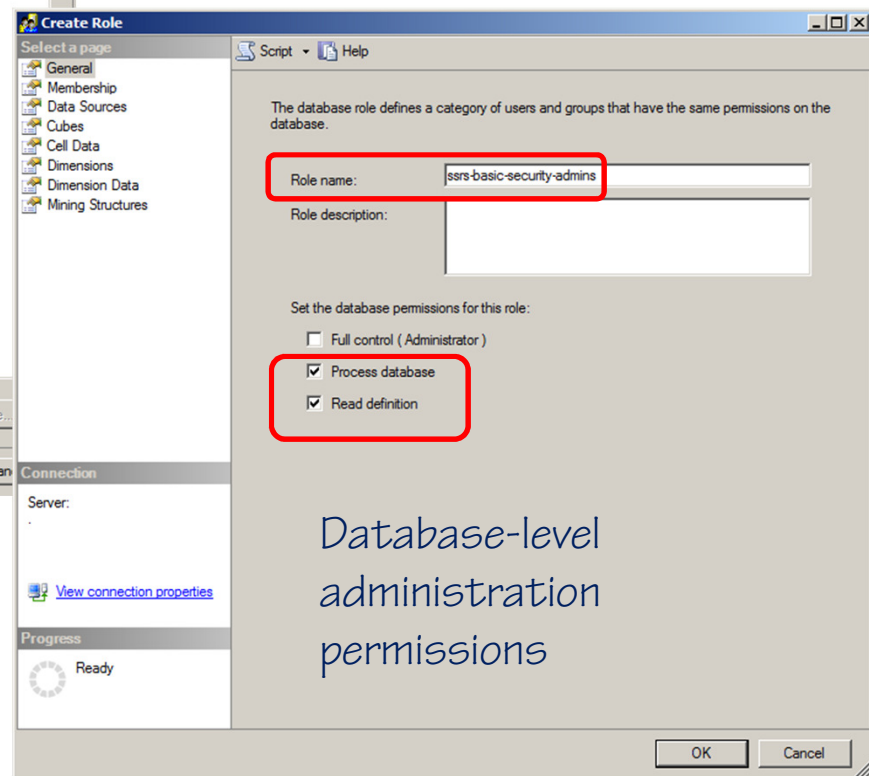
☐ Enable read/write permissions

Allow reading and writing of cube content: Edit MDX: ...

Administrator Security



Built-in admins
automatically have
server administration
permissions



Service Account Configuration

- **Account**
 - Local user account
 - Domain user account
 - System account
- **Data Source Permissions**
 - MOLAP, HOLAP – Read
 - ROLAP – Read and Write
- **File System Permissions**
 - Backup files
- **Database Permissions**
 - Query log tables
 - Writeback tables

Use
SQL Server
Configuration Manager
to change service account
or passwords

Summary

- **User Security**
 - Cube security at minimum, dimension security, visual totals, cell security
- **Administrator Security**
 - Server-wide, database-level
- **Service Account Configuration**
 - Dedicated low-privilege account, read permissions except ROLAP, writeback, or query log require write permissions

References

- **User Access Security Architecture**
 - <http://msdn.microsoft.com/en-us/library/ms174927.aspx>
- **Granting Administrative Access**
 - <http://msdn.microsoft.com/en-us/library/ms174862.aspx>