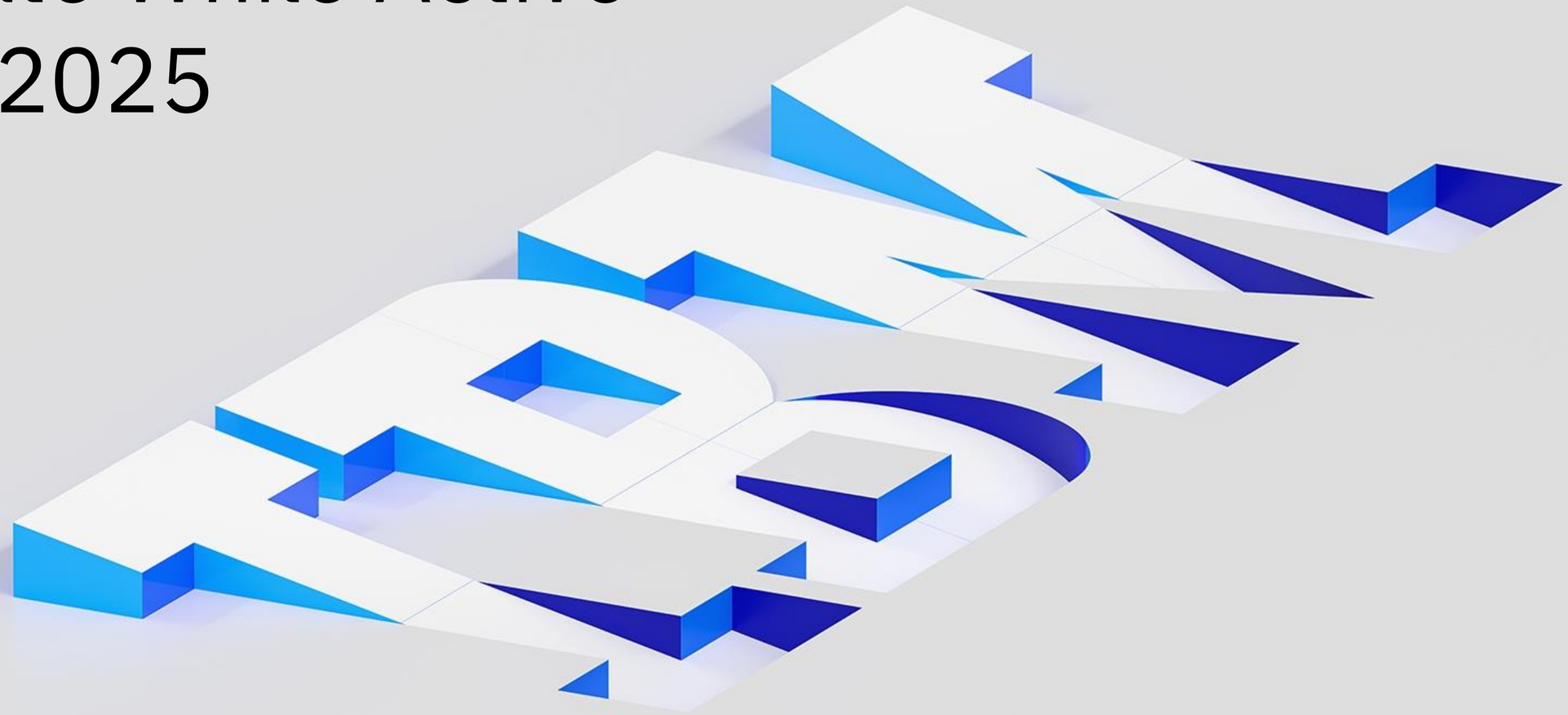
Migrate While Active
Nov. 2025



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IBM i

Overview

IBM Power 8 and IBM i V7R4

Faced with End of Support and increase fees

Why Stay Current

Security and Compliance – Audit

Vendor support
- Parts availability
- Firmware updates
- Software updates
- Cost

Stability

Application Support

You’ve decided to go forward with a new solution on premise or Cloud

Then you get the outage window you’re allowed

Understanding the Challenge

Number 1 most asked question:

Can I send IBM my tapes?

Answer:

No, there are no physical tape drives in PowerVS

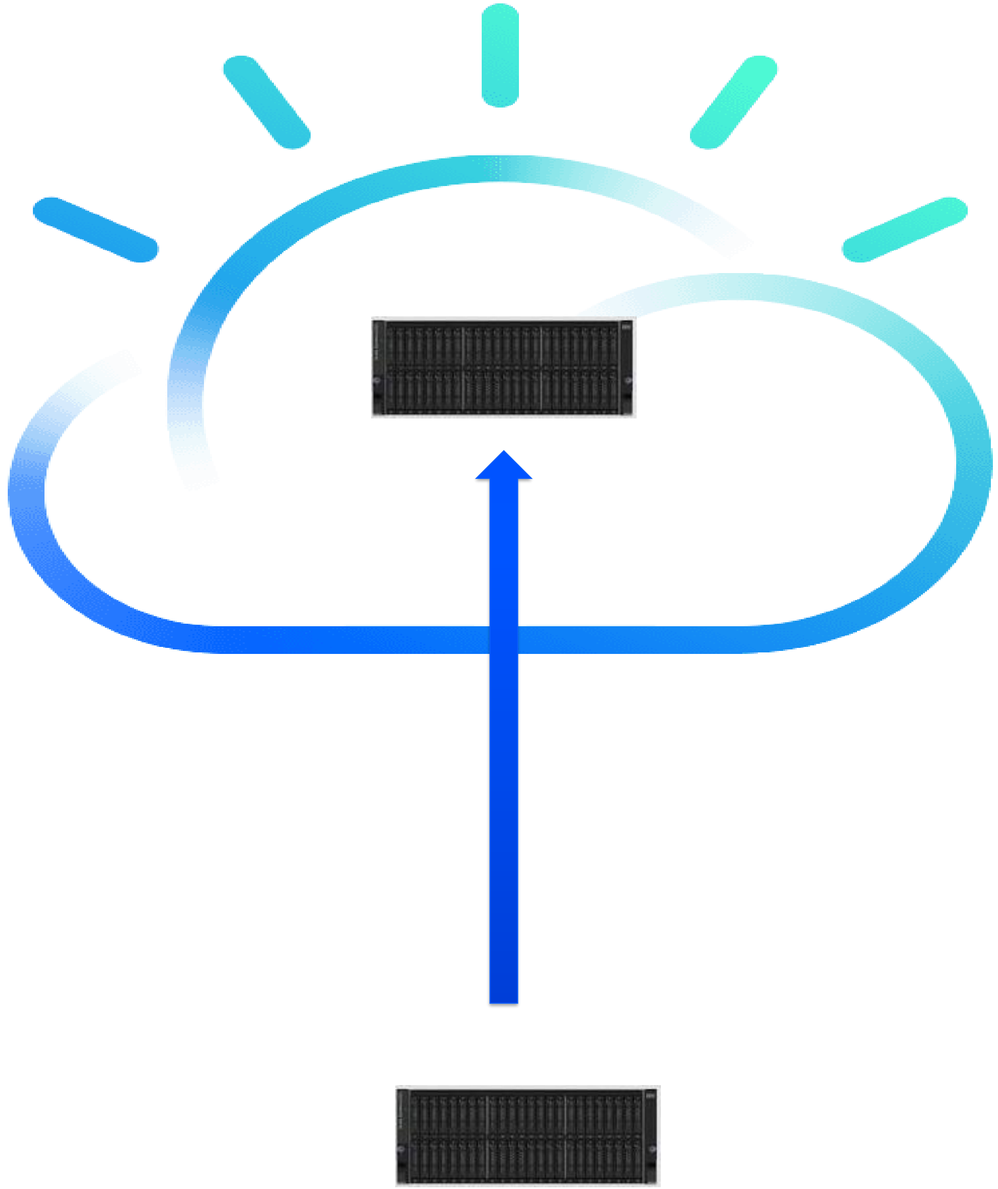
Understanding the Challenge

Number 2 most asked question:

Can I replicate my storage controller to PowerVS?

Answer:

No, currently there is no support to replicate from on-prem to PowerVS at the storage controller layer



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Understanding the Challenge

- Can I save directly to the Cloud VTL?

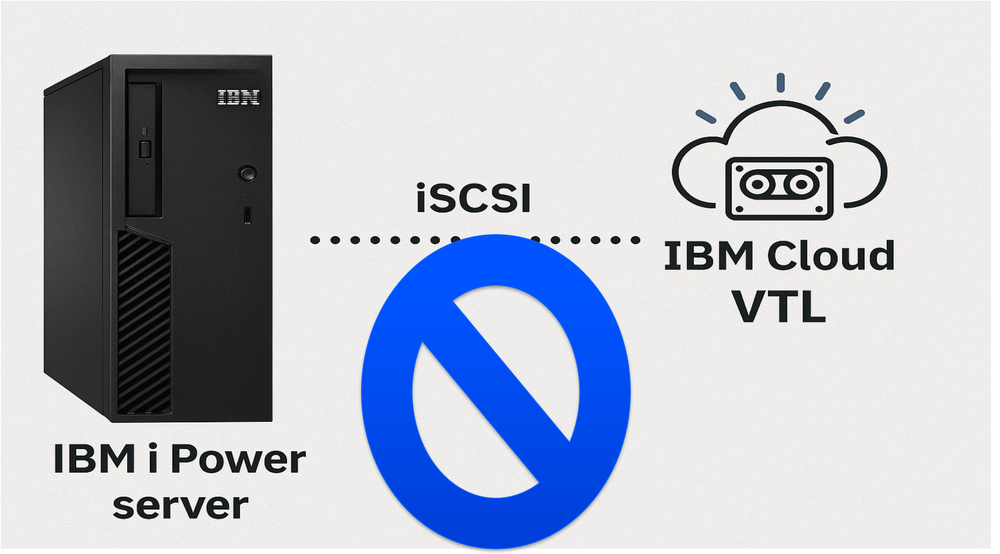
  No, the latency is to great to achieve any type of throughput.

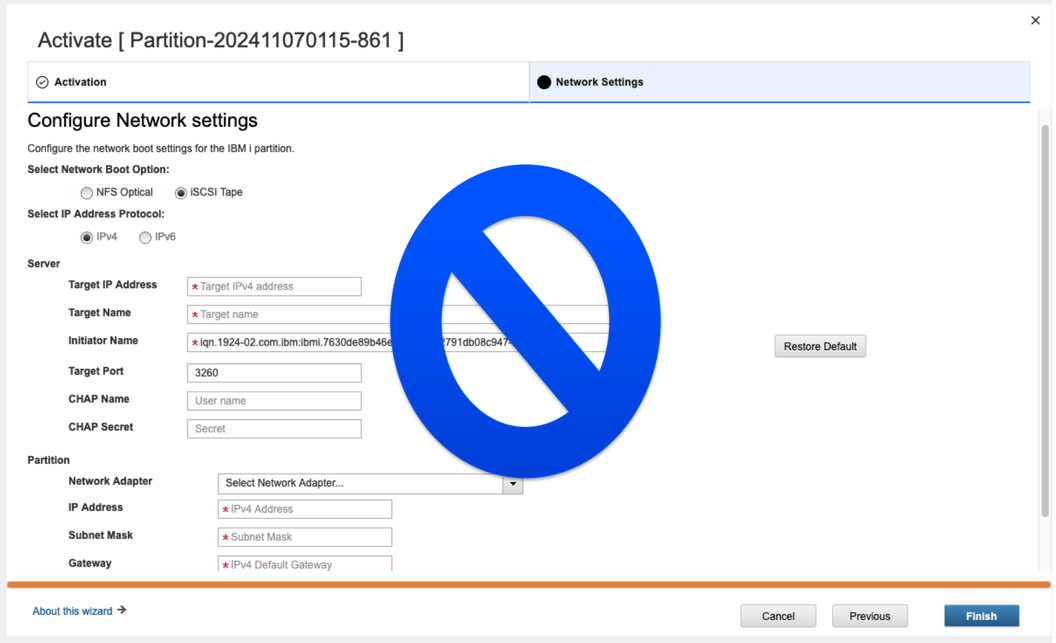
- Can I boot from my save media?

  No, you have to first do a network install of the base OS from a running IBM i.

- Can I use tape for the entire system install:

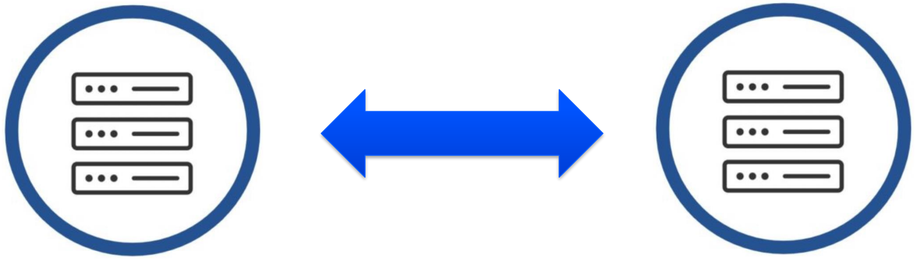
  No, you have to use virtual optical for the base and optionally tape for the user data.



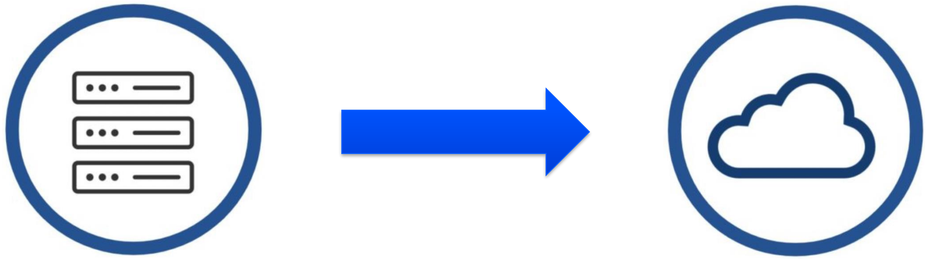


The Db2 Mirror for i Family

Base Product (5770- DBM 5050)
- No Charge
- GUI Support
- Application Evaluation

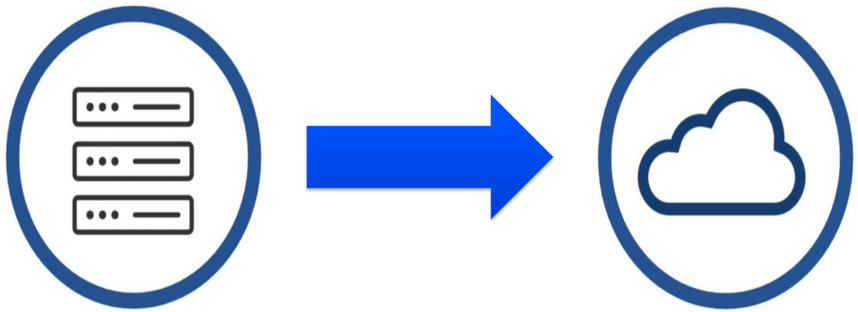


Option 1 – Continuous Availability (5101)
- Licensed per core on both nodes
- Requires RoCE RDMA adapters
- Bi-directional synchronous replication
- Limited to distances less than 10 km
- Rolling upgrades
- Can help provide a near 0 downtime environment for IBM i applications



Option 2 – Migrate While Active (5102)
- Licensed per core on the source node
- Uses a TCP/IP connection
- One direction asynchronous replication
- No physical limitation on distance, but cutover outages are dependent on bandwidth and latency.
- **NOT a Disaster Recovery Product**

Zero Planned Down Time for IBM i with Db2 Mirror MWA



Minimize Downtime

Migrate While Active – Assisted S/R

- Assisted S/R guides you through the S/R process to be able to restore on PowerVS
- After the save, delta objects are tracked to be synced after the restore of the target

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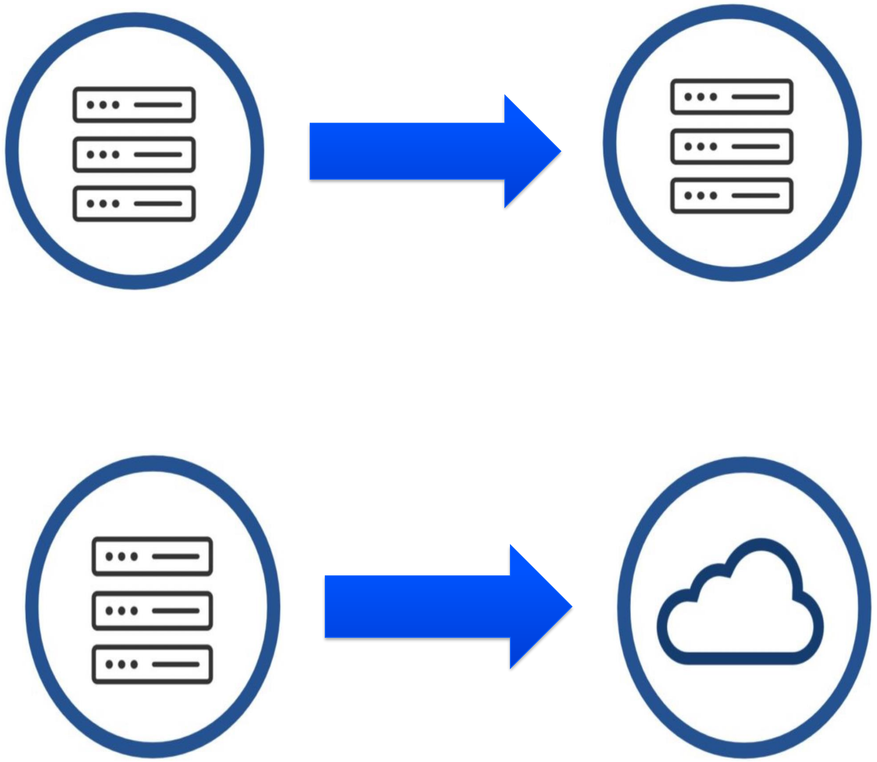
- All Storage Architectures: No dependency on external storage, VIO or HMC
- Preset S/R Procedure: Special procedure designed for target environments that can’t D-Mode off of tape
- Track Changes: Track changes while the system is being transferred and restored.
- Business Continuity: Sync changes while the business continues.

Zero Planned Down Time
for IBM i with Db2 Mirror MWA



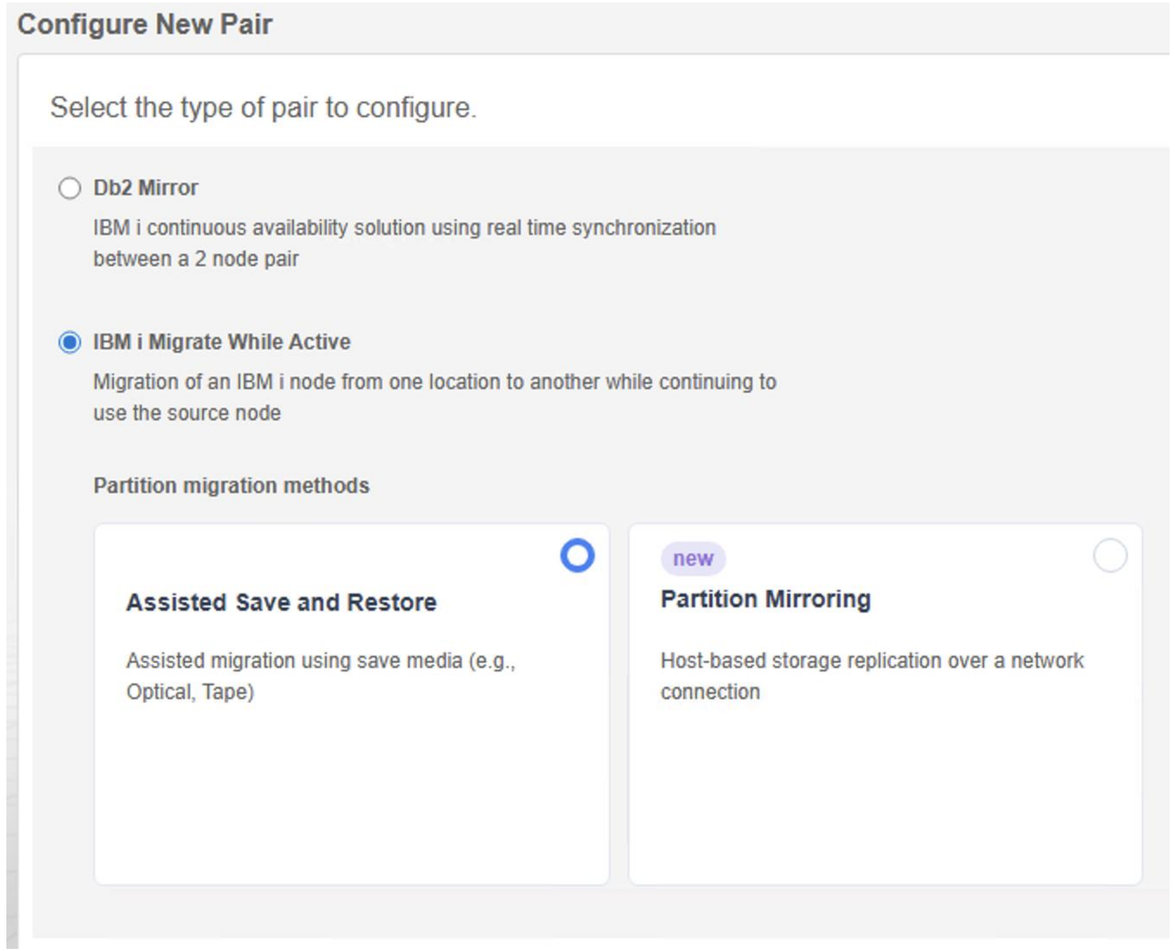
No Downtime

New Migrate While Active – Partition Mirror

- Partition Mirror your source system while it is running to either a new Power Server or IBM Cloud
- Cutover is a simple IPL of the target partition

- All Storage Architectures: No dependency on external storage, VIO or HMC
- No Save / Restore: Similar to full system storage replication
- Test Copy System: Detach mirror, test the copy and resync from the source system
- P11 migration tool: Available on IBM i 7.4 or 7.5

Choices



Partition Mirror

- Your system is at 7.4 or 7.5
- Only supports SYSBAS, no IASPs allowed
- Depending on change rate, bandwidth and size of system you can wait for the initial sync.
- You have a requirement for a pre-test before cut over

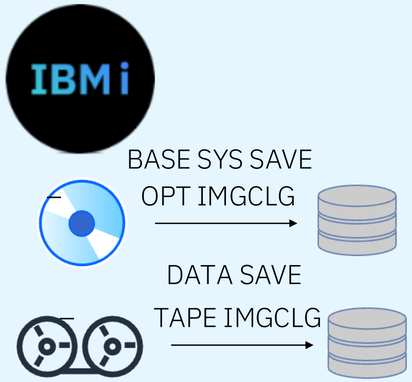
Assisted Save and Restore

- You have a system at 7.6 or ….
- You have a large system that doesn’t really change. ie greater than 40 TB but only changes a few TB per week.
- Have on on-prem VTL to save to that can replicate to the target.
- Your system has IASPs

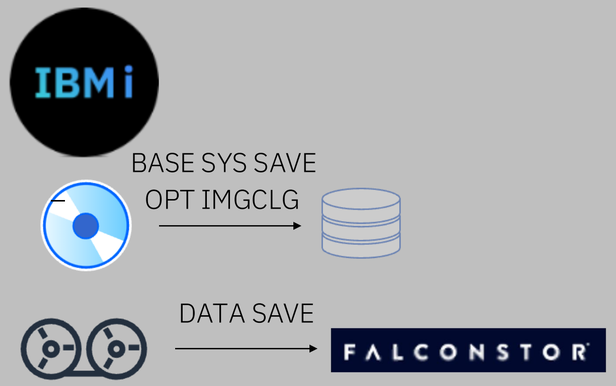
IBM i Migrate While Active

Step 1: Initial System Save

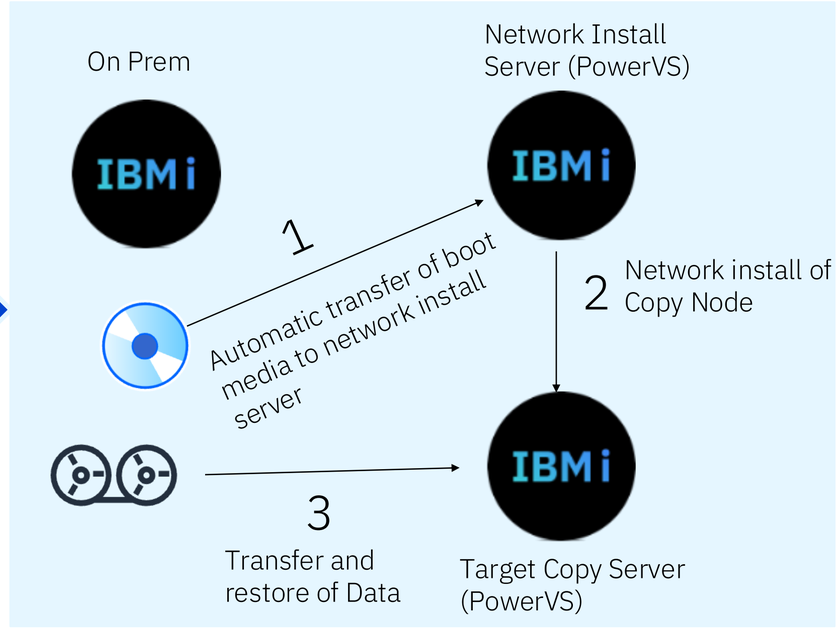
Pattern 1. Using IBM i Local Storage

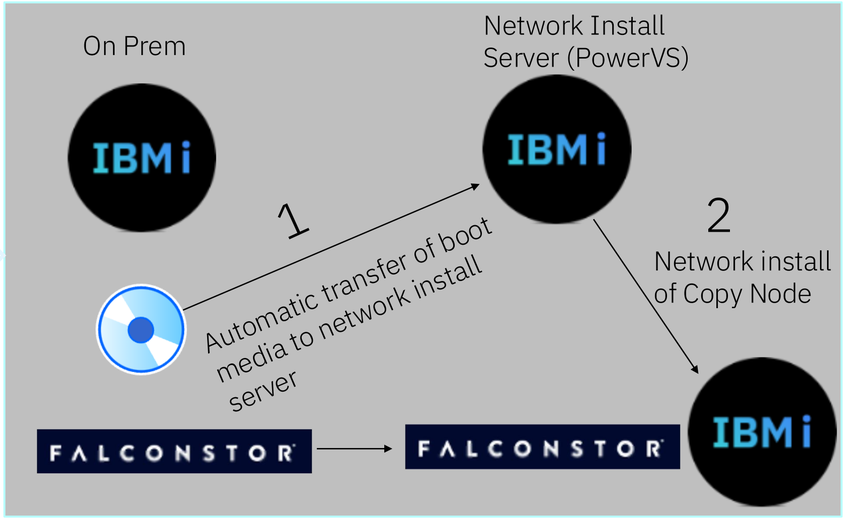


Pattern 2. Use VTL for DATA SAVE



Step 2: Transfer SAVE to PowerVS

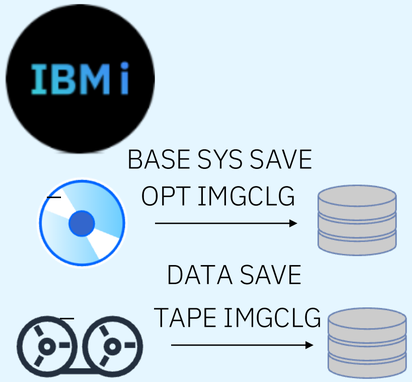




IBM i Migrate While Active – Assisted Save/Restore

Step 1: Initial System Save

Pattern 1. Using IBM i Local Storage



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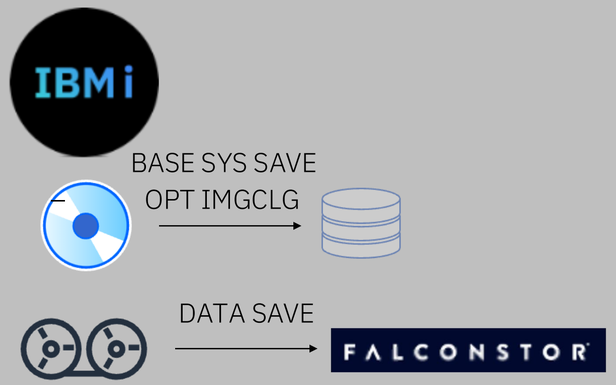
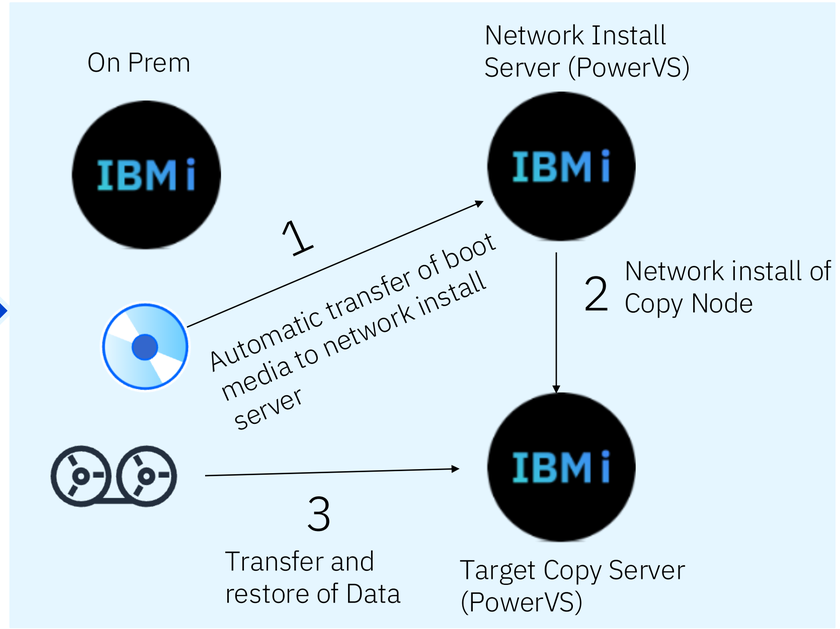
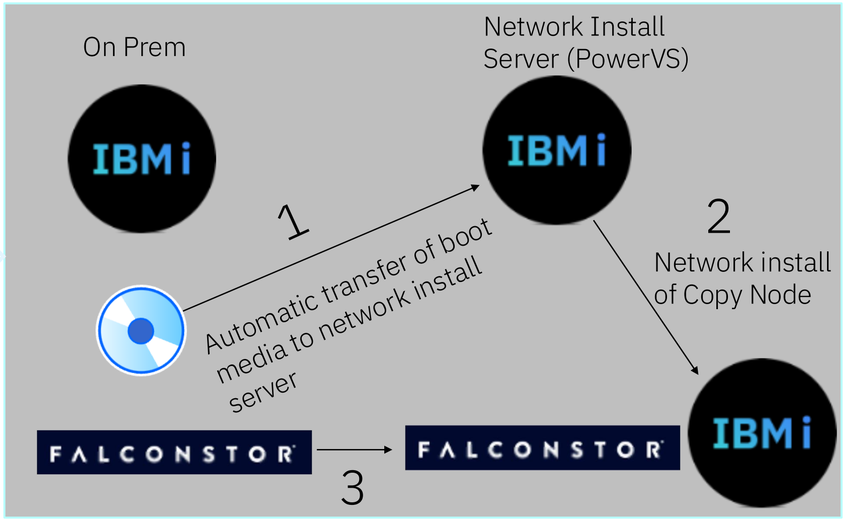


Step 2: Transfer SAVE to PowerVS



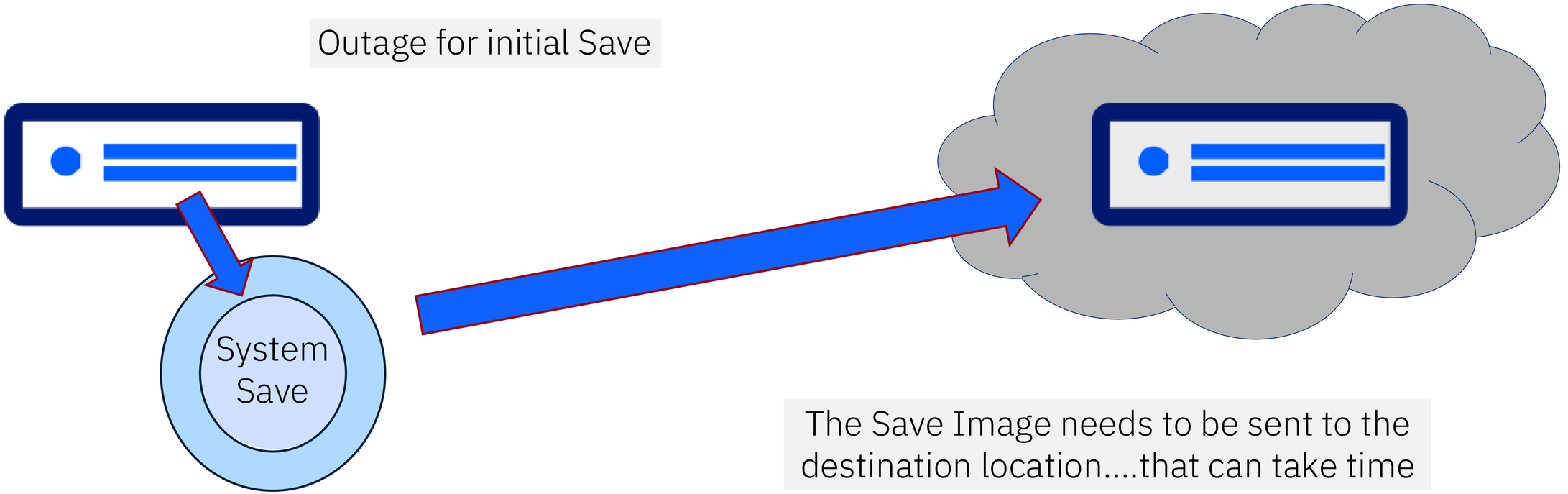


Step 3: Transfer Changed Data

Transfer the changed data that has occurred since completion of the initial SAVE.

Migrate While Active

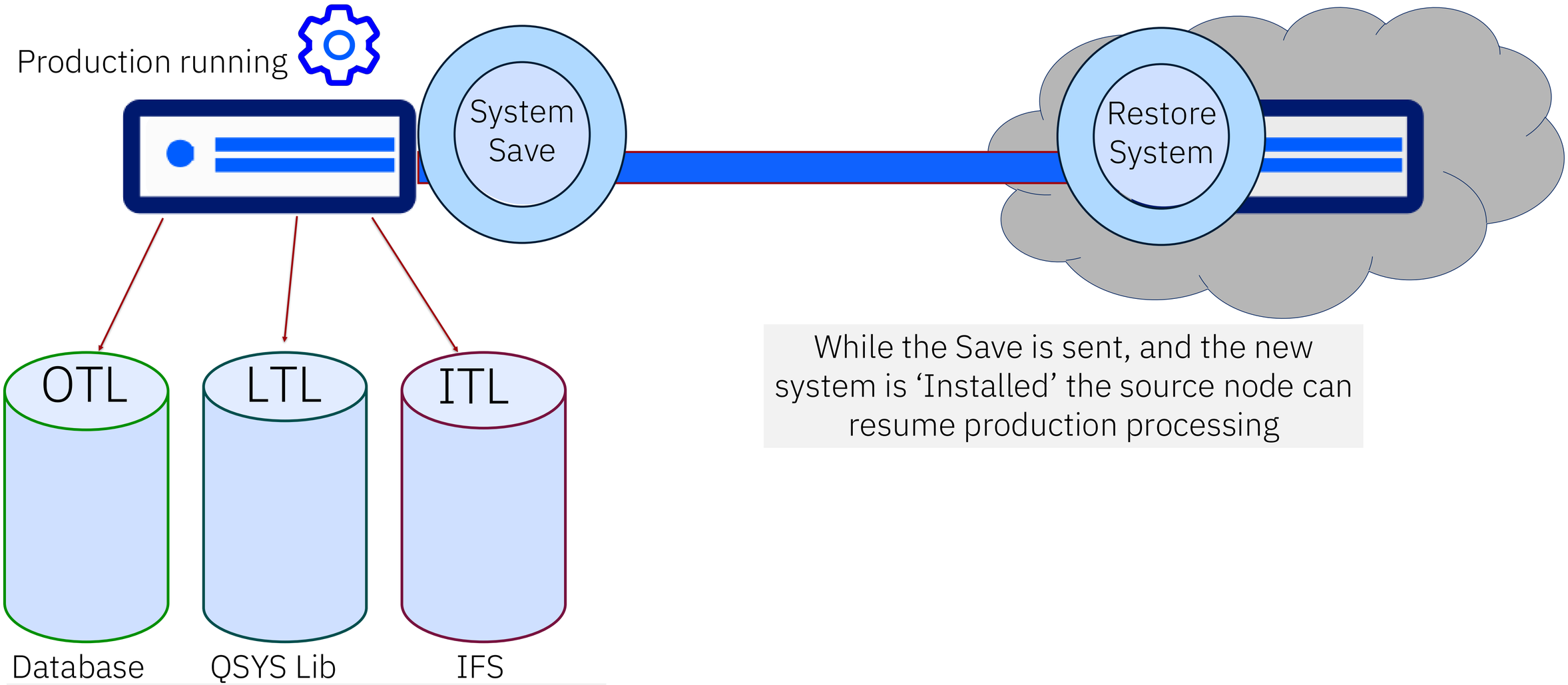
Outage for initial Save



MWA – Assists in creating the save of the system. OS, Security Info, User Objects, IFS

The Save Image needs to be sent to the destination location….that can take time

Migrate While Active

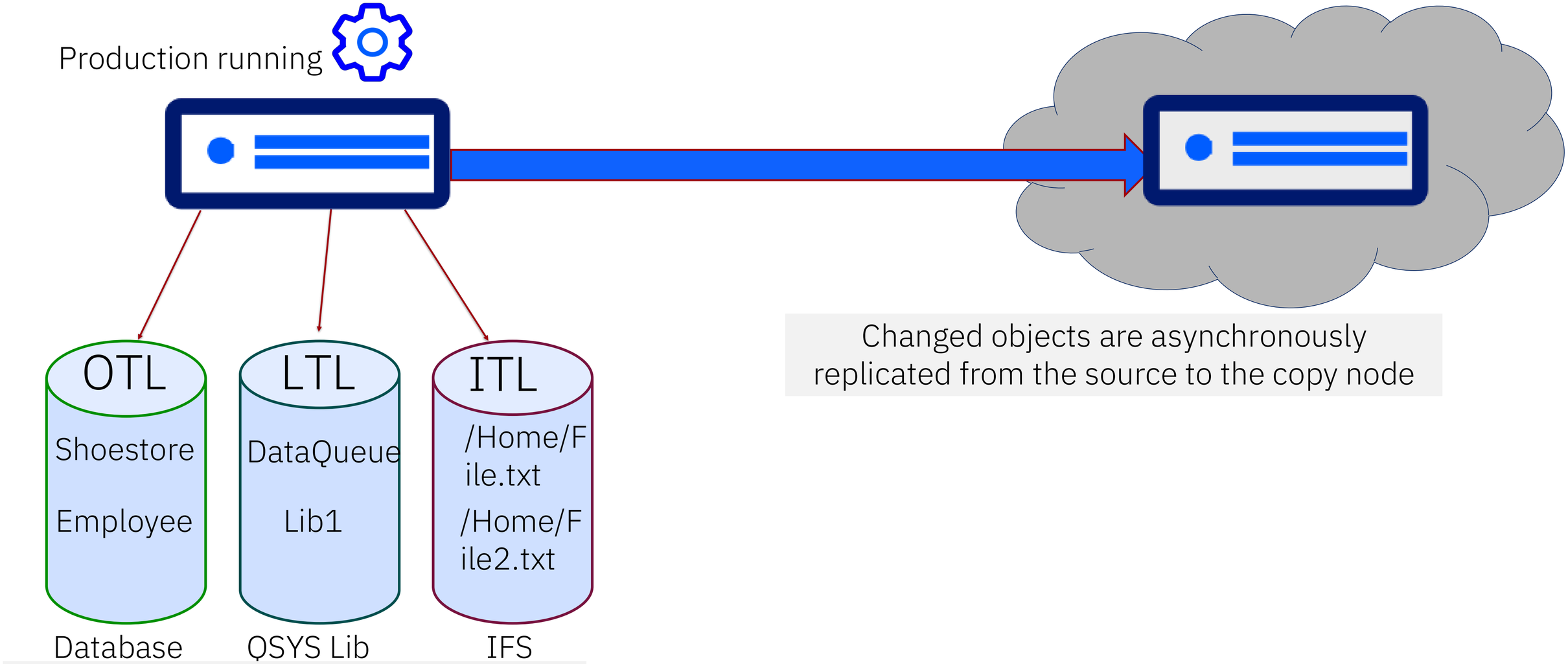


While the Save is sent, and the new system is ‘Installed’ the source node can resume production processing

All changes are ‘tracked’

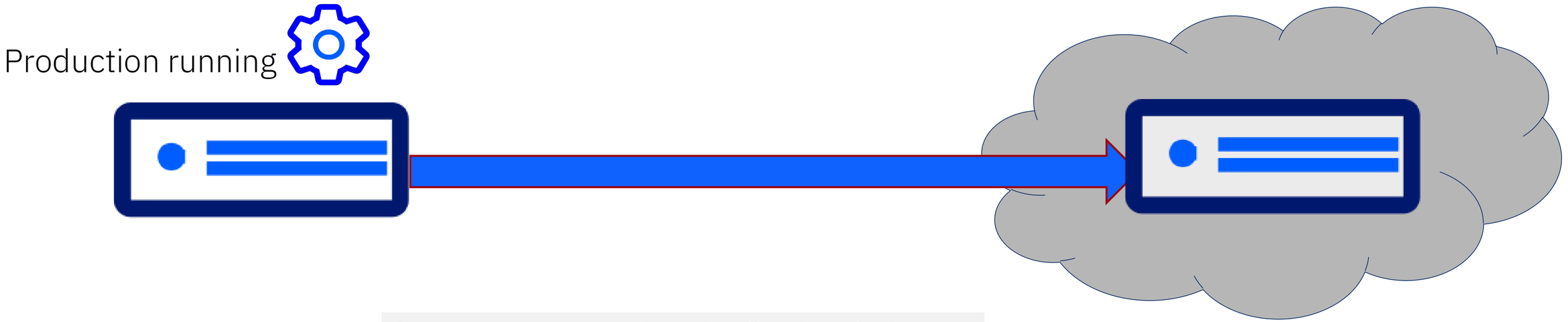
16

Migrate While Active



17

Migrate While Active



Once you are ready…the final switch over is processed. Now Production is running on the new node

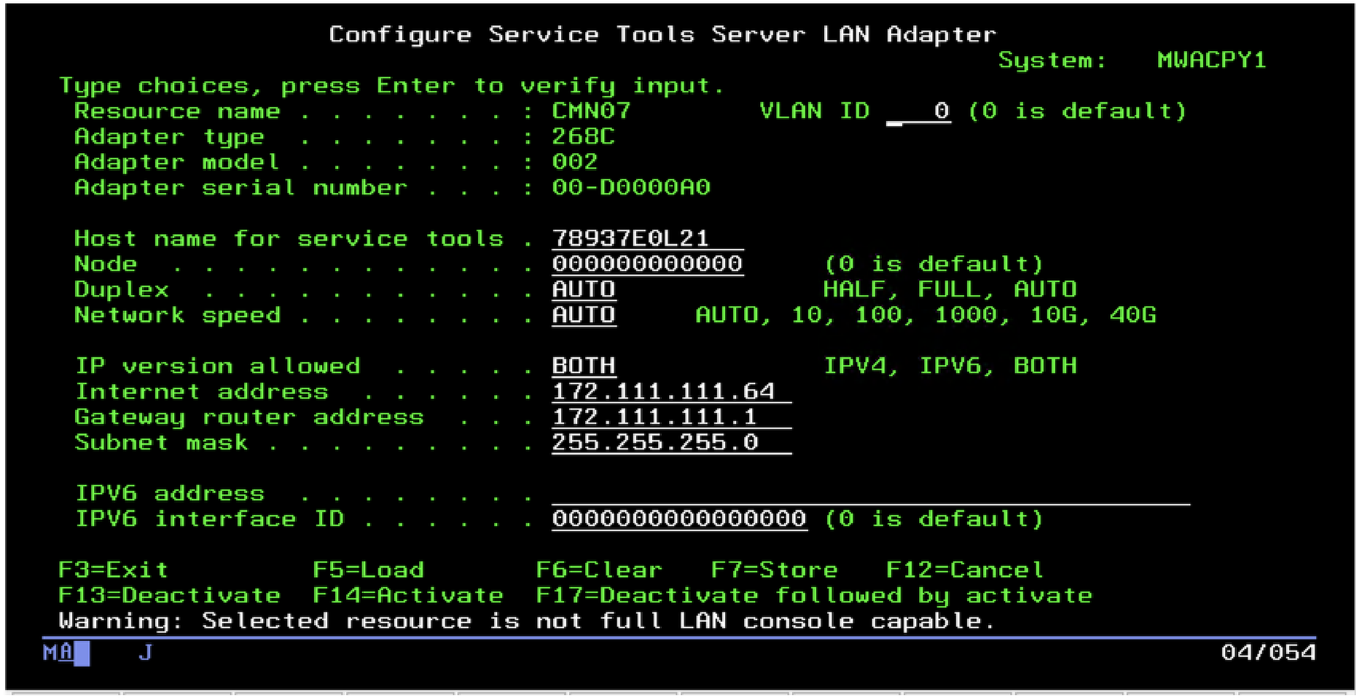
IBM i Migrate While Active – Partition Mirroring

Easily migrate from on-prem to PowerVS or to a new Power Server on-prem

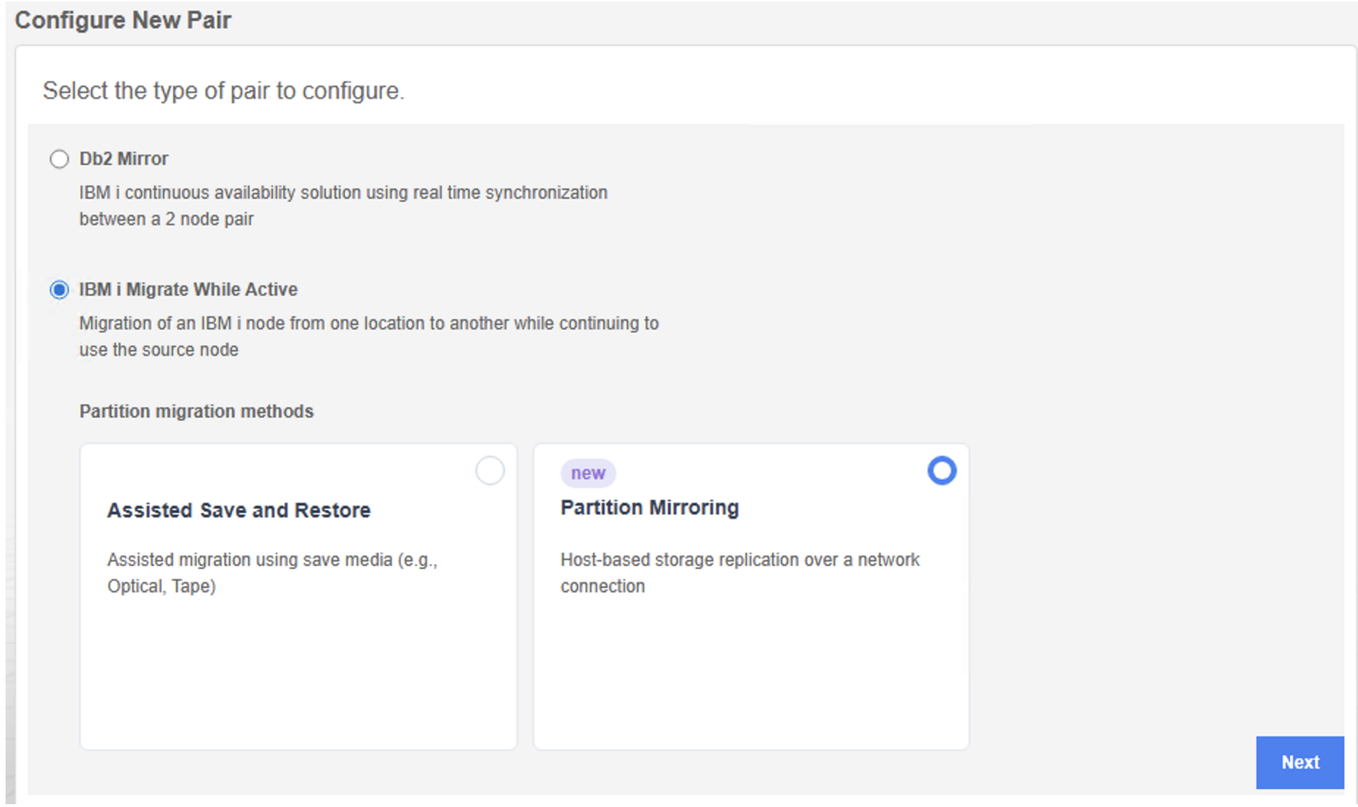
- **No Save / Restore** technology needed
- **Production downtime** eliminated on the setup, reduced to an IPL on the cutover.
- **Production on-prem remains available** while changes are sent asynchronously to the copy node
- Similar to **full system storage replication**

Establish network connectivity between source and target

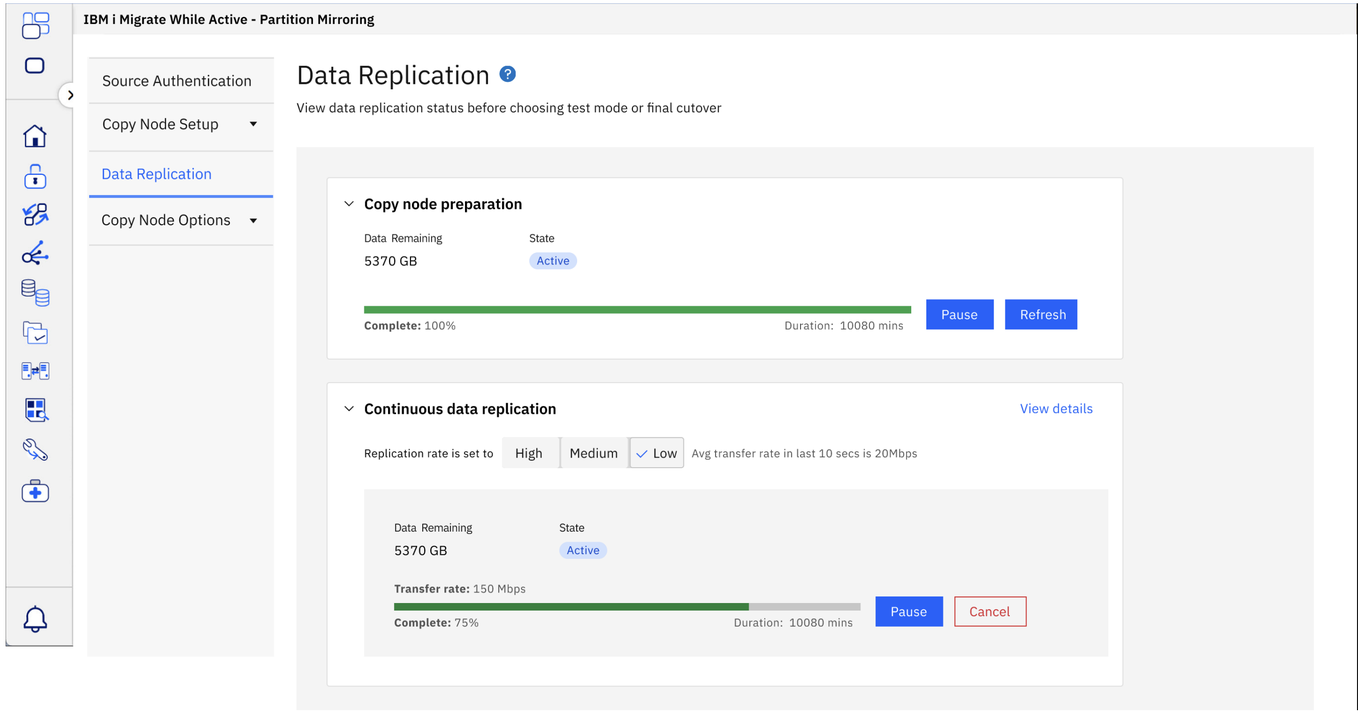
Target instance only needs DST and a Service LAN connection



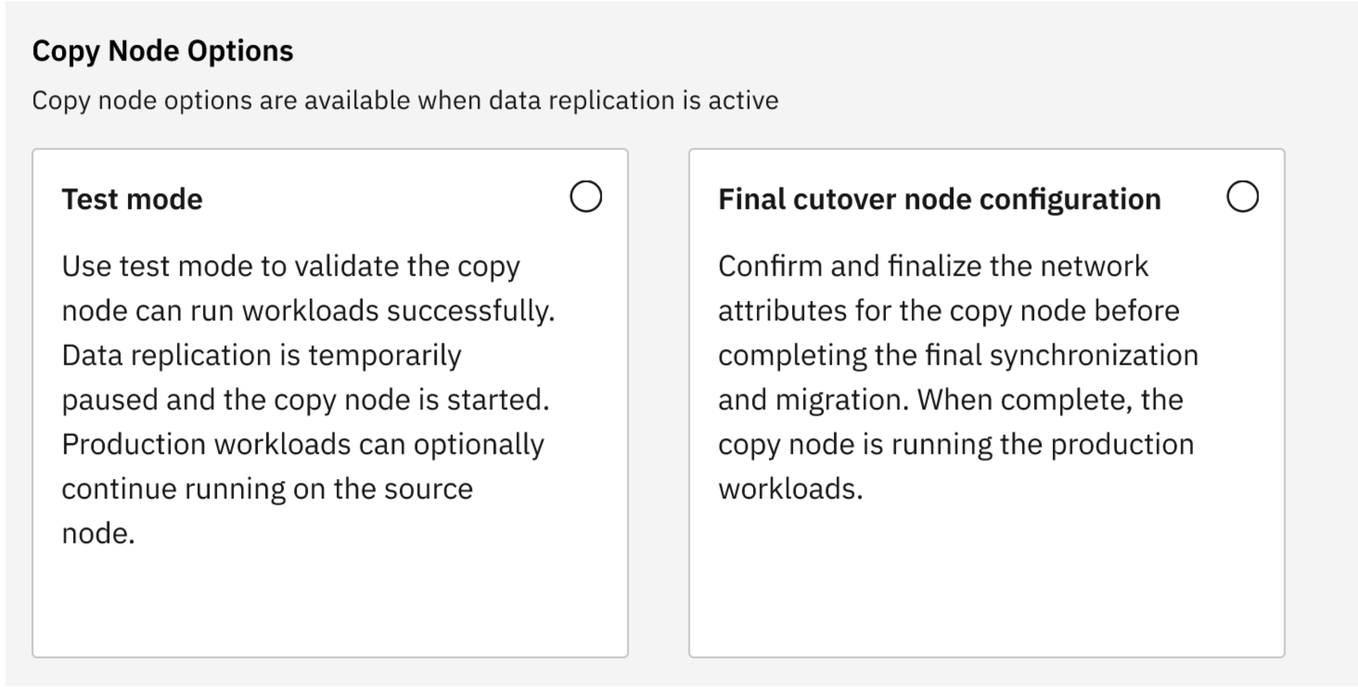
Install Migrate While Active on the source.



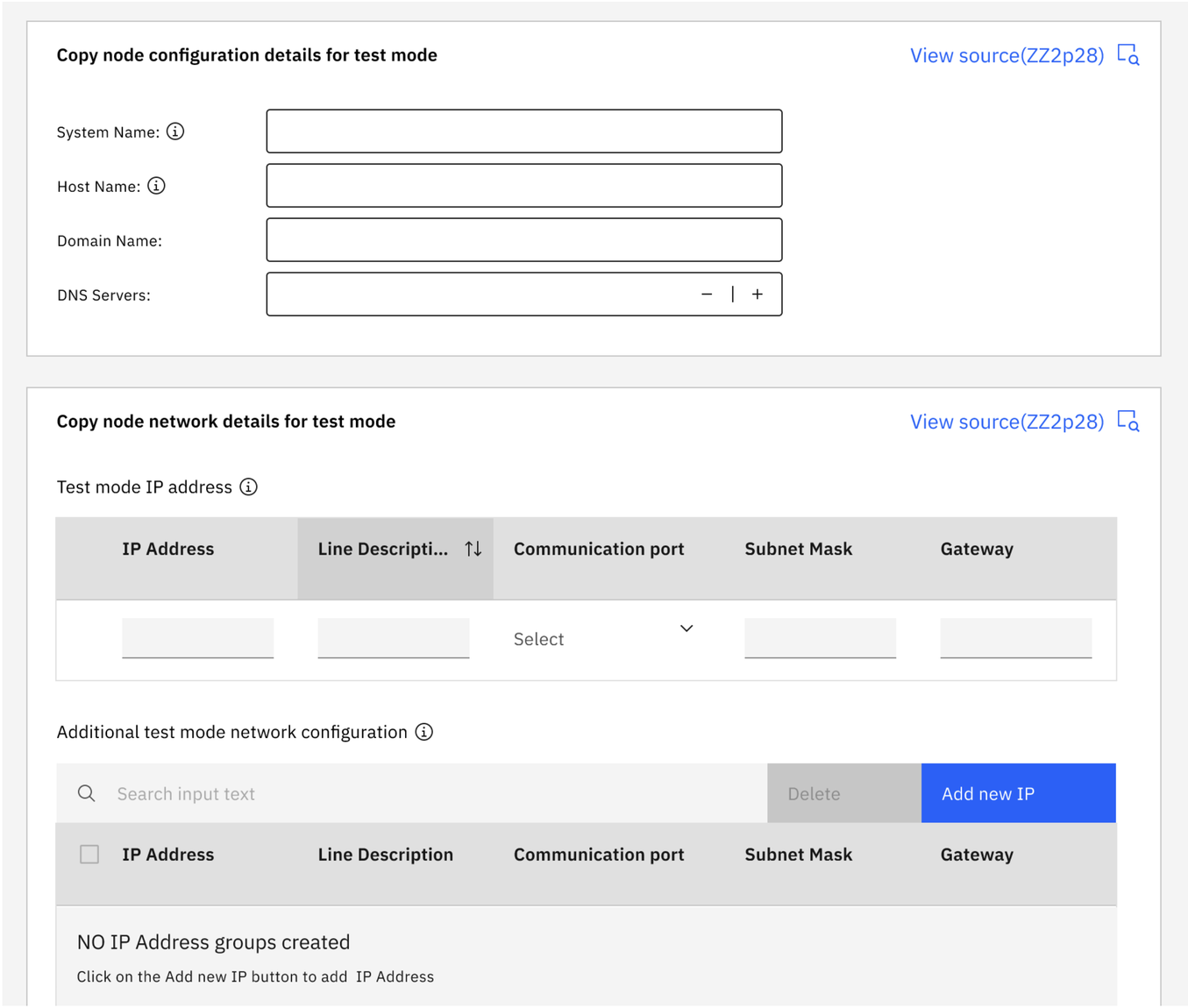
Let the mirroring begin



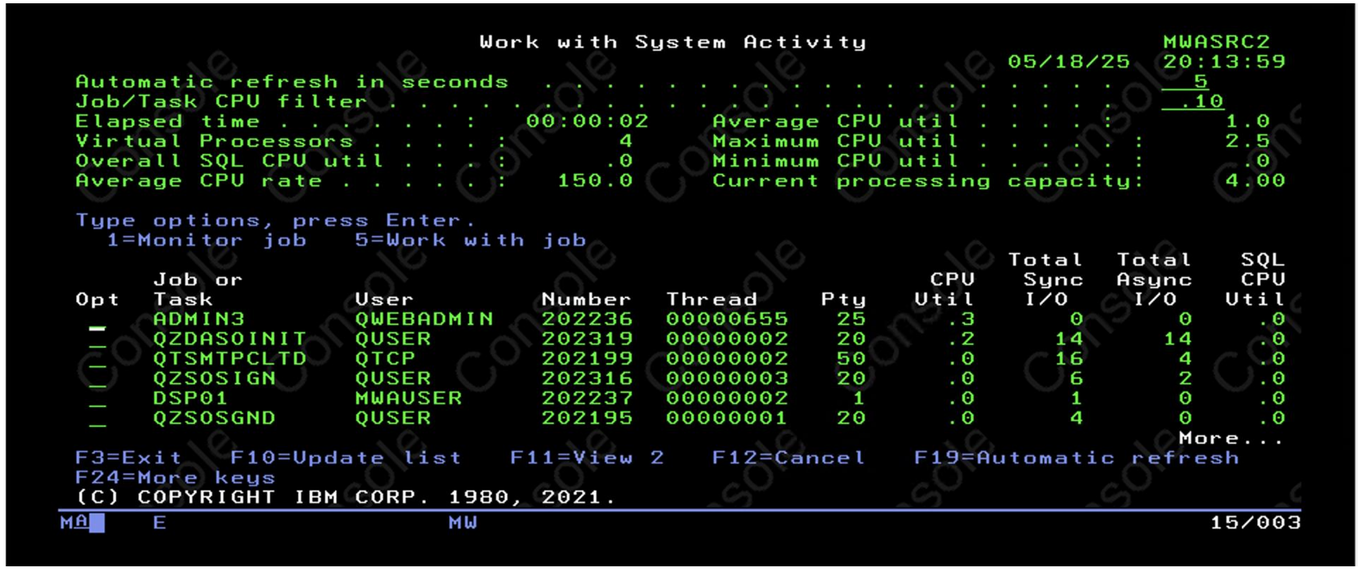
Choose to test your copy before cutting over

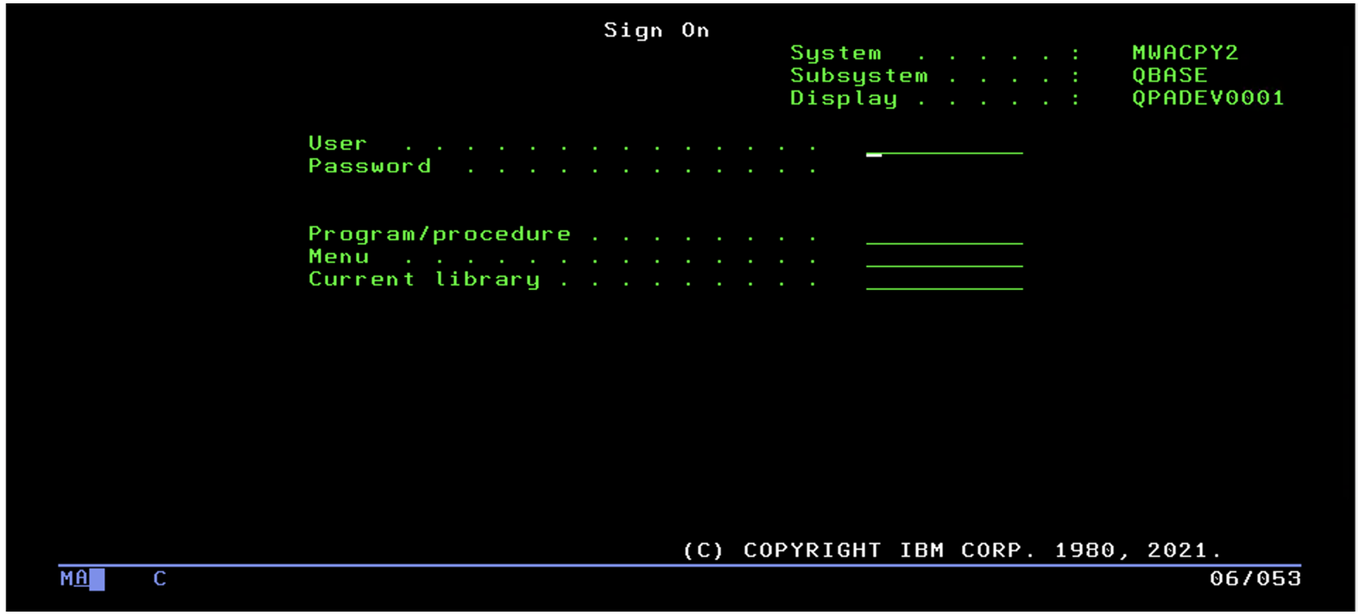


Input the info for the new test system

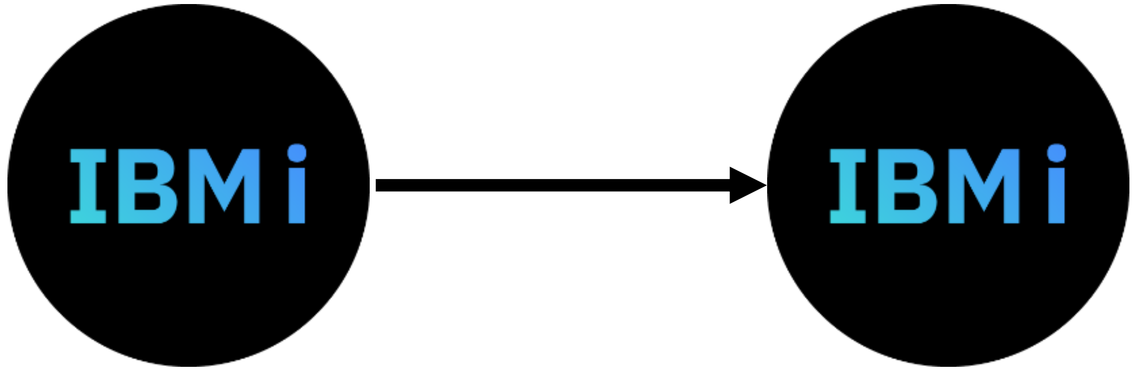


Replication is paused, not your production and the test instance is brought online

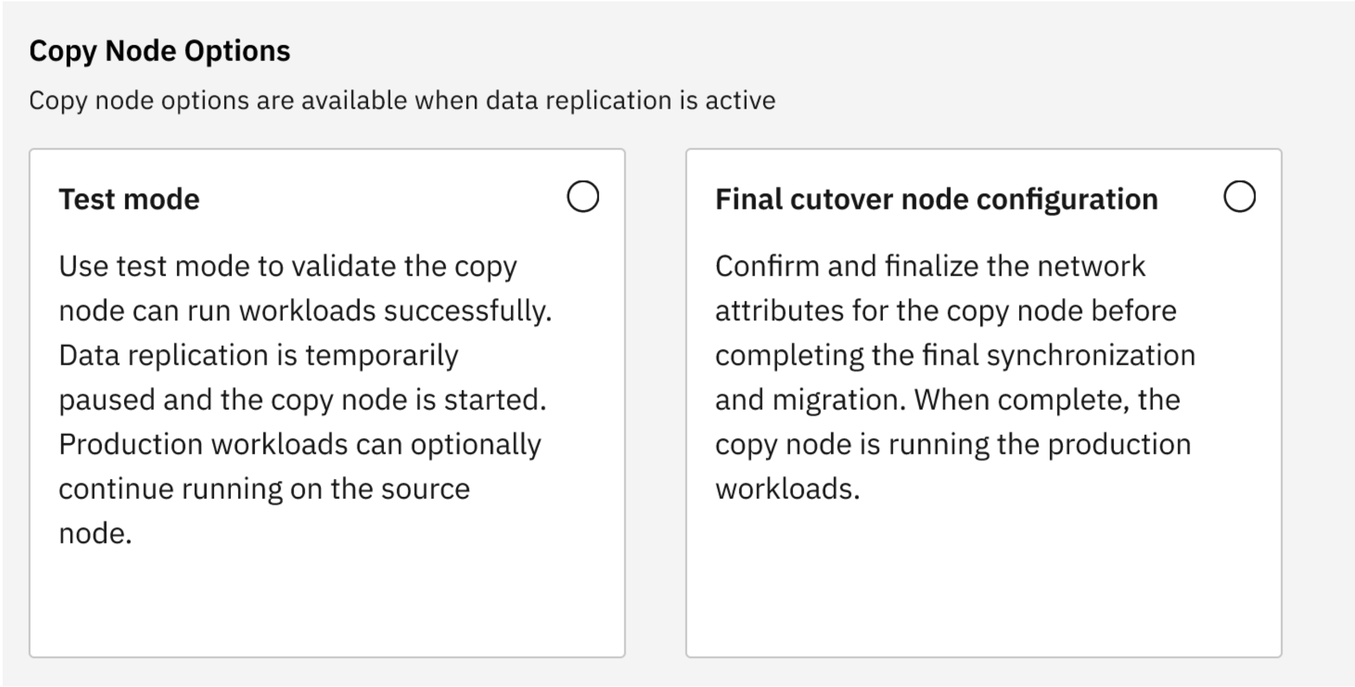




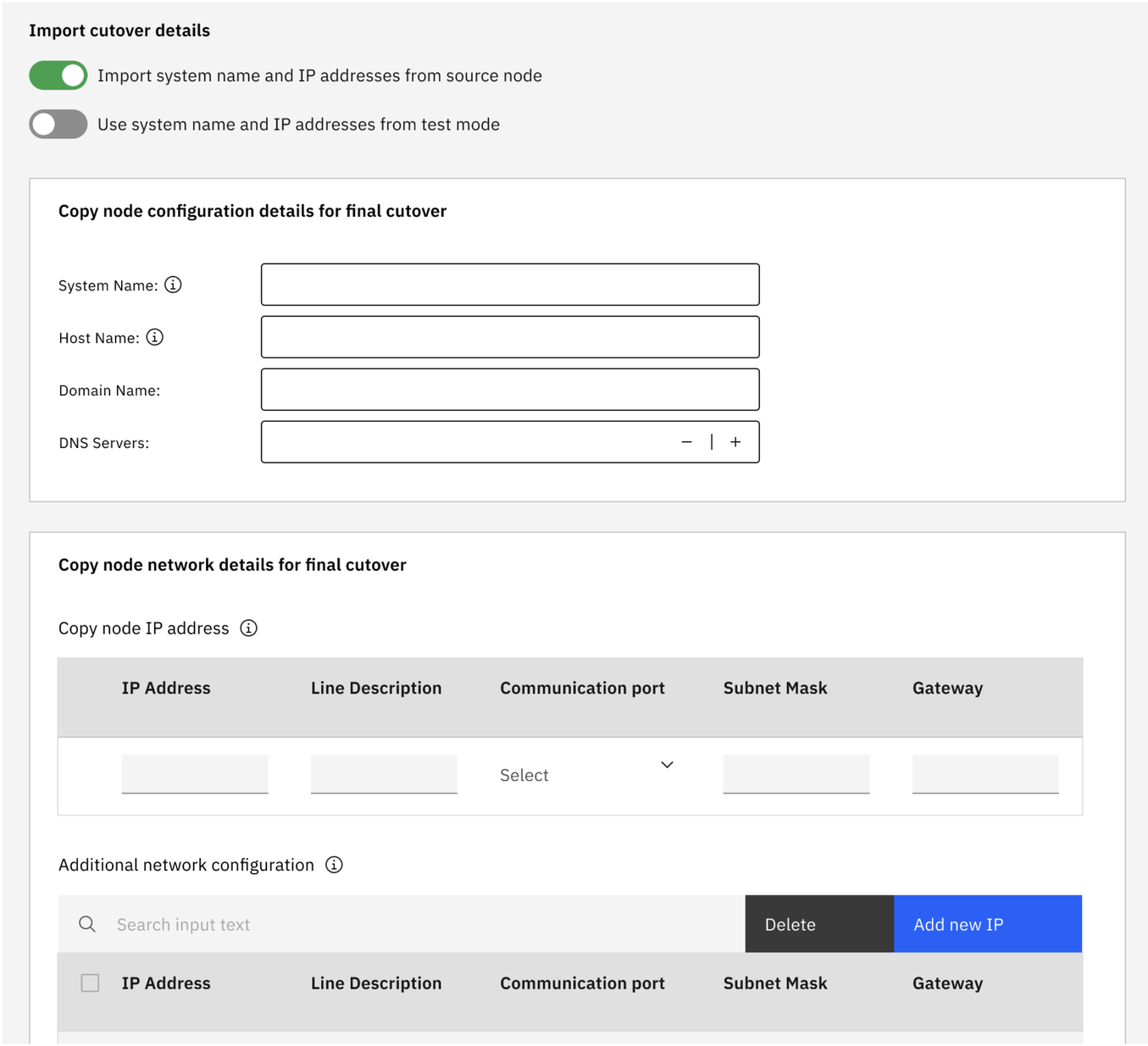
After testing, resync changes from the production instance



Choose to do the final cutover

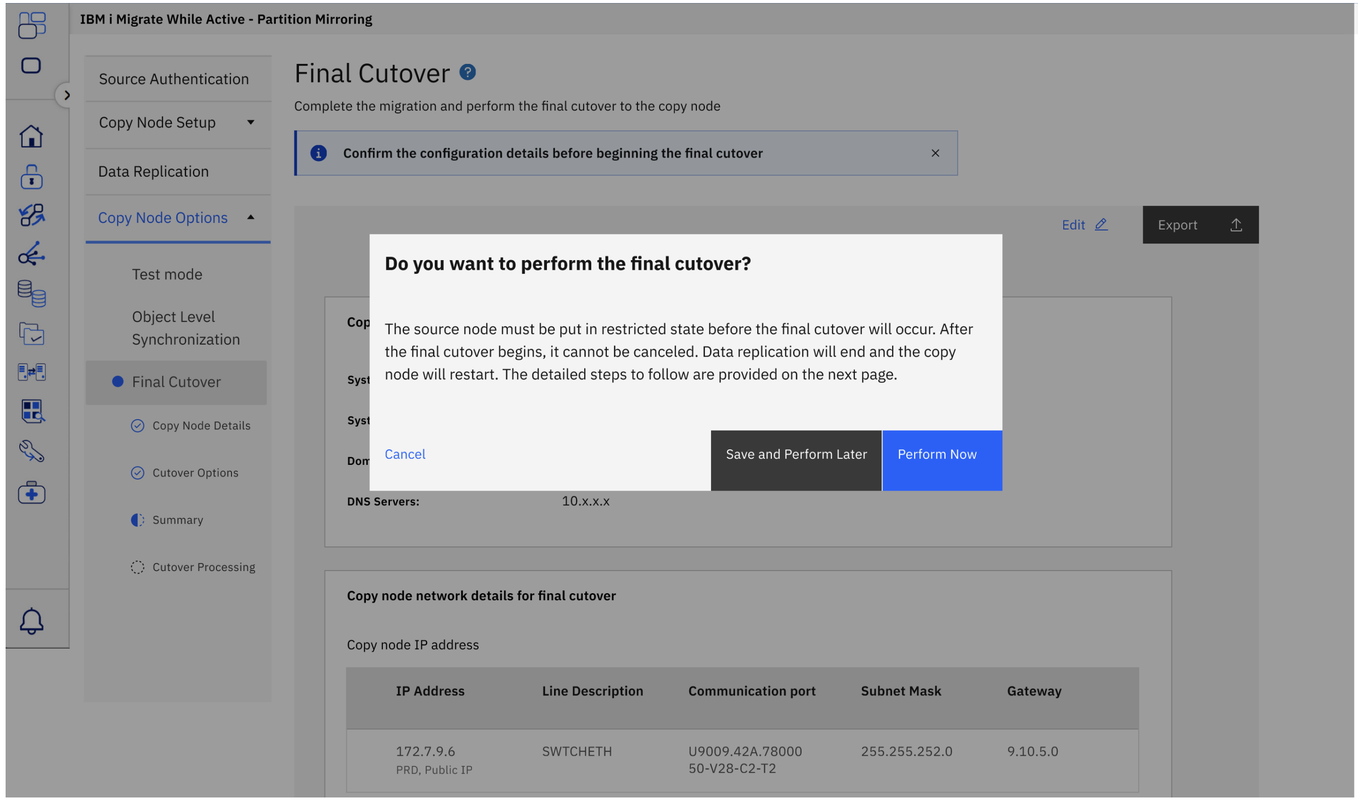


Input final cutover system details and bring up the new instance

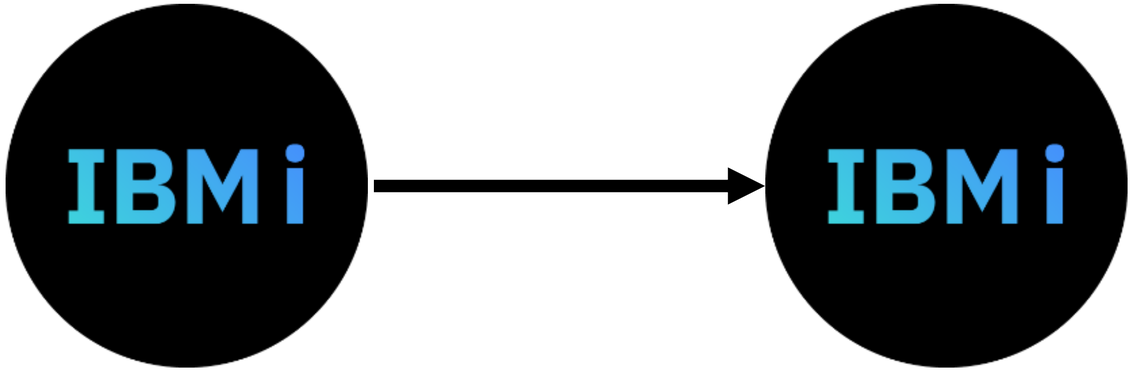


Copy is IPLed and configured with the user inputs.

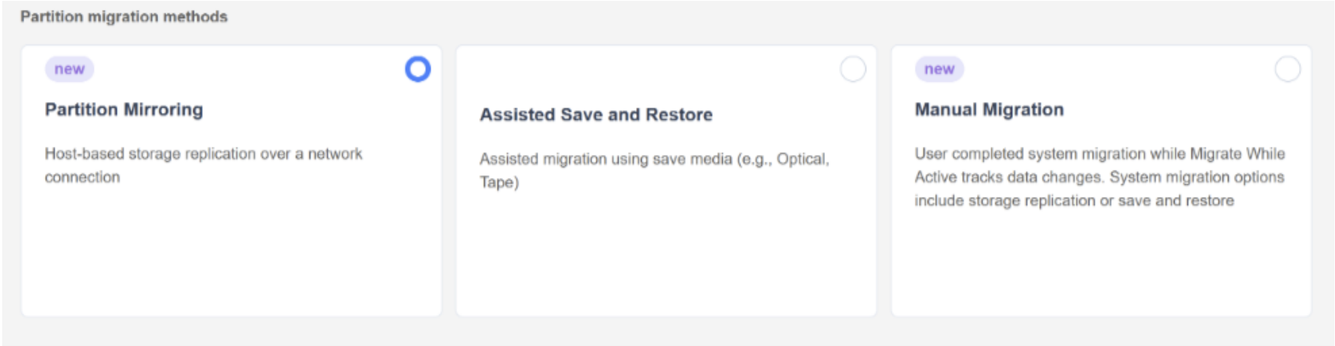
Source is brought to restricted state.



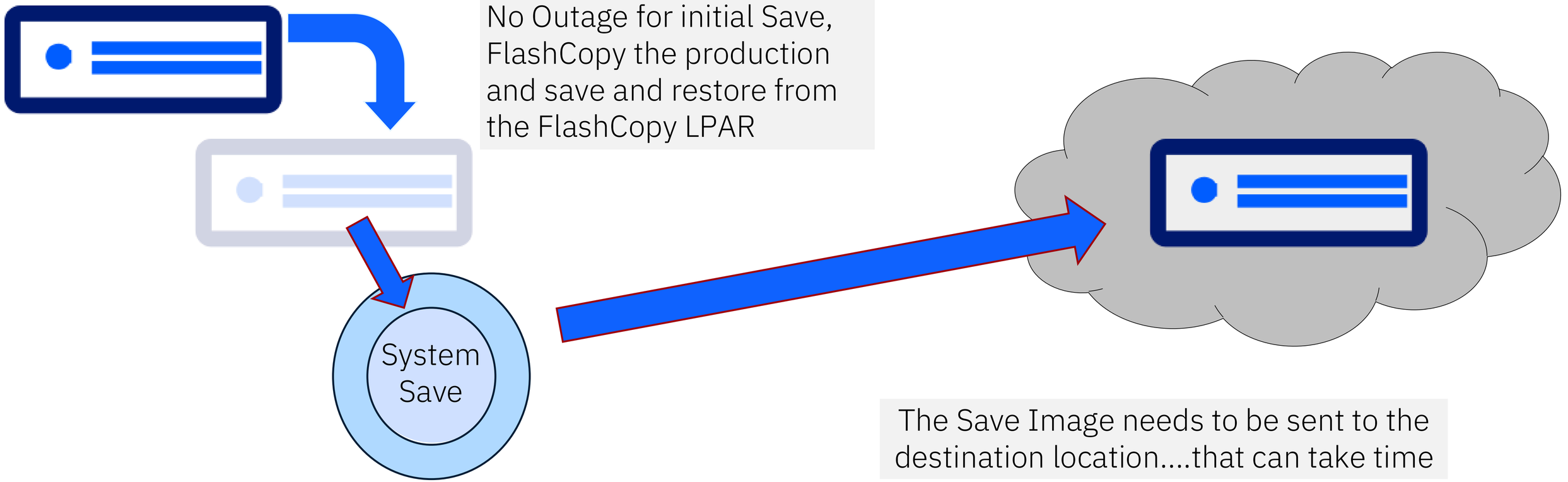
NEW!!!



Manual system migration method



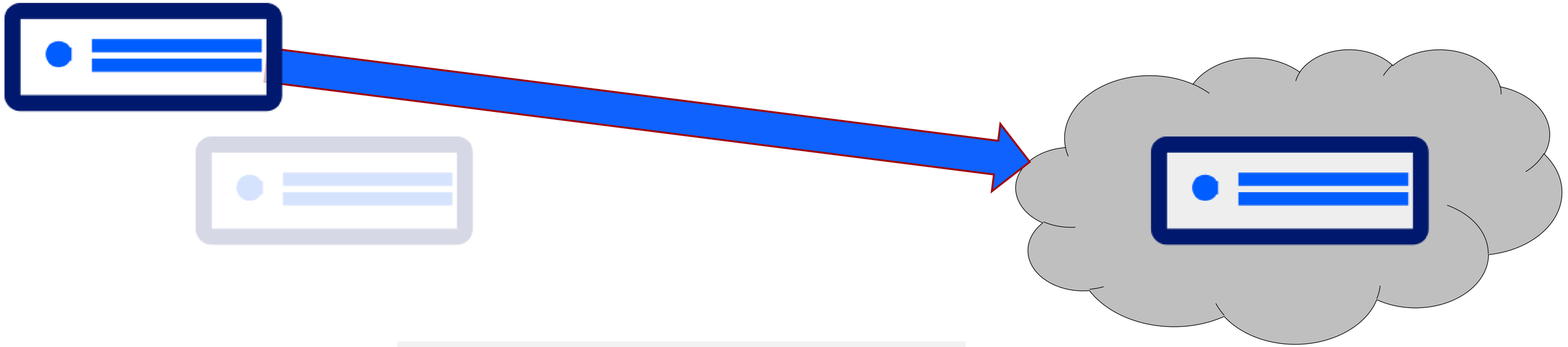
Migrate While Active – Manual System Migration



No Outage for initial Save, FlashCopy the production and save and restore from the FlashCopy LPAR

The Save Image needs to be sent to the destination location….that can take time

Migrate While Active – Manual System Migration

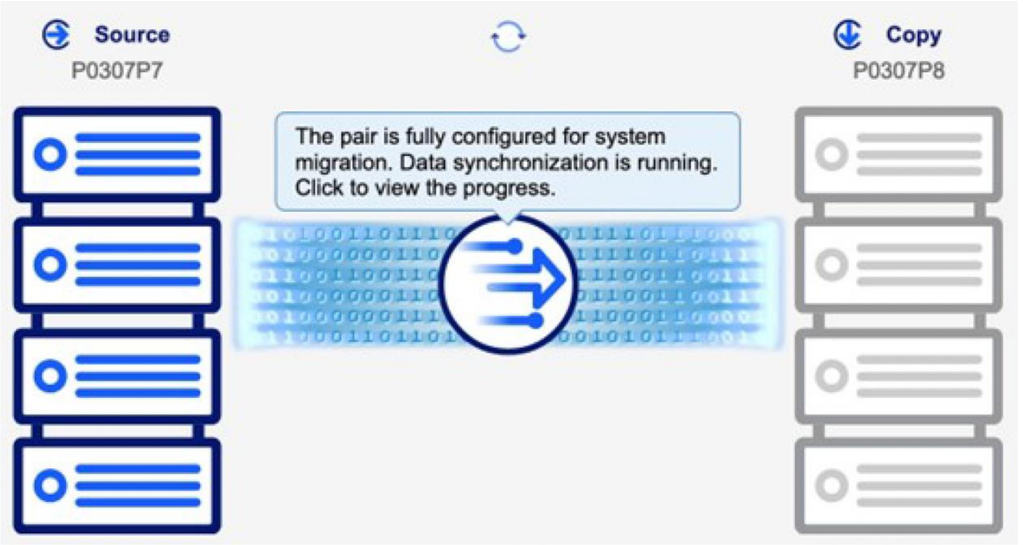


Sync the changes from the production LPAR

IBM i Migrate While Active Pricing and PIDs

	Subscription Term – Migration Feature	eConfig Details
Db2 Mirror for i 7.4,7.5 or 7.6 Per core pricing	5770-DBM License & SWMA combined 90 day or 1/2/3/4/5 year terms Price per core: Same price for all systems One price $2140/core/year 90 days: $749/core	5770-DBM: license PID Installed as option 5102 Subscription PIDs: 5666-MSL: 90 days 5661-MSL: 1 year 5662-MSL: 2 year 5663-MSL: 3 year 5664-MSL: 4 year 5665-MSL: 5 year

IBM i Migrate While Active



- **Product Page**: https://www.ibm.com/support/pages/ibm-i-migrate-while-active
- **IBM i 7.4 and 7.5**
- **New Book**: https://www.ibm.com/docs/en/i/7.4?topic=availability-i-migrate-while-active https://www.ibm.com/docs/en/i/7.5?topic=availability-i-migrate-while-active

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