

Tap is the only Solution

(ver.2)

By

Sarabpreet Singh Anand

Vice President SQLServerGeeks.com

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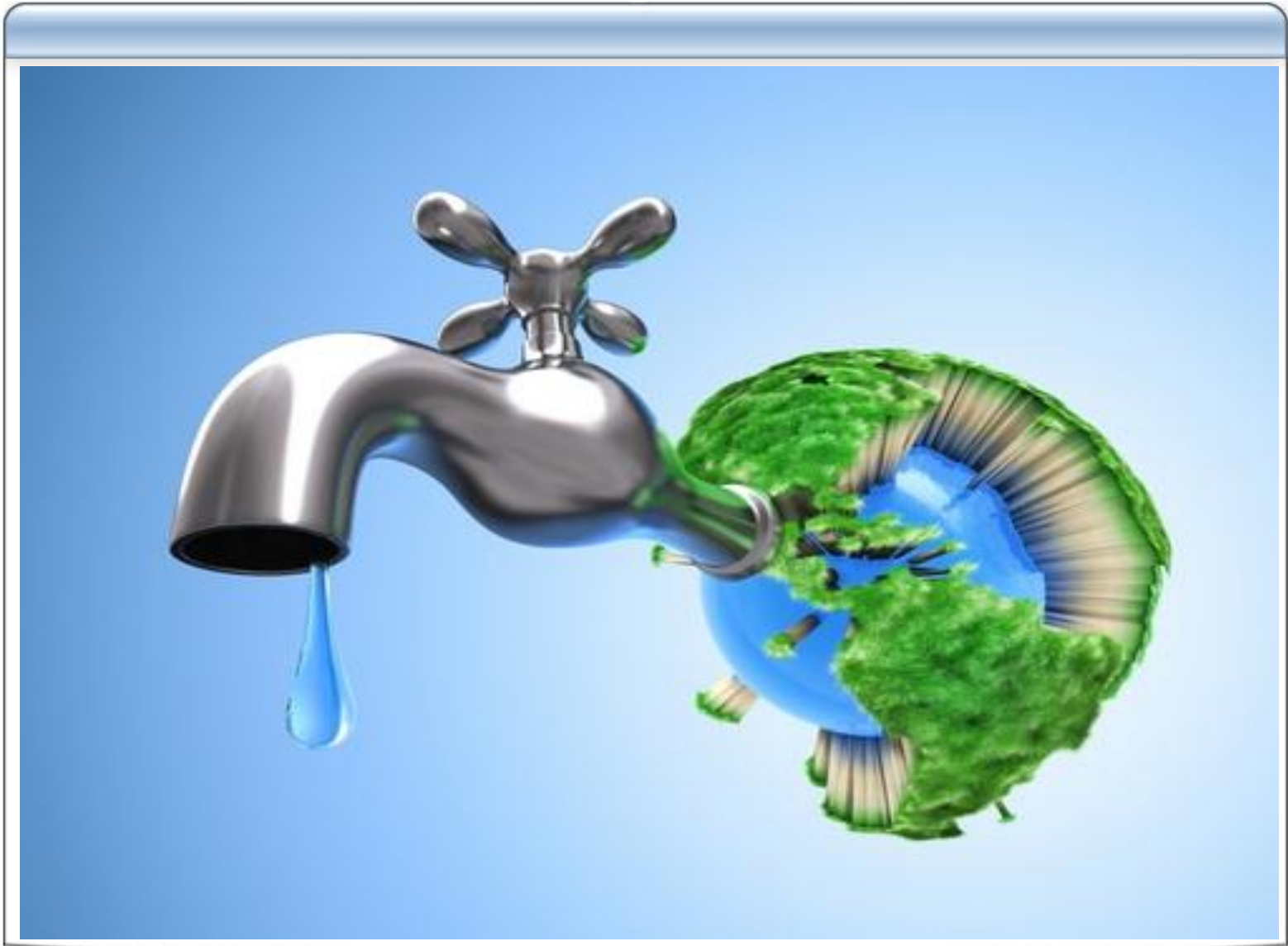


- 8+ Years of enriched experience
- Got MCTS, MCITP, MCT certifications
- Vice President SQLServerGeeks.com
- Working as a SQLConsultant
- Expert in handling VLDBs & Disaster Management.
- Conducted many Boot camp Trainings across India.
- Regular Speaker → SQLServerGeeks.com In-person events, Webcasts & Microsoft Community Tech Days (CTD)
- Follow Me @Sarab_SQLGeek
- Know more about me @ <http://www.sarabpreet.com>
- Email : sarab@sarabpreet.com
- sarabpreet.anand@gmail.com

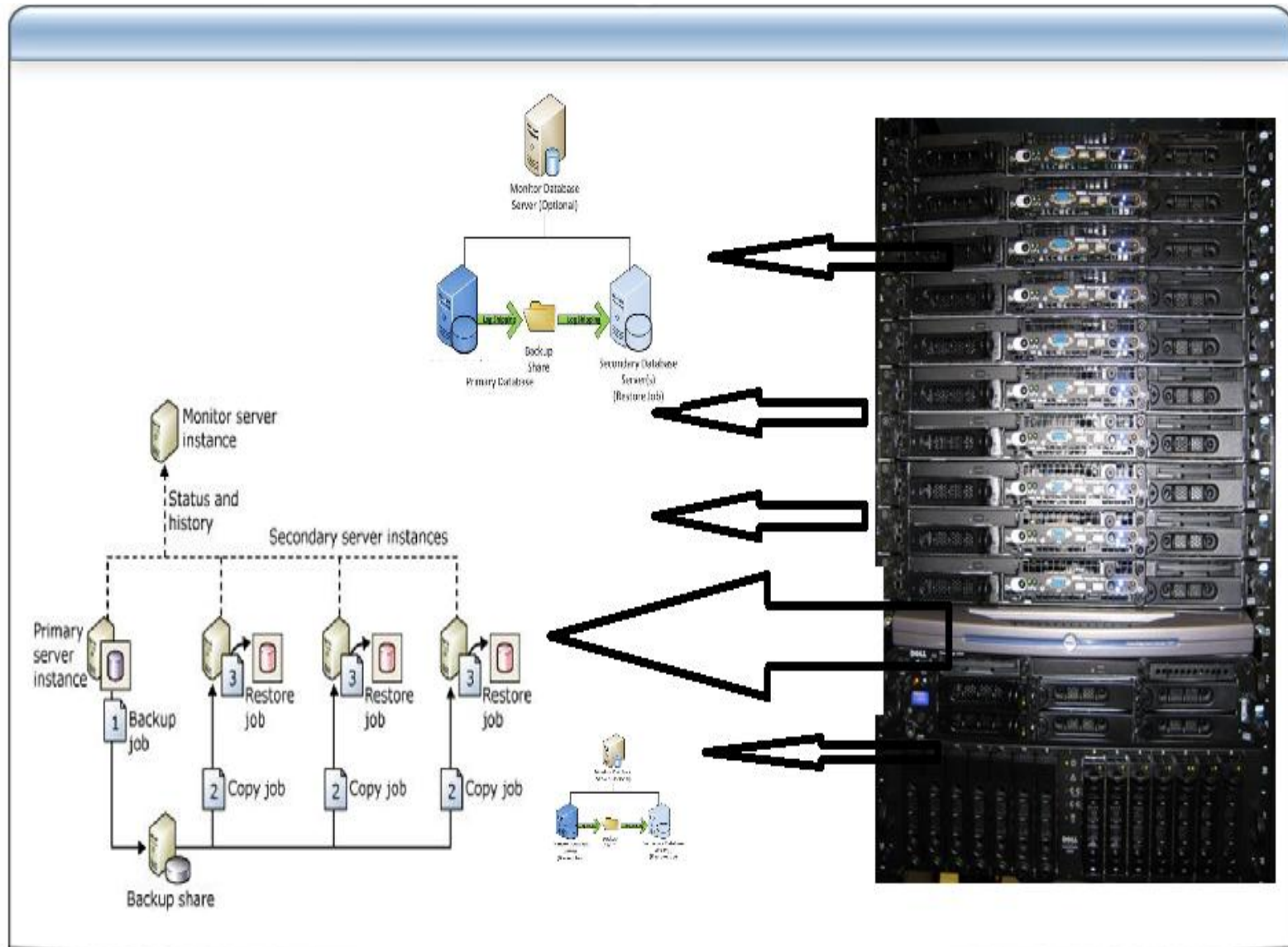
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Resource Scarcity → Water?



Problem: Scarce Resources of Server



Wish come true → Control Server Resources



Wish come true → Control Server Resources



Agenda

- What is Resource Governor
- Nuts & bolts of RG
- Setting correct expectations: Capabilities of RG
- How it works
- Enhancements of RG in SQL 2012
- Lot's of Demo: How to Setup & Live Throttling, Monitoring etc.
- Caution
- Best Practices

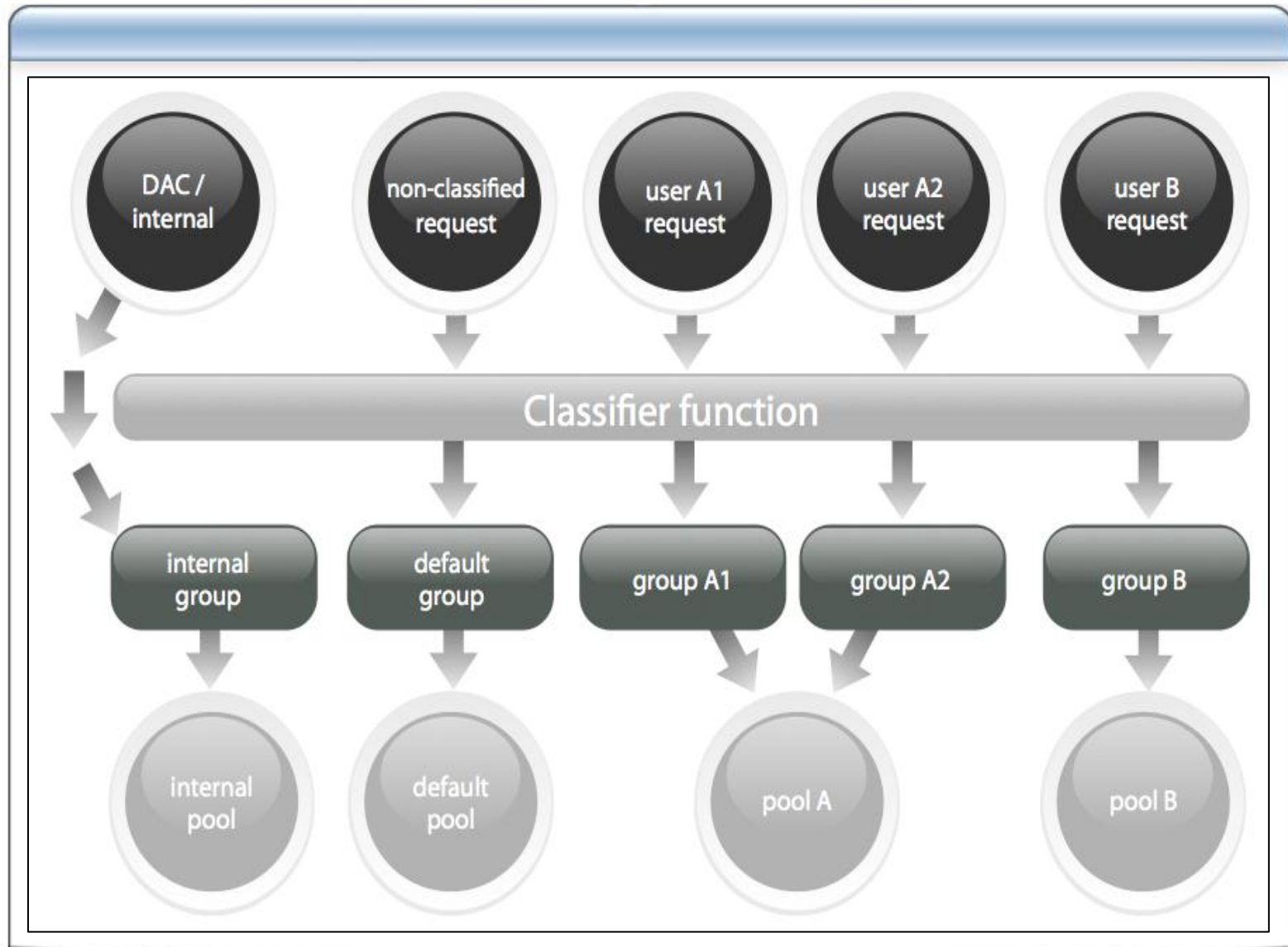
Resource Governor

- A set of technologies within the Database Engine that allows you to place controls on various facets of CPU and/or memory, either at an aggregate level, or at an individual request level.

Nuts & Bolts of RG

- **Resource Pools** : A “slice” of an instance’s CPU and memory.
 - **Purpose**: to allocate resources based on limits during contention.*
- **Workload Group**: Bucket for a set of similar queries or tasks.
 - **Purpose**: to route requests in the group to a specific resource pool.
- **Classifier Function**: The glue that holds together the binding of user requests to workload groups.
 - **Purpose**: Assign the connection to relative Resource Group using WG.

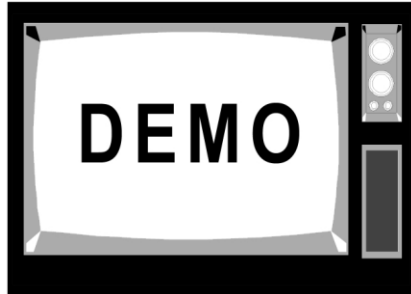
Heart of RG = Classifier Function



Enhancements of RG in SQL Server 2012

- Increased the maximum number of resource pools from 20 to 64.
- New CAP_CPU_PERCENT option to set a hard-cap limit.
- New AFFINITY option to affinitize schedulers and NUMA nodes.
- New DMV: sys.dm_resource_governor_resource_pool_affinity

Demo: Resource Governor



- How to setup?
- Live Throttling\ Playing with gears
- Diff Types of Classifier Function
- Monitor using PerfMon
- Tips & Tricks
- Try new features of RG in SQL 2012
- Cleanup

Caution & Best Practices

- WorkloadGroup names are always Case-sensitive
- Test the DAC
- Optimize the Classifier Function
- Use the PreConnect Trace Events to get time estimate.
- Test the Classifier Function Under Load
- Avoid {or Optimize } Table Lookups
- Use Local Variables Where Appropriate
- Etc.

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Q&A

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for suggestions, please email at admin@SQLServerGeeks.com

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Speaker Info

- Twitter [@Sarab_SQLGeek](https://twitter.com/Sarab_SQLGeek)
- Know more about me @ <http://www.sarabpreet.com>
- Email : sarab@sarabpreet.com
sarabpreet.anand@gmail.com