

Creating Data-Driven Subscriptions in Reporting Services



Joe Webb
Microsoft SQL Server MVP
WebbTech Solutions, LLC
joew@webbtechsolutions.com



A bit of background

Joe Webb

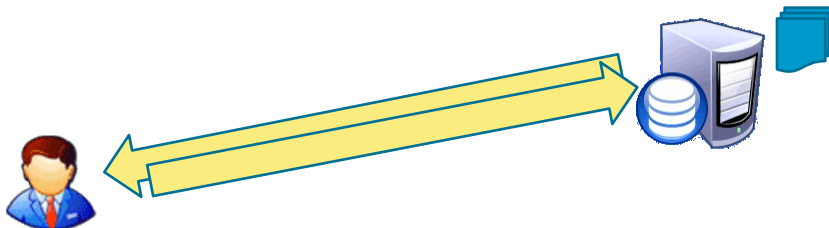
- Started in IT in 1993 after receiving a BSEE & MBA from Auburn University
- Founded WebbTech Solutions in 1996
 - Providing consulting, mentoring, & technical training
- Began working with SQL Server in 1996 with version 6.0
- 5-time recipient of the Microsoft MVP Award for SQL Server
- Author or Coauthor of 3 books
- Served 6 years on the Board of Directors for PASS (sqlpass.org)
- Delivered more than 50 sessions at over 20 conferences in North America & Europe

Agenda



Traditional “pull delivery” reporting

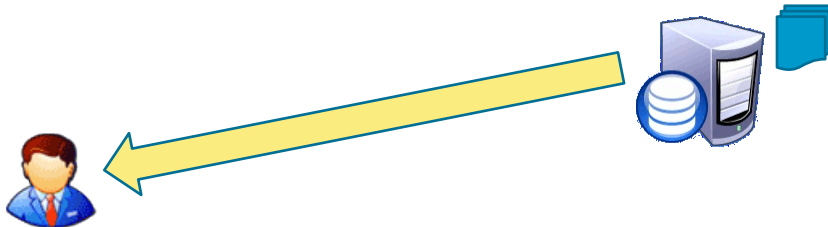
- Users browse to the report server and retrieve the report as needed.
- Report may be exported into another format as desired.





The need for subscriptions

- The problem with traditional pull delivery mechanisms:
 - Requires user action
 - Users must know that there is relevant data to retrieve
 - Seldom-used reports may have long execution times
- The answer: push deliver (aka subscriptions)

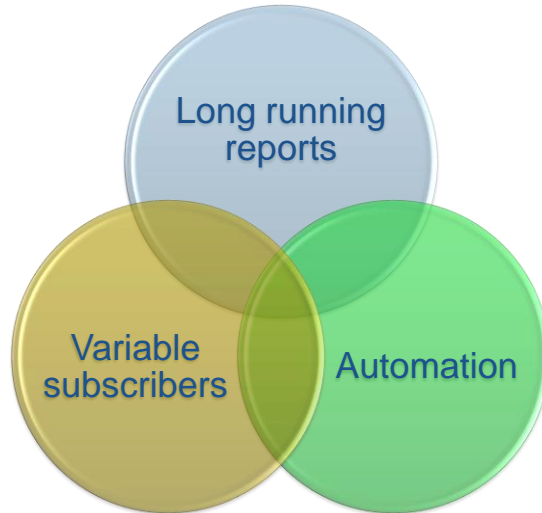


What are subscriptions?

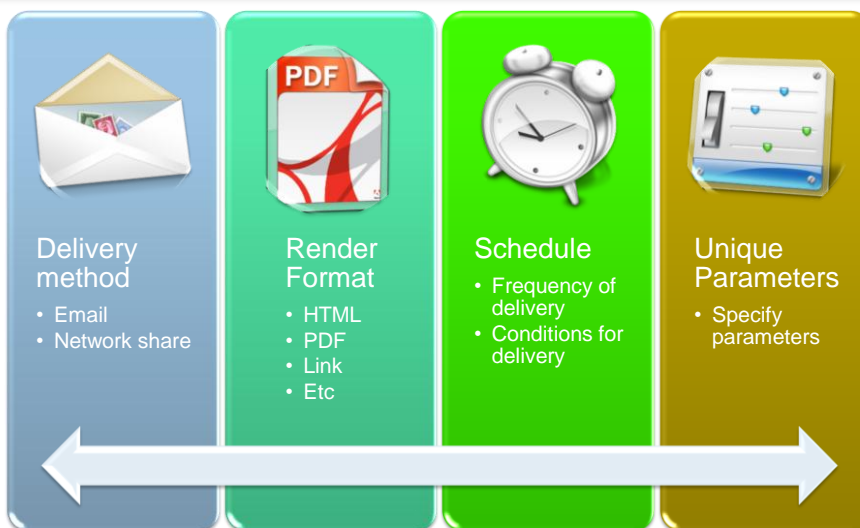
- Provide an alternative to running reports on demand
- Report Server automatically can deliver reports to one or more individuals on a predefined schedule
- Flexible delivery options



Why use subscriptions?



Configuring subscriptions





Types of subscriptions

Standard

- Defined by users
- Static configuration for delivery
- Static configuration for parameters

Data-driven

- Subscription data retrieved at runtime
- Support flexible and varying parameters, output formats, and delivery options
- Can be scheduled, or happen when a snapshot is updated



Requirements for standard subscriptions



Requirements

- Configured through the report in question, thus you must have access to the report
- Must be a member of a role with “Manage individual subscriptions” task
- The report must use stored credentials or no credentials to retrieve data at run time
- User!UserId is evaluated at subscription creation time
- Must define a value for all parameter or use default values

Creating a standard subscription

Select the report to which to subscribe

Choose a delivery method and configure the settings

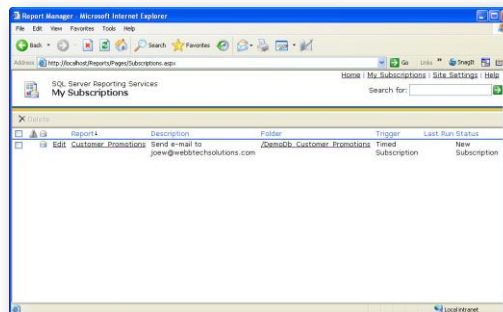
Choose a rendering format

Define the execution schedule

Provide report parameters used for running the report

Managing standard subscriptions

- My Subscriptions page
- Subscriptions on the report



The need for data-driven subscriptions

- The limitations of standard subscriptions
 - Subscriptions are configured and managed on an individual basis
 - All parameters must be completely defined at configuration time
 - The list of subscribers are completely static
- The answer: data-driven subscriptions



Requirements for data-driven subscriptions



Each data-driven subscription...

- is associated with one report
- can have one delivery extension per subscription
- must define a location for subscriber data
- requires the credentials be stored in the report
- is only available in Evaluation, Developer, and Enterprise Edition



Uses for data-driven subscriptions

List of subscribers can dynamically change between report execution, i.e.

- Generate a report for the top 10 sales people
- Create purchase orders for vendors
- Produce reports for outside subscribers

Customize report parameters for each subscriber

- Distinct for each subscriber
- Parameters can change between report executions

Different output format types for subscribers

- Subscribers can opt to receive the report in a format that they choose.



Delivery destinations and options



Destinations

- Email
- Network Share
- Sharepoint Library (prevents use of Data-Driven Subscriptions)



Options

- External data source contains delivery information
- Provide mapping between subscription table and delivery options
- Can provide different parameters for each subscriber



Subscriptions and Parameters



Subscriptions

- Can be stored in the following locations – SQL Server, Oracle, Analysis Services, XML.
- Create a single query for the subscription
- A report is generated for each row in the query result set



Parameters

- Can specify parameters for each subscriber
- Evaluated at runtime through the subscription query
- Map columns of the subscription data set to the report's parameters



Some things of which to be aware

- A report is generated for each row in the query result set
- Data may change while the subscriptions are being processed, resulting in reports that may differ
- Can run reports off of a snapshot if need be
- Think carefully about the implications and consequences of turning subscriptions on for users
- Can use the subscribers query to prevent the distribution of empty reports



PASS Summit Unite

- PASS Summit Unite 2009 will deliver:
 - 168 in-depth technical sessions
 - 5 comprehensive content tracks covering Database Administration, Database and Application Development, BI Architecture, BI Client Reporting, and Professional Development
 - 14 full-day Pre/Post-Conference Seminars, Nov. 2 and Nov. 6, by top SQL Server experts
 - Best-practices sessions by the Microsoft SQL CAT team
 - Direct access to Microsoft engineers, MVPs, and experts in the “Ask the Experts” Lounge
 - Face-to-face interaction with the Microsoft BI team
 - Personalized support at the Microsoft CSS First Aid Station
 - Hands-on demos of top SQL Server and BI products and services



Questions?

Thank you!

joew@webbtechsolutions.com

<http://www.webbtechsolutions.com/blog>

<http://www.twitter.com/joewebb>

<http://speakerrate.com/joewebb>