# **SQL Server Locking Internals**

By

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#### **Amit R S Bansal**

- CTO, eDominer Systems & Peopleware India
- Corporate Trainer/Consultant & Evangelist
- Conducted more than 450+ workshops on SQL Server & BI for top notch IT companies world wide
- Microsoft MVP for SQL Server
- Speaker at TechED India, TechED US & TechED Europe
- Speaking at SQLBITs this March in London
- Technical Reviewer/SME MSL courses & certifications on SQL Server
- Co-Founder & President SQLServerGeeks.com

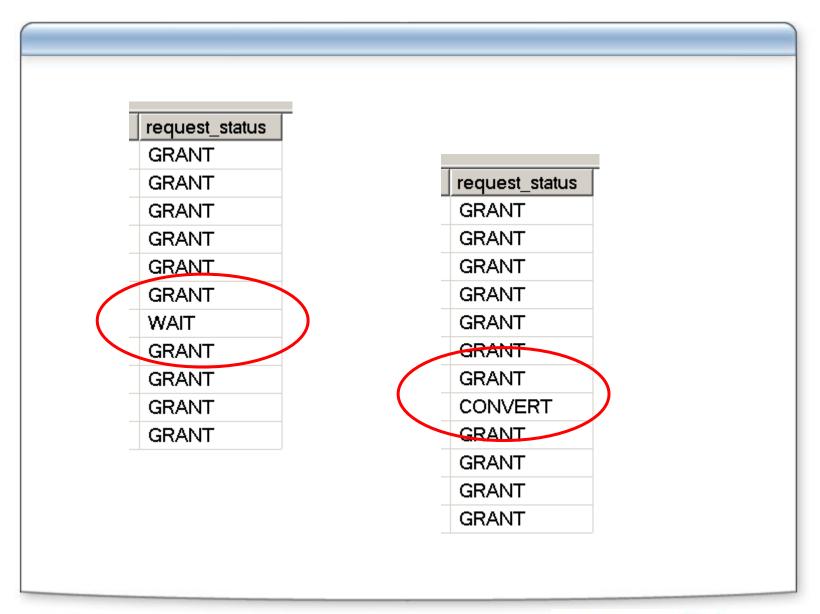
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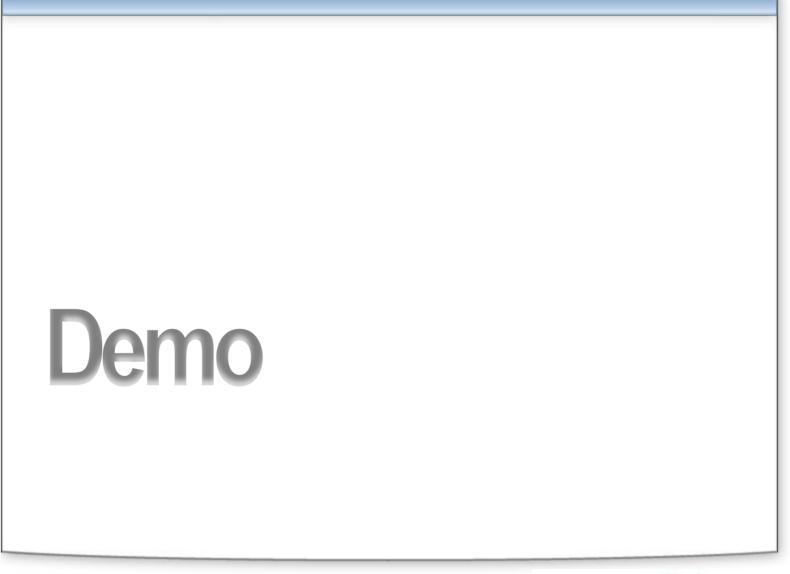
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- If you want to contribute, email us at <u>admin@SQLServerGeeks.com</u> or visit Join Us section on the website

# **Agenda**

- Gyan through demos!
  - Convert status
  - Conversion Lock
  - READ UNCOMMIITED myth
  - Intent Locking
  - Lock escalation
  - Partition-Level locking

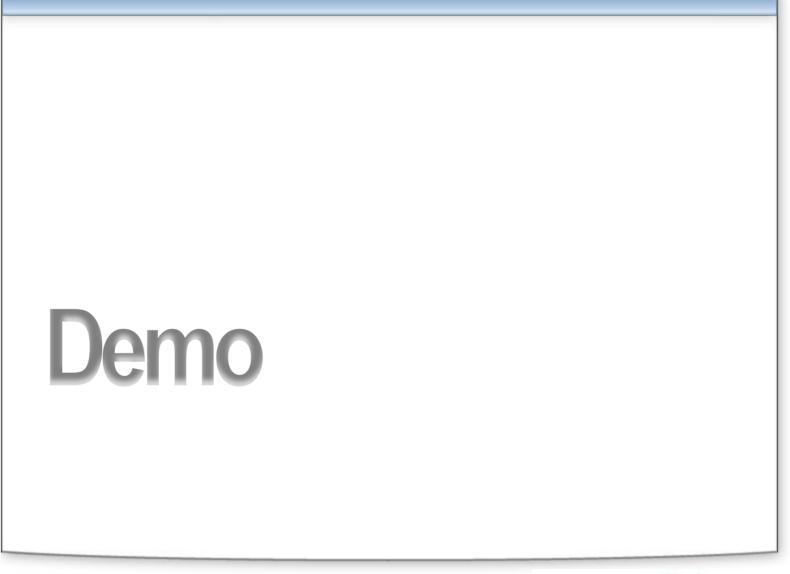
# request\_status = Convert





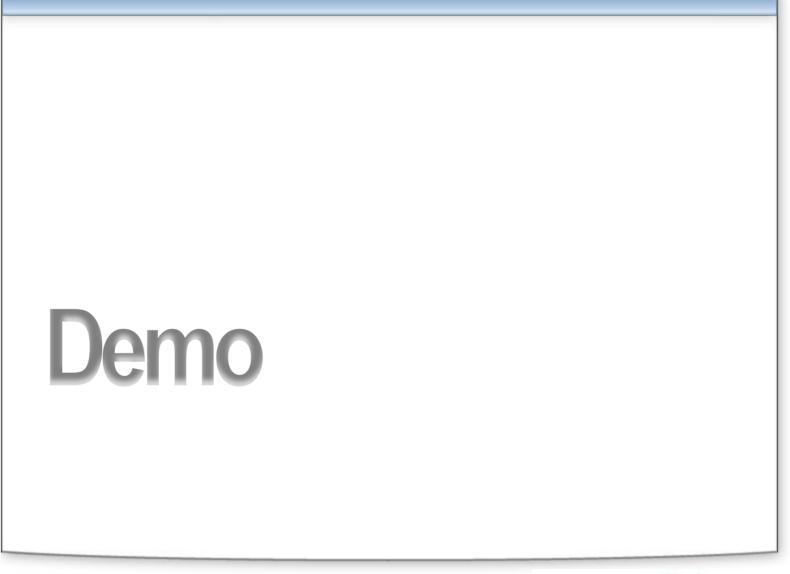
#### **Conversion Locks**

- (SIX)
- (SIU)
- (UIX)
- Happens when SQL Server already holds a lock at coarse granularity but now wants a lock at finer granularity.



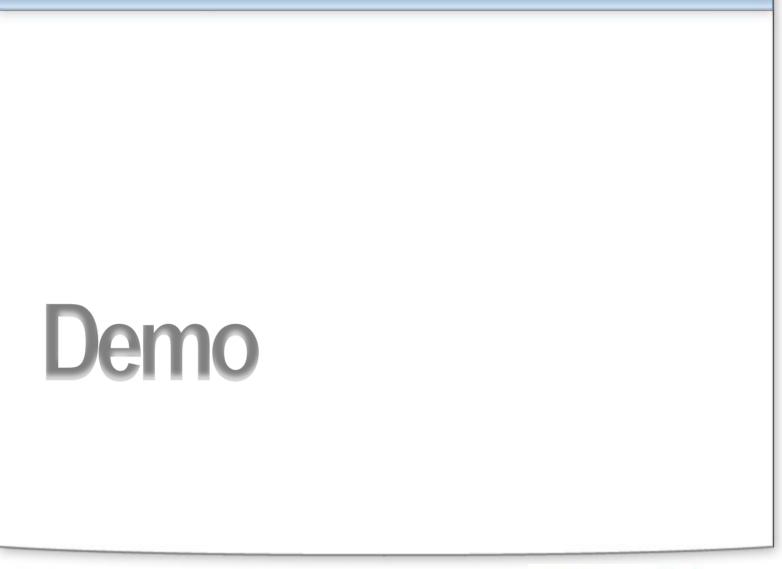
# Myth about READ UNCOMMITTED

- READ UNCOMMITTED neither does it ask for any locks nor does it honor any locks!
  - True or False?



#### **INTENT Locks**

- What's the purpose?
  - Performance?
  - Deadlocks?
  - Lock Escalation?
  - Latches?

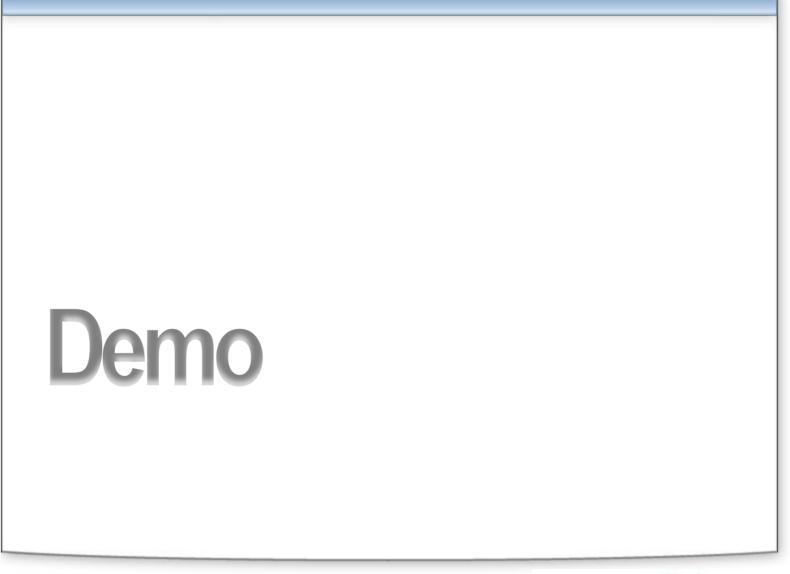


#### Lock escalation

- What's the purpose?
- When does it happen?
- Can you disable it?

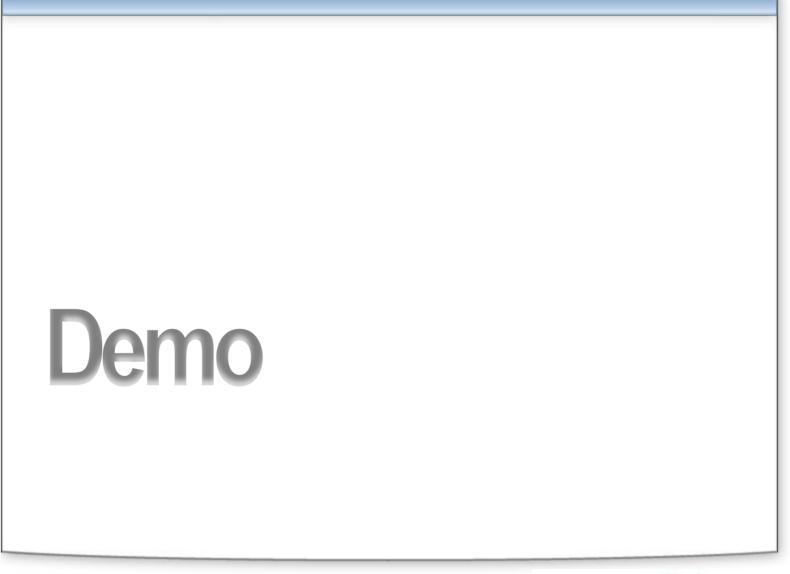
```
ALTER TABLE Production.Product
SET (LOCK_ESCALATION = AUTO|TABLE|DISABLE)
```

- trace flag 1221 disables lock escalation completely
- trace flag 1224 disables based on lock numbers
- Should you disable it?



# **Partition Level Locking**

- New feature is SQL Server 2008
- Does it mean Row -> Page -> Partition -> Table ?
  - True or False?



# **Summary**

- Convert status
- Conversion Lock
- READ UNCOMMIITED myth
- Intent Locking
- Lock escalation
- Partition-Level locking

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 Next webcast by Sarabpreet Singh on "Bulletproof Backup & Restore strategy"

### Next steps...

- Provide your feedback you shall receive a mail shortly
- Participate in quiz (on our forums)
  - Your chance to win:



And yes, lucky winners will be flashed on the site

#### **Connect with Amit Bansal**

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Q&A

# Thank you © for suggestions, please email at <a href="mailto:admin@SQLServerGeeks.com">admin@SQLServerGeeks.com</a>