The New Power Equation

IBM iCluster

iCluster, an IBM PowerHA solution for IBM i high availability

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Agenda

iCluster - Logical Replication Solution from IBM

- What is it?
- Business Benefits
- iCluster Portfolio
- iCluster Positioning vs other IBM HA offerings
- Architecture
- Features and what it looks like
- Product Roadmap
- Additional Resources

iCluster, an IBM PowerHA solution for IBM i availability

- High availability and disaster recovery solution for IBM System i
  - Replicates data and objects to backup node in real time without impacting system performance
- Business benefits:
  - 24/7 availability of mission-critical applications
  - Automatic system failover in the event of planned or unplanned downtime
  - Workload balancing
  - Offload reporting and other processes to secondary systems

The IBM iCluster for i™ Portfolio

- IBM iCluster for i (5733-ICL) V5R2
  - Full featured System i HA
  - Remote journaling, sync checking, monitoring, alarms and alerts and switchover
  - Auto-configuration command for ease of implementation
  - Scalable from SMB to Large Enterprises

- IBM iBalance for i
  - Chargeable feature of iCluster
  - Provides bi-directional HA for workload balancing on CBU Edition
  - Conflict detection and resolution built in

- IBM Support Line provides support

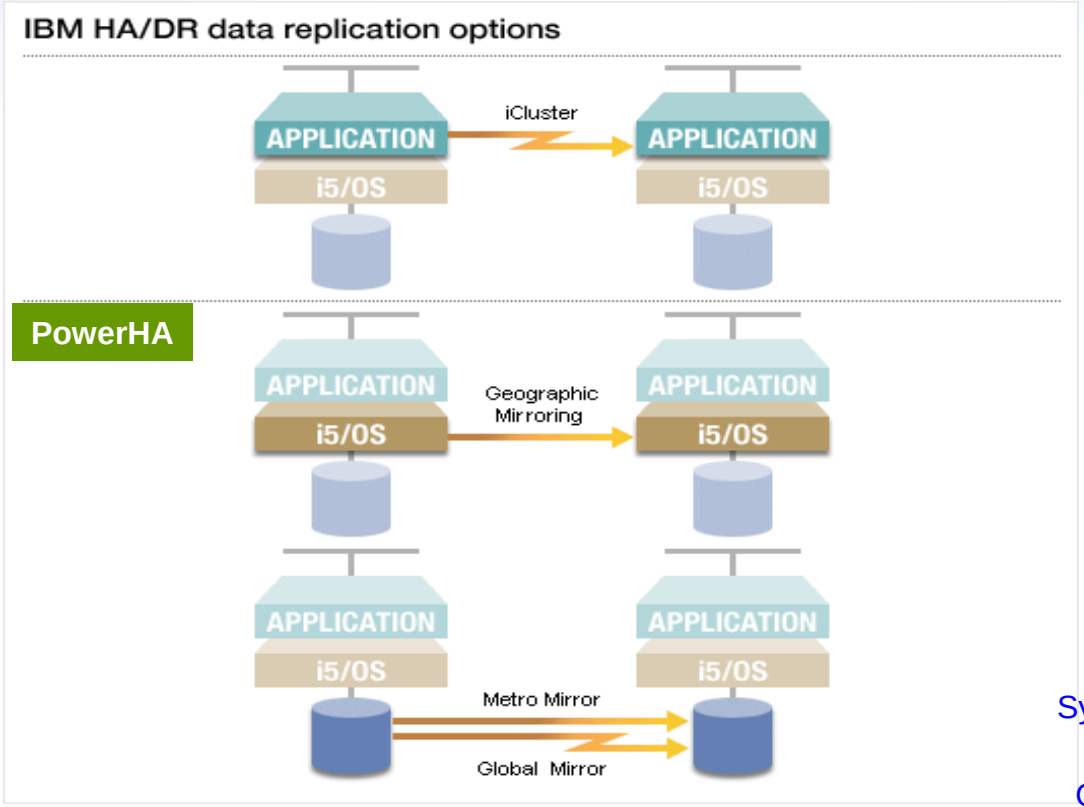
- IBM LPP
  - Install through RSTLICPGM
  - PTFS from Fix Central

IBM Data Resiliency Positioning

Logical replication

OS based replication

Storage-based replication



Asynchronous
Journal-based replication
Over TCP/IP
Disk subsystem agnostic

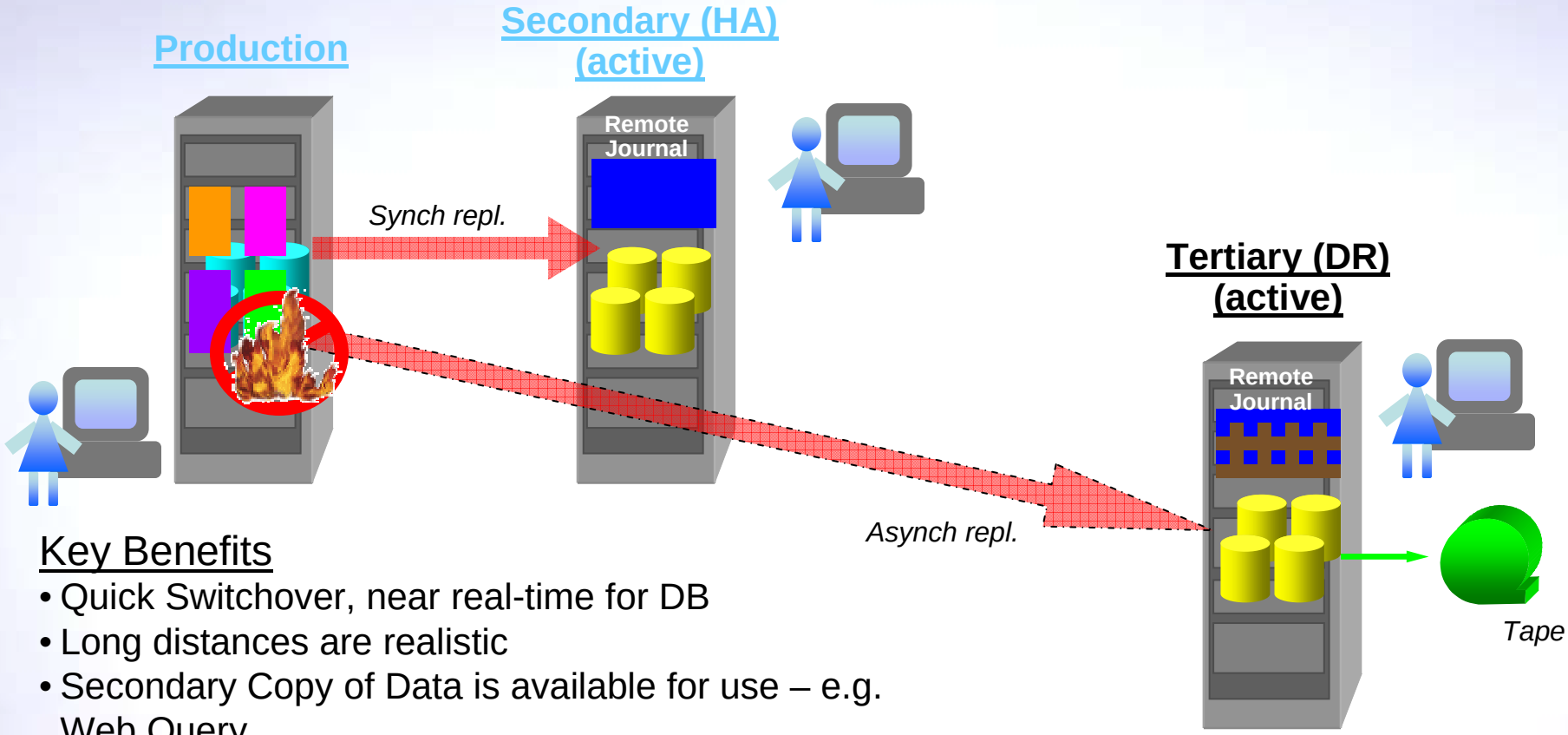
Synchronous
IBM i based replication
Over TCP/IP
Disk subsystem agnostic

Synchronous or Asynchronous
Storage-based replication
Over Fibre Channel or FCIP
DS8000, DS6000

IBM i HA/DR Offering Summary i6.1

	Logical Replication	IASP Clustering Integrated Storage	IASP Clustering SAN	Full System SAN Replication
IBM LPP Offering	**iCluster for i**	**PowerHA Geographic Mirroring**	**PowerHA Metro Mirror Global Mirror (for DR)**	**Global Mirror Metro Mirror**
IBM HW Offering	**IBM i CBU Integrated Storage**	**IBM i CBU Integrated Storage**	**IBM i CBU IBM DS8000,DS6000**	**IBM i CBU IBM DS8000, DS6000**
Best Fit	**Geographic Dispersion** **Backup Server Data needs to be open for reporting or backup.**	**HA Operations (XSM) -Geographic Mirroring**	**HA Operations (XSM) -Metro Mirror** **DR Operations (XSM) - Global Mirror***	**Disaster Recovery**

iCluster for i: Logical Replication Software



Key Benefits

- Quick Switchover, near real-time for DB
- Long distances are realistic
- Secondary Copy of Data is available for use – e.g. Web Query
- Helps with Release Upgrades and PTFs
- Offline backups work well with BRMS
- Offers greatest hardware flexibility
- Uses iCluster automation or i Clusters
- Can cross different IBM i releases

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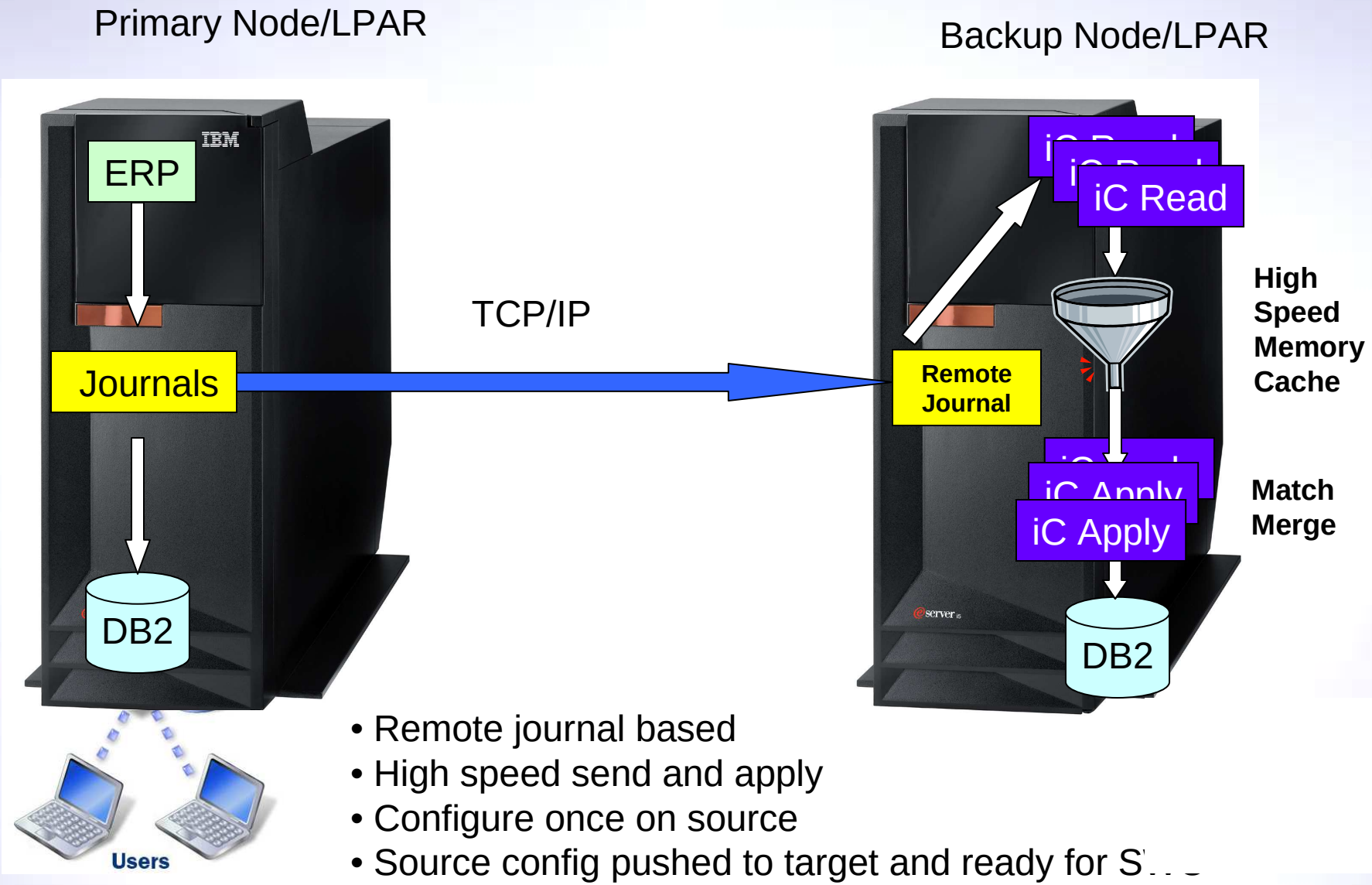
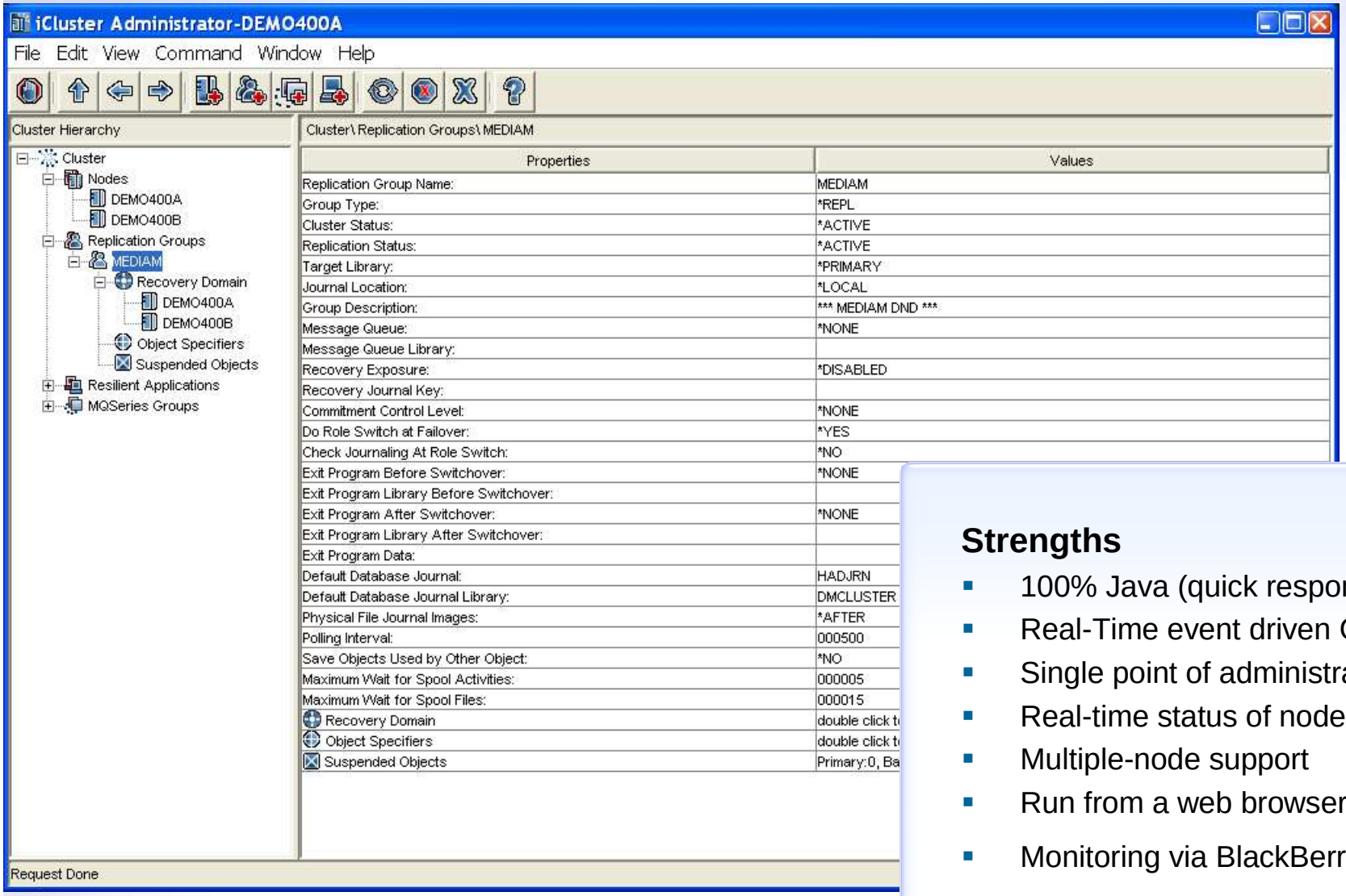
iCluster Architecture Normal Mode



- Remote journal based
- High speed send and apply
- Configure once on source
- Source config pushed to target and ready for S...

THE NEW POWER EQUATION

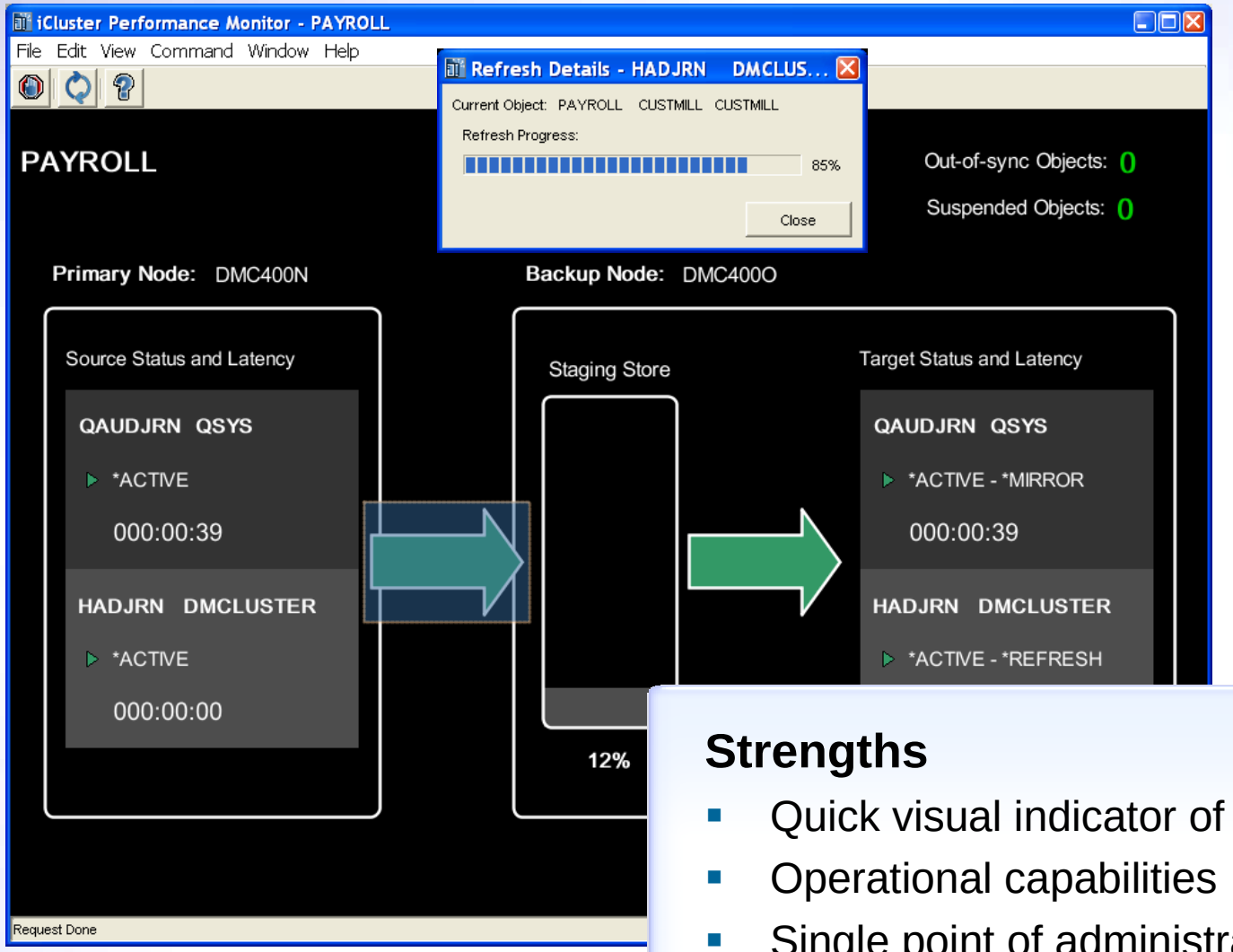
What's it Look Like…JAVA GUI Administrator



Strengths

- 100% Java (quick response times)
- Real-Time event driven GUI
- Single point of administration
- Real-time status of nodes and groups
- Multiple-node support
- Run from a web browser!!
- Monitoring via BlackBerry

GUI Performance Monitor



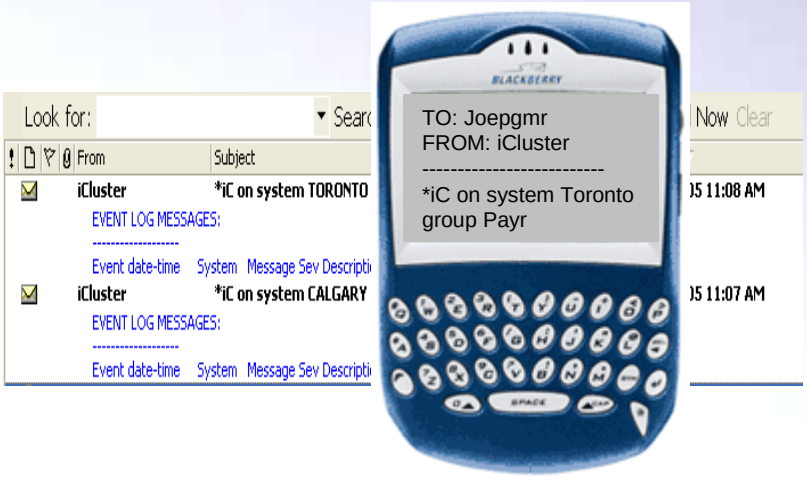
Strengths

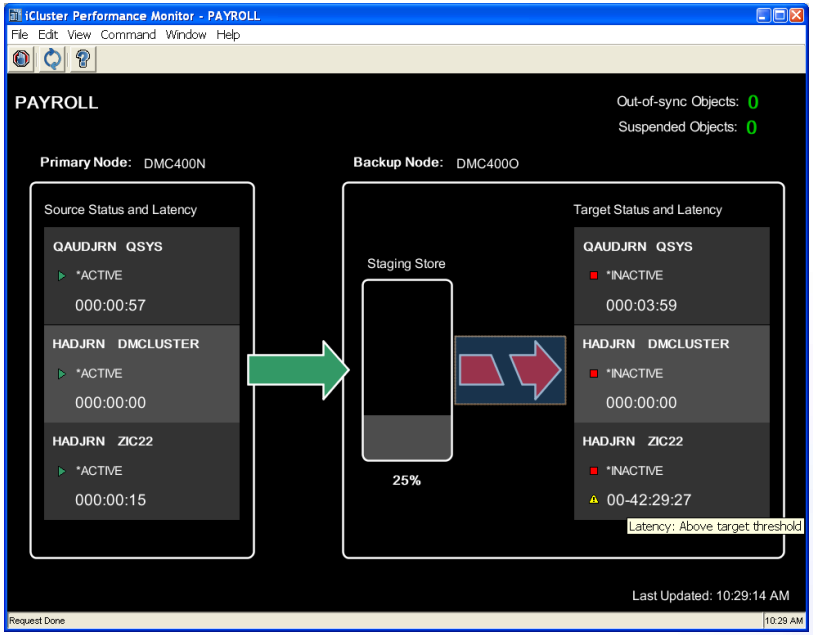
- Quick visual indicator of switch readiness
- Operational capabilities
- Single point of administration
- Run from a web browser!!

Autonomics

Strengths

- Integrity and readiness of backup via sync checks:
  - Consolidated many types of sync checks
  - Consolidated report
  - Continuous Sync Check
  - Physical file contents via hash
- Reduced administration
  - Automatic re-sync of suspended objects
- Increased awareness of HA status:
  - EMAIL sent for suspended objects and errors
  - Alarms and alerts when latency thresholds exceeded
  - Monitor indication of refreshes, reorgs, access path rebuilds files/members





iCluster Roadmap

(Note: 2011 enhancements subject to change and is not an official SOD)

iCluster 2010 Enhancements

- Reporting enhancements
- New journal management & monitoring utility
- Usability enhancements
  - Event log improvements
  - DMAUTOCFG enhancements
- Performance enhancements
- Record level repair
- i7.1 Support

iCluster 2011 Enhancements

- Further DMXtras tool migration (HSTRCST and HENDCST)
- New installation tools (ICTEMPLATE, ICRMTINST)
- New switching menu (ICSWITCH)
- Enhanced firewall support
- Websphere MQ 7.0 support
- Performance improvements
- GUI enhancements

iCluster 5.3 TBD 2011

iCluster 5.2 TL1 Q3 2010

HA Assist – Oct 20 2009

HA Assist – 5733-HAA

- Compliments PowerHA 5761-HAS
- Single price (not tier based)
- Replicates objects in SYSBASE not supported by PowerHA
- Code base is iCluster
  - Requires 2 licenses of 5761-HAS per server
- Requires 1 license of Option 41 per server
- Requires i6.1
- NOT for standalone HA

Additional Resources

- Visit the *IBM Power Systems HA Website for more info on iCluster*
  http://www-03.ibm.com/systems/power/software/availability/

- Take the *IBM Business Continuity Self-Assessment*
  http://www-935.ibm.com/services/us/bcrs/self-assessment/

- *All iCluster questions:*
  - *askic@ca.ibm.com*
  - *csackfield@ca.ibm.com* *Cliff Sackfield – World Wide Sales*

- *Contact CISTECH to schedule a demo*

Thank You

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