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ADVANCED ANALYTICS

Nick Lenzmeier
Manager, Analytics



Agenda

- ▶ Reporting Performance
- ▶ Report Linking
- ▶ Operational Report Customization
- ▶ Q & A

Reporting Performance

► Why it matters

- Poor performing reports...
 - Require a long time to execute
 - Degrade the overall performance of your site
 - May be susceptible to queuing and/or relegation to a reporting database

Reporting Performance

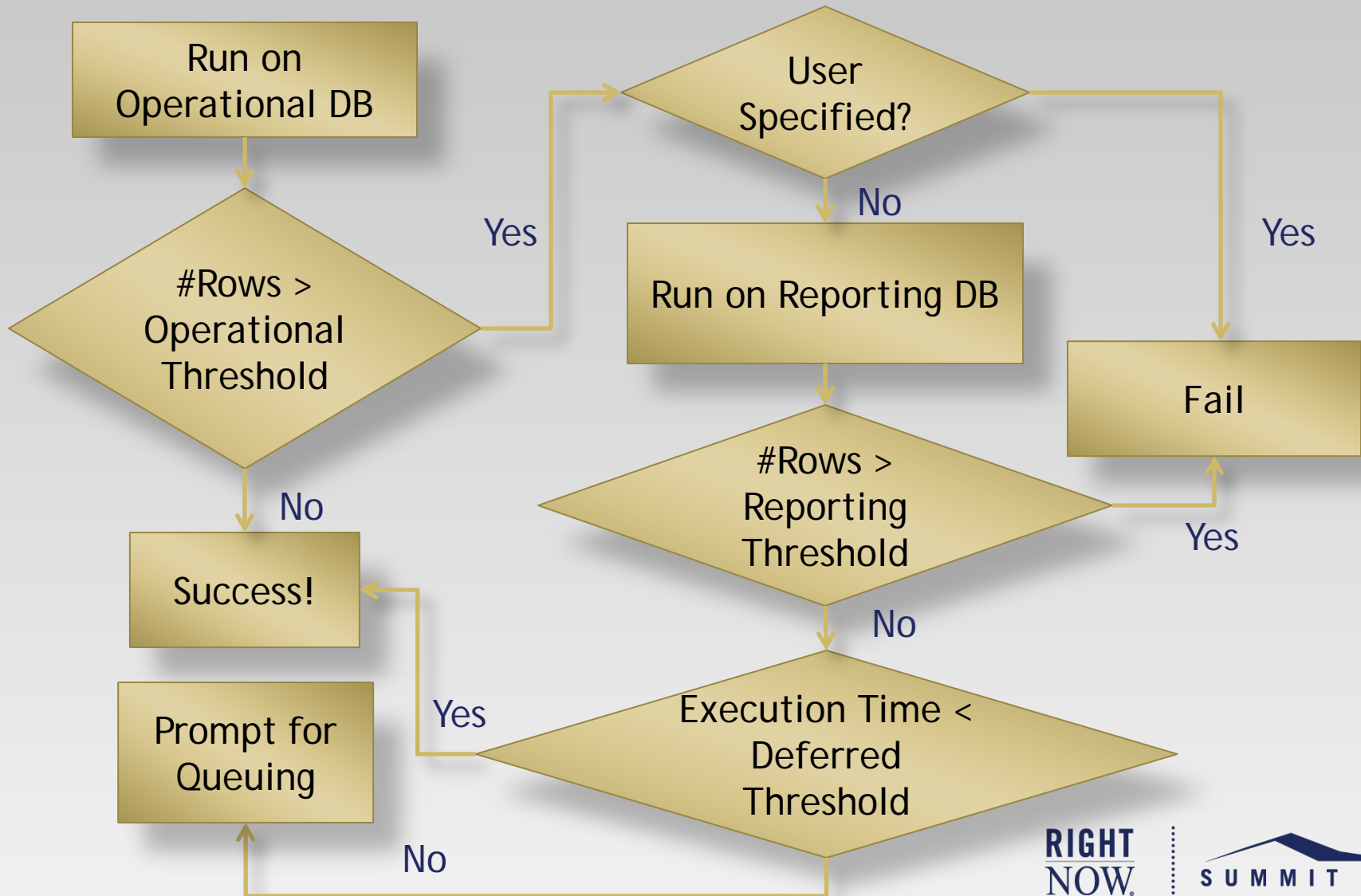
► Definitions

- Operational Database
 - Live Data
 - Highly Transactional
- Reporting Database
 - Near-Live Data
 - Reporting Only—No Transactions
- Queued Reports
 - Off-line report execution
 - Avoid web server time-out

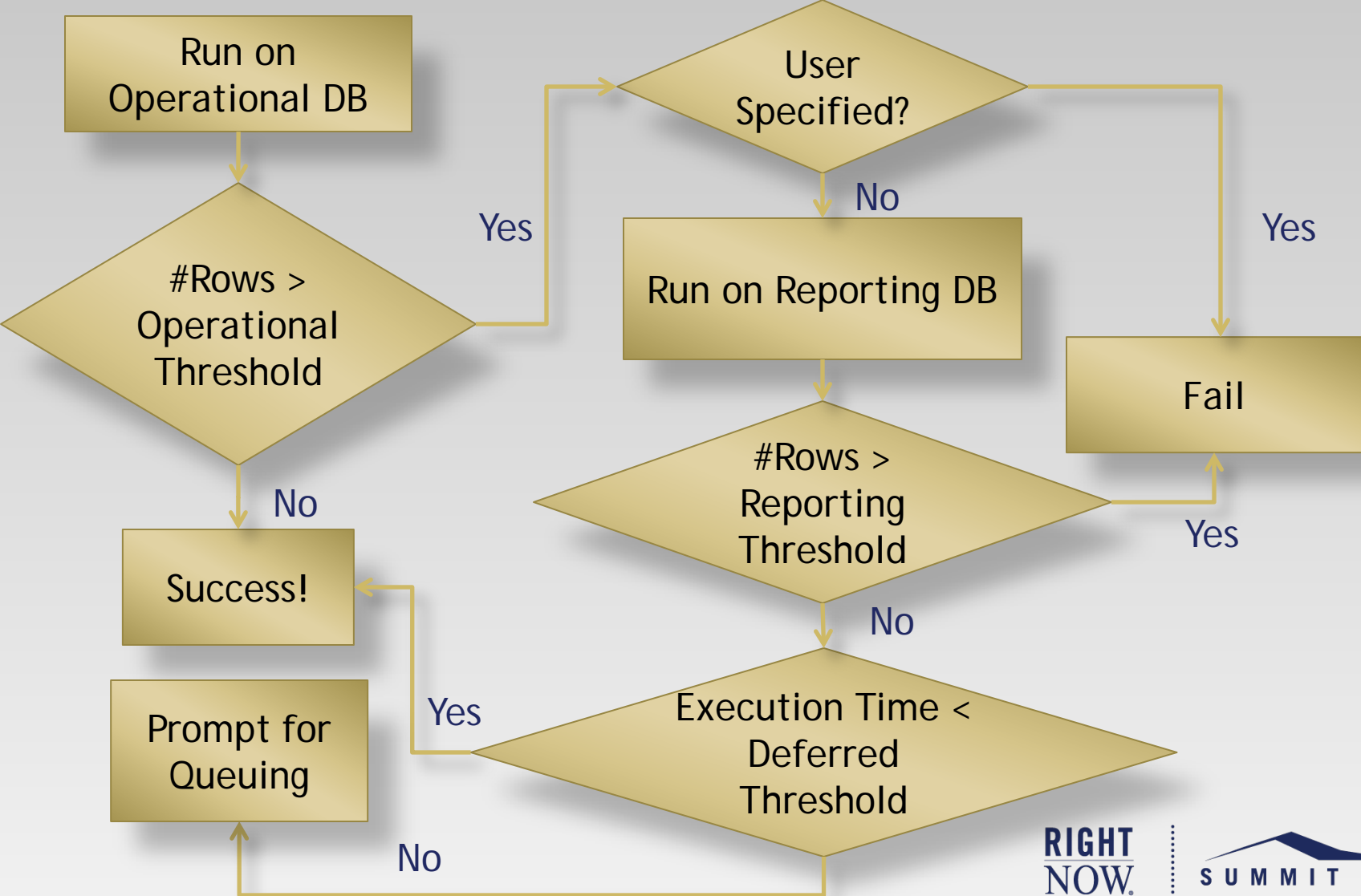
Reporting Performance

- ▶ RightNow Nov '09
 - Automatically moves reports from operational db to reporting db if query processes too much data
 - Automatically marks reports for deferred execution (queuing) if they require too much time to process
- ▶ 'Query processes too much data' ???
 - An estimate of the number of rows the database must *analyze* to return the result set exceeds a max join size configuration value
 - Is not necessarily a function of the actual number of rows *returned* for the report

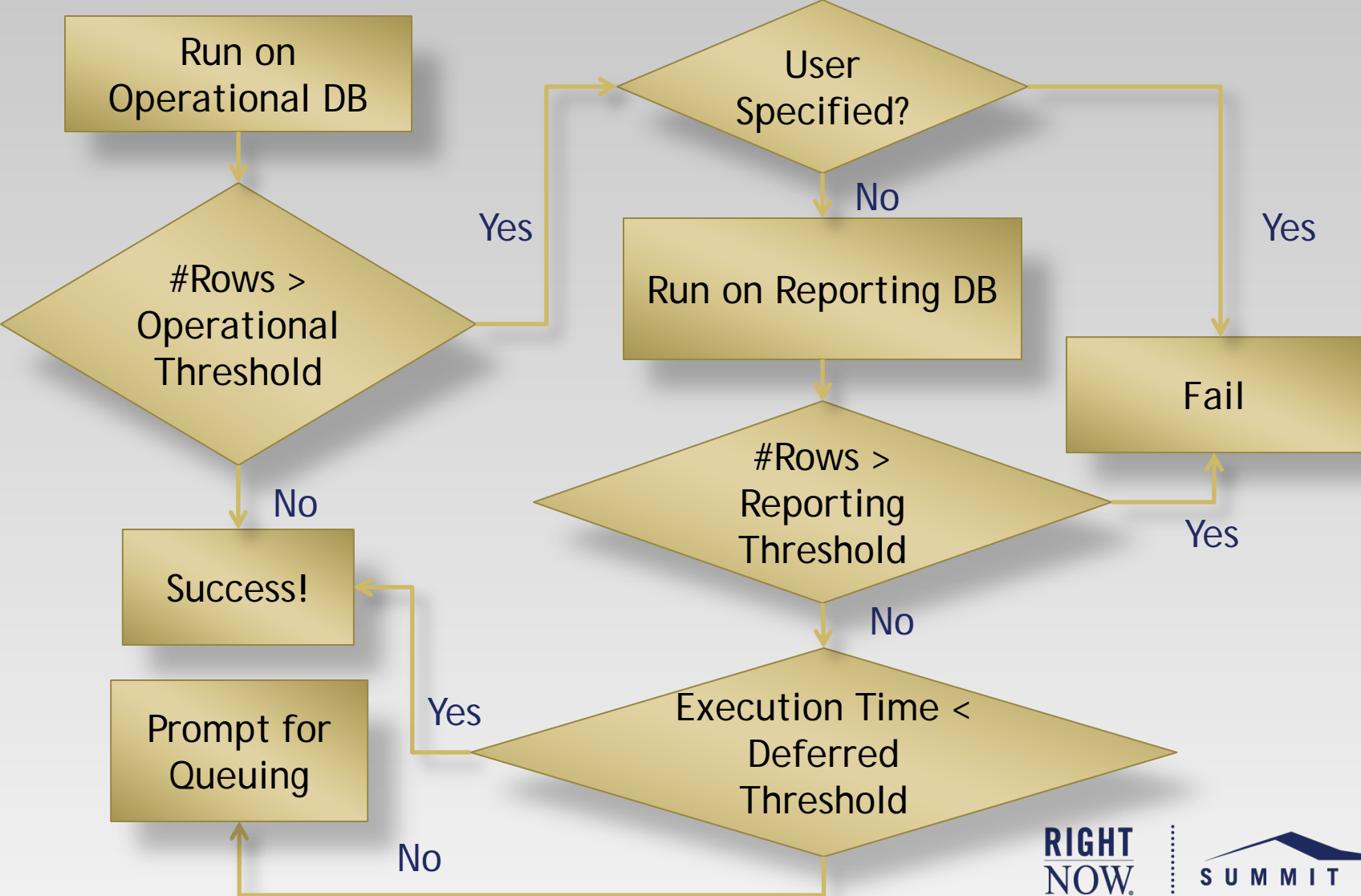
Report Execution - Under the Hood



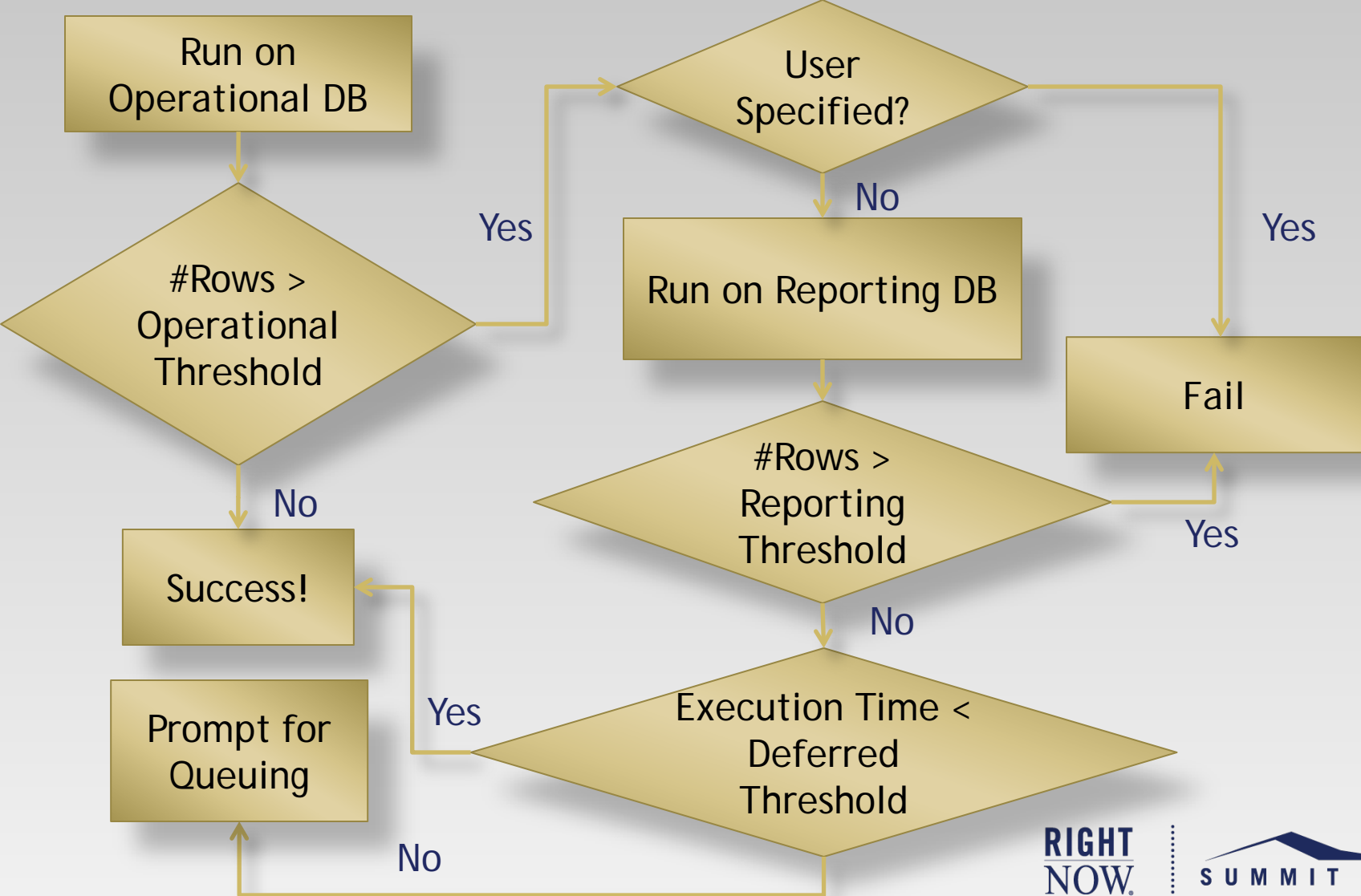
Efficient Report Execution



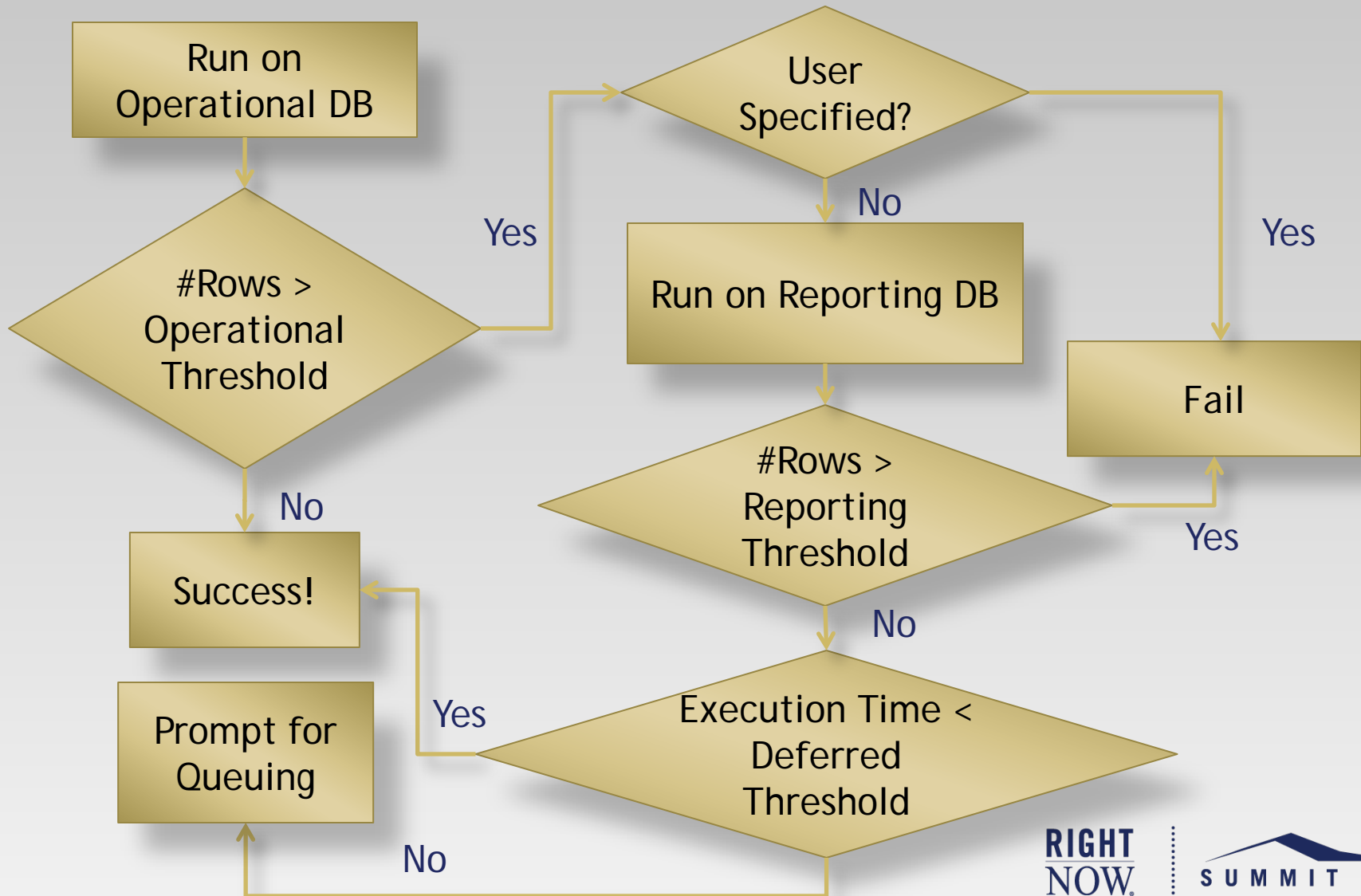
Less Efficient Report Execution



Inefficient Report Execution



Very Inefficient Report Execution



Reporting Performance

- ▶ Contributors to poor performance
 - #1: Filtering on non-indexed custom fields
 - Example
 - Filtering on expressions
 - Example
 - Using sum_distinct
 - Example
 - Joining large tables, i.e. inc_performance to transactions
 - Using drilldowns instead of report linking

Reporting Performance

- ▶ Tools for managing report performance issues
 - May '09
 - Enterprise Analytics
 - Handles very large data sets
 - Daily snapshots of data
 - Aug '09
 - 'Deferred Reports' standard report
 - analytics_core.opts exposed in Analytics
 - Ability to filter on operational vs. reporting db, deferred, user specified

Reporting Performance

- ▶ Tools for managing report performance issues
 - Nov '09
 - Report Analyzer
 - Flags common report performance issues and suggests improvements
 - Estimates the number of analyzed rows and explains impact on operational vs. reporting db

Reporting Linking

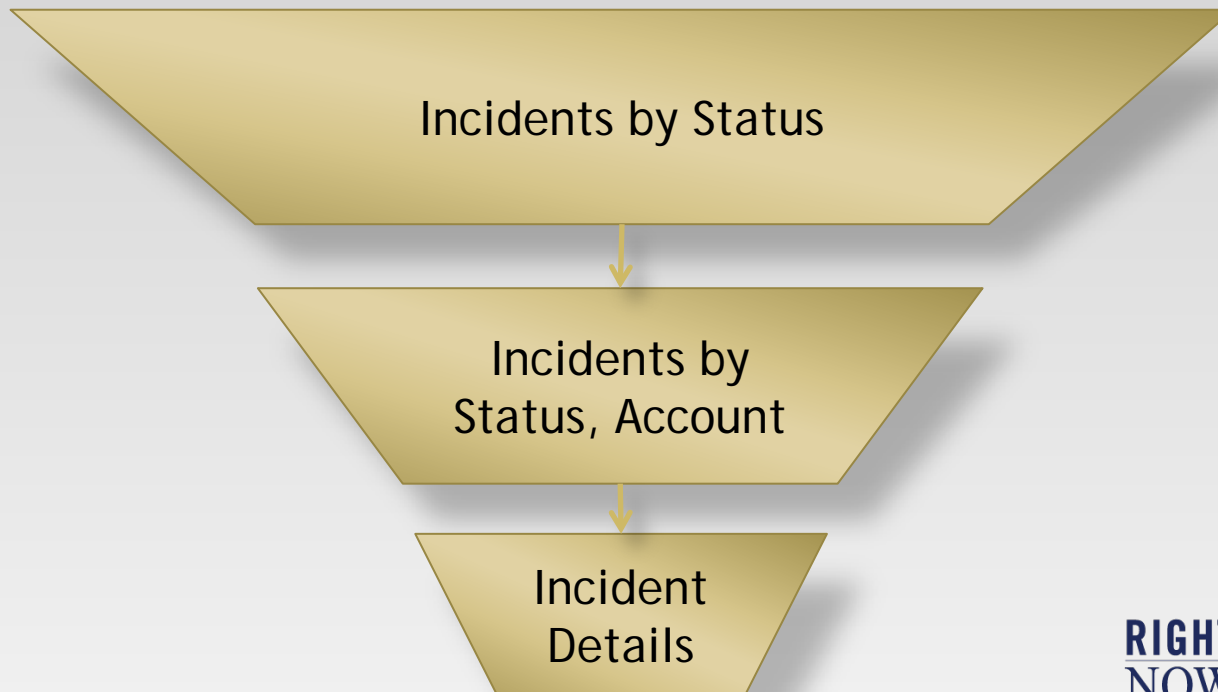
- ▶ Introduced in May '09
- ▶ Key Capabilities
 - Report Re-Use
 - Ability to drill into disparate data sets
 - Ability to drill into dashboards
 - Ability to overcome missing joins in analytics schema
 - Improves performance

Report Linking

► Drilldowns vs. Report Linking

- Drilldowns

- All levels share the same table set
- Each drilldown reduces the number of analyzed rows

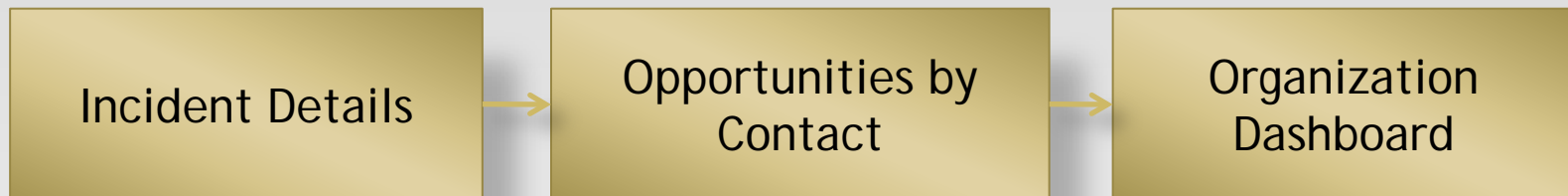


Report Linking

► Drilldowns vs. Report Linking

- Report Linking

- Linked reports are independent of each other
- Linking occurs via mapping data/filters/variables from one report to filters in the linked report
- Each drill can either reduce or expand the result set



Report Linking

► Re-Use

- Example - Drilling from Incidents by Severity to Incident Details
- Report Drilldown
 - Define the summary level
 - Define drilldown detail levels for each severity to display
 - Each drilldown level has the same definition
 - Level filter changes
- Report Linking
 - Define the summary level
 - Define the detail level as separate report

Report Linking

- ▶ Drill into disparate data sets
 - Example - Drilling from Survey Questions to different Survey Response reports
 - Report Drilldown
 - Summary level must contain all tables that may be used in the drilldown levels
 - Convoluted expressions
 - Report Linking
 - Summary level only contains the tables it needs
 - Separate reports for different question types

Report Linking

► Drill into Dashboards

- Example - Drilling from Organization to Org Details Dashboard
 - Prior to Nov '09
 - Not possible
 - Report Linking
 - Easy

Report Linking

- ▶ Overcome missing joins in analytics schema
 - Example - Drilling from a Stats report to an Incidents report
 - No join exists between the stats table and the incidents table
 - Report Linking
 - Create a report on the stats table
 - Create a report link to an incidents detail report
 - Map dates from stats table
 - Caveat: Stats table contains cached data. Number of rows in incident details report may not match.

Customizing Operational Reports

- ▶ Defined: Reports that display live data and are highly transactional/interactive
- ▶ Modes of interaction
 - Ribbon
 - Context Menu
 - Inline Editing
 - In-Cell Editing
 - Edit/Multi-Edit from Ribbon
 - Slice

Customizing Operational Reports

▶ Record Commands

- Define the set of operations that are available on the given data set
- Examples: Open Incident, Delete Contact, Copy Organization
- Commands auto-magically added to reports based upon tables in the report and the user's profile
- Enabling/disabling determined by account profile and data
- Customizable as of August '09

Customizing Operational Reports

- ▶ Manager Report - Create a report to manage incidents across a team
- ▶ Topics
 - Slicing
 - In-line editing

Customizing Operational Reports

- ▶ Agent Report - Create a report that allows an agent to view, but not open, incidents from other agents
- ▶ Topics
 - Customizing Record Commands

Resources

- ▶ Forum
- ▶ Answers
- ▶ Tutorials
- ▶ Documentation

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A dark blue silhouette of a mountain range with three peaks of varying heights.
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Q & A



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CONTACT

Nick Lenzmeier

Email: nlenzmeier@rightnow.com

Forum: nlenz

