

Maximize your engines and leverage  
CA Business Intelligence (CABI)  
offline reporting capabilities to keep  
your CA Service Desk Manager  
(SDM) users running at high speed

Presented by:

Raghu Rudraraju

CA Support

**Audio:**

**866-393-7440 (toll free)**

**706-679-2056 (int'l)**

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# Welcome

## Webinar Five in Seven-Part Series on using CABI with SDM

- Diane Boyd, CA Education Moderator
- Series runs through May 17
- Today's session is 1.5 hrs

Simplifying  
Installation &  
Configuration of  
CABI and SDM

TODAY – 11 –  
12:30 EDT

Using LDAP to  
Secure Your CA  
Service Desk  
Manager  
Reporting Access

Thursday, May 3  
11 – 12 EDT

Using Designer  
and Universe to  
Empower non  
Technical End  
Users

Tuesday, May 8  
11 – 12 EDT

Personalizing  
your Web  
Reports with  
Infoview

Thursday, May 10  
11 – 12 EDT

Maximize your  
Engines with  
Offline Reporting

Tuesday, May 15  
11 – 12:30 EDT

Reporting  
Troubleshooting  
Tips: Part I








Wednesday, May  
16 – 11 – 12 EDT

Reporting  
Troubleshooting  
Tips: Part 2

Thursday, May 17  
11 – 12 EDT

# Logistics

## Logistics

1	Download handouts   Feedback: 
2	Submit questions to Q/A folder; conduct Q/A at end of session  Meeting Recording
3	Twitter users can tweet using - #CABITips
4	Report issues during the session using Live Meeting Chat or   Feedback: 
5	Session is being recorded and available after session via email
6	Provide feedback via post evaluation survey sent through email
7	Lines are muted

# Leverage CABI Offline Reporting Capabilities

## Meet the CA BI/SDM Subject Matter Experts

### Raghu Rudraraju

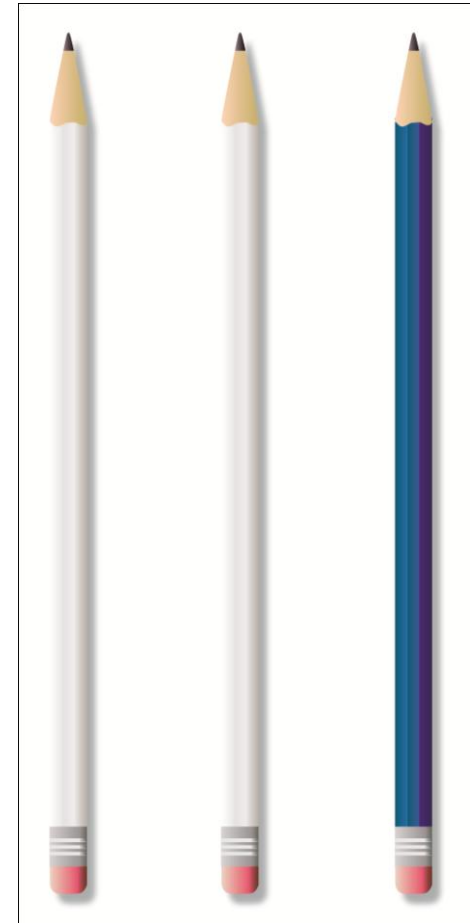


- Principal Support Engineer based in Lisle, Illinois - USA
- 14 year Tech Support professional on Unix & Windows based apps
- Joined CA Technical Support in 2000
- Specializes in Configuration, Installation, and Reporting areas
- Active contributor to many technical documents & Green Books

# Leverage CABI Offline Reporting Capabilities

## Webinar Summary

**This step-by-step webinar will illustrate the benefits, how to configure and utilize CA Service Desk Manager Offline Reporting for CA Business Intelligence (CABI) reporting purposes.**



# Leverage CABI Offline Reporting Capabilities

## Webinar Objectives

### After this webinar module, you will be able to:

- Understand CA SDM/CABI Reporting architecture
- Identify CA SDM Offline Reporting need
- Install CA SDM Offline Reporting instance
- Configure CA SDM Offline Reporting instance
- Replicate CA SDM Database for Reporting
- Configure CABI reporting to use CA SDM Reporting instance

### What you need to know:

- CABI and CA SDM installation requirements
- Basic Database Replication mechanisms
- Ability to view CABI reports from CA SDM



# Leverage CABI Offline Reporting Capabilities

## Webinar Map

- 1 CA SDM / CABI reporting architecture
- 2 Need for CA SDM Offline Reporting
- 3 Install and configure CA SDM Reporting Instance
- 4 Replicate CA SDM Database
- 5 Integrate with CA SDM production

# Leverage CABI Offline Reporting Capabilities

## CA SDM Reporting Background Information

### Normal Report applications access DB directly

- Application Security needs to be redefined
- Rewrite reports when Schema is upgraded

### Depend on CABI Universe/CA SDM ODBC Driver

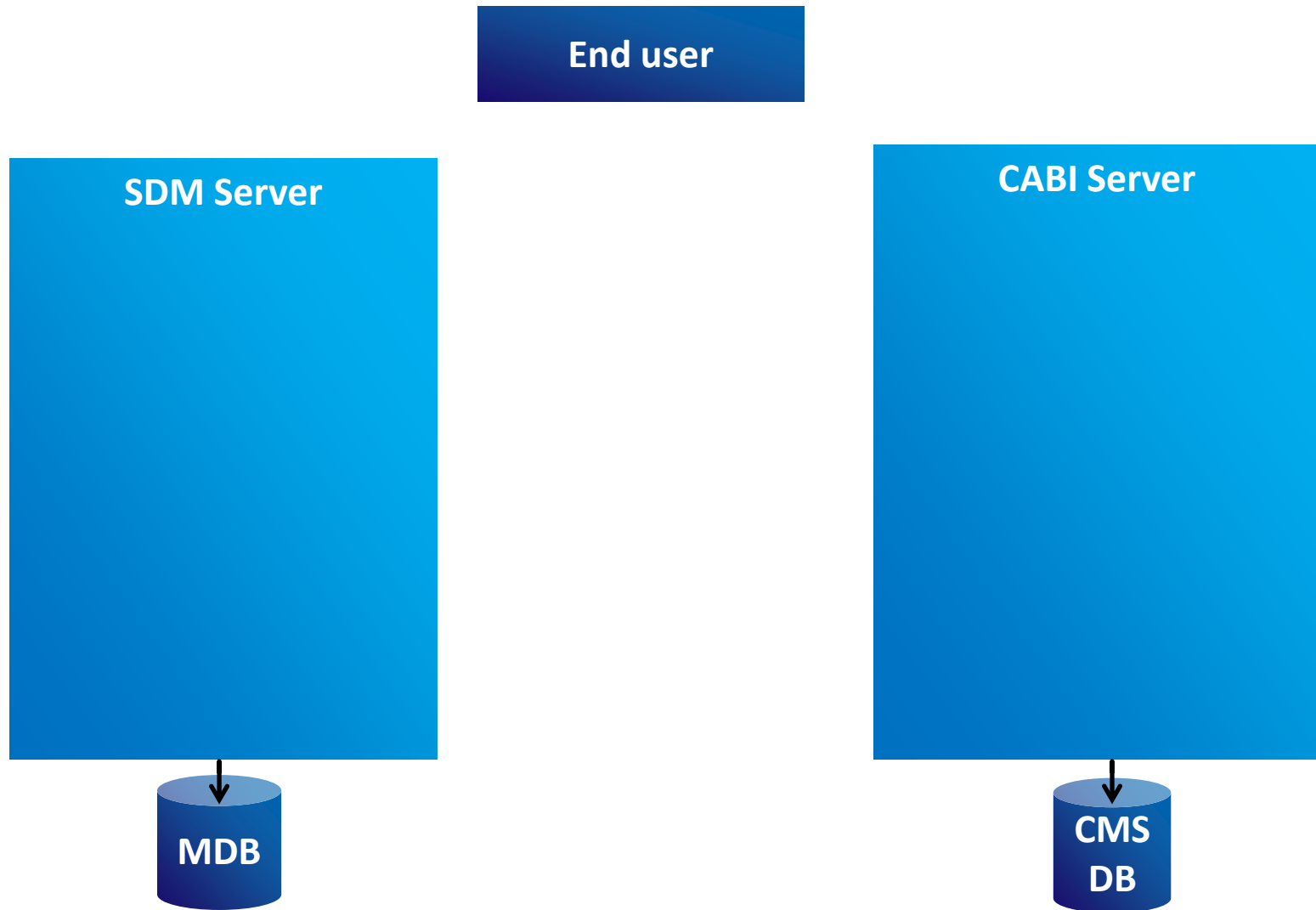
- Leverages CA SDM application security
- Universe takes care of most of the joins





# Leverage CABI Offline Reporting Capabilities

CA SDM – CABI architecture: Normal scenario

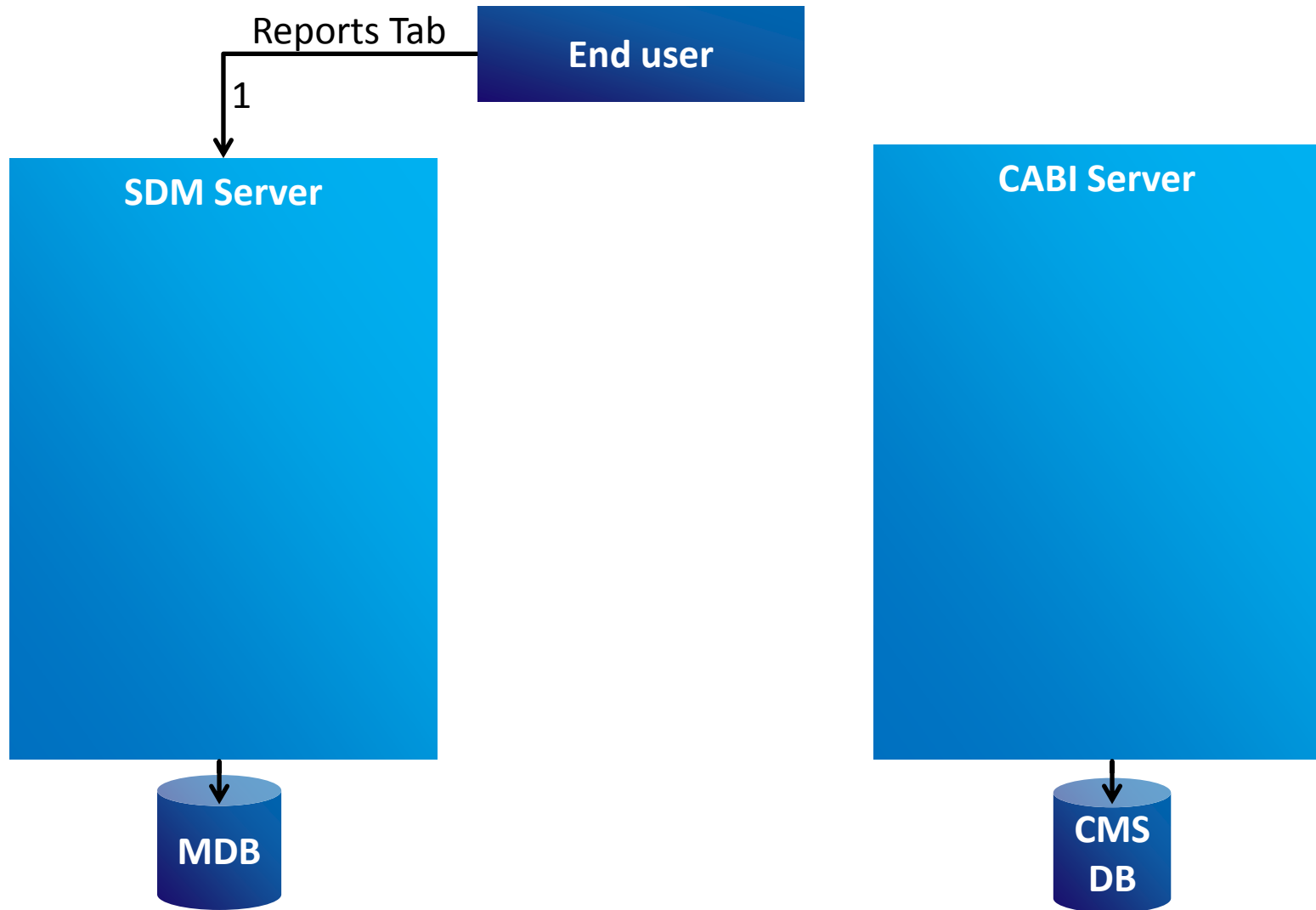


*Module 5: Leverage CABI offline reporting capabilities to keep your CA SDM users running at high speed*

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# Leverage CABI Offline Reporting Capabilities

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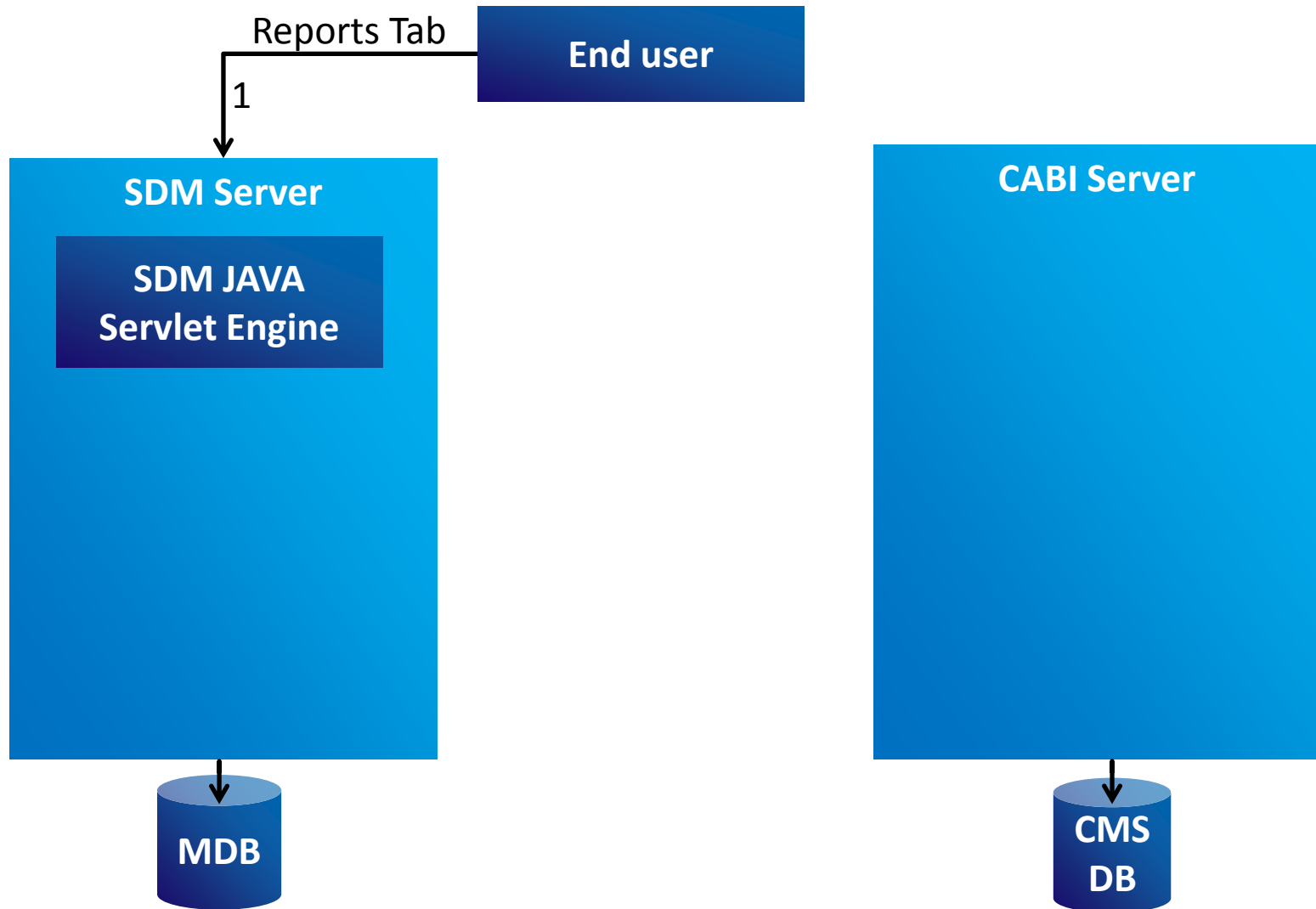


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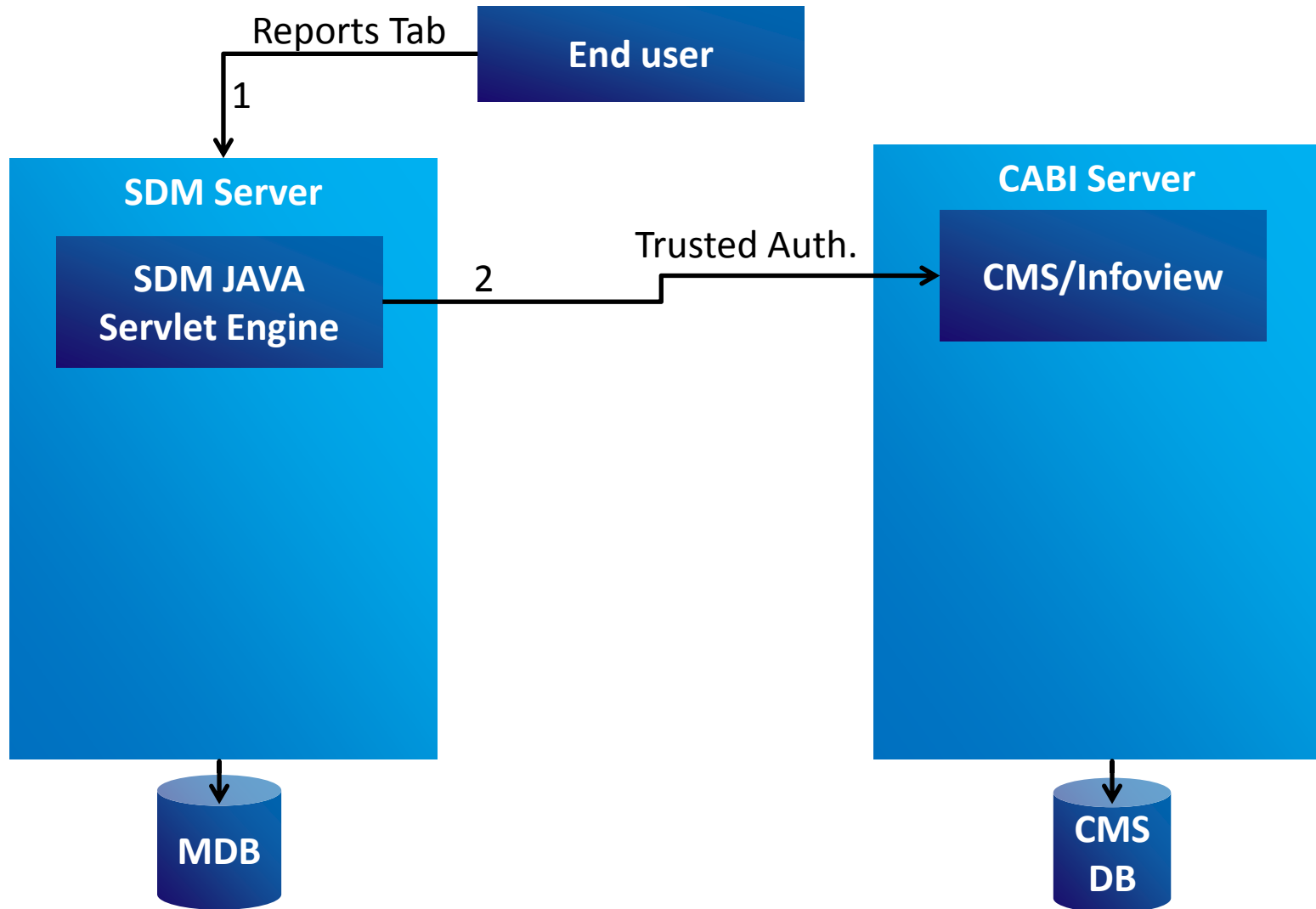


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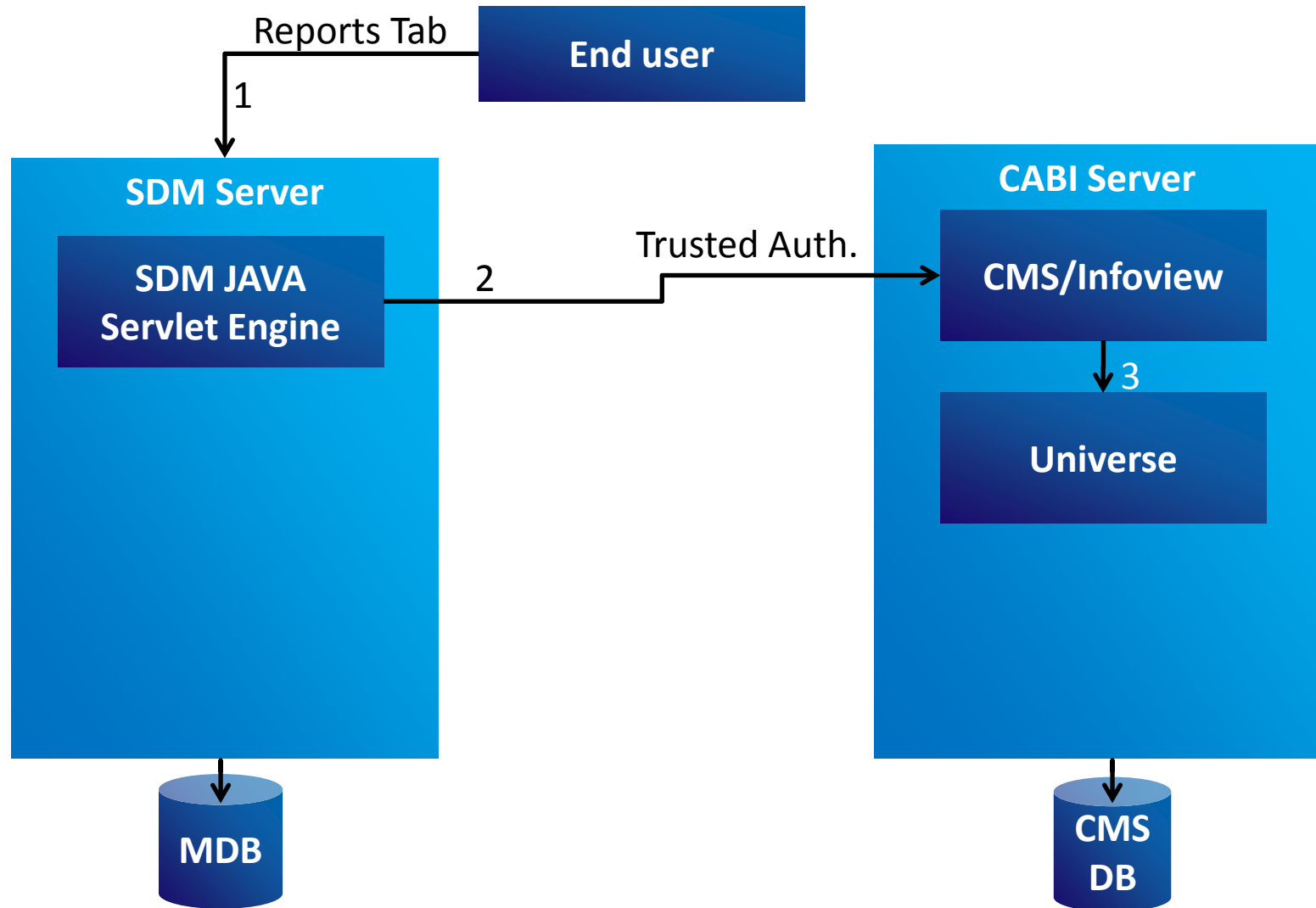


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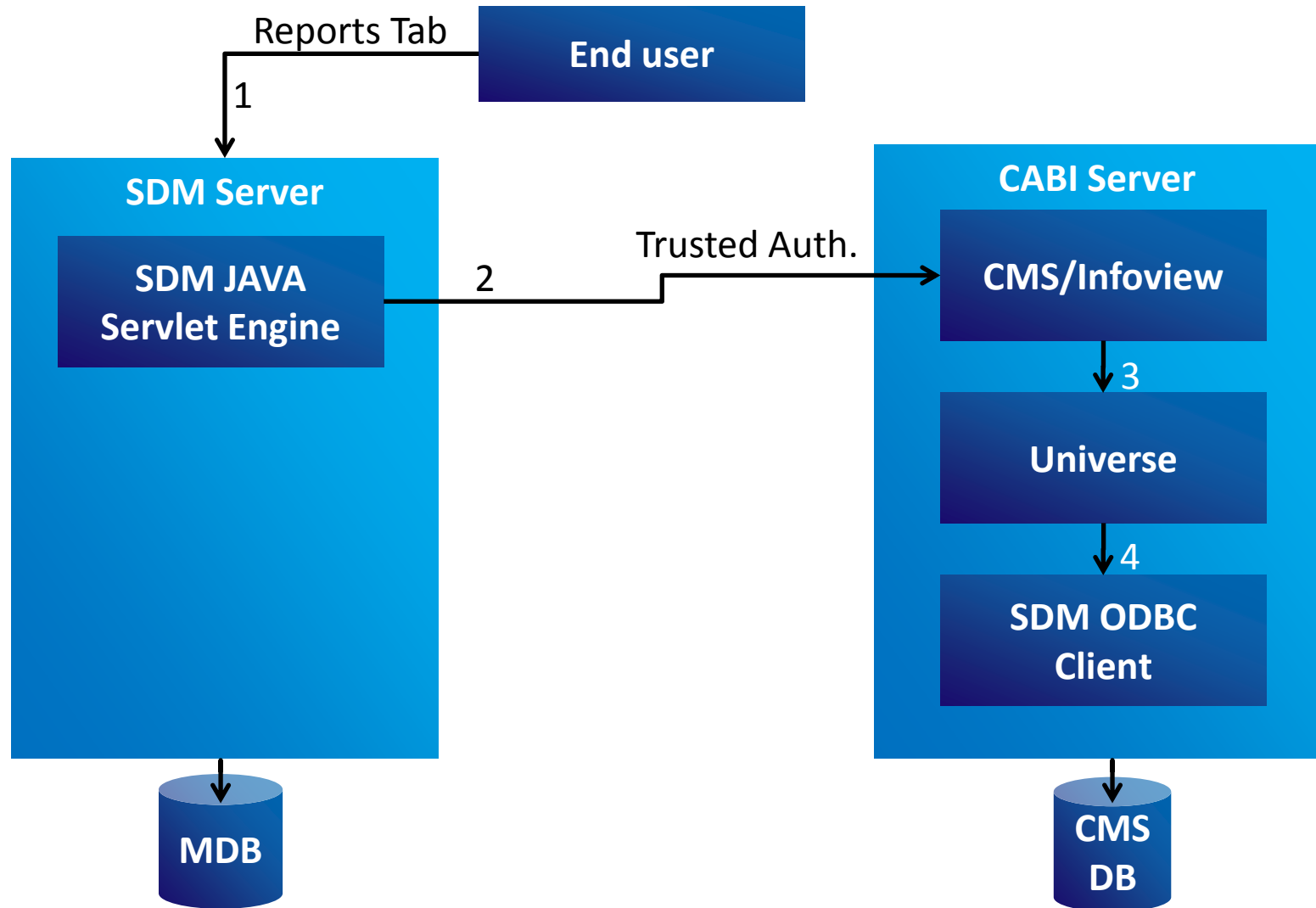


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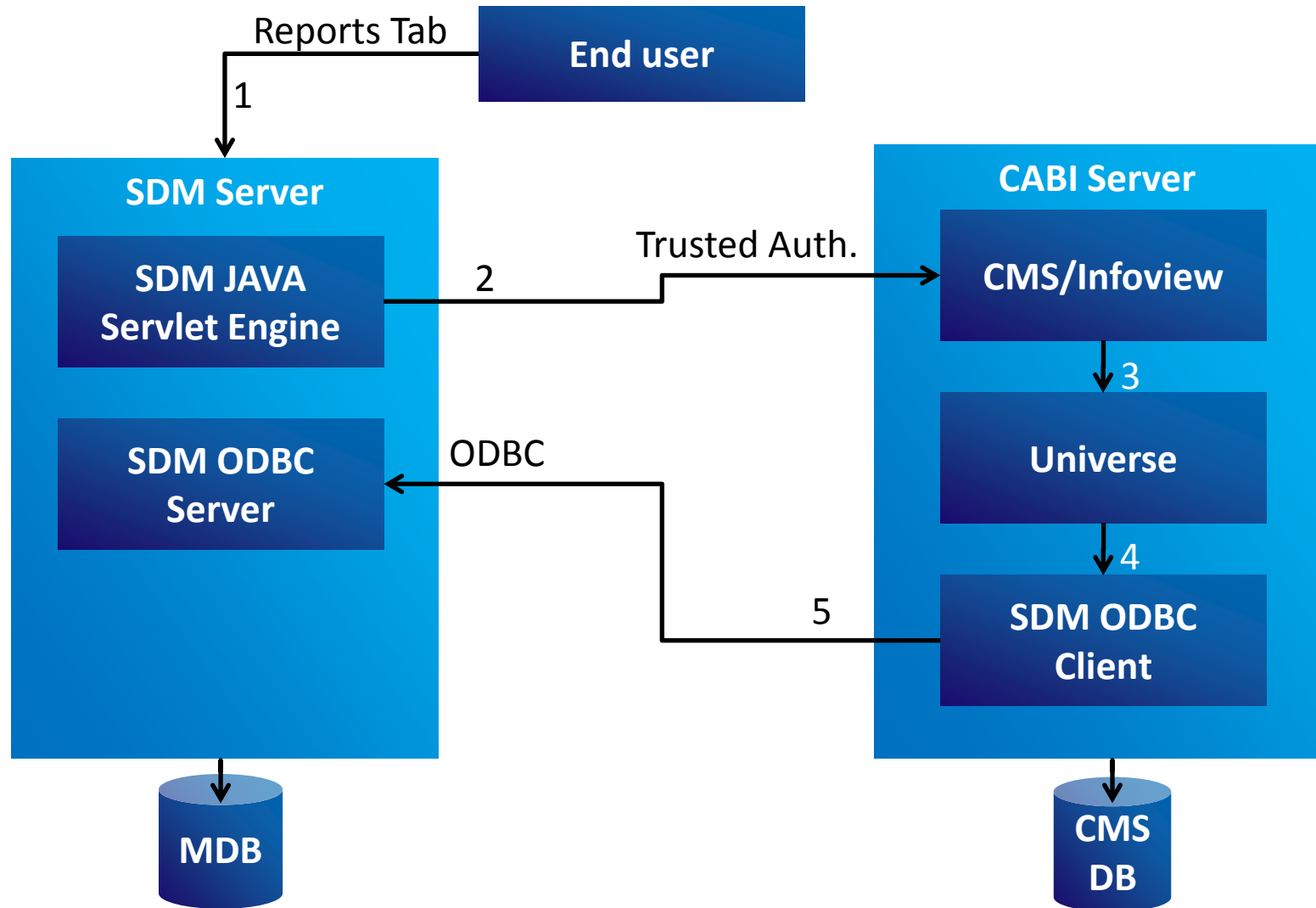


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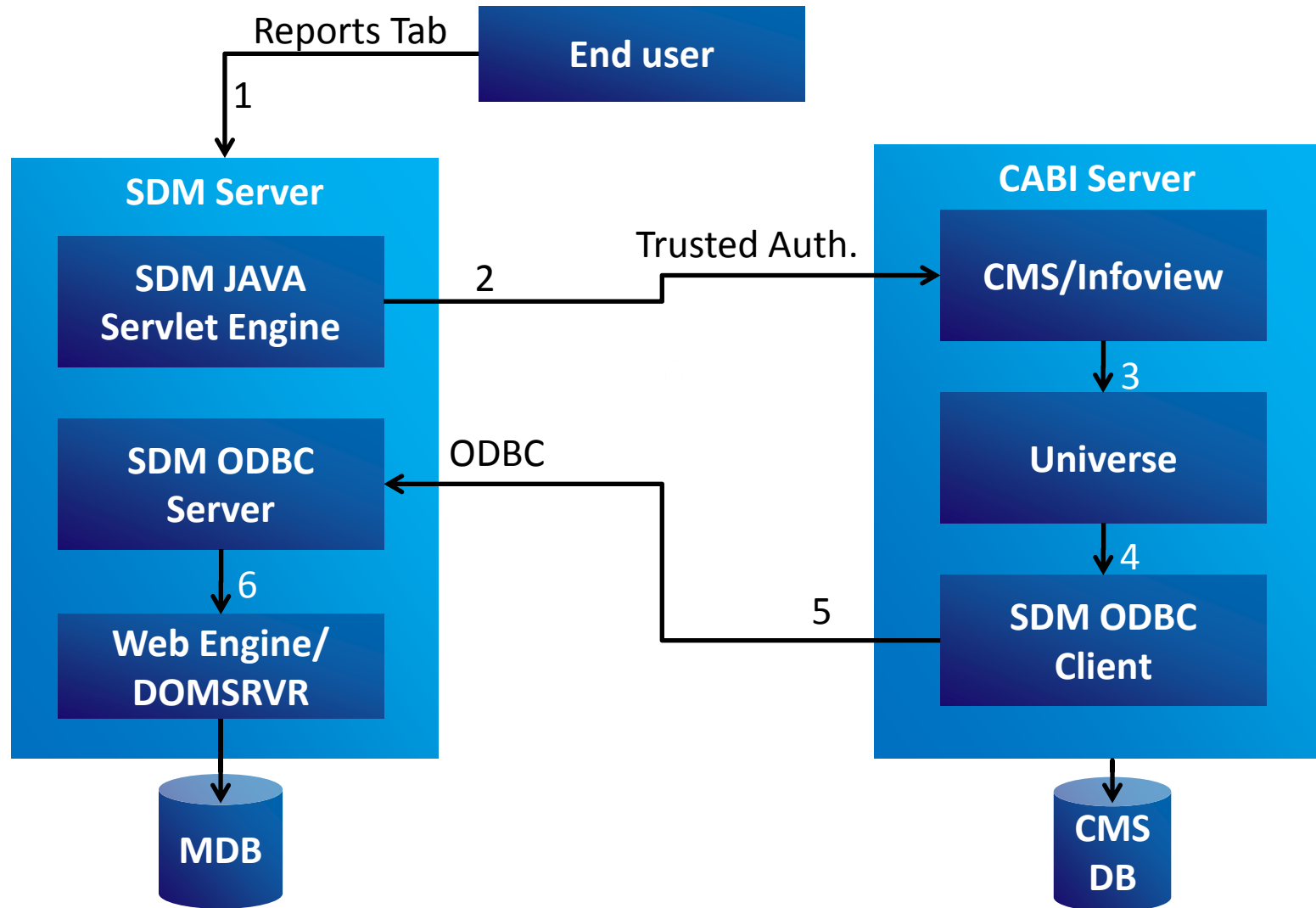


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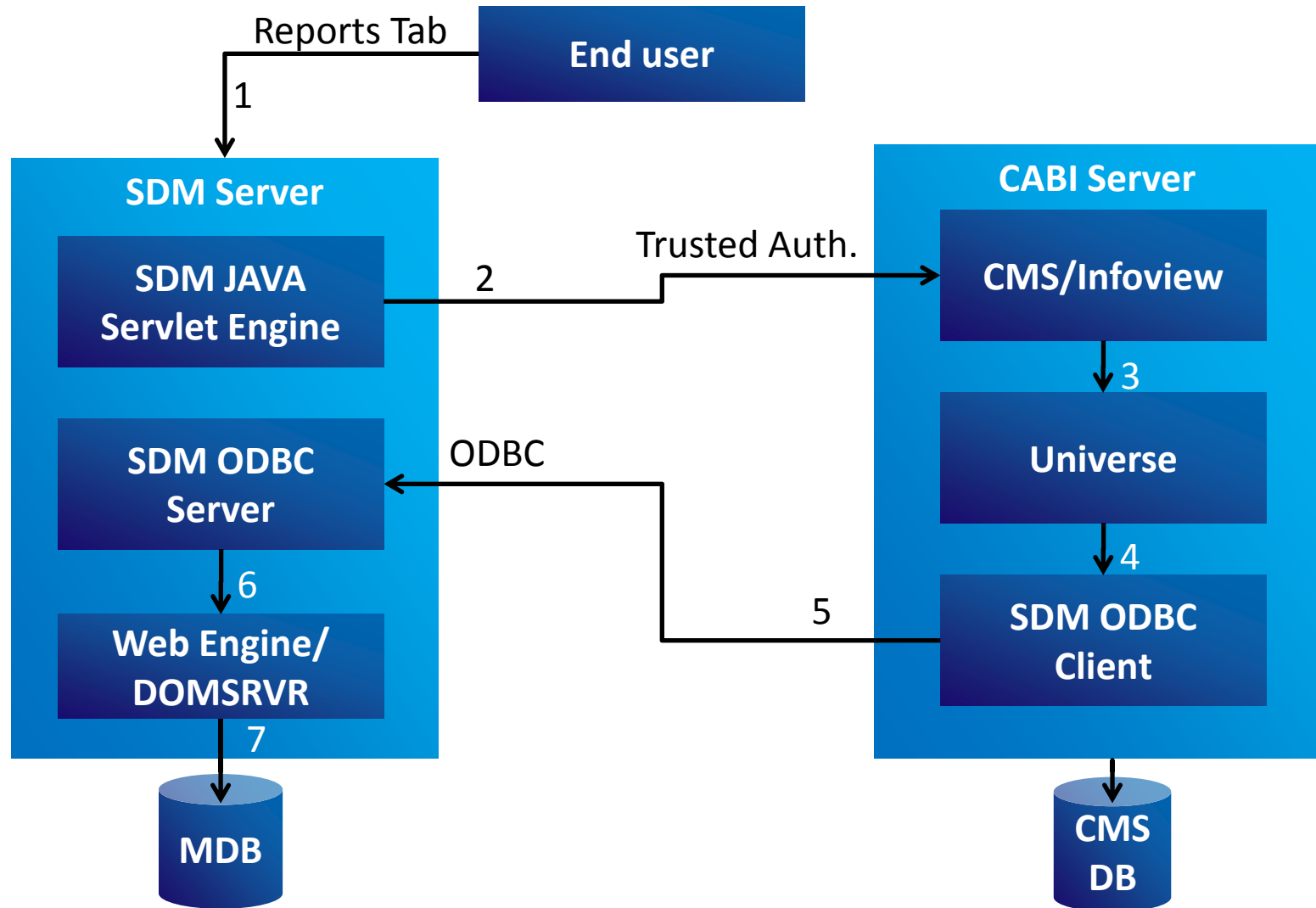
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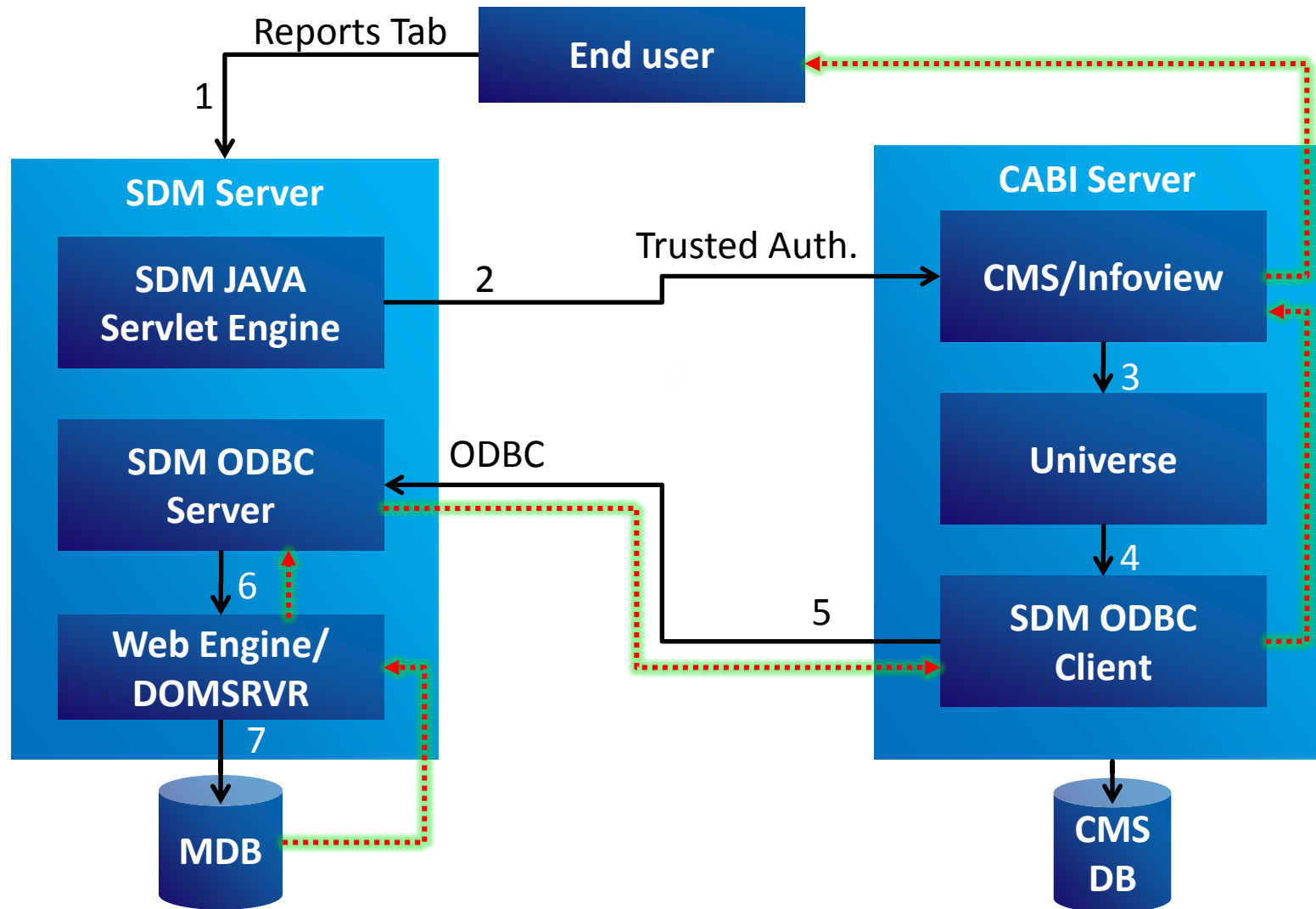


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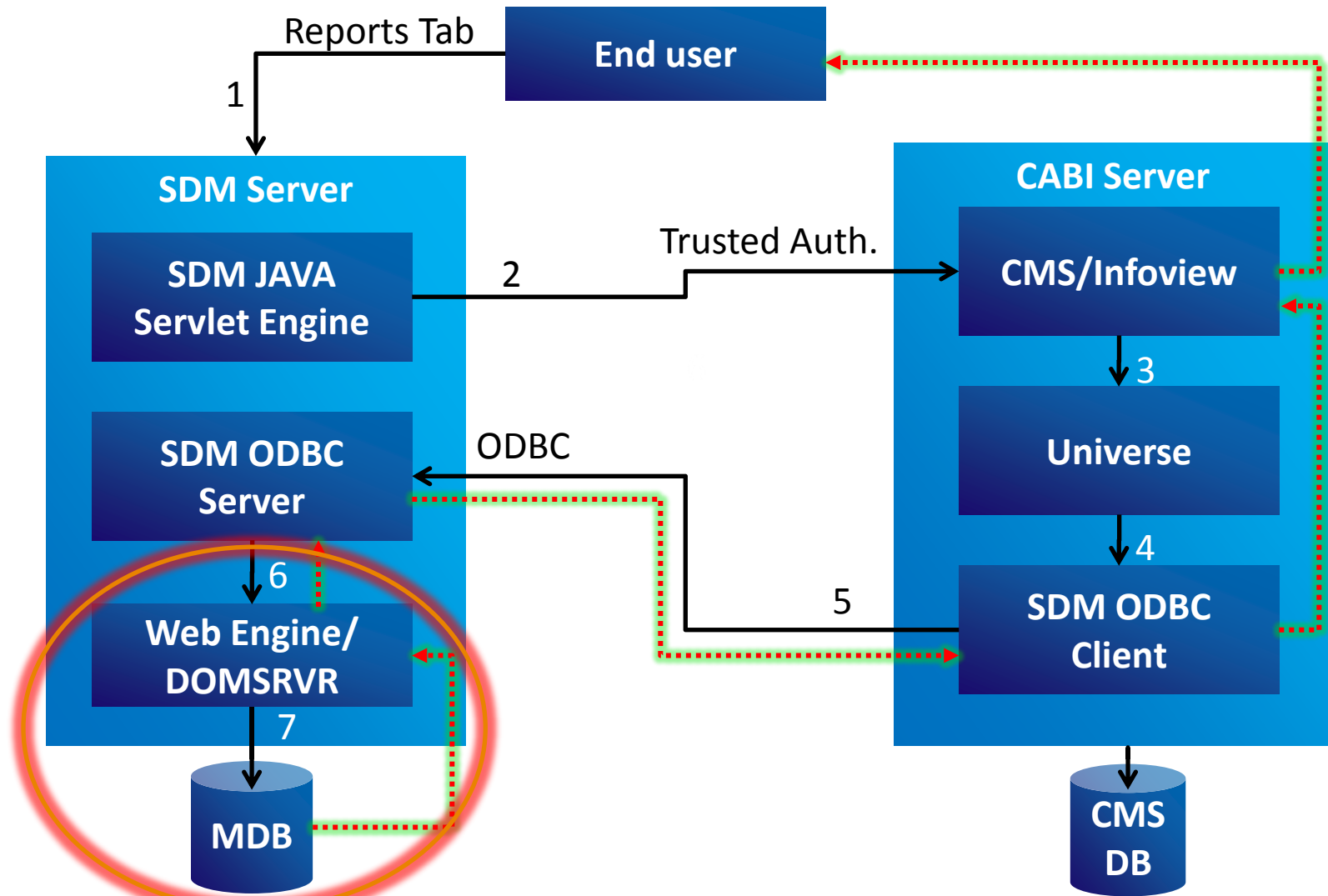


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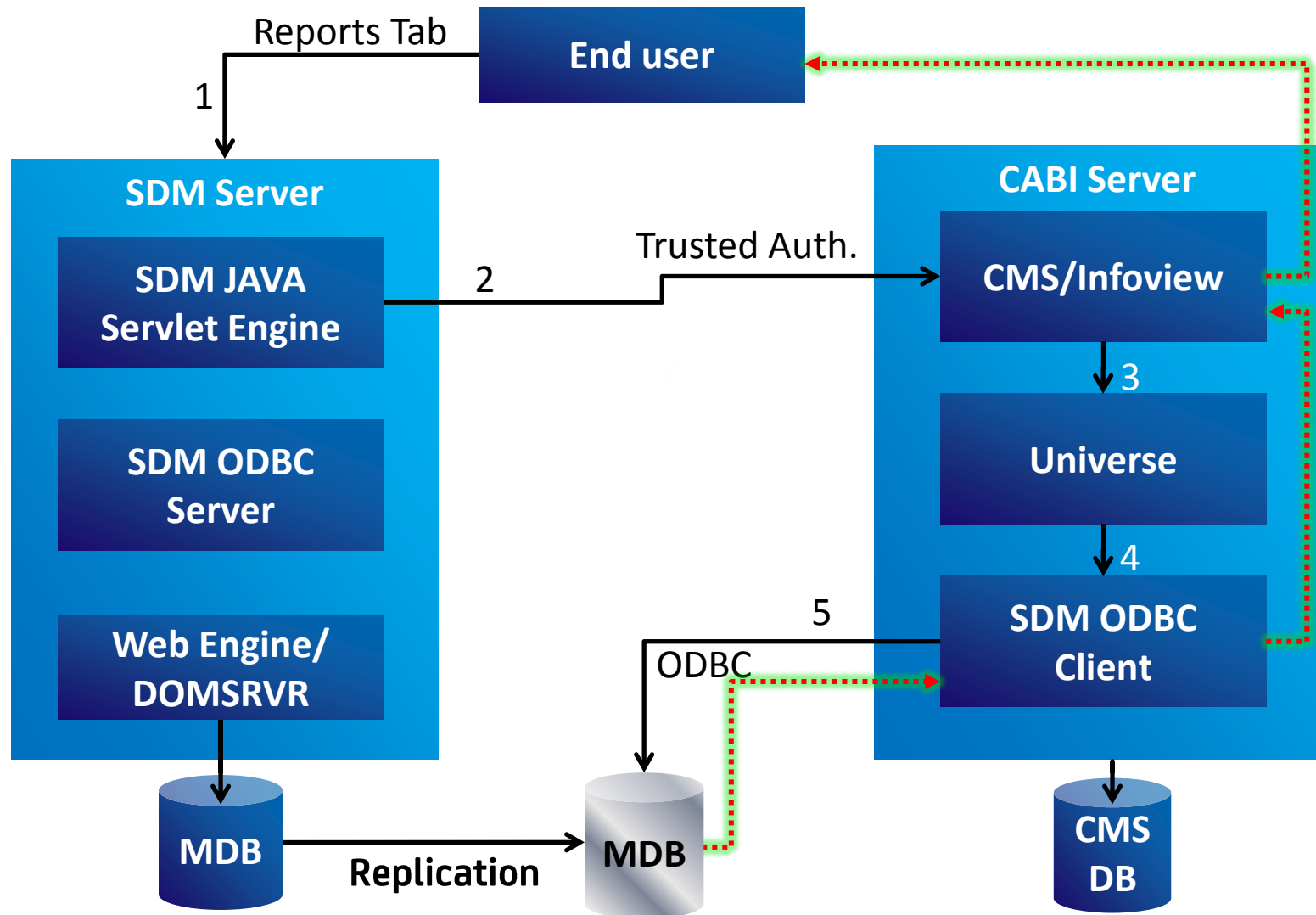


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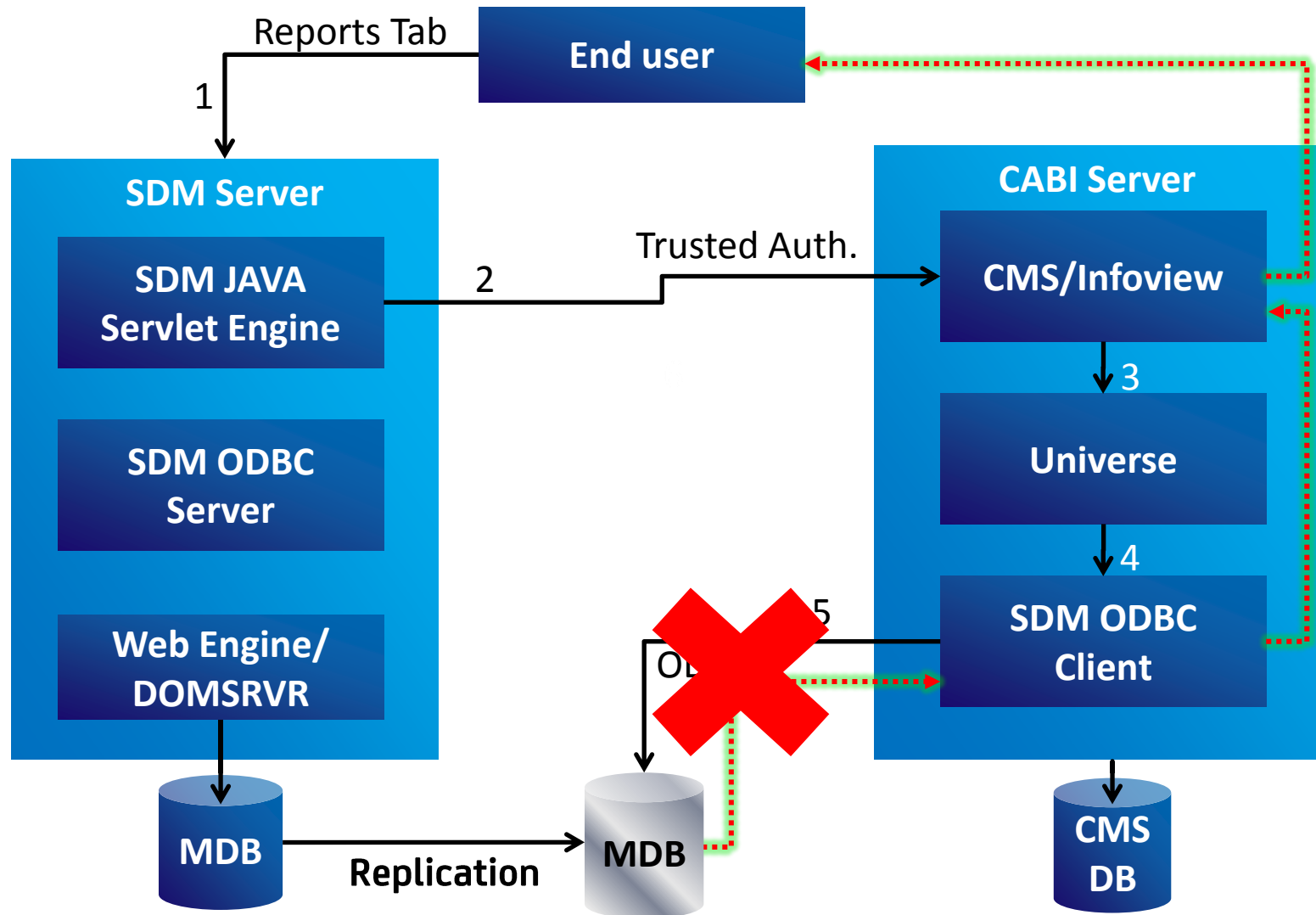


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# Leverage CABI Offline Reporting Capabilities

CA SDM – CABI architecture: Normal scenario



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# Leverage CABI Offline Reporting Capabilities

## CA SDM – CABI Architecture: Why Offline Reporting?

### Concern:

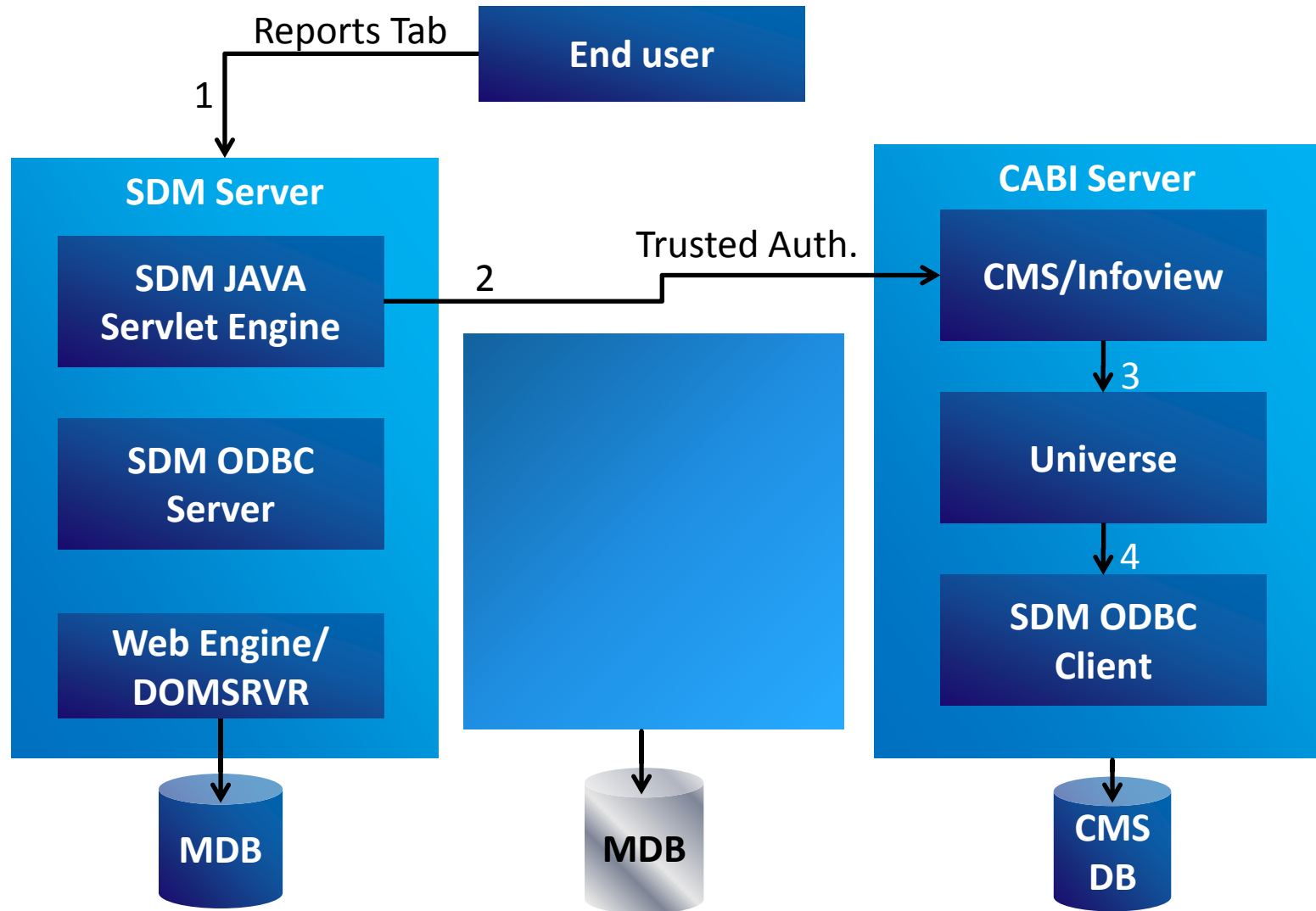
Report dependency on the SDM Application layer could cause performance issues for normal operations

### Solution:

Separate Reporting instance of the Application layer reduces the Reporting load on the Production Instance of the Application layer

# Leverage CABI Offline Reporting Capabilities

CA SDM – CABI architecture: Normal scenario

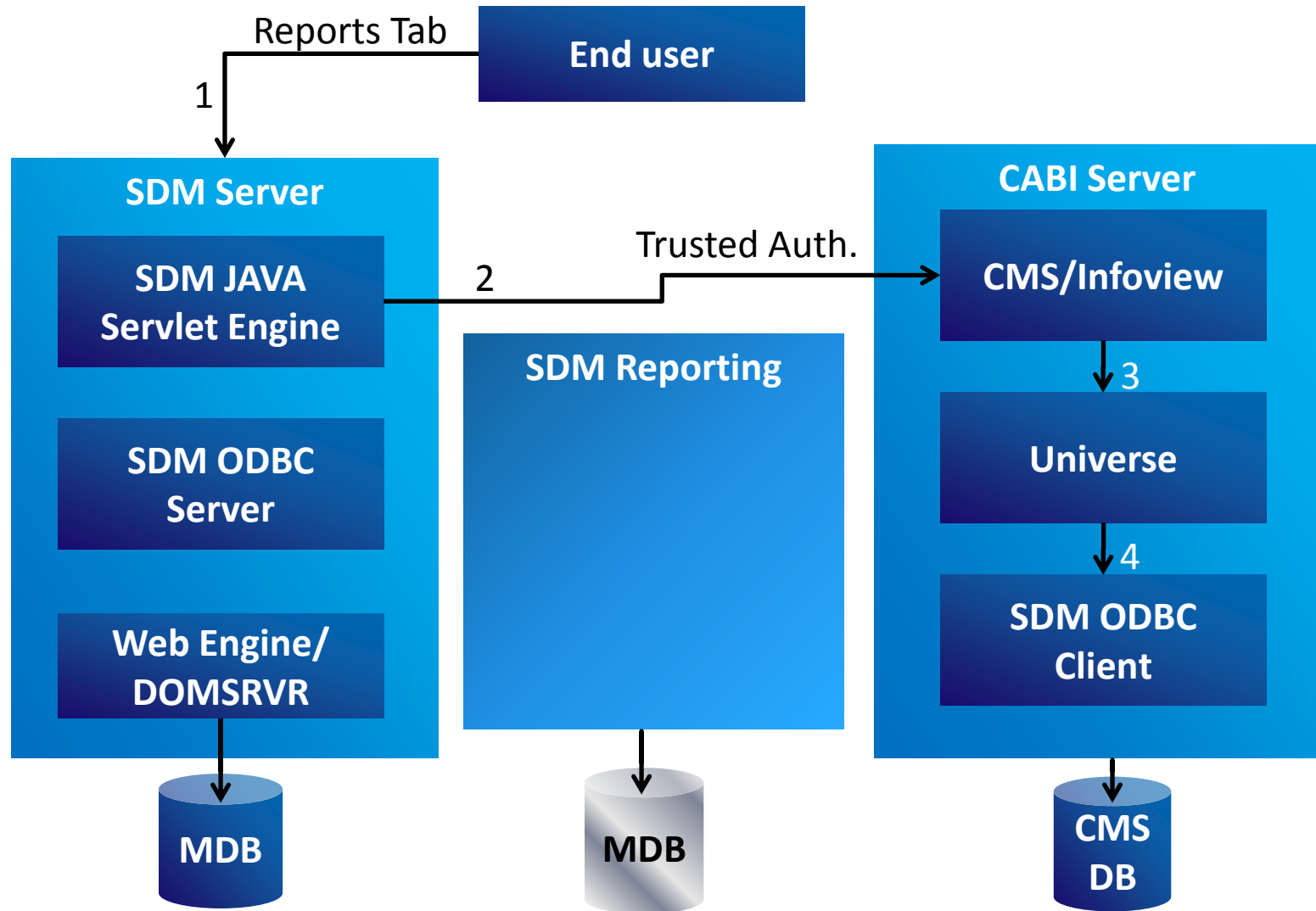


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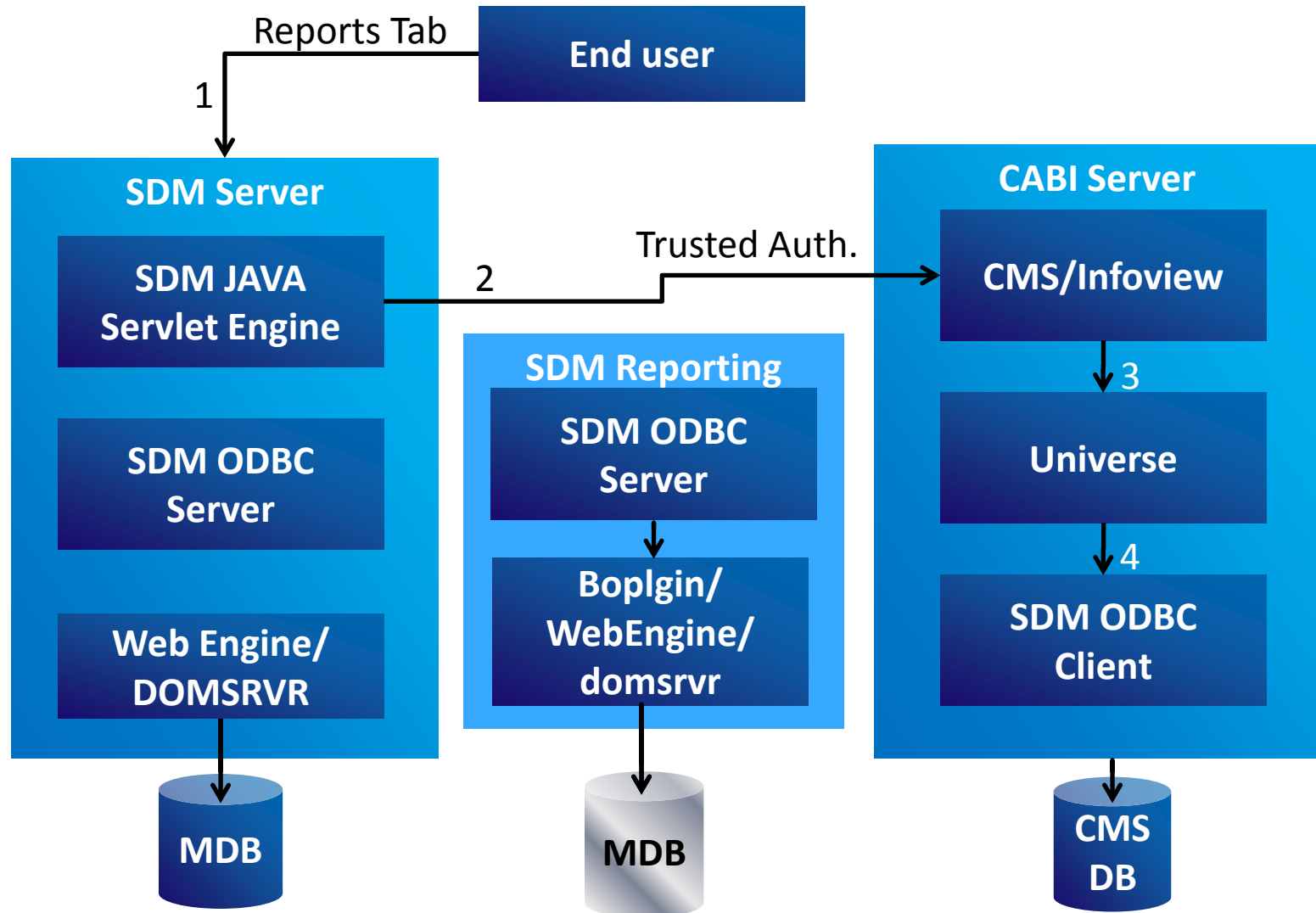
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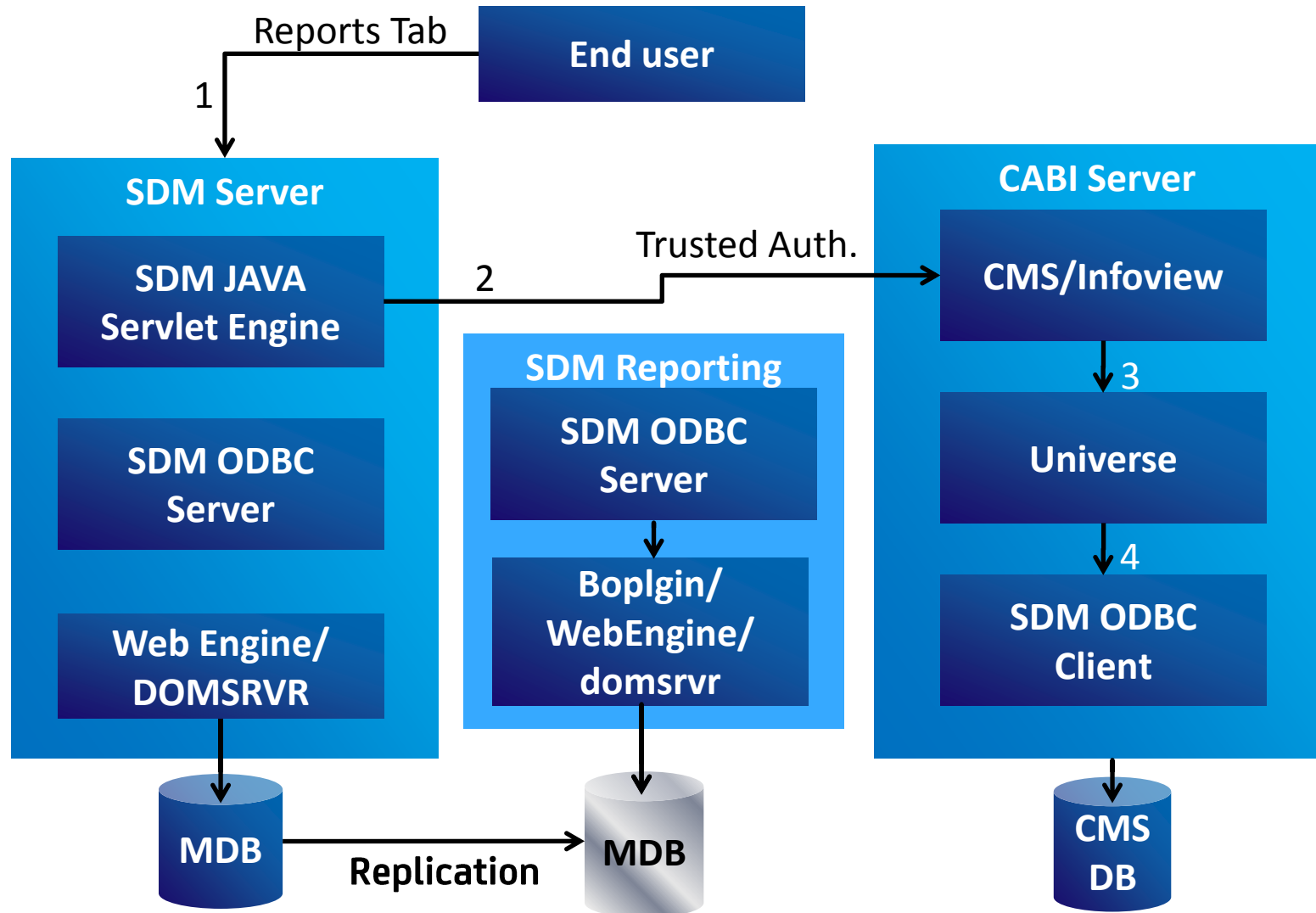


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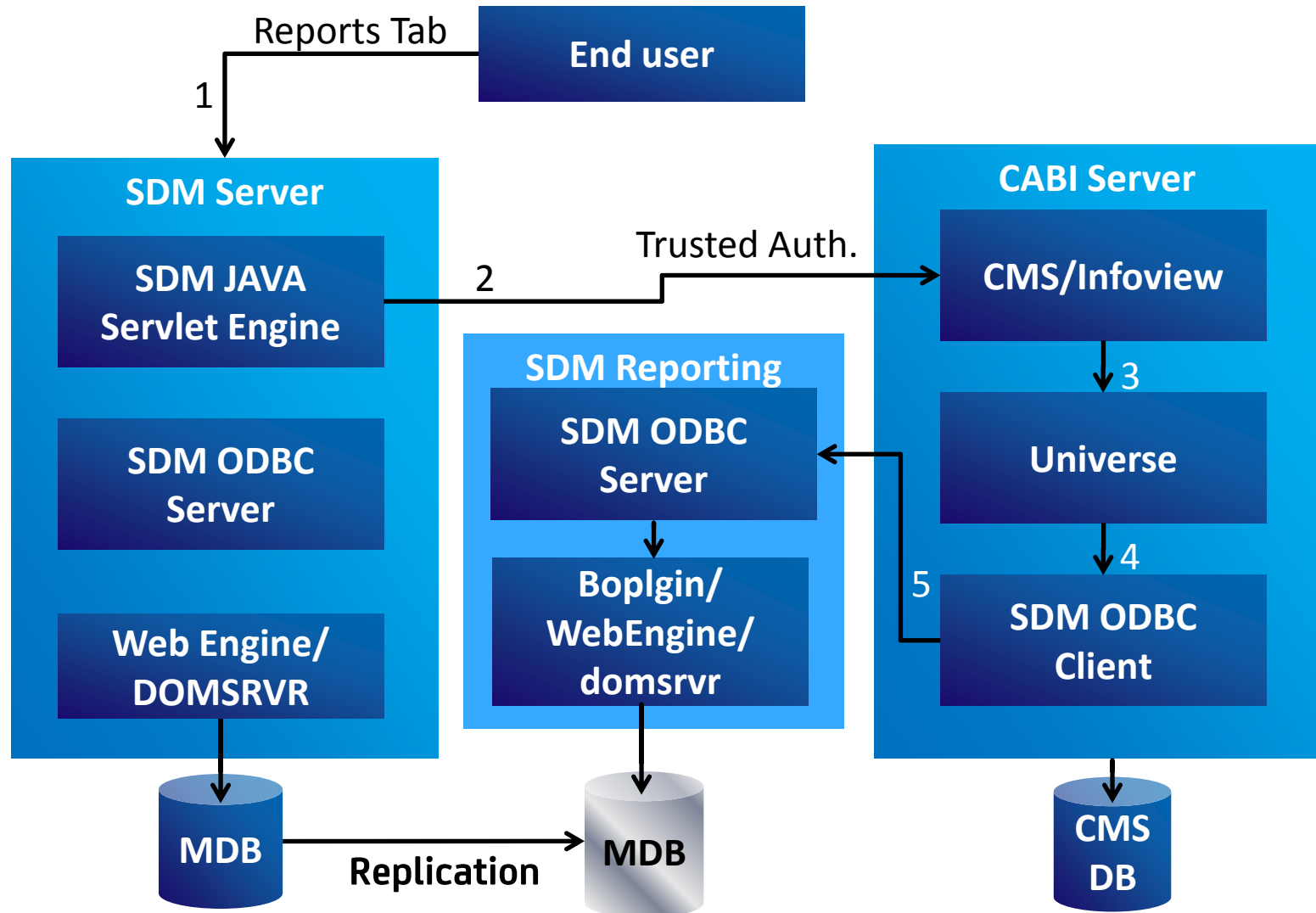


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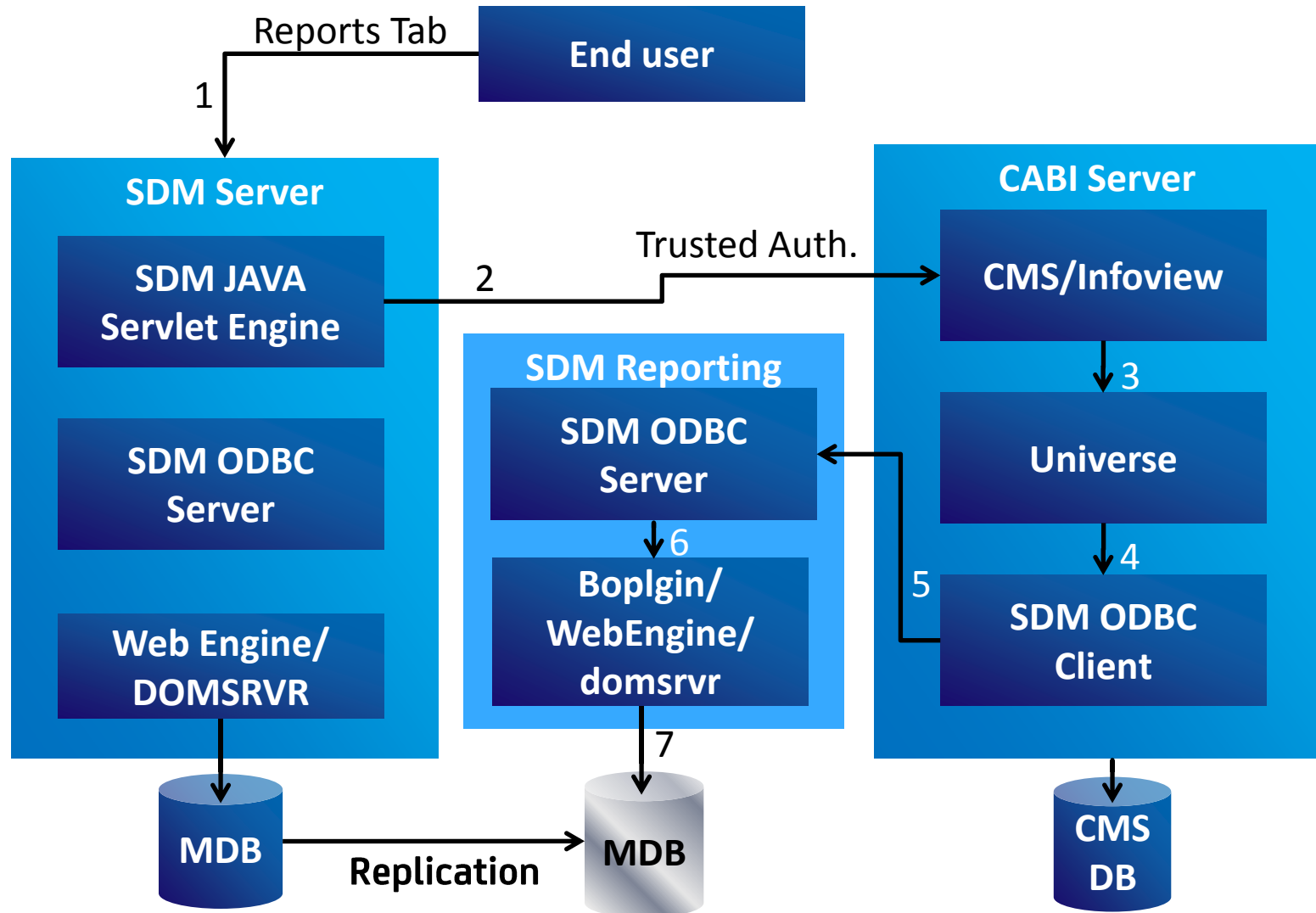


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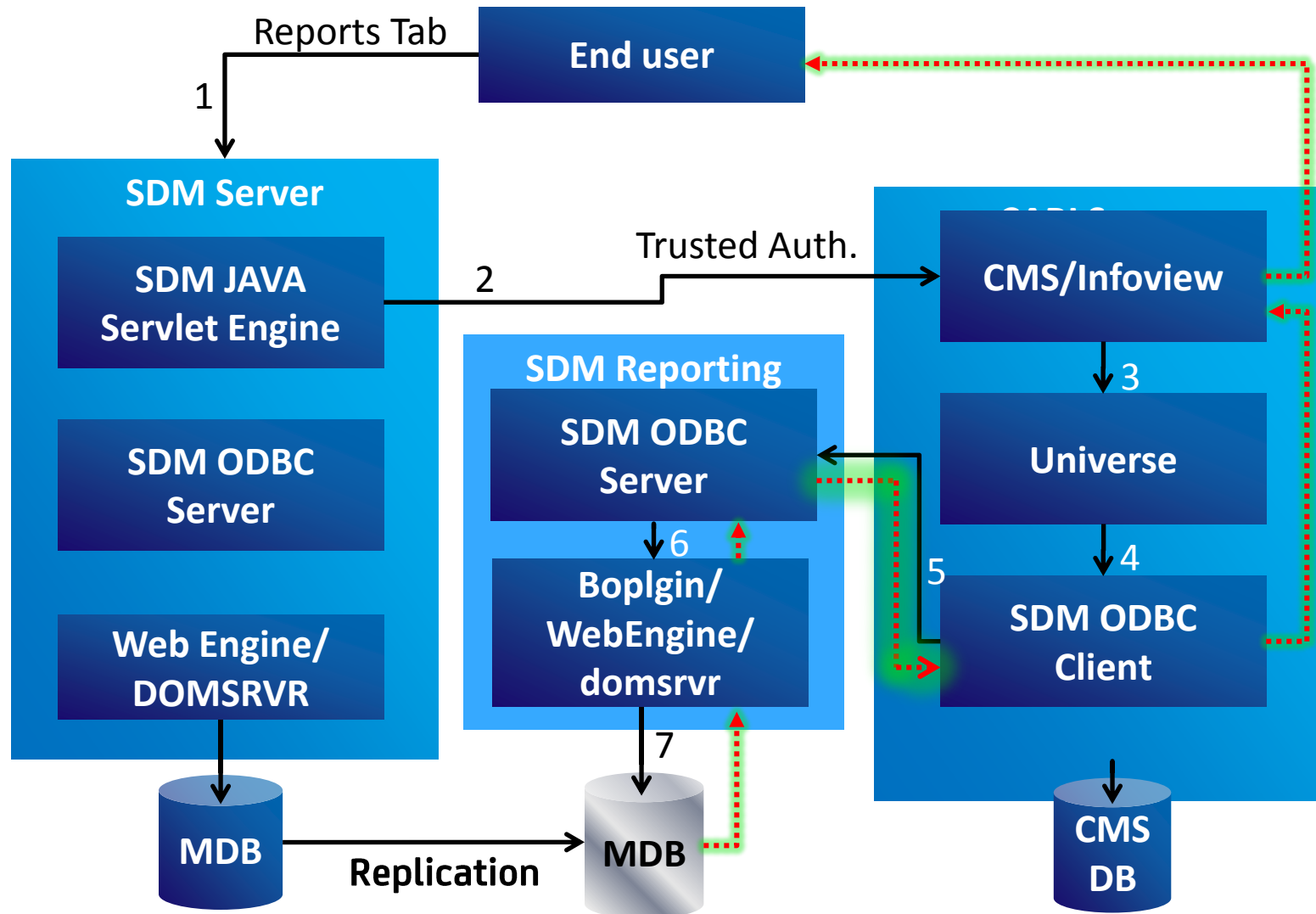


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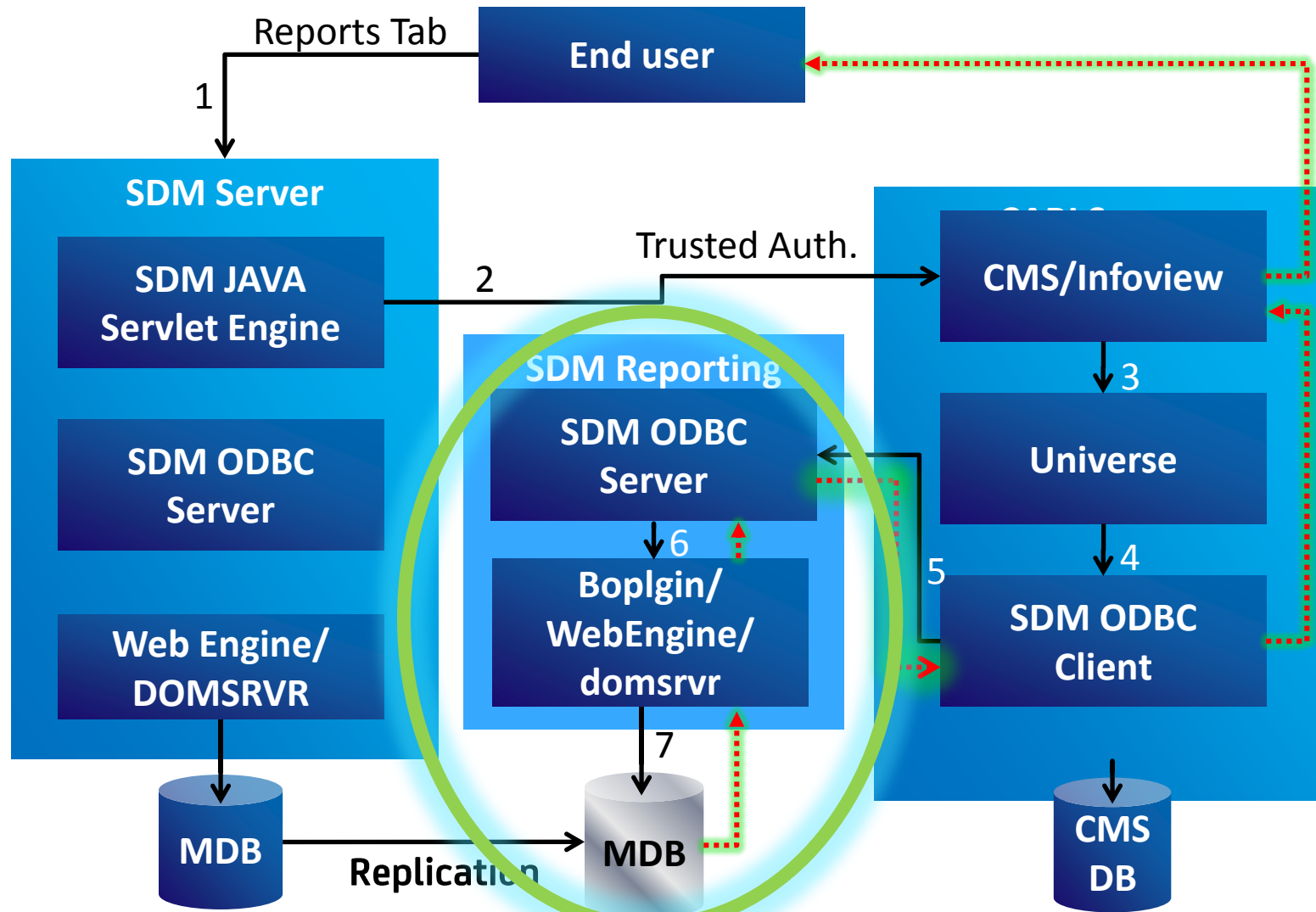


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# Leverage CABI Offline Reporting Capabilities

CA SDM – CABI architecture: Normal scenario



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# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting - High Level Steps

### High Level Steps

1. Install/configure the production instance of CA SDM against Production MDB
2. Install CA Business Intelligence
3. Configure integration between production instance of CA SDM to use CA BI
4. Install a reporting MDB database server (separate from Production MDB)
5. Install/configure SDM Offline Reporting instance against the reporting database
6. Configure SDM Offline Reporting to prevent updates to the reporting database
  - Start SDM in Offline\_Reporting mode
7. Configure database replication between production and reporting database
  - Some tables should not be replicated
8. Configure CA BI/SDM Universe to use SDM Offline Reporting as data source

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting Demonstration

We will be covering each of the 8 steps documented in High Level Steps slide

### SDM-PROD-DEMO

- Production Service Desk Server
- Connects to Local SQL Server for MDB database

### SDM-CABI-DEMO

- Already integration with SDM-PROD-DEMO for reporting
- Connects to Local SQL Server for CABI database

### SDM-OFFLINE

- Reporting Instance of Service Desk Server
- Connects to Local SQL Server for MDB database,
- This MDB database is replicated from SDM-PROD-DEMO Production MDB





# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 1

### Install/configure the production instance of CA SDM against Production MDB

- Follow CA SDM Implementation Guide to install CA SDM Production server

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 2 and 3

### Install CABI

- Configure Trusted Authentication between CA SDM Production and CABI
- Utilize the steps in CA SDM Implementation Guide
- CA SDM Production Options Manager – Web Report options point to CABI Server
  - bo\_server\_cms
  - bo\_server\_location

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 4

### Install a reporting MDB database server (separate from Production MDB)

- CA MDB on the Reporting database server needs to be installed first
- Use the MDB remote components installer to do so
- This database is then used for Replication by the Database Replication tools
- Do NOT create this MDB database as part of Database Replication. This MDB database must be pre-created with CA MDB Installation

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 5

### Install/configure SDM Offline Reporting instance against the reporting database

- On the SDM Reporting Instance, perform a normal installation of SDM
- Ensure SDM starts up fine
- Login to SDM and make sure you can open a Request
- Ensure CA SDM ODBC Services are running
  - Windows: Use Windows Control Panel and verify
    - CA Service Desk ODBC Agent
    - ODBC Data Access services
  - Unix: “ps -ef|grep oaserver “ verify
    - Two ODBC programs
- Shutdown SDM

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 6

### Configure Offline Reporting to prevent un-necessary updates to reporting database

- Update NX.env to have:

`@NX_EVENT_LOG_EXCLUDE=ALL`

`@NX_SESSION_LOG_EXCLUDE=ALL`

- Verify Auditing is commented out (line should begin with !)

`!@NX_AUDIT_UPD=`

`!@NX_AUDIT_DEL=`

- Also update the NX\_ROOT/pdmconf/NX.env\_NT.tpl with the above entries

- Modify NX\_ROOT/pdmconf/pdm\_startup.tpl and pdm\_startup files

- Change the last line from

`[ default procset MAIN_PROCSET ]`

to

`[ default procset OFFLINE_REPORTING ]`

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 7

### Configure database replication between production and reporting databases

- Do NOT replicate below tables
  - ci\_twa\_ci
  - dlgtsrv
  - ebr\_full\_text
  - ebr\_fulltext\_adm
  - ebr\_synonyms
  - ebr\_synonyms\_adm
  - ebr\_properties
  - ebr\_patterns
  - options

### Notes:

1. On the SDM Production instance:  
**ebr\_\*** tables are known to interfere with **pdm\_k\_reindex** operations
2. SQL Server – Merge Replication is the only one supported method

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 7 (cont.)

### Configure database replication between production and reporting databases

- Replicate SDM specific tables only if needed
  - Alleviates conflict issues with shared MDB installations
- type ddict.sch | findstr /i P1

Example: p1 Task\_Type -> CURR\_PROV **tskty** ;

- Additional Snapshot Settings:

Copy User Permissions = True

Copy Collation = False

Copy Triggers = False

**Note:** Do NOT create Replication MDB database as part of Database Replication. Replication MDB database must be pre-created with CA MDB Installation first AND then Replication needs to be configured to update the needed tables (follow all the steps that were discussed in previous slides)

# Leverage CABI Offline Reporting Capabilities

## CA SDM – CABI Offline Reporting : Step 7 (contd.)

### Copy Prod SDM customizations to SDM Reporting instance:

- 1) Copy below from CA SDM Production

**Directory:**      **NX\_ROOT/site/mods**

**File:**            **NX\_ROOT/site/ddict.sch**

**Note:** **NX\_ROOT** refers to CA SDM Installation Directory

- 2) Overlay the above on CA SDM Reporting Instance's directory structure



# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 8

### Restart below components now:

- Production Instance CA SDM Service\*
- Reporting Instance of CA SDM Service
- CABI Services

- **\*Not normally needed unless something changed on Prod SDM**

# Leverage CABI Offline Reporting Capabilities

## CA SDM - CABI Offline Reporting – Step 8 (cont)

### Configure CA BI/SDM Universe to use SDM Offline Reporting instance as Datasource

- Create a 32 bit CA SDM ODBC Datasource (DSN) on CABI Server
  - Use SDM Reporting instance name in the configuration of the ODBC DSN
  - Provide appropriate CA SDM ODBC Server port, default 19987
  - Test the ODBC DSN on CABI Server to ensure connectivity success
- Modify the CA SDM Universe parameters to utilize the above new ODBC DSN
- Save and Export the Universe back to CABI
- Test CA SDM Reports
  - CA SDM Production Server's Reports tab
  - CABI Infoview URL directly

# Leverage CABI Offline Reporting Capabilities

## CA SDM – CABI Offline Reporting : Migrating customizations

### Concern:

How to migrate New/Updated CA SDM schema customizations (tables/columns) from CA SDM Production instance to CA SDM Replication Instance

### Solution:

- 1) Database Replication mechanism should be tweaked
- 2) Copy below from CA SDM Production directory structure and overlay on CA SDM Reporting Instance's directory structure

**Directory:** **NX\_ROOT/site/mods**

**File:** **NX\_ROOT/site/ddict.sch**

**Note:** **NX\_ROOT** refers to CA SDM Installation Directory

- 3) Restart CA SDM Reporting Instance's CA SDM Service
- 4) On the CA SDM Reporting Instance, verify that the schema customizations were migrated
  - **pdm\_extract** on the table that contains custom columns
  - **pdm\_extract** on the custom table itself

# Leverage CABI Offline Reporting Capabilities

## CA SDM – CABI Offline Reporting : Upgrade Considerations

### Concern:

When its time to upgrade to a newer release of CA Service Desk Manager or do an MDB upgrade for some other need, what process should be followed?

### Solution:

- 1) SQL Server Merge Replication adds a unique column (rowguid) to all the tables that are being replicated
- 2) The above does interfere with the data manipulation done on MDB during upgrades
- 3) To prevent that and ensure smoother migration:
  - 1) Delete the Snapshot on the Publication database
  - 2) Upgrade MDB / CA Service Desk Manager
  - 3) Recreate Snapshot again (follow similar steps as the first time)

# Leverage CABI Offline Reporting Capabilities

## CA SDM – CABI: Additional Information

1. SQL Server Merge Replication Only. Transactional/Log Shipping options are NOT recommended at the moment
2. Oracle Streams are recommended with similar settings as SQL Server, destination CA MDB Database should allow Read/Write operations from the CA SDM Reporting Instance
3. Steps for SQL Server Merge replication and CA BI for CA SDM Green Book on [support.ca.com](http://support.ca.com)
4. Disable CA SDM ODBC services on CA SDM Production instance as reports no longer need them. Reports are now using CA SDM Reporting Instance
5. Attribute Aliases (joins) can be created on CA SDM Production instance, which then will be available on the CA SDM Reporting instance for CABI Reporting

# Leverage CABI Offline Reporting Capabilities

## CA SDM – CABI: Troubleshooting Tips

1. Replication may error out - permissions to Snapshot files & SQL Server access
  - Review properties of Snapshot and ensure appropriate accounts are used
2. Tomcat on CA SDM Reporting Instance can be started to login using the GUI
3. When adding new columns/tables to the snapshot
  - New Snapshot may need to be regenerated for values to show
  - Stopping Snapshot Agent and regenerating Snapshot corrects
4. To refresh the data in the CA SDM cache
  - **pdm\_cache\_refresh -t** <SDM\_Table\_Name>

**Note:** Do NOT create Replication MDB database as part of Database Replication. The Replication MDB database must be pre-created during the CA MDB Installation. Once created, the Replication can be configured to update the required tables.

# Leverage CABI Offline Reporting Capabilities

## Webinar Summary

### You are now able to do the following:

- Understand CA SDM Reporting architecture for CABI Reporting
- Identify CA SDM Offline Reporting needs
- Install CA SDM Offline Reporting instance
- Replicate CA SDM Database
- Configure CABI reporting to use CA SDM Reporting instance

# Question and Answer Session

- Open Q/A folder
- Lines Unmuted
- Recording stopped
- Presenter answer questions in Q/A folder



# Closing

- Thank you, Raghu
- Watch for follow up email – link to session survey and session recording
- Additional Education  
<http://www.ca.com/us/collateral/learning-paths/na/CA-Service-Desk-Manager-Learning-Paths.aspx>

## CA Service Desk Manager r12.6 Learning Paths

Take charge of your path to success. Select a path based on your role, follow the suggested learning in the order we recommend, and also choose from common elective courses which suit your specific role. Where applicable, take advantage of accreditation exams focused on courses, and certification exams focused on bodies of knowledge.



Certification Exam

## •Next session

Simplifying Installation & Configuration of CABI and SDM  
TODAY – 11 – 12:30 EDT

Using LDAP to Secure Your CA Service Desk Manager Reporting Access  
Thursday, May 3  
11 – 12 EDT

Using Designer and Universe to Empower non Technical End Users  
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Reporting Troubleshooting Tips: Part I  
Wednesday, May 16 – 11 – 12 EDT

Reporting Troubleshooting Tips: Part 2  
Thursday, May 17  
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