IBM CM System Administration Manual

This document collects administration scripts on system LOIS/TSM01, which will help us to understand the LOIS system administration and maintenance procedures and methodologies on OS, Database and Application level.

Contents

Application System Topology

In this ISIS Application system, we use two high performance IBM Power6 570 servers and implement IBM Content Manager Application architecture to fulfill our business requirements; ISIS consists of several specialized components. The core components are the library server and one or many resource managers.

The library server itself is a DB2 database application, all its logic is implemented within the database (currently as stored procedures) and its data is stored within database tables and views. The library server implements functions such as authentication and authorization, data modeling, document routing, search and the storage of descriptive information for each object (so called meta data). The library server can also maintain relationships between different objects and can provide referential integrity.

The resource manager is responsible for storing the actual content (images/files). Currently the resource manager logic is implemented as a web application (ICMRM), running in IBM WebSphere Application Server. The content (images/files) is typically stored to local disk and/or SAN, but can be stored also to storage devices managed by IBM Tivoli Storage Manager or as blobs in the database. The resource manager also maintains internal information, which is again stored in a relational database.

OnDemand processes the print output of application programs, extracts index fields from the data, stores the index information in a relational database, and stores one or more copies of the data in the system. With OnDemand, we archive newly created and frequently accessed reports on high speed, disk storage volumes and automatically migrate them to other types of storage volumes as they age.

The eClient is a Web application that enables users to search for and retrieve documents from content servers. eClient is a Web application that is installed into WebSphere Application Server.

- Import objects
- Search for objects
- Re-index objects
- Retrieve objects
- Delete objects
- Interact with Document Routing
- Declare objects to Records Manager

The eClient Web application consists of JavaServer Pages (JSP), servlets, and a viewer applet that run on the WebSphere Application Server. The eClient also includes cascading style sheets, property files, and so forth.

The IBM WebSphere Application Server software is required to run with the resource manager and must be installed on the same system as the resource manager. The IBM WebSphere Application Server provides the Java-enabled platform that allows Web clients to interact with DB2 Content Manager. Users and processes on a wide variety of operating systems can interact by using the facilities provided by WebSphere Application Server.

Client requests to store or retrieve documents are communicated by HTTP to the IBM HTTP Server. The Web server then packages the request to be sent to the resource manager. Web server uses web server plugin to direct requests to WebSphere Application Server.

Tivoli Storage Manager is a client/server product that provides storage management and data access services in a heterogeneous environment. It is provided so you can store objects, long term, on a storage device other than the fixed disks attached to the resource manager. Tivoli Storage Manager supports a variety of communication methods and provides administrative facilities to schedule backup and storage of files. The resource manager server uses the Tivoli Storage Manager Client APIs, which are installed with the Tivoli Storage Manager Client, to access the Tivoli Storage Manager server. These APIs provide connectivity between the resource manager server and the Tivoli Storage Manager server and can be programmed to centrally administer storage.

We use HACMP cluster in some of two separate IBM Power6 p570 servers' client partitions in order to achieve cluster-level resiliency and serviceability. The whole IBM System p6 570 server can be shut down for maintenance if required and HACMP will handle it with its procedures; production will be taken over by another member of the HACMP cluster on another IBM System p5 570 machine.

Two switches are included in the SAN infrastructure configuration to provide high resilience in a SAN environment. The SAN LUNs are configured as RAID arrays; even a disk failure will not cause an outage to the client partition.

Regarding the Disaster Recovery Plan, EMC RecoverPoint solution and Sungard SOS vault service are implemented to re-replicate the Lois data on a remote site. The shared disk data are continuously updated to the remote storage and the local AIX images are updated to the remote vault regularly.

Figure 1-1 outlines the Advanced POWER Virtualization architecture together with High-Availability Cluster Multi-Processing (HACMP) architecture.

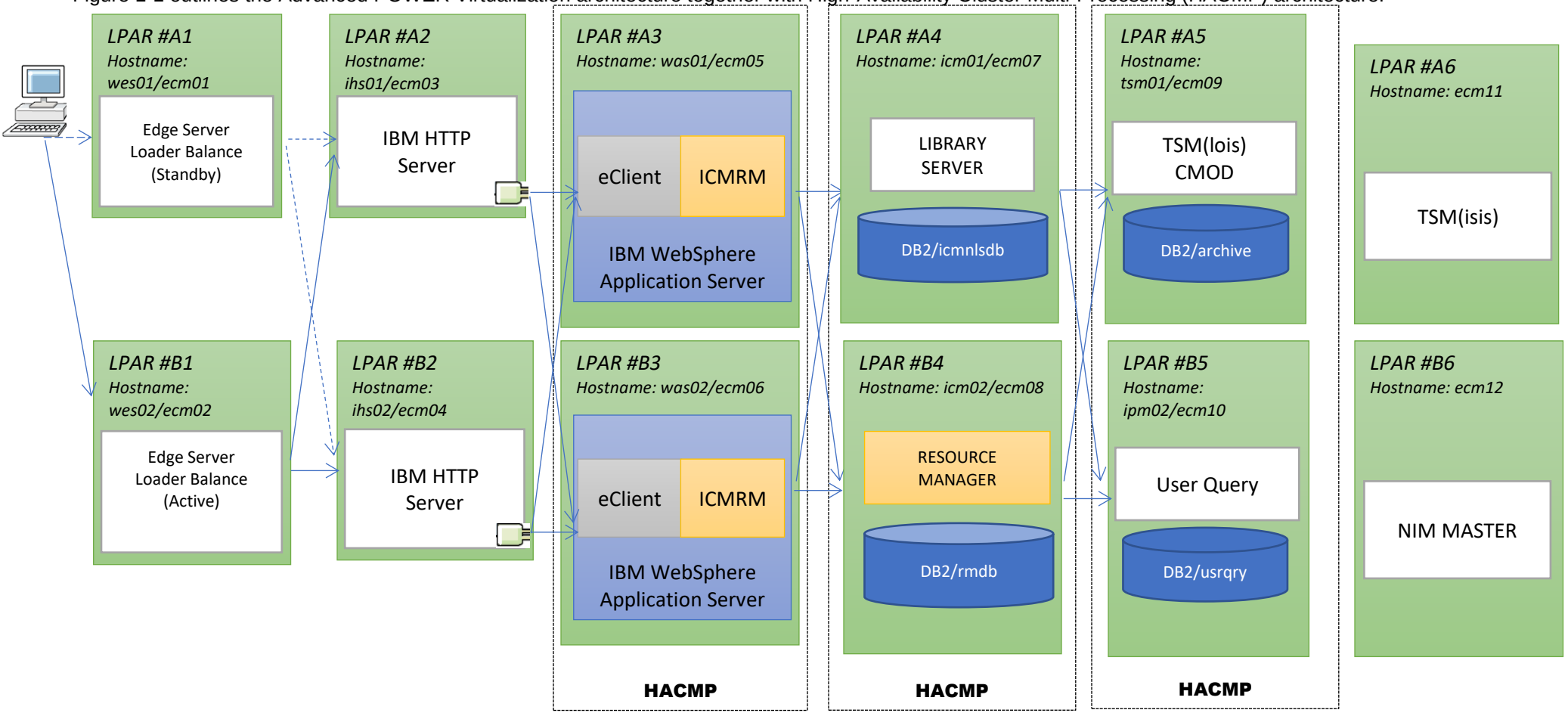

Figure 1-1LOIS & ISIS Application System Topology

Application System Architecture

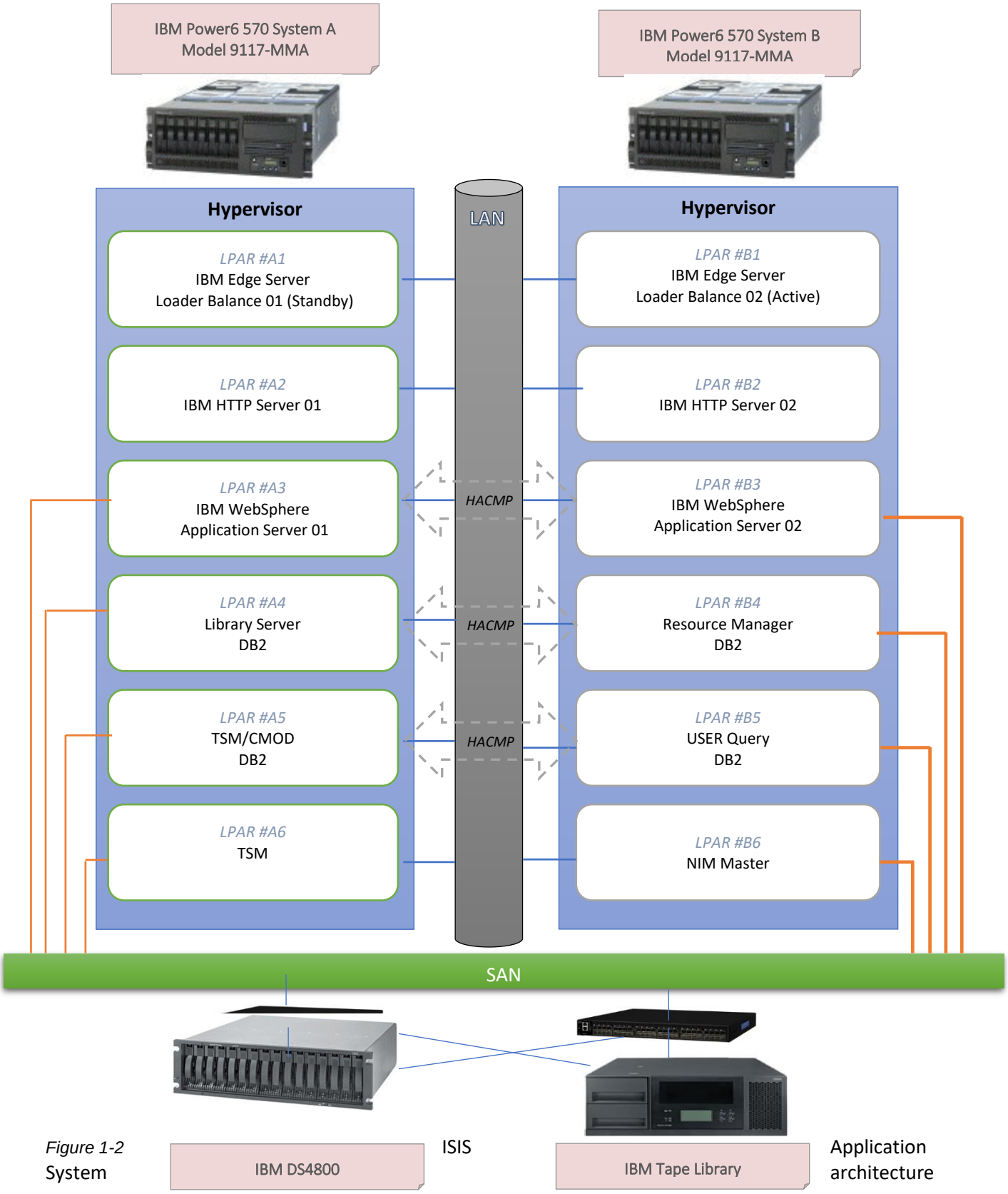

Figure 1-2 ISIS Application System architecture

LOIS/ISIS Application System Server configuration

IBM Power6 p570 System A	LPAR #A1	LPAR #A2	LPAR #A3	LPAR #A4	LPAR #A5	LPAR #A6
Hostname/IP	**wes01/ecm01** **en0** 192.168.172.10 **en1** 192.168.175.11	**ihs01/ecm03** **en0** 192.168.172.20 **en1** 192.168.175.21	**was01/ecm05** **en0** 192.168.172.30 **en1** 192.168.173.31 **en3** 192.168.174.33 192.168.175.33 192.168.175.34	**icm01/ecm07** **en0** 192.168.172.40 **en1** 192.168.173.41 192.168.175.44 **en3** 192.168.174.42 192.168.175.43	**tsm01/ecm09** **en0** 192.168.172.50 **en1** 192.168.173.51 192.168.175.53 **en3** 192.168.174.52 192.168.175.54	**ecm11** en0 192.168.172.60 en1 192.168.175.61
OS Level	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115
System firmware	EM320_076	EM320_076	EM320_076	EM320_076	EM320_076	EM320_076
Business Application	ISIS Loader Balance 01	ISIS HTTP 01	ISIS APP01	ISIS DB01	ISIS CMOD	ISIS TSM
Application Server	IBM Edge Server Loader Balance *(ibmlb.base.rte 7.0.0.8)*	IBM HTTP Server 7 *(WSIHS70 7.0.0.0)*	IBM WebSphere Application Server V7.0 *(WSBAA70 7.0.0.0)* IBM DB2 Content Manager eClient *(cm.ec.product.p 8.4.2.0)* HACMP 6.1	IBM DB2 Content Manager Enterprise Edition *(cm.icm.product.p 8.4.2.0)* IBM Content Manager Library Server HACMP 6.1	IBM Content Manager OnDemand Manager *(ars.srvr 8.4.1.5)* HACMP 6.1	Tivoli Storage Manager Server *(tivoli.tsm.server.com 5.5.1.0)*
Database			DB2 UDB Enterprise Server Edition V9.5	DB2 UDB Enterprise Server Edition V9.5	DB2 UDB Enterprise Server Edition V9.5	
CPU	PowerPC_POWER6 Min Ent= 1 Max Ent= 2	PowerPC_POWER6 Min Ent= 1 Max Ent= 2	PowerPC_POWER6 Min Ent= 2 Max Ent= 4	PowerPC_POWER65 Min Ent= 3 Max Ent= 6	PowerPC_POWER6 Min Ent= 1 Max Ent= 2	PowerPC_POWER6 Min Ent= 1 Max Ent= 2
MEM	**2097152** Kbytes	**2097152** Kbytes	**10485760** Kbytes	**20971520** Kbytes	**8388608** Kbytes	4194304 Kbytes
Storage	**rootvg** (MB): total **279552**, free **190976**	**rootvg** (MB): total **279552**, free **190976**	**rootvg** (MB): total **279552**, free **40448** **docvg**(MB): total **1237376**, free **896** **tsmha01vg**(MB): total **10224**, free **624**	**rootvg** (MB): total **279552**, free **36352** **lsvg** (MB): total **212480**, free **14080** **tsmha01vg**(MB): total **10224**, free **624** **db2loglsvg**(MB): total **10224**, free **624** **db2bkuplsvg**(MB): total **204544**, free **12544**	**rootvg** (MB): total **139776**, free **7424** **arsvg** (MB): total **112384**, free **1024** **arscachevg** (MB): total **204544**, free **2304** **billingv**g(MB): total **224512**, free **6912** **tsmha01v**g(MB): total 1**0224**, free **624** **db2bkupodvg(**MB): total **10224**, free **624** **db2logodvg(**MB): total **10224**, free **624**	**rootvg** (MB): total **139776**, free **97536** **tsmvg** (MB): total **337408**, free **2048**
Adapter	**LAN:** **ent0** Logical Host Ethernet Port (lp-hea)	**LAN:** **ent0** Logical Host Ethernet Port (lp-hea)	**LAN:**	**LAN:**	**LAN:**	**LAN:** **ent0** Logical Host Ethernet Port (lp-hea)

	ent1 Logical Host Ethernet Port (lp-hea) **lhea0** Logical Host Ethernet Adapter (l-hea) **SAN:**	**ent1** Logical Host Ethernet Port (lp-hea) **lhea0** Logical Host Ethernet Adapter (l-hea) **SAN:**	**ent0** 00-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent1** 00-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent2** 01-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent3** 01-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **SAN:** **fcs0** 02-00 4Gb FC PCI Express Adapter **fcs1** 02-01 4Gb FC PCI Express Adapter **fcs2** 03-00 4Gb FC PCI Express Adapter **fcs3** 03-01 4Gb FC PCI Express Adapter	**ent0** 00-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent1** 00-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent2** 03-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent3** 03-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **SAN:** **fcs0** 01-00 4Gb FC PCI Express Adapter **fcs1** 01-01 4Gb FC PCI Express Adapter **fcs2** 04-00 4Gb FC PCI Express Adapter **fcs3** 04-01 4Gb FC PCI Express Adapter	**ent0** 02-00 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent1** 02-01 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent2** 04-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent3** 04-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **SAN:** **fcs0** 01-00 4Gb FC PCI Express Adapter **fcs1** 01-01 4Gb FC PCI Express Adapter **fcs2** 03-00 4Gb FC PCI Express Adapter **fcs3** 03-01 4Gb FC PCI Express Adapter	**ent1** Logical Host Ethernet Port (lp-hea) **lhea0** Logical Host Ethernet Adapter (l-hea) **SAN:** **fcs0** 03-00 4Gb FC PCI Express Adapter **fcs1** 03-01 4Gb FC PCI Express Adapter **fcs2** 00-00 4Gb FC PCI Express Adapter **fcs3** 00-01 4Gb FC PCI Express Adapter
Hypervisor						

Figure 1-3 p6 570 System A hardware breakdowns

IBM Power6 p570 System B	LPAR #B1	LPAR #B2	LPAR #B3	LPAR #B4	LPAR #B5	LPAR #B6
Hostname/IP	**wes02/ecm02** **en0** 192.168.172.110 **en1** 192.168.175.111 192.168.175.13 192.168.175.12	**ihs02/ecm04** **en0** 192.168.172.120 **en1** 192.168.175.121	**was02/ecm06** **en0** 192.168.172.130 **en1** 192.168.173.131 **en3** 192.168.174.132 192.168.175.133 192.168.175.134	**icm02/ecm08** **en0** 192.168.172.140 **en1** 192.168.173.141 192.168.175.144 **en3** 192.168.174.142 192.168.175.143	**ipm02/ecm10** **en0** 192.168.172.150 **en1** 192.168.173.151 192.168.175.154 **en3** 192.168.174.152 192.168.175.153	**ecm12** **en0** 192.168.172.160 **en1** 192.168.175.161
OS Level	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115	AIX 6.1 TL06 SP05 6100-06-05-1115
System firmware	EM320_076	EM320_076	EM320_076	EM320_076	EM320_076	EM320_076
Business Application	ISIS Loader Balance 01	ISIS HTTP 01	ISIS APP01	ISIS DB 02	ISIS User Query	ISIS NIM Master
Application Server	IBM Edge Server Loader Balance *(ibmlb.base.rte 7.0.0.8)*	IBM HTTP Server 7 *(WSIHS70 7.0.0.0)*	IBM WebSphere Application Server V7.0 *(WSBAA70 7.0.0.0)* IBM DB2 Content Manager eClient *(cm.ec.product.p 8.4.2.0)* HACMP 6.1	IBM DB2 Content Manager Enterprise Edition *(cm.icm.product.p 8.4.2.0)* IBM Content Manager Resource Manager Application Server *(cm.icm.rmappsvr 8.4.2.0)* HACMP 6.1	IBM Content Manager OnDemand Manager *(ars.srvr 8.4.1.5)* HACMP 6.1	Network Install Manager (bos.sysmgt.nim.master 6.1.6.15)
Database			DB2 UDB Enterprise Server Edition V9.5	DB2 UDB Enterprise Server Edition V9.5	DB2 UDB Enterprise Server Edition V9.5	
CPU	PowerPC_POWER6 Min Ent= 1 Max Ent= 2	PowerPC_POWER6 Min Ent= 1 Max Ent= 2	PowerPC_POWER6 Min Ent= 2 Max Ent= 4	PowerPC_POWER6 Min Ent= 3 Max Ent= 6	PowerPC_POWER6 Min Ent= 1 Max Ent=2	PowerPC_POWER6 Min Ent= 1 Max Ent=2
MEM	**2097152** Kbytes	**2097152** Kbytes	**10485760** Kbytes	**20971520** Kbytes	**8388608** Kbytes	**4194304** Kbytes
Storage	**rootvg** (MB): total **279552**, free **190976**	**rootvg** (MB): total **279552**, free **190976**	**rootvg** (MB): total **279552**, free **40448** **wasndvg**(MB): total **10224**, free **624** **tsmha02vg**(MB): total **10224**, free **624**	**rootvg** (MB): total **279552**, free **36352** **rmvg** (MB): total **110336**, free **7936** **tsmha02vg**(MB): total **10224**, free **624** **db2logrmvg**(MB): total **10224**, free **624** **db2bkuprmvg**(MB): total **102272**, free **6272**	**rootvg** (MB): total **139776**, free **7427** **usvg** (MB): total **112384**, free **1024** **tsmha02v**g(MB): total 1**0224**, free **624** **db2logusvg**(MB): total **10224**, free **624** **db2bkupusvg(**MB): total **102272**, free **1152**	**rootvg** (MB): total **279552**, free **165632** **nimvg** (MB): total **730624**, free **3072** **nimadmv**g(MB): total **189184**, free **188928**

Adapter	**LAN:** **ent0** Logical Host Ethernet Port (lp-hea) **ent1** Logical Host Ethernet Port (lp-hea) **lhea0** Logical Host Ethernet Adapter (l-hea) **SAN:**	**LAN:** **ent0** Logical Host Ethernet Port (lp-hea) **ent1** Logical Host Ethernet Port (lp-hea) **lhea0** Logical Host Ethernet Adapter (l-hea) **SAN:**	**LAN:** **ent0** 00-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent1** 00-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent2** 04-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent3** 04-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **SAN:** **fcs0** 01-00 4Gb FC PCI Express Adapter **fcs1** 01-01 4Gb FC PCI Express Adapter **fcs2** 03-00 4Gb FC PCI Express Adapter **fcs3** 03-01 4Gb FC PCI Express Adapter	**LAN:** **ent0** 00-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent1** 00-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent2** 03-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent3** 03-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **SAN:** **fcs0** 01-00 4Gb FC PCI Express Adapter **fcs1** 01-01 4Gb FC PCI Express Adapter **fcs2** 04-00 4Gb FC PCI Express Adapter **fcs3** 04-01 4Gb FC PCI Express Adapter	**LAN:** **ent0** 00-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent1** 00-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent2** 03-08 2-Port 10/100/1000 Base-TX PCI-X Adapter **ent3** 03-09 2-Port 10/100/1000 Base-TX PCI-X Adapter **SAN:** **fcs0** 01-00 4Gb FC PCI Express Adapter **fcs1** 01-01 4Gb FC PCI Express Adapter **fcs2** 04-00 4Gb FC PCI Express Adapter **fcs3** 04-01 4Gb FC PCI Express Adapter	**LAN:** **ent0** Logical Host Ethernet Port (lp-hea) **ent1** Logical Host Ethernet Port (lp-hea) **lhea0** Logical Host Ethernet Adapter (l-hea) **SAN:** **fcs0** 02-00 4Gb FC PCI Express Adapter **fcs1** 02-01 4Gb FC PCI Express Adapter **fcs2** 01-00 4Gb FC PCI Express Adapter **fcs3** 01-01 4Gb FC PCI Express Adapter
Hypervisor						

Figure 1-4 p6 570 System B hardware breakdowns

Summary

The use of Multiple Logical Partitions with multiple dedicated adapter cards and multipath access to data, along with IBM HACMP, yield a very robust solution for client partitions requiring high levels of data access.

This LOIS/ISIS Application System architecture has following advantages:

- Requirements for high I/O throughput, serviceability, and resilience.
- No hardware resource restrictions.
- Flexibility in both adding additional servers and extending storage capacity.
- Suitable for solutions of Test, Development, and Production environments for Web, Application, and Database servers.

User Information:

Products	User ID	LMS/ISIS/LOIS Password	comments
~~HMC02~~	~~**hscroot**~~	~~abc5678~~	~~192.168.103.213~~
			eth0 10.1.0.1 eth1 192.168.103.213
Servie Processor A	9133-55A*10E35AA		FSP 10.1.13.254
Servie Processor A	9133-55A*10E352A		FSP 10.1.15.254
ASMI	admin		
	~~root~~		
CM	icmadmin		
CM	rmadmin		
	icmconct		
	ibmcmadm		
CMOD	admin		
DB2 admin	dasusr1		
DB2	db2inst1		Database name: lms/admsrv1: icmnlsdb lois/icm01: icmnlsdb lois/tsm01: archive(root:icm833) isis/ecm07: icmnlsdb isis/ecm09:
DB2	db2inst2		Database name: lms/admsrv1: rmdb lois/icm02: rmdb lois/ipm02: usrqry isis/ecm08: rmdb
AIX	rns		
AIX	isisftp		
~~AIX~~	~~root~~		-
IBM WAS	wasadmin		Security disenabled
App	rns		
App	isisftp		
TSM	tsmtape		
~~TSM~~	~~admin~~		-
TSM node	db2bkup		
Tape Library	operator panel		
~~Tape Library RMU~~	~~admin~~		~~192.168.103.218~~
-	-		-
~~SAN switchs~~	~~admin~~		~~192.168.103.216~~
-	-		~~192.168.103.217~~
-	-		-
~~SAN Controllers~~	~~N/A~~		~~192.168.103.214~~
-	-	-	~~192.168.103.215~~

OS level administration

Name	Directory	Description	Output & Logs
starttsm01.ksh	/lois/tsm01/bin	Setup system running environment. • Start TSM SERVER • Start DB2 INST1 • Start arsdb • Start arssockd	/lois/tsm01/bin/starttsm01.log

stoptsm01.ksh	/lois/tsm01/bin	Shutdown system running environment. • Stop arssockd • Stop arsdb • Stop DB2 INST1 • Stop TSM SERVER	/lois/tsm01/bin/stoptsm01.log
clean.ksh	/lois/cleanupaix	Clean up database and application running logs • Clean DB2 logs • Clean arstmp logs	/lois/cleanupaix/clean.log
drslot.sh	/lois/aix/bin	fcs card configuration	N/A
movep3.ksh	/lois/aix/bin		
tsm01.ksh	/lois/aix/env /lois/aix61upgrade /lois/haupgrade	Collect AIX system configuration information	N/A
emptylogs.ksh	/lois/aix/env	Remove logs: • db2diag.log • db2inst1.nfy • db2enventlog	N/A
bkupall.ksh	nim02:/lois/nim02/bin	system backup using nim	./bkupall.out

HACMP administration

Name	Directory	Description	Output & Logs
starttsm01_app.ksh	/lois/hacmp/bin	Setup system tsm01 running environment. • run starttsm01.ksh	/lois/tsm01/bin/starttsm01.trc
stoptsm01_app.ksh	/lois/hacmp/bin	Shutdown system tsm01 running environment. • run stoptsm01.ksh	/lois/tsm01/bin/stoptsm01.trc
startipm02_app.ksh	/lois/hacmp/bin	setup system ipm02 running environment • run startipm02.ksh	/lois/tsm01/bin/startipm02.trc
stopipm02_app.ksh	/lois/hacmp/bin	Shutdown system ipm02 running environment. • run stopipm02.ksh	/lois/tsm01/bin/startipm02.trc

DB2 administration

Name	Directory	Description	Output & Logs
db2backup.ksh	/tsmha01/tsmdb2od/bin	db2 backup db archive online use tsm	/tsmha01/tsmdb2od/trc/db2backup.err /tsmha01/tsmdb2od/trc/db2backup.aud
db2cfg.ksh	/lois/db2mgmt/db2cfg /lois/db2mgmt/db2cfg/v95	• Collect DB2 instance configuration • Collect DB2 database toolsdb/archive configuration	./tl.cfg.$timestamp ./od.cfg.$timestamp
ddl.ksh	/lois/db2mgmt/db2cfg	Extracts DDL statements to reproduce the database 'archive' objects	ddl.log.$timestamp
stt.ksh	/lois/db2mgmt/db2cfg	Generates the UPDATE statements that are required to replicate the statistics on tables, statistical views, columns, and indexes.	stt.log.$timestamp
odreorgchk.ksh	/lois/db2mgmt/reorgchk	Reorganizes 'od' tables or indexes for better performance	./odreorgchk.log.`date +%Y%m%d`
odlog.ksh	/lois/db2mgmt/txnlogs	for archive using newlogpath /db2logod/od/	
odreorg.ksh	/lois/db2mgmt/reorgtab	Reorganizes ROOT own table for better performance	N/A
db2snapshot.ksh	/lois/ db2mgmt/snapshot	provides information on database connections, performance, errors and throughput of SQL requests	./od.$timestamp
odstats.ksh	/lois/db2stats/archive /lois/db2stats/archive/V95	Runstats on DB archive	./rmstats.out
xtabsys.ksh	/lois/db2stats/archive /lois/db2stats/archive/V95	Reorganizes sys table or an index for better performance	./xtabusr.log
xtabusr.ksh	/lois/db2stats/archive /lois/db2stats/archive/V95	Reorganizes user table or an index for better performance	./icm02.db2rm.out

recovebkup.ksh	/lois/cleanupdb2/deldb2	Query db archive backup images and logs from TSM	./recovebkup.out.$timestamp
deletebkup.ksh	/lois/cleanupdb2/deldb2	Delete full keep 10 db archive backup images and logs from TSM	./deletebkup.out.$timestamp
bkupod.ksh	/db2bkupod/backupdb	db2 backup db archive online compress include logs	
bkupod.ksh	/db2bkupod/backupfs	Back db2 filesystems • /home/db2inst1 • /home/db2fenc1 • /db2logod • /arsdb • /arsdb_primarylog • /arsdb_archivelog	./*.$bkupdate.out

TSM administration

Name	Directory	Description	Output & Logs
tsmclient.ksh	/lois/tsmclient/bin	Start both TSM Client agent program dsmcad on • /usr/tivoli/tsm/client/ba/bin/dsm.opt • /tsmha01/tsmhacmp/dsm.opt	/usr/tivoli/tsm/client /ba/bin/logs
startserver	/lois/tsmfiles/bin	Shell script to start a TSM server	
stopserver	/lois/tsmfiles/bin	Shell script to stop a TSM server	
tsm01.db2od.ksh	/lois/drptsm01/querydb	Query db archive backup images and logs from TSM	./tsm01.db2od.out
tsmtape.ksh	/home/tsmopr/scripts	• Get a List of Offsite Tape(s) • Check Out the Tape(s) • Get a List of Returned Tape(s) • Check In the Tape(s)	/home/tsmopr/logs/logs

Application administration

Name	Directory	Description	Output & Logs
billing00.ksh	/lois/billing/bin	Run /arsinv/billingapps/LIprinting/printEndOfDay.sh (java com/livingston/print/ExceptionReport)	/lois/billing/log/billing00.log
billing01.ksh	/lois/billing/bin	Run /arsinv/billingapps/LIprinting/loadLIdocs.sh (java com/livingston/load/LoadLIDocs)	logFile=/lois/billing/log/billing01.log s1File=/lois/billing/status/s1.log p1File=/lois/billing/status/p1.log p2File=/lois/billing/status/p2.log p3File=/lois/billing/status/p3.log p4File=/lois/billing/status/p4.log p5File=/lois/billing/status/p5.log p6File=/lois/billing/status/p6.log
billing02.ksh	/lois/billing/bin	Run /arsinv/billingapps/LIprinting/loadLIdocs.sh (java com/livingston/load/LoadLIDocs)	logFile=/lois/billing/log/billing02.log s1File=/lois/billing/status/s1.log p1File=/lois/billing/status/p1.log p2File=/lois/billing/status/p2.log p3File=/lois/billing/status/p3.log p4File=/lois/billing/status/p4.log p6File=/lois/billing/status/p6.log
billing03.ksh	/lois/billing/bin	cd /arsinv/billingapps/LIprinting (touch -f /lois/billing/statusb3/s1.log; ./loadLIB3docs.sh; rm -f /lois/billing/statusb3/s1.log)	logFile=/lois/billing/log/billing03.log s1File=/lois/billing/statusb3/s1.log odFile=/lois/billing/statusod/od.log
billing04.ksh	/lois/billing/bin	Run /arsinv/billingapps/LIprinting/updateIndex.sh (java com/livingston/indexupdate/ItemAttributeUpdate)	logFile=/lois/billing/log/billing04.log
billing05.ksh	/lois/billing/bin	Run /arsinv/billingapps/LIprinting/docConvert.sh	logFile=/lois/billing/log/billing05.log

		(java -Xmx512m com.livingston.convert.TiffConvert)	status05=/lois/billing/status05/status05.log
replayidx.ksh	/lois/billing/bin	Run /arsinv/billingapps/LIprinting/updateIndex.sh (java com/livingston/indexupdate/ItemAttributeUpdate)	logFile=/lois/billing/log/replayidx.out
reprinted.ksh	/lois/billing/bin	cd /arsinv/billingapps/LIprinting ./reprintLIdocs.sh $1 $2 $3 $4 $5 (java -Xmx512m com/livingston/print/RePrint $NBINV "$1" "$2" "$3" "$4" "$5")	logFile=/lois/billing/log/reprinted.log
alertprint.ksh	/lois/xlois.alertprint	Urgent: Billing process is too long	./alertprint.out
alertsockd.ksh	/lois/xlois.alertsockd	psList=$(ps -ef | grep "arssockd" | grep "UNKNOWN" | grep -v grep | awk '{ print $2 }') kill $psList	./alertsockd.out
migrateod.ksh	/lois/xlois.migrateod	cd /usr/lpp/ars/bin ./arsmaint -cdeimrsv	logFile=/lois/xlois.migrateod/log/migrateod.log
migrateod1.ksh	/lois/xlois.migrateod	cd /usr/lpp/ars/bin ./arsmaint -dei	logFile=/lois/xlois.migrateod/log/migrateod1.log
migrateod2.ksh	/lois/xlois.migrateod	cd /usr/lpp/ars/bin ./arsmaint -cmrsv	logFile=/lois/xlois.migrateod2/log/migrateod1.log
Readme	/lois/xlois.tsmdrm/tsmcutover	Extract the drp file: 1. cd /lois/xlois.tsmdrm/tsmcutover 2. awk -f ./planexp.awk ./plan.xxx	
ATTSG3VB_aixperf.sh	/lois/billing/IBMPMR	MustGather: Performance, Hang or High CPU Issues on AIX	./aixperf_RESULTS.tar.gz

Hostname	Script Name	Discription	Log
IHS01	startihs01.ksh	Start IBM HTTPServer & ADMIN Server	logFile=/lois/ihs01/bin/startihs01.log
	stopihs01.ksh	Stop IBM HTTPServer & ADMIN Server	logFile=/lois/ihs01/bin/stopihs01.log
	startnmon.ksh	Start NMON program	
	tsmclient.ksh	Start tsm client agent	
	emptylogs84.ksh	Remove IBM HTTPServer logs	
	ihs01.ksh	Collect IHS01 system config information	
	clean.ksh	Remove IBM HTTPServer access_log and error_log	
	en.drslot.sh	Config ent devices	
	fc.drslot.sh	Config fcs devices	
IHS02	startihs02.ksh	Start IBM HTTPServer & ADMIN Server	logFile=/lois/ihs02/bin/startihs02.log
	stopihs02.ksh	Stop IBM HTTPServer & ADMIN Server	logFile=/lois/ihs02/bin/stopihs02.log
	startnmon.ksh	Start NMON program	
	tsmclient.ksh	Start tsm client agent	
	emptylogs84.ksh	Remove IBM HTTPServer logs	
	ihs01.ksh	Collect system config information	
	clean.ksh	Remove IBM HTTPServer access_log and error_log	
	en.drslot.sh	Config ent devices	
	fc.drslot.sh	Config fcs devices	
WES01	startwes01.ksh	Start IBM Edge Server	logFile=/lois/wes01/bin/startwes01.log
	stopwes01.ksh	Stop IBM Edge Server	logFile=/lois/wes01/bin/stopwes01.log
	tsmclient.ksh	Start tsm client agent	
	emptylogs84.ksh	Remove IBM Edge Server logs	
	wes01.ksh	Collect wes01 system config information	
	startnmon.ksh	Start NMON program	
	clean.ksh	Remove IBM Edge Server access_log and error_log	
	en.drslot.sh	Config ent devices	
	fc.drslot.sh	Config fcs devices	
WES02	startwes02.ksh	Start IBM Edge Server	logFile=/lois/wes02/bin/startwes02.log

	stopwes02.ksh	Stop IBM Edge Server	logFile=/lois/wes02/bin/stopwes02.log
	tsmclient.ksh	Start tsm client agent	
	emptylogs84.ksh	Remove IBM Edge Server logs	
	wes02.ksh	Collect wes02 system config information	
	startnmon.ksh	Start NMON program	
	clean.ksh	Remove IBM Edge Server access_log and error_log	
	en.drslot.sh	Config ent devices	
	fc.drslot.sh	Config fcs devices	
WAS01	startwas01.ksh	Start DB2INST1+DM+ICMRM+eClient node + icmrm01/eclientibm01/02 Server	logFile=/lois/was01/bin/startwas01.log
	stopwas02.ksh	Stop DB2INST1+DM+ICMRM+eClient node + icmrm01/eclientibm01/02 Server	logFile=/lois/was01/bin/stopwas01.log
	clusteribm_start.ksh	Use the wsadmin to start application servers	
	clusteribm_stop.ksh	Use the wsadmin to stop application servers	
	clusteribm_recycle.ksh	Stop and Start clusteribm	logFile=/lois/was01/bin/clusteribm_recycle.out
	setprocenv.sh	Set environment variables for /etc/rc.cmrmproc	
	startnmon.ksh	Start NMON program	
	tsmclient.ksh	Start tsm client agent for node was01/was01ha	
	alertfs	Check /lbosdata02 95% full	
	drslot.sh	Config fcs devices	
	emptylogs84.ksh	Remove IBM WebSphere AppServer/ibmcmadm logs	
	was01.ksh	Collect was01 system config information	
	clean.ksh	Remove ibmcmadm tsm01_svc and email tmp files	
	db2cfg.ksh	Get DB2 database manager & database SIBDB configuration information	
	rbind.ksh	Rebind all invalid packages in database SIBDB	
WAS02	startwas02.ksh	Start ICMRM/eClient node & icmrm02/eclientibm03 Server	logFile=/lois/was02/bin/startwas02.log
	stopwas02.ksh	Stop icmrm02/eclientibm03 Server & ICMRM/eClient node	logFile=/lois/was02/bin/stopwas02.log
	setprocenv.sh	Set environment variables for /etc/rc.cmrmproc	
	startnmon.ksh	Start NMON program	
	tsmclient.ksh	Start tsm client agent for node was02/was02ha	

	alertfs	Check /lbosdata13 95% full	
	drslot.sh	Config fcs devices	
	emptylogs84.ksh	Remove IBM WebSphere AppServer logs	
	was02.ksh	Collect was02 system config information	
	clean.ksh	Remove ibmcmadm tsm01_svc and email tmp files	
	db2cfg.ksh	Get DB2 database manager configuration information	
ICM01	starticm01.ksh	Start DB2INST1+ LSDEAMON	logFile=/lois/icm01/bin/starticm01.log
	stopicm01.ksh	Stop DB2INST1+ LSDEAMON	logFile=/lois/icm01/bin/stopicm01.log
	startnmon.ksh	Start NMON program	
	tsmclient.ksh	Start tsm client agent for node icm01/icm01ha	
	emptylogs.ksh	Remove /tmp icmserver.log & ./db2dump logs	
	drslot.sh	Config fcs devices	
	icm01.ksh	Collect icm01 system config information	
	clean.ksh	Remove /tmp icmserver.log & db2dump logs	
	recovebkup.ksh	Query icmnlsdb backup images and logs from TSM	
	deletebkup.ksh	Delete icmnlsdb backup images and logs from TSM	
	bp.ksh	Alter bufferpool icmlsmainbp32 to 33000	
	clvs.ksh	Create Index on ICMUT01021001/3001/9001	
	index.ksh	Create Indexes	
	z3.ksh	Create index on ICMSTCHECKEDOUT/00206001	
	ddl.ksh	Extracts DDL statements to reproduce the database objects for icmnlsdb	
	stt.ksh	Generates the UPDATE statements that are required to replicate the statistics	
	eventmon.ksh	Create event monitor evm1 for database, statements, deadlocks	eventmon.out
	lsreorgchk.ksh	Calculates statistics on the database icmnlsdb	lsreorgchk.log
	lsreorg.ksh	Reorganizes a table or an index for better performance	
	snapshot.ksh	Get a summary of system status	/admin/db2mgmt/snapshot/tmp
	lslog.ksh	Update DB icmnlsdb newlogpath	

	lsstats.ksh	Runstats on DB icmnlsdb	lsstats.out
	xtabsys.ksh	Reorganizes sys table or an index for better performance	xtabsys.log
	xtabusr.ksh	Reorganizes user table or an index for better performance	xtabusr.log
	icm01.db2ls.ksh	Query icmnlsdb backup images and logs from TSM	icm01.db2ls.out
	db2backup.ksh	Backup icmnlsdb online use TSM	logErrFile=/tsmha01/tsmdb2ls/trc/db2backup.err
	alertDog.ksh	monitor the errpt message	opsmgr/log/monitorLog/alertDog.log
	cleanup.ksh	Cleanup system operation logs	cleanup.out
	deltsmdb2.ksh	Delete backup image of icmnlsdb/rmdb/archive/usrqry database in TSM	deltsmdb2.out
	emailDog.ksh	email Imaging Server Morning Readiness Anouncement	msgLog=/opsmgr/log/monitorLog/emailDog.log
	sysbkup.ksh	system backup using mksysb	/opsmgr/log/sysbkupLog
	watchDog.ksh	monitor the Imaging Server environments	msgLog=/opsmgr/log/monitorLog/watchDog.log
	planexp.awk	extract the TSM drp file	
	backupdb2.ksh	Backup icmnlsdb/rmdb/archive/usrqry/toolsdb/testdb01 online use TSM	logFile=/usr/local/backupdb/log/backupdb.log
	billing01.ksh	# call CLVSindexUpload.sh script # call loadLIdocs.sh script # call printEndOfDay.sh script # call loadBillingRules.sh script # call updateIndex.sh script # call printLIdocs1.sh script	logFile=/usr/local/billing/log/billing01.log
	billing02.ksh	# call loadLIdocs.sh script # call printLIdocs1.sh script	logFile=/usr/local/billing/log/billing02.log
	billing03.ksh	# call loadLIdocs.sh script	logFile=/usr/local/billing/log/billing03.log
	billprt1.ksh	# call printLIdocs.sh script	logFile=/usr/local/billing/log/billprt1.log

	billprt2.ksh	# call printLIdocs.sh Y script	logFile=/usr/local/billing/log/billprt2.log
	endofday.ksh	# call printEndOfDay.sh script	logFile=/usr/local/billing/log/endofday.log
	oneshot.sh.ksh	# call OneShotUpdateStatus.sh script	logFile=/usr/local/billing/log/oneshot.log
	billingstartnow.ksh	HACMP startup script for the billing application	logFile=/usr/local/hacmp/billingstartnow83.log
	billingstopnow.ksh	HACMP shutdown script for the billing application	logFile=/usr/local/hacmp/billingstopnow83.log
	imagingstartnow.ksh	HACMP startup script for the imaging application	logFile=/usr/local/hacmp/imagingstartnow83.log
	imagingstopnow.ksh	HACMP shutdown script for the imaging application	logFile=/usr/local/hacmp/imagingstopnow83.log
ICM02	starticm02.ksh	Start DB2INST2	logFile=/lois/icm01/bin/starticm01.log
	stopicm02.ksh	Stop DB2INST2	logFile=/lois/icm01/bin/stopicm01.log
	startnmon.ksh	Start NMON program	
	tsmclient.ksh	Start tsm client agent for node icm02/icm02ha	
	emptylogs.ksh	Remove /tmp icmserver.log & ./db2dump logs	
	drslot.sh	Config fcs devices	
	icm02.ksh	Collect icm02 system config information	
	clean.ksh	Remove db2dump logs	
	recovebkup.ksh	Query rmdb backup images and logs from TSM	
	deletebkup.ksh	Delete rmdb backup images and logs from TSM	
	select_rmvolumes.ksh	Select information from rmadmin.rmvolumes	
	update_rmvolumes.ksh	Update rmvolumes VOL_LOGICALNAME with VOL_VOLUMEID	
	db2cfg.ksh	Get db manager and db rmdb configure parameters	
	rmbp.ksh	Alter bufferpool ibmdefaultbp/smspool to 33000	
	ddl.ksh	Extracts DDL statements to reproduce the database objects for rmdb	
	stt.ksh	Generates the UPDATE statements that are required to replicate the statistics	
	eventmon.ksh	Create event monitor evm1 for database, statements, deadlocks	eventmon.out
	rmreorgchk.ksh	Calculates statistics on the database rmdb	rmreorgchk.log
	rmreorg.ksh	Reorganizes a table or an index for better performance	
	snapshot.ksh	Get a summary of system status	/admin/db2mgmt/snapshot/tmp
	rmlog.ksh	Update DB rmdb newlogpath	

	rmstats.ksh	Runstats on DB rmdb	rmstats.out
	xtabsys.ksh	Reorganizes sys table or an index for better performance	xtabsys.log
	xtabusr.ksh	Reorganizes user table or an index for better performance	xtabusr.log
	icm02.db2rm.ksh	Query rmdb backup images and logs from TSM	icm02.db2rm.out
	db2backup.ksh	Backup icmnlsdb online use TSM	
	alertDog.ksh	monitor the errpt message	opsmgr/log/monitorLog/alertDog.log
	cleanup.ksh	Cleanup system operation logs	cleanup.out
	deltsmdb2.ksh	Delete backup image of icmnlsdb/rmdb/archive/usrqry database in TSM	deltsmdb2.out
	emailDog.ksh	email Imaging Server Morning Readiness Anouncement	msgLog=/opsmgr/log/monitorLog/emailDog.log
	sysbkup.ksh	system backup using mksysb	/opsmgr/log/sysbkupLog
	watchDog.ksh	monitor the Imaging Server environments	msgLog=/opsmgr/log/monitorLog/watchDog.log
	planexp.awk	extract the TSM drp file	
	backupdb2.ksh	Backup icmnlsdb/rmdb/archive/usrqry/toolsdb/testdb01 online use TSM	logFile=/usr/local/backupdb/log/backupdb.log
	db2del02.ksh	Delete database rmdb backup image from TSM	/opsmgr/drm/aix/db2del02.out
TSM01	starttsm01.ksh	Start TSM Server + DB2INST1 + ARSDB + ARSSOCKD	logFile=/lois/tsm01/bin/starttsm01.log
	stoptsm01.ksh	Stop ARSSOCKD + ARSDB + DB2INST1 + TSM Server	logFile=/lois/tsm01/bin/stoptsm01.log
	tsmclient.ksh	Start tsm client agent for node tsm01/tsm01ha	
	emptylogs.ksh	Remove /tmp icmserver.log & ./db2dump logs	
	drslot.sh	Config fcs devices	
	tsm01.ksh	Collect tsm01 system config information	
	billing00.ksh	# call CLVSindexUpload.sh script # call printEndOfDay.sh script # call loadBillingRules.sh script # call updateIndex.sh script	logFile=/lois/billing/log/billing00.log
	billing01.ksh	# call loadLIdocs.sh script # call printLIdocs1.01.sh script	logFile=/lois/billing/log/billing01.log
	billing02.ksh	# call loadLIdocs.sh script # call printLIdocs1.02.sh Y script	logFile=/lois/billing/log/billing02.log
	billing03.ksh	# call loadLIB3docs.sh	logFile=/lois/billing/log/billing03.log

	billing04.ksh	# call updateIndex.sh	logFile=/lois/billing/log/billing04.log
	billing05.ksh	# call docConvert.sh	logFile=/lois/billing/log/billing05.log
	delteimg.ksh	Delete /arstmp/in/print/I*	
	ftpextpdf.ksh	java -Xmx512m com.livingston.extract.PDFExtract java -Xmx512m com.livingston.extract.LateImageExtract java -Xmx512m ProcessFTPtoClient > unhandled_excps.out	logFile=/lois/billing/log/ftpextpdf.log
	replayindx.ksh	# call updateIndex.sh	logFile=/lois/billing/log/replayidx.log
	reprinted.ksh	# call reprintLIdocs.sh	logFile=/lois/billing/log/reprinted.log
	clean.ksh	clean /home/db2inst1/sqllib/db2dump/db2diag.log & db2inst1.nfy clean /arstmp/in/print/P*.afp clean /arstmp/in/print/back/P*.bak clean /arstmp/in/backup/20* * ./in/backup/20*	
	recovebkup.ksh	Query db archive backup images and logs from TSM	
	deletebkup.ksh	Delete db archive backup images and logs from TSM	
	db2cfg.ksh	Get db manager and db toolsdb+archive configure parameters	
	rmbp.ksh	Alter bufferpool ibmdefaultbp/smspool to 33000	
	ddl.ksh	Extracts DDL statements to reproduce the database objects for archive	
	stt.ksh	Generates the UPDATE statements that are required to replicate the statistics	
	odreorgchk.ksh	Reorganizes od tables or indexes for better performance	
	odreorg.ksh	Reorganizes ROOT own table for better performance	
	db2snapshot.ksh	Get a summary of system status	/admin/db2mgmt/snapshot/tmp
	odlog.ksh	Update DB archive newlogpath	
	odstats.ksh	Runstats on DB archive	rmstats.out
	xtabsys.ksh	Reorganizes sys table or an index for better performance	xtabsys.log
	xtabusr.ksh	Reorganizes user table or an index for better performance	xtabusr.log
	tsm01.db2od.ksh	Query archive backup images and logs from TSM	icm02.db2rm.out
	db2backup.ksh	Backup archive online use TSM	
	alertDog.ksh	monitor the errpt message	opsmgr/log/monitorLog/alertDog.log

	cleanup.ksh	Cleanup system operation logs	cleanup.out
	deltsmdb2.ksh	Delete backup image of icmnlsdb/rmdb/archive/usrqry database in TSM	deltsmdb2.out
	emailDog.ksh	email Imaging Server Morning Readiness Anouncement	msgLog=/opsmgr/log/monitorLog/emailDog.log
	sysbkup.ksh	system backup using mksysb	/opsmgr/log/sysbkupLog
	watchDog.ksh	monitor the Imaging Server environments	msgLog=/opsmgr/log/monitorLog/watchDog.log
	planexp.awk	extract the TSM drp file	
	alertprint.ksh	Warning too long print process list	
	alertsockd.ksh	Kill unknown arssockd	
	p8ftp.ksh	ftp local /admin/printDR/tmp/* to 192.168.147.99.21	
	migrateod.ksh	# call arsmaint -cdeimrsv	logFile=/lois/xlois.migrateod/log/migrateod.log
	migrateod1.ksh	# call arsmaint -dei	
	migrateod2.ksh	# call arsmaint -cmrsv	
	tsmtape.ksh	TSM tape Library (tapes) management	logpath=/home/tsmopr/logs/logs
NIM02			
	tsmclient.ksh	Start tsm client agent for node nim02	
	bkupall.ksh	mksysb for all lois systems to /nim/mksysb_images	
	listall.ksh	list nim environment	
IPM02	startipm02.ksh	start DB2INST2	logFile=/lois/ipm02/bin/startipm02.log
	stopipm02.ksh	stop DB2INST2	logFile=/lois/ipm02/bin/stopipm02.log
	tsmclient.ksh	Start tsm client agent for node ipm02/ipm02ha	
	emptylogs.ksh	Remove db2dump logs	
	drslot.sh	Config fcs devices	
	ipm02.ksh	Collect ipm02 system config information	
	clean.ksh	Remove db2dump logs	
	recovebkup.ksh	Query db usrqry backup images and logs from TSM	
	deletebkup.ksh	Delete db usrqry backup images and logs from TSM	
	billpdf/	Create Table ICMADMIN.INVEXTRACT, LATEIMAGEDOC, LATEDOC	
	ftpinv/	Create Table DB2INST2.FTP_CLIENT	

	printfileb2/	ALTER TABLE ICMADMIN.BILLINGRULES,INVOICES,TMPINVOICES,TMPB3INVOICESINVBACKUP	
	printfilep5/	CREATE TABLE ICMADMIN.CUSTSUMMARY5	
	printfilep6/	CREATE TABLE ICMADMIN.CUSTSUMMARY6	
	printfilep78/	CREATE TABLE ICMADMIN.CUSTSUMMARY7,8	
	reprint/	CREATE TABLE ICMADMIN.REPRINTFILE,REPRINTCUSTSUMMARY,TEMPREPRINTREPORT	
	uscustom/	CREATE TABLE DB2INST2.USCUSTOMPORTS_TABLE	
	uqreorgchk.ksh	Reorganizes usrqry tables or indexes for better performance	
	uqreorg.ksh	Reorganizes ICMADMIN own table for better performance	
	db2snapshot.ksh	Get a summary of system status	/admin/db2mgmt/snapshot/tmp
	uqlog.ksh	Update DB usrqry newlogpath	
	uqstats.ksh	Runstats on DB usrqry	rmstats.out
	xtabsys.ksh	Reorganizes sys table or an index for better performance	xtabsys.log
	xtabusr.ksh	Reorganizes user table or an index for better performance	xtabusr.log