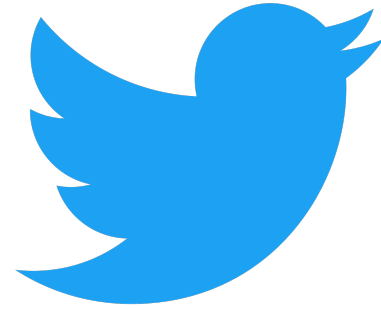Danilo Dominici

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Amministrare Reporting Services con Powershell

Sponsor

#SqlSat707

Danilo Dominici

Consulente, docente, speaker e autore

Microsoft Certified Trainer dal 2000

Microsoft MVP dal 2014 al 2017

Lavoro con SQL Server dalla versione 6.5

Mentor @ SolidQ Italia, Dev @ UNIVPM
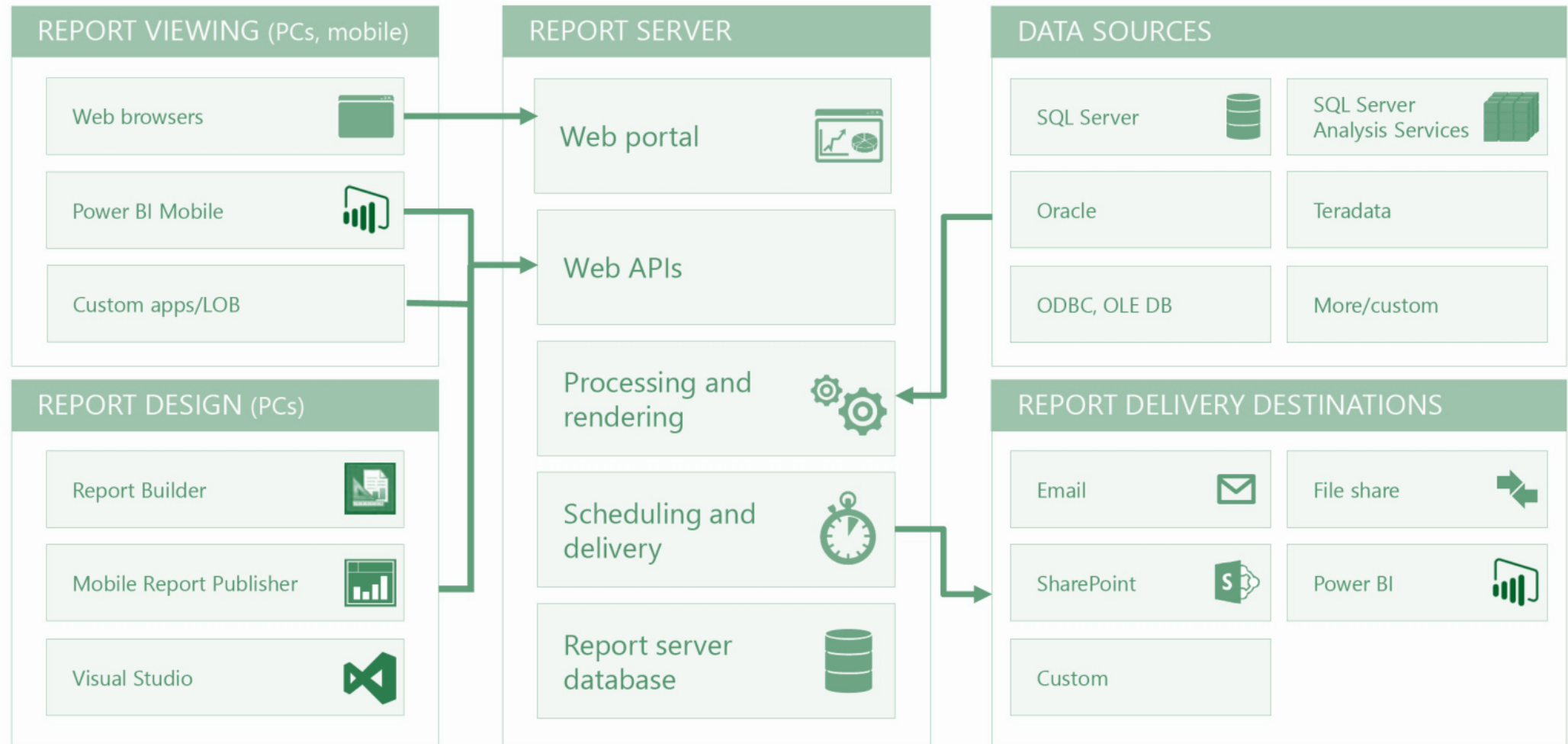
Co-leader Global Italian Virtual Chapter

Reporting Services

Architettura di SQL Server Reporting Services

REPORT VIEWING (PCs, mobile)
- Web browsers
- Power BI Mobile
- Custom apps/LOB

REPORT DESIGN (PCs)
- Report Builder
- Mobile Report Publisher
- Visual Studio

REPORT SERVER
- Web portal
- Web APIs
- Processing and rendering
- Scheduling and delivery
- Report server database

DATA SOURCES
- SQL Server
- SQL Server Analysis Services
- Oracle
- Teradata
- ODBC, OLE DB
- More/custom

REPORT DELIVERY DESTINATIONS
- Email
- File share
- SharePoint
- Power BI
- Custom

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Come interagire con SSRS ?

Con quali oggetti possiamo interagire?

Folders

Reports

Datasources

Datasets

Subscriptions

Security

Cache

…

SSRS web services endpoints

Management proxy

Consente l'esecuzione di comandi amministrativi

http://<server-url>/ReportServer/ReportService2010.asmx

Execution proxy

Consente di effettuare il rendering di un report

http://<server-url>/ReportServer/ReportExecution2005.asmx

Connettersi ai web services di SSRS

New-WebServiceProxy

Cmdlet che consente di usare ed amministrare un web service in Powershell

Uso:

$uri = "http://localhost/ReportServer/ReportExecution2005.asmx?WSDL"

$proxy = New-WebServiceProxy $uri -UseDefaultCredential;

Eseguire un report

Metodo Render2 del web service ReportExecutionService

```
public byte[] Render2(
    string Format,
    string DeviceInfo,
    PageCountMode PaginationMode,
    out string Extension,
    out string MimeType,
    out string Encoding,
    out Warning[] Warnings,
    out string[] StreamIds )
```

Gestire Reporting Services

Utilizzo il web service di "amministrazione"

Metodi per creare o eliminare oggetti (es. folder, report, datasource, dataset)

Metodi per impostare parametri di SSRS (es. i permessi sulle folder)

Metodi per importare o esportare gli oggetti di SSRS

Demo

Powershell SQL Server Reporting Services Tools

Installazione

Install-Module -Name ReportingServicesTools

oppure

Invoke-Expression (Invoke-WebRequest
https://aka.ms/rstools)

Supporta tutte le versioni a partire da SQL Server 2012

Comandi disponibili

Backup-RsEncryptionKey	New-RsSubscription	Set-RsDataSet
Export-RsSubscriptionXml	New-RsScheduleXml	Set-RsDataSource
Get-RsFolderContent	New-RsWebServiceProxy	Set-RsDataSourcePassword
Get-RsDataSource	Out-RsCatalogItem	Set-RsEmailSettingsAsBasicAuth
Get-RsItemReferences	Out-RsFolderContent	Set-RsEmailSettingsAsNoAuth
Get-RsCatalogItemRole	Out-RsRestFolderContent	Set-RsEmailSettingsAsNTLMAuth
Get-RsSubscription	Out-RsRestCatalogItem	Set-RsSharedDataSource
Grant-AccessOnCatalogItem	Register-PowerBI	Set-RsSubscription
Grant-AccessToRs	Remove-RsCatalogItem	Set-RsUrlReservation
Import-RsSubscriptionXml	Remove-RsRestCatalogItem	Set-PbiRsUrlReservation
Initialize-Rs	Remove-RsRestFolder	Write-RsCatalogItem
New-RsConfigurationSettingObject	Restore-RsEncryptionKey	Write-RsFolderContent
New-RsDataSource	Revoke-AccessOnCatalogItem	Write-RsRestCatalogItem
New-RsFolder	Revoke-AccessToRs	Write-RsRestFolderContent
New-RsRestFolder	Set-RsDatabase	
New-RsRestSession	Set-RsDatabaseCredentials	

Demo

Risorse

Microsoft Reporting Services tools (Github)

https://github.com/Microsoft/ReportingServicesTools

SSRS Management - ReportService2010.asmx

http://bit.ly/2gVe00y

SSRS Execution - ReportExecution2005.asmx

http://bit.ly/2yfv1dt

Managing SSRS security

https://www.sqlshack.com/managing-ssrs-security-using-powershell-automation-scripts/

Cmdlets SSRS Sharepoint integrated mode

https://docs.microsoft.com/it-it/sql/reporting-services/report-server-sharepoint/powershell-cmdlets-for-reporting-services-sharepoint-mode

Q & A