

PLUG - 12/2/2009

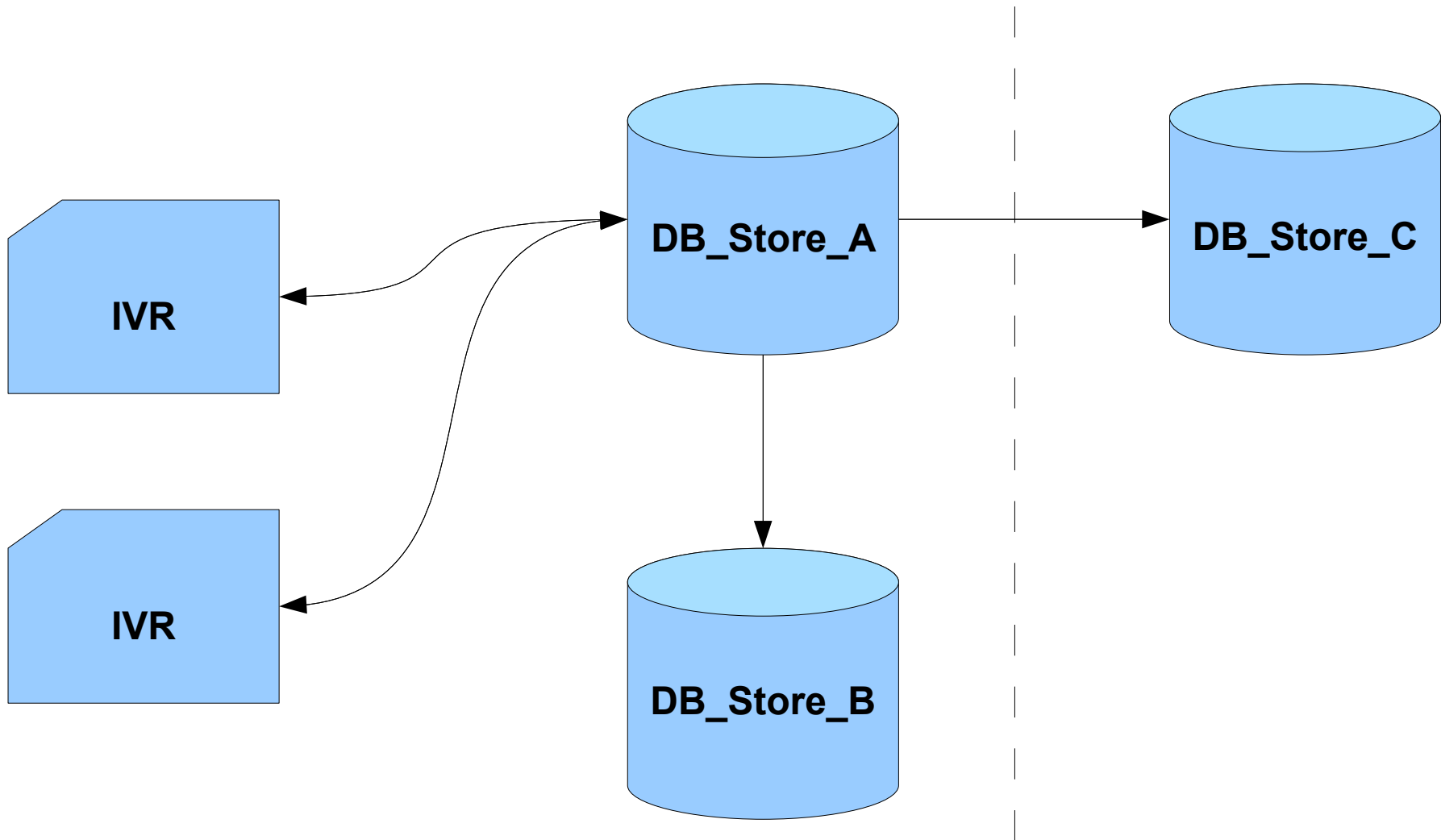
PostgreSQL Database Clustering with Slony

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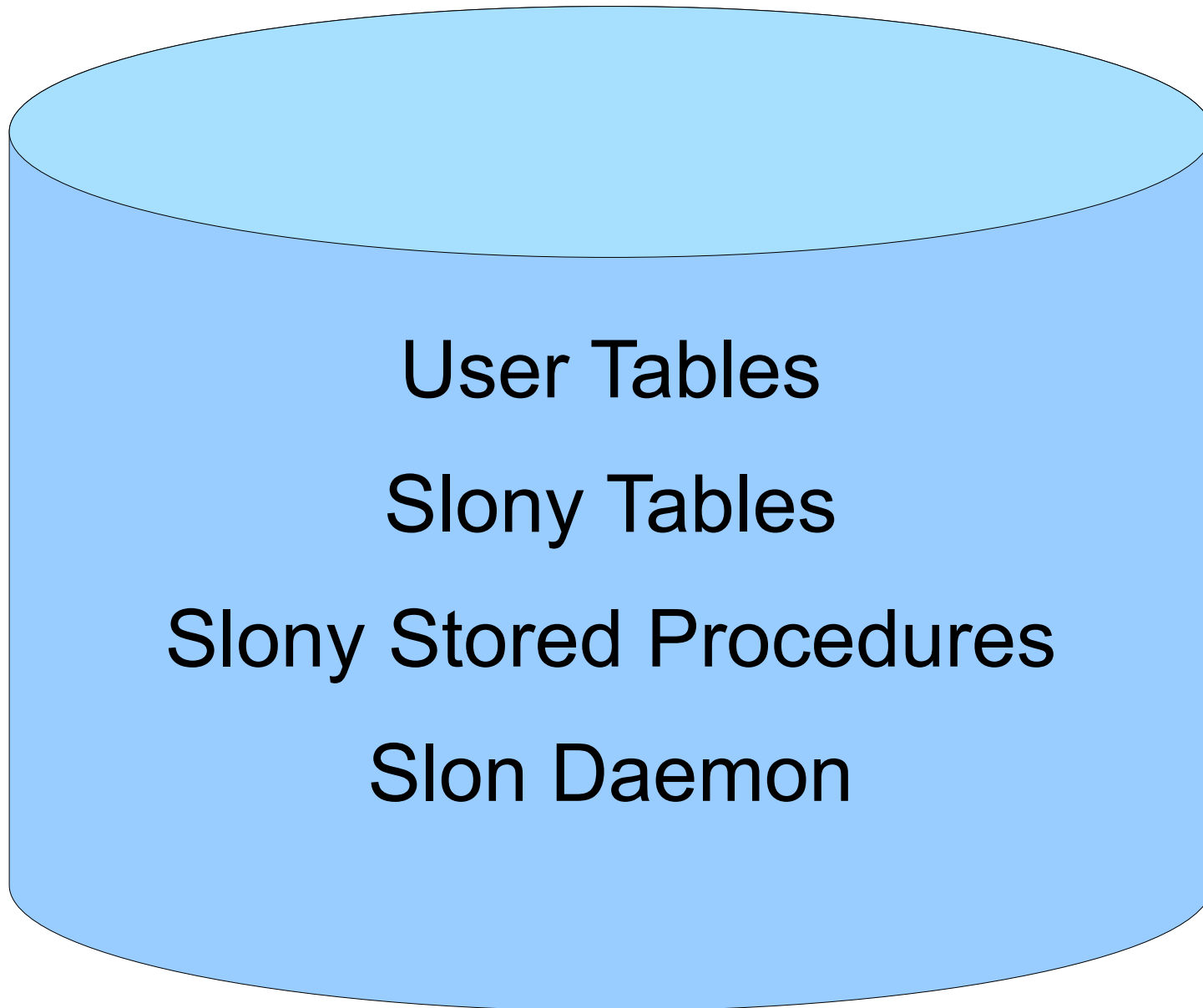
Slony - Introduction

- Add-on to PostgreSQL
- A Debian Package
- Master – slave replication
- Asynchronous replication

Slony - Implementation



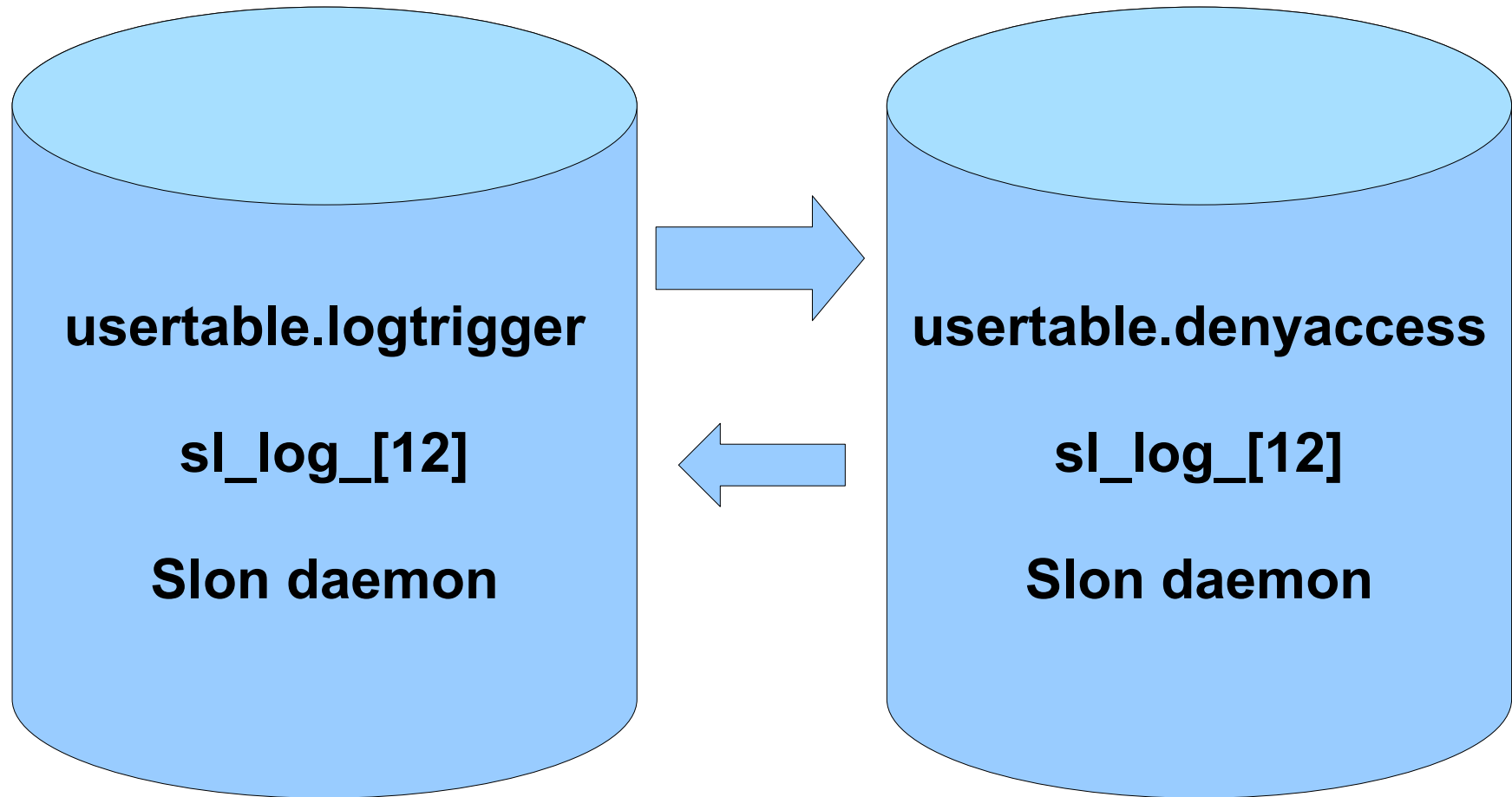
Slony Server Organization



Slony Cluster Processing

Master

Slave



Slony Cluster Administration

- Slonik
- PgAdmin III

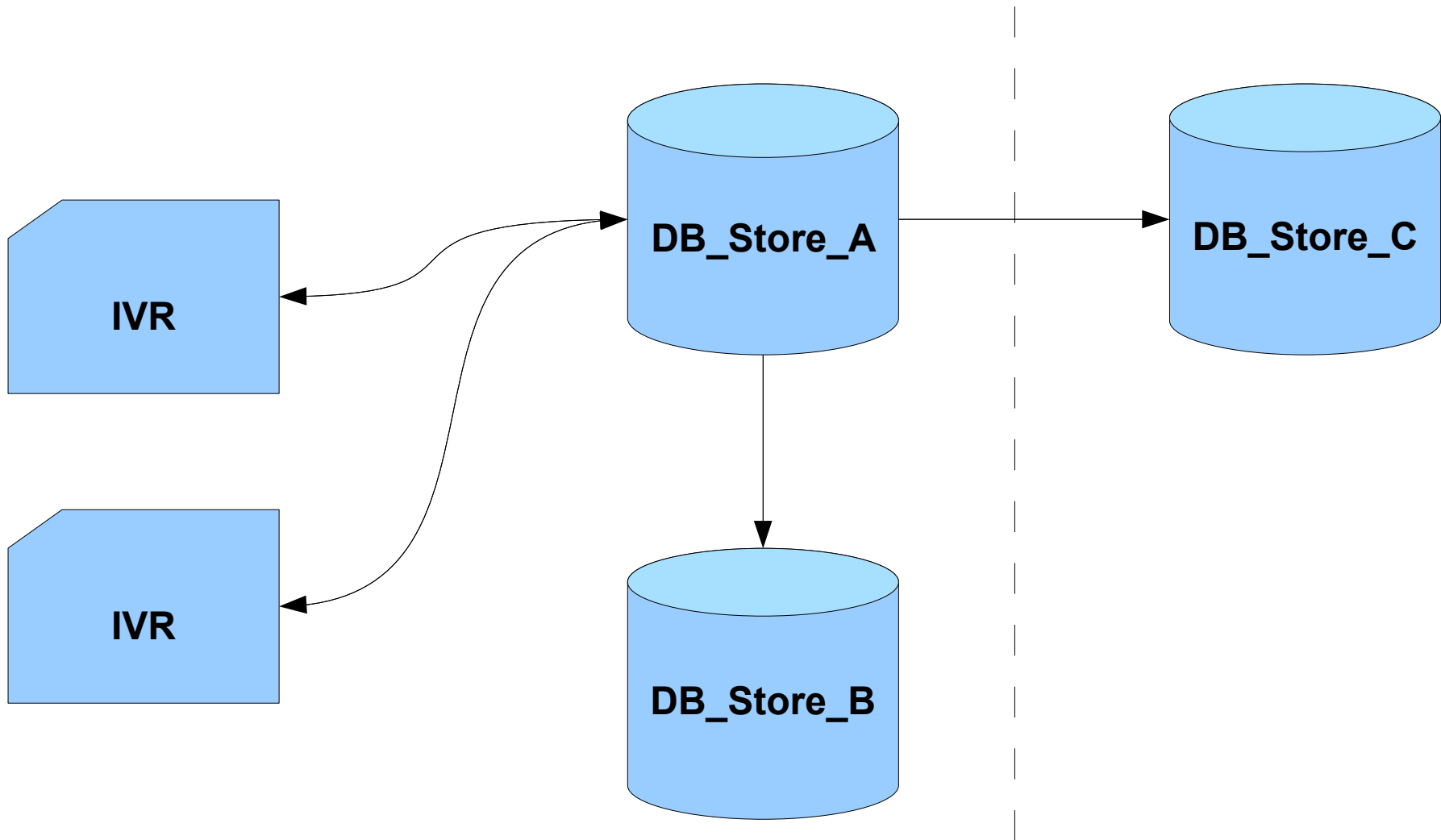
PgAdmin III

The screenshot displays the PgAdmin III application window. The title bar reads "PgAdmin III". The menu bar includes "File", "Edit", "View", "Tools", and "Help". The toolbar contains various icons for server management, including a plug, refresh, folder, arrow, trash, SQL editor, table, wrench, and help. The "Object browser" on the left shows a tree view of the server "DBstoreA (localhost:15432)", with "Databases (4)" expanded to show "If_test", "pgpsql", "phoneworks", and "postgres". The "Properties" tab is active, displaying a table of server details. The "SQL pane" is empty. The status bar at the bottom shows "Retrieving Server details... Done." and a timer of "0.01 secs".

Property	Value
Description	DBstoreA
Hostname	localhost
Port	15432
Encryption	not encrypted
Maintenance database	phoneworks
Username	slonv

Retrieving Server details... Done. 0.01 secs

Slony – Before Failover



PgAdmin III - Failover

The screenshot displays the PgAdmin III interface. The 'Object browser' on the left shows a tree structure with 'Replication Sets (1)' expanded to show 'Test Set'. A context menu is open over 'Test Set', with 'Lock Set' selected. The 'Properties' tab is active, showing the following details:

Property	Value
Name	Test Set
ID	1
Origin ID	1
Origin Node	Master Node
Subscriptions	1
Comment	Test Set

The SQL editor at the bottom contains the following SQL command:

```
CREATE REPLICATION SET _AtoB.storeset(1, 'Test Set');
```

The status bar at the bottom left shows 'Refreshing Set... Done.' and the bottom right shows '0.82 secs'.

PgAdmin III - Failover

The screenshot displays the PgAdmin III application window. The title bar reads "pgAdmin III". The menu bar includes "File", "Edit", "View", "Tools", and "Help". A toolbar with various icons is located below the menu bar. The "Object browser" on the left shows a tree structure with "Replication (2)" expanded to "AtoB", which contains "Nodes (3)" and "Replication Sets (1)". The "Test Set" replication set is selected, and a context menu is open over it, listing options: "Refresh", "Unlock Set", "Merge Set", "Move Set" (highlighted by the mouse), "New Object", "CREATE script", "Reports", and "Properties...".

The "Properties" tab is active, showing a table of properties for the selected "Test Set":

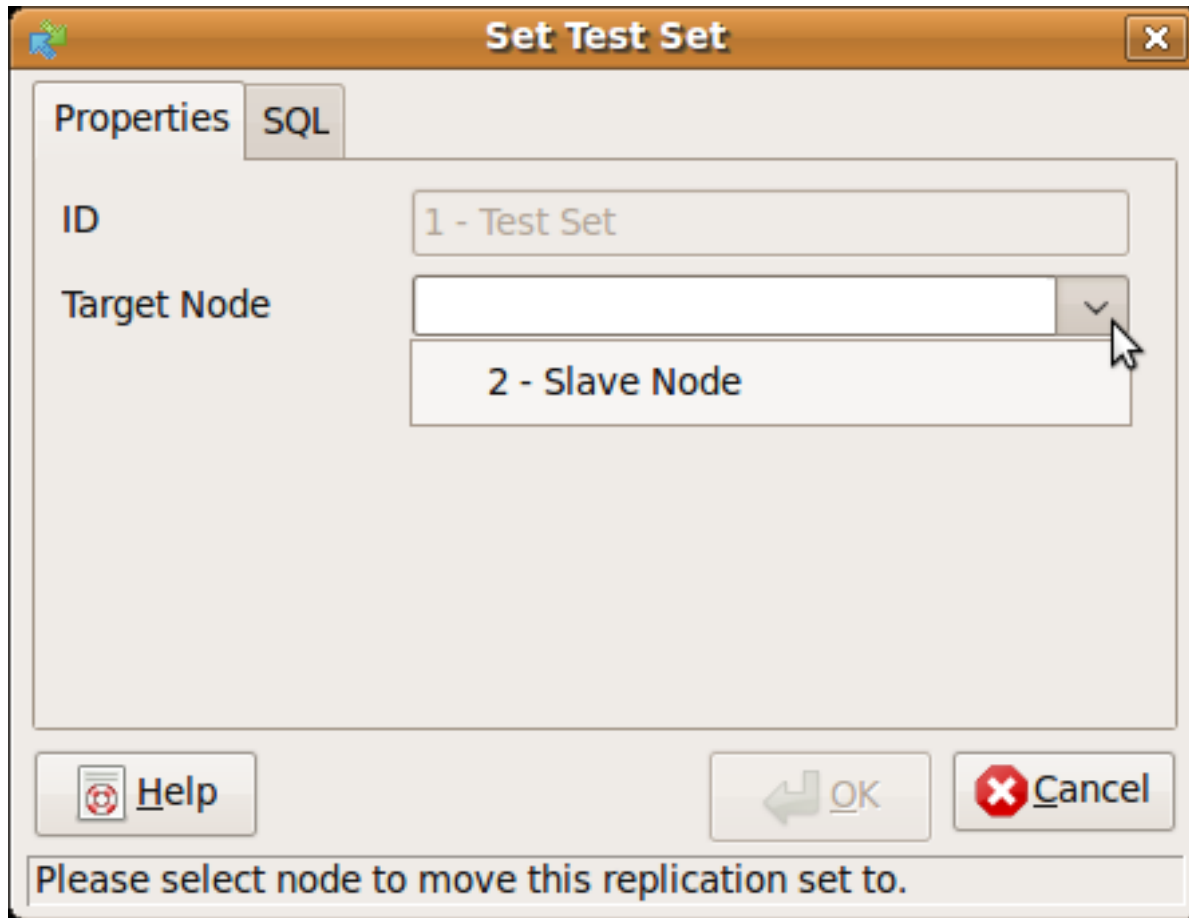
Property	Value
Name	Test Set
ID	1
Origin ID	1
Origin Node	Master Node
Subscriptions	1
Lock XXID	2020613

The SQL editor at the bottom shows the following SQL command:

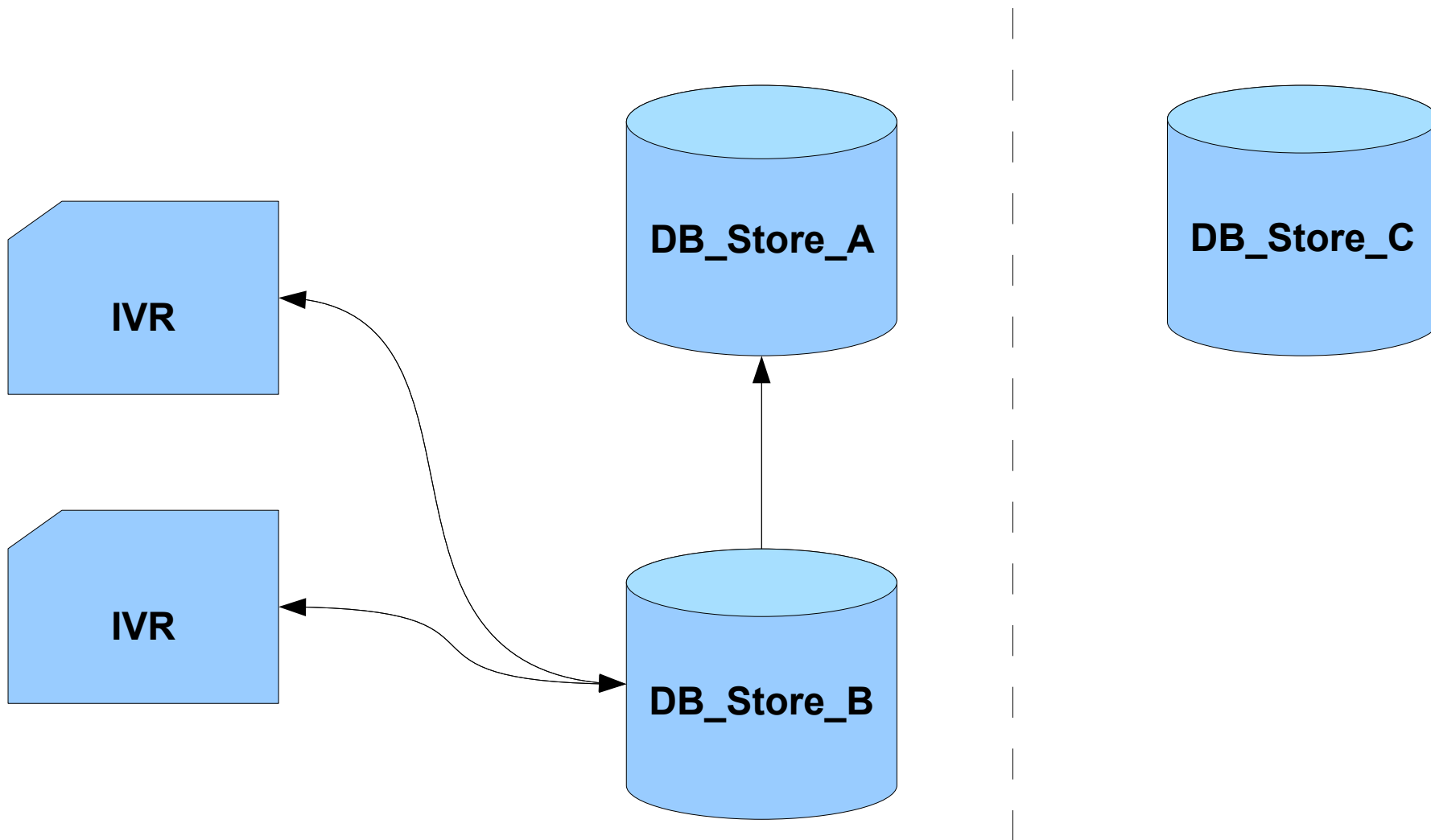
```
CREATE replication set Test Set;  
SELECT "_AtoB".storeset(1, 'Test Set');
```

The status bar at the bottom left indicates "Refreshing Set... Done." and the bottom right shows a timer for "0.75 secs".

PgAdmin III - Failover



Slony – After Failover



Slony

Any Questions?