

# AS3000 Upgrade Tasks Summary—IMPAX 6.2 or later to IMPAX 6.5.1

## Running the Cross-Cluster Dictation Interlock tool

1. On the 6.5.1 Application Server where the Relay service is running, open a command prompt.
2. Type the following command:  
**net start StudyStatusRelayService**
3. Exit the command prompt.

## Taking a pre-migration system snapshot

1. Log in as mvf.
2. In a terminal window, change to the directory containing the migration\_inventory tool.
3. Type  
**./migration\_inventory -s -d  
database\_name -U  
database\_user\_name -P  
database\_password -D  
Database\_Server\_host\_name**
4. To create a report file with this information, type  
**./mig-reporter -t  
system\_inventory\_tool**

## Stopping Connectivity Manager queues

1. In the Connectivity Manager, open **Service Tools** and click **Queue Manager**.
2. In the Queue List table, select the checkbox beside each queue belonging to a device with a DM Out or impax\_report\_server component.
3. Click **Stop**.

## Updating study status between servers

1. Log in as oracle user on the production Database Server, log into sqlplus as **dbadmin** and type  
**create public database link travel  
connect to dbadmin identified by  
admin\_password using  
'traveling\_server\_name';**
2. In a text editor such as vi, edit the /var/opt/oracle/tnsnames.ora file to add the traveling server.
3. Perform the report status update by typing the following into sqlplus:  
**declare  
the\_counter number := 0;  
cursor study\_cursor is  
select t.study\_ref, s.status from  
dosr\_study s, dosr\_study@travel t  
where s.patient\_id = t.patient\_id and  
s.accession\_number =  
t.accession\_number  
and s.status <> t.status;  
begin  
for study\_record in study\_cursor LOOP  
update dbadmin.dosr\_study@travel set  
status = study\_record.status where  
study\_ref = study\_record.study\_ref;  
the\_counter := the\_counter + 1;  
if mod (the\_counter, 100) = 0 then  
commit;  
end if;  
end loop;  
commit;**

end;




/

4. Drop the link to the traveling server database by typing the following in sqlplus:  
**drop public database link travel;**


## Redirecting studies to the traveling server




Configure the modalities to redirect studies to traveling server, so that they remain accessible while the migration continues. How studies are redirected is modality-specific and is not documented in this publication.

## Verifying unverified studies

1. In the 6.2 or later Administration Tools, on the Daily tab, click **Study Manager**. 
2. From the location list, select **Failed Verification**.
3. Set other search criteria to **Any** value.
4. Click **Refresh**. 
5. In the search results, select all studies.
6. To fix up the studies that have failed HIS verification, click **Fix All Studies**. 
7. Review the results presented in the dialog.

## Storing unarchived studies

1. In the 6.2 or later Administration Tools, on the Daily tab, click **Study Manager**. 
2. From the location list, select **Cached** (or another value that will return the unarchived studies).
3. Set other search criteria to **Any** value (or set to appropriate values).

4. Click **Refresh**. 
5. In the search results, select the studies to archive.
6. Click **Store to Archive**. 
7. To update the status of the selected studies, click **Refresh**. 
8. Ensure that all studies are archived.

### Stopping SMMS server alerts

1. On the SMMS server, double-click the **Disable GSC Notifications** icon.
2. Open the **C:\agfa\config\emailcmd.cfg** file for editing.
3. Change the line `enabled = 'true'` to `enabled = 'false'`.
4. Save the file and close it.

### Dropping Heartlab triggers

1. On the Database Server, log in as oracle user and using SQLPLUS, log in as user **dbadmin**.
2. Type the following:
 

```
SQLPLUS> drop trigger
TRG_DOSR_STUDY_UPD;

SQLPLUS> drop trigger
TRG_DOSR_SERIES_UPD;



SQLPLUS> drop trigger
TRG_DOSR_OBJECT_UPD;

SQLPLUS> exit;
```

### Stopping antivirus software

1. On a Windows server to upgrade, launch the antivirus software.
2. Halt the scan operation according to the vendor's instructions.

### Stopping all queues

1. Launch the Administration Tools and log in as the **administrator** user.
2. On the Daily tab, select **Job Manager**. 
3. Select **All Queues**.
4. Click **Halt Queue**. 

### Stopping services on the Application Servers

1. On an Application Server, open the Windows Administrative Tools and select **Services**.
2. In the list of services, highlight the **World Wide Web Publishing Service**.
3. Click **Stop**.
4. Repeat steps 2 and 3 for the following services:
  - a. **IMPAX Distributed License Manager**
  - b. **IMPAX Messaging Service**
  - c. **IMPAX App Server Data Manager**
  - d. **IMPAX Audit Event Log Manager**
  - e. **IMPAX Dicom Object Sender**
  - f. **AGFA HealthCare Service**

### Stopping IMPAX services on AS300 servers

1. On an AS300 server, in Windows Explorer, navigate to **C:\mvf\bin**.
2. Double-click **stopall.bat**.
3. Double-click **removeall.bat**.

### Stopping IMPAX on AS3000 servers

1. Log into the AS3000 server as the **root** user.
2. To stop IMPAX, type **stop\_impax**
3. Then type

### **disable\_impax**

### Disabling IMPAX crontab entries

1. Log into the Database Server as the **mvf** user.
2. To open the crontab file, type **crontab -e**.
3. Check the file carefully for any entries related to IMPAX.
4. Comment out any IMPAX entries that you find.
5. Save and close the file.

### Checking for the CLUI and ISQL processes

1. Log into the Database Server as the **mvf** user.
2. Type **psg clui**  
**psg isql**
3. If processes are running, record the PID number from the returned header.

### Stopping the CLUI and ISQL processes

1. Log into the Database Server as the **mvf** user.
2. Type **kill -9 PID\_number**

### Ensuring that the CLUI and ISQL processes are stopped

1. Log into the Database Server as the **mvf** user.
2. Type **psg clui**  
**psg isql**
3. Ensure that nothing is returned.

## Shutting down the Database Server

1. Log into the Database Server as the **mvf** user.  
or  
When restaging a Database Server already running Oracle 10.2.0.4.2, log in as the **oracle** user.
2. To shut down the database, type  
**dbshutmvf**
3. To shut down the listener, type  
**lsnrctl stop**
4. To confirm that all IMPAX and Oracle processes have stopped, type  
**psg mvf**  
**psg ora**  
**psg tns**
5. Verify that, in each of these cases, nothing is returned.

## Storing a cold backup of the database and other Oracle configuration files

1. If using a NFS share to store the backup, start the NFS service on the server where the backup files will be stored.  
On Solaris 10, type  
**su -**  
**svcadm -v enable -r network/nfs/server**  
or  
On Solaris 9, type  
**su -**  
**cd /etc/rc3.d**  
**./s15nfs.server start**
2. To share the directory that the IMPAX server will be writing to use a Unix text editor such as vi. For example, type

**su -**

**vi /etc/dfs/dfstab**

3. Add the following line  
**share -F nfs -o rw,anon=0**  
**path\_to\_backup\_location\_directory**
4. Save and close the file.
5. On the IMPAX server, mount the share as the **root** user. For example, type  
**mkdir /backup\_location**  
**mount -o rw,bg,hard,rsize=32768,**  
**wsize=32768,vers=3,forcedirectio,nointr,**  
**suid server\_containing\_backup:**  
**absolute\_path\_to\_backup\_location\_directory**  
**/backup\_location**
6. As the **root** user, copy each appropriate file listed to the backup location.

## Removing System DSN entries for Oracle ODBC drivers

1. On the AS300 server or the Application Server, open the Windows Administrative Tools.
2. Select **Data Sources (ODBC)**.
3. Switch to the **System DSN** tab.
4. Select the **mvf** System Data Source.
5. Click **Remove**.
6. To confirm the removal, click **Yes**.
7. To save the changes and close the dialog, click **OK**.
8. On the Application Server, repeat the previous steps for the **mvf\_ora** System Data Source as well.

## Increasing the tablespace size on Solaris

1. Log into the Database Server as the **mvf** user.
2. Start the database by typing  
**dbstartmvf**

3. Start the listener. Type  
**lsnrctl start**
4. Change to the **/usr/mvf-mig6/bin** directory.
5. To see whether 2–3 GB of space is available for the MVFL tablespaces, type  
**/usr/mvf/bin/monitor\_update**  
**/usr/mvf/bin/monitor\_stats**
6. If additional space is needed, to run the monitor\_add script, type  
**/usr/mvf/bin/monitor\_add**
7. To continue, type **C**.
8. Type the tablespace name, **MVFL**.
9. Type the path name for the data file.
10. Type the size of the file in megabytes, **2000**.
11. Repeat these steps for the MVFLINDX, MVF, MVFINDX, and UNDO tablespaces, substituting the appropriate tablespace name each time.

## Upgrading to Oracle Server 10.2.0.4.2

1. Log into the Database Server as the **root** user.
2. If using a software repository that is not on the local machine, mount the repository.
3. Change to the **/usr/mvf-mig6/bin** directory.
4. Type **./upgrade-oracle**.
5. To confirm that the latest patches have been applied, type  
**\$ORACLE\_HOME/OPatch/opatch**  
**lsinventory**
6. Type the path of the Oracle 10.2.0.4.2 software repository.

7. Type **y** when prompted to upgrade Oracle Server and when prompted to remove the existing Oracle package.

8. If the following error message appears:

```
Unable to stop the cron process. Stop it manually as user root in /etc/init.d and execute ./cron stop before re-running this script.
```

Manually disable the cron process. As the **root** user, type

```
svcadm disable  
svc:/system/cron:default
```

9. Type the path for the Oracle Flashback location.
10. Type the Flashback location size.

### Upgrading the primary Data Guard server to 10.2.0.4.2

1. Log into the primary Database Server as the **root** user.
2. If using a software repository that is not on the local machine, mount the repository.
3. Change to the **/usr/mvf-mig6/bin** directory.
4. Type **./upgrade-oracle-dg**.
5. Type the path of the Oracle 10.2.0.4.2 software repository.
6. Confirm that you are upgrading the *Primary Database*.

### Upgrading the standby Data Guard server to 10.2.0.4.2

1. Log into the standby Database Server as the **root** user.
2. If using a software repository that is not on the local machine, mount the repository.
3. Change to the **/usr/mvf-mig6/bin** directory.
4. Type **./upgrade-oracle-dg**.

5. Type the path of the Oracle 10.2.0.4.2 software repository.
6. Confirm that you are upgrading the *Standby Database*.

### Upgrading the IMPAX 6.2 or later database data and schema to IMPAX 6.5.1

1. Log into the Database Server as the **oracle** user.
2. Start the listener by typing **lsnrctl start**
3. Change to the **/usr/mvf-mig6/bin** directory.
4. If upgrading from IMPAX 6.5, type **./database-upgrade-script**  
Otherwise, type **./database-upgrade-script -v {62 | 63 | 64}**
5. Verify that the *version\_number* returned is correct—for example, that it says **62** if upgrading from IMPAX 6.2. If so, press **Enter** to continue.  
If the version is not correct, type **q** and press **Enter**, then repeat step 4 with the correct version number specified.
6. When prompted for a report source, in most cases, type **UNKNOWN**. If using a queryable RIS and multiple Connectivity Managers, type the value used for the Connectivity Manager **issuer\_of\_\*** and **mcf\_bls\_report\_workflow domain\_id** fields.
7. Respond appropriately to other prompts that appear.

### Checking the upgrade status

1. On the Database Server, log in as the oracle user and open the log file **/usr/mvf-mig6/data/logs/migrate\_database\_to6.5.log**.

2. Ensure that *Migration Complete Successful* appears at the end of the log file.
3. If this message does not appear, something went wrong with the upgrade.
  - a. Review the rest of the log file to see where the upgrade failed.
  - b. Solve the problem.
  - c. Rerun the upgrade script.

### Upgrading the Oracle Data Guard package

1. Log into the primary Database Server as the **root** user.
2. Change to the IMPAX software repository directory.
3. To remove the existing package, type **pkgrm IMPAXoradg**.
4. Change to the **IMPAX\_R6.5.1-build\_number** directory.
5. Type **pkgadd -d . IMPAXoradg**.
6. To verify that the upgraded package was installed, type **pkginfo -l IMPAXoradg**.
7. Repeat all previous steps on the standby Database Server.

### Upgrading Solaris 10 AS3000 components to IMPAX 6.5.1

If upgrading IMPAX servers on Solaris 10, run the cluster upgrade process to upgrade the Database Server, AS3000 (Solaris) Network Gateways, and AS3000 (Solaris) Archive Servers to IMPAX 6.5.1. This applies to both single-host and dedicated Database Server configurations.

If you are replacing the existing Database Server with a new server, first back up the database files. After installing the IMPAX 6.5.1 server software on the new server, copy the backed-up database files from the previous release of IMPAX onto the new server.

## Installing Solaris 10 patches

1. Log into the Solaris support website using your maintenance agreement credentials.
2. Under Patches and Updates, select the **Solaris 10** patch set.
3. Review the Readme file associated with this patch set and make note of the password which is needed to run the installation script.
4. Download the patch file to a directory of your choice, such as the /agfa directory.
5. Log in as root and change to the directory containing the patch file. (Mount the location, if necessary.)
6. Unzip the patches. Type  
**unzip -q 10\_Recommended.zip**
7. Delete the 10\_Recommended.zip file. Type  
**rm 10\_Recommended.zip**
8. Change to the **10\_Recommended/** directory.
9. Switch to single-user mode by typing **init s** and providing the root password.
10. Run the patch installation script. Type  
**./installcluster password**
11. When the process is complete, reboot the server. Type  
**shutdown -y -i6 -g0**
12. When the server is restarted, in a browser, go to the Solaris support website again.
13. Under Patches and Updates, select the **J2SE Solaris 10** patch set.
14. Review the Readme file associated with this patch set.
15. Download the patch file to the same directory as the previous patch.
16. Change to the directory containing the patch file. (Mount the location, if necessary.)
17. Unzip the patches. Type

**unzip -q  
J2SE\_Solaris\_10\_Recommended.zip**

18. To delete the J2SE\_Solaris\_10\_Recommended.zip file, type  
**rm J2SE\_Solaris\_10\_Recommended.zip**
19. Change to the **J2SE\_Solaris\_10\_Recommended/** directory.
20. Switch to system administrator mode by typing **init s** and providing the root password.
21. Execute the patch installation script. Type  
**./install\_cluster**
22. When the patch installation is complete, reboot the server. Type  
**shutdown -y -i6 -g0**

## Upgrading a Solaris server to Oracle Client 10.2.0.4.0

1. On the server running the Oracle Client, log in as root user and change to the **/usr/mvf-mig6/bin** directory.
2. Type **./upgrade-oracle**
3. When prompted, type the path to the Oracle 10.2.0.4.0 software repository.
4. If the following error message appears:  
Unable to stop the cron process. Stop it manually as user root in /etc/init.d and execute ./cron stop before re-running this script.  
Manually disable the cron process. As the **root** user, type  
**svcadm disable  
svc:/system/cron:default**

## Verifying that Solaris patches are installed

1. Log in as the **root** user.
2. Change to the root directory.

3. Type  
**showrev -p**
4. Check whether the Sun\_rec\_patches\_installed file exists.
5. If the file does not exist, type the following command:  
**touch .Sun\_rec\_patches\_installed**

## Running the Trust Tool and cluster upgrade

1. On the Solaris 10 server hosting the repository:
  - a. Log in as user **root**.
  - b. Modify the /etc/ssh/sshd\_config file by setting the parameter PermitRootLogin to **yes**.
  - c. To restart the ssh daemon, type  
**svcadm restart ssh**.
2. On the repository machine, log in as user **root**.
3. Change to the **software\_repository\_path** directory.
4. Type  
**./trust\_tool**
5. Select option **a - Build File**  
**/var/tmp/mvftrust/hosts.cluster**.
6. Select option **q - Quit**.
7. In a text editor such as vi, edit the /var/tmp/mvftrust/hosts.cluster file and remove the names of any non-AS3000 server from the file (for example, names of Application Servers, AS300 Network Gateways, and so on).
8. Change to the **software\_repository\_path**  
.
9. Type  
**./trust\_tool**
10. Select option **b - Establish Trust Relation with Target Hosts**.

11. Provide the passwords (for the root user) requested by the script.
12. If you receive the error message `WARNING: POSSIBLE DNS SPOOFING DETECTED!` with several lines of text and `FAILED to generate keys on host: <host_name>` at the end:
  - a. Make a backup copy of the `/.ssh/known_hosts` file.
  - b. Open the `/.ssh/known_hosts` file in a `vi` or other text editor, go to the beginning of the line containing the `host_name` specified in the error message, delete the offending line, and save the file.
  - c. Run `./trust_tool` and select option **b** again.
13. Change to the `software_repository_path`.
14. Type `./trust_tool`
15. Select option **c - Check Trust Relation with Target Hosts**.
16. Copy the file `/var/tmp/mvftrust/hosts.cluster` to `/hosts.cluster`.
17. Ensure that the name of the software repository machine is on the list. If it is not, add it and save the file.
18. If you are logged in as the **oracle** user on any machines in the cluster (the machines are listed in the `hosts.cluster` file), log out now.
19. Change to the `software_repository_path`.
20. Type `./cluster_install upgrade`
21. At the prompt:
 

```
Is it OK to shutdown the entire
cluster at this time? [yes,no,?,q]
```

type **yes**.

22. At the prompt:

```
Is it OK to start up the entire
cluster at this time? [yes,no,?,q]
```

type **yes**.

23. For security, disallow the remote login as **root** on the repository machine and targets. On the repository machine and on each Solaris target machine:
  - a. Log in as user **root**.
  - b. Modify the `/etc/ssh/sshd_config` file by setting the parameter `PermitRootLogin` to **no**.
  - c. To restart the ssh daemon, type **svcadm restart ssh**.

### Testing the AS3000 Database Server upgrade

1. Log into the Database Server as the **oracle** or **service** user.
2. Change to the `/usr/mvf/bin` directory.
3. Type `ldd mvf-* | grep -i "file not found"`
4. Confirm that error messages such as `File not found` do not appear.
 

If any of the libraries are missing, contact Agfa support for emergency recovery processes.
5. Verify that CLUI works.

### Upgrading Solaris 9 AS3000 components to IMPAX 6.5.1

To complete the upgrade of IMPAX AS3000 stations on Solaris 9, including the Database Server and any Archive Servers or Network Gateways, the servers must be restaged with Solaris 10 and IMPAX 6.5.1.

Before the servers are restaged, the Database Server is shut down again and another cold backup of the database is performed.

After the restaging, the backup of the Oracle database is restored on the newly staged Database Server.

For Oracle Data Guard Database Servers, both the primary and standby servers must be restaged and have their backups restored.

### Shutting down the Database Server

1. Log into the Database Server as the **mvf** user.
 

or

When restaging a Database Server already running Oracle 10.2.0.4.2, log in as the **oracle** user.
2. To shut down the database, type **dbshutmvf**
3. To shut down the listener, type **lsnrctl stop**
4. To confirm that all IMPAX and Oracle processes have stopped, type **psg mvf** **psg ora** **psg tns**
5. Verify that, in each of these cases, nothing is returned.

### Storing a cold backup of the database and other Oracle configuration files

1. If using a NFS share to store the backup, start the NFS service on the server where the backup files will be stored.
 

On Solaris 10, type **su -** **svcadm -v enable -r network/nfs/server**

or

On Solaris 9, type

**su -**

**cd /etc/rc3.d**

**./s15nfs.server start**

2. To share the directory that the IMPAX server will be writing to use a Unix text editor such as vi. For example, type

**su -**

**vi /etc/dfs/dfstab**

3. Add the following line

**share -F nfs -o rw,anon=0  
path\_to\_backup\_location\_directory**

4. Save and close the file.

5. On the IMPAX server, mount the share as the **root** user. For example, type

**mkdir /backup\_location**

**mount -o rw,bg,hard,rsize=32768,  
wsize=32768,vers=3,forcedirectio,nointr,  
suid server\_containing\_backup:  
absolute\_path\_to\_backup\_location\_directory  
/backup\_location**

6. As the **root** user, copy each appropriate file listed to the backup location.

## Completing the restaging of the AS3000 stations

1. Install and configure the Database Server, restaging it with Solaris 10 and IMPAX 6.5.1.
2. Install and configure any other AS3000 servers, such as Archive Servers or Network Gateways.
3. Shut down the Database Server again, stopping all IMPAX and Oracle processes.
4. Restore the database by copying all the database files from the previous cold backup to the newly staged Database Server. (For Oracle Data Guard Database Servers, restore the backups on both the primary and the standby servers.)
5. Check and restart the database after restaging.

or

Check and restart the Oracle Data Guard servers.

## Copying the backed-up database files to a new or restaged IMPAX 6.5.1 server

1. On the new IMPAX 6.5.1 Database Server, stop all IMPAX processes. As the **root** user, type

**stop\_impax**

2. Stop all Oracle processes. As the **mvf** user or **oracle** user (if running IMPAX 6.4 or later), type

**lsnrctl stop listener**

**lsnrctl stop listener\_public** (for Oracle Data Guard server)

**dbshutmvf**

3. Log in as **root** and change to the **/dbase** directory.

4. To remove all the database files in the directory, type

**rm -f data1/\***

5. Repeat the previous step for any subdirectories. Be sure to delete only the files—leave the directory structure intact.

6. Restore every file from the backup location. If a backup is stored on a NFS share, first mount the share. As the **root** user, type

**mount -o rw,bg,hard,rsize=32768,  
wsize=32768,vers=3,forcedirectio,nointr,  
suid server\_containing\_backup:  
absolute\_path\_to\_backup\_location\_directory  
/backup\_location**

7. Ensure that all copied files are owned by the oracle user, with the exception of the cache directory, which must be owned by mvf:mitra. To change the ownership, log in as the **root** user, and type

**chown -R oracle:dba  
file\_or\_directory\_name**

## Checking and restarting the database after restaging

1. Confirm that all restored files have *oracle:dba* ownership.
2. Start the database and confirm that no errors appear.
3. Reboot the Database Server.

## Checking and restarting the database after restaging, for Oracle Data Guard

1. Start up Oracle on both the primary and standby Database Servers.
  - a. As the **oracle** user, type **sqlplus as / sysdba**
  - b. At the sql prompt, type **startup mount**
  - c. Confirm that there are no errors on the console.
2. Start the listener on both Database Servers.
  - a. On the primary server, as the **oracle** user, type  
**lsnrctl start listener**  
**lsnrctl start listener\_public**
  - b. On the standby server, as the **oracle** user, type  
**lsnrctl start listener**
  - c. After a few seconds, to list both the private and public listener processes, type  
**psg tns**
3. Check the Data Guard configuration.
  - a. On the primary server, as the **oracle** user, type  
**dgmgrl sys/stayout@mvf1**
  - b. At the DGMGRL prompt, type  
**show configuration**

- c. Confirm that SUCCESS is reported.
  - d. To quit, type **exit**.
4. Confirm that there are no problems with the standby archive logs. On the primary server, as the **oracle** user, type  
**check\_standby**
  5. Confirm that clui can connect to the database. On the primary server, as the **oracle** user, type  
**clui**
  6. To exit clui, type **exit**.
  7. Reboot both the primary and standby Database Servers.
  8. After the servers have rebooted, start the public listener on the primary server.

### Upgrading an IMPAX 6.5 AS3000 cluster to IMPAX 6.5.1

These tasks apply only when upgrading an AS3000 cluster already on IMPAX 6.5.

### Upgrading the IMPAX 6.2 or later database data and schema to IMPAX 6.5.1

1. Log into the Database Server as the **oracle** user.
2. Start the listener by typing  
**lsnrctl start**
3. Change to the **/usr/mvf-mig6/bin** directory.
4. If upgrading from IMPAX 6.5, type  
**./database-upgrade-script**  
Otherwise, type  
**./database-upgrade-script -v {62 | 63 | 64}**
5. Verify that the *version\_number* returned is correct—for example, that it says **62** if upgrading from IMPAX 6.2. If so, press **Enter** to continue.

If the version is not correct, type **q** and press **Enter**, then repeat step 4 with the correct version number specified.

6. When prompted for a report source, in most cases, type **UNKNOWN**. If using a queryable RIS and multiple Connectivity Managers, type the value used for the Connectivity Manager **issuer\_of\_\*** and **mcf\_bls\_report\_workflow\_domain\_id** fields.
7. Respond appropriately to other prompts that appear.

### Checking the upgrade status

1. On the Database Server, log in as the oracle user and open the log file **/usr/mvf-mig6/data/logs/migrate\_database\_to6.5.log**.
2. Ensure that `Migration Complete Successful` appears at the end of the log file.
3. If this message does not appear, something went wrong with the upgrade.
  - a. Review the rest of the log file to see where the upgrade failed.
  - b. Solve the problem.
  - c. Rerun the upgrade script.

### Upgrading the Oracle Data Guard package

1. Log into the primary Database Server as the **root** user.
2. Change to the IMPAX software repository directory.
3. To remove the existing package, type **pkgrm IMPAXoradg**.
4. Change to the **IMPAX\_R6.5.1-build\_number** directory.
5. Type **pkgadd -d . IMPAXoradg**.
6. To verify that the upgraded package was installed, type **pkginfo -l IMPAXoradg**.

7. Repeat all previous steps on the standby Database Server.

### Running the Trust Tool and cluster upgrade

1. On the Solaris 10 server hosting the repository:
  - a. Log in as user **root**.
  - b. Modify the `/etc/ssh/sshd_config` file by setting the parameter `PermitRootLogin` to **yes**.
  - c. To restart the ssh daemon, type **svcadm restart ssh**.
2. On the repository machine, log in as user **root**.
3. Change to the **software\_repository\_path** directory.
4. Type  
**./trust\_tool**
5. Select option **a - Build File**  
**/var/tmp/mvftrust/hosts.cluster**.
6. Select option **q - Quit**.
7. In a text editor such as vi, edit the `/var/tmp/mvftrust/hosts.cluster` file and remove the names of any non-AS3000 server from the file (for example, names of Application Servers, AS300 Network Gateways, and so on).
8. Change to the **software\_repository\_path**.
9. Type  
**./trust\_tool**
10. Select option **b - Establish Trust Relation with Target Hosts**.
11. Provide the passwords (for the root user) requested by the script.
12. If you receive the error message `WARNING: POSSIBLE DNS SPOOFING DETECTED!` with several lines of text and `FAILED to`

generate keys on host: <host\_name> at the end:

- a. Make a backup copy of the `/.ssh/known_hosts` file.
  - b. Open the `/.ssh/known_hosts` file in a vi or other text editor, go to the beginning of the line containing the `host_name` specified in the error message, delete the offending line, and save the file.
  - c. Run `./trust_tool` and select option **b** again.
13. Change to the `software_repository_path`.
  14. Type `./trust_tool`
  15. Select option **c - Check Trust Relation with Target Hosts**.
  16. Copy the file `/var/tmp/mvftrust/hosts.cluster` to `/hosts.cluster`.
  17. Ensure that the name of the software repository machine is on the list. If it is not, add it and save the file.
  18. If you are logged in as the **oracle** user on any machines in the cluster (the machines are listed in the `hosts.cluster` file), log out now.
  19. Change to the `software_repository_path`.
  20. Type `./cluster_install upgrade`
  21. At the prompt:  
Is it OK to shutdown the entire cluster at this time? [yes,no,?,q]  
type **yes**.
  22. At the prompt:  
Is it OK to start up the entire cluster at this time? [yes,no,?,q]

type **yes**.

23. For security, disallow the remote login as **root** on the repository machine and targets. On the repository machine and on each Solaris target machine:
  - a. Log in as user **root**.
  - b. Modify the `/etc/ssh/sshd_config` file by setting the parameter `PermitRootLogin` to **no**.
  - c. To restart the ssh daemon, type `svcadm restart ssh`.

### Testing the AS3000 Database Server upgrade

1. Log into the Database Server as the **oracle** or **service** user.
2. Change to the `/usr/mvf/bin` directory.
3. Type `ldd mvf-* | grep -i "file not found"`
4. Confirm that error messages such as `File not found` do not appear.  
If any of the libraries are missing, contact Agfa support for emergency recovery processes.
5. Verify that CLUI works.

### Updating `odbc.ini` after upgrading an AS3000 Network Gateway or Archive Server

1. On an AS3000 Network Gateway or Archive Server station, log in as the **root** user.
2. Change to the `/usr/mvf/odbc32v52` directory.
3. In a text editor, open the `odbc.ini` file.
4. In the `[MVF]` section, update the `AlternateServers` attribute (it may be initially blank) with the standby server name (a fully qualified domain name may be used). For example:
5. Save the file and close it.

6. Repeat the steps for any other AS3000 Network Gateway or Archive Server station.

### Migrating a cache volume from a flat to a hierarchical structure

1. At a command prompt on the system where the cache volume is local, type

`cache_migration.exe parameters` (Windows)

or

`cache-migration parameters` (Solaris, logged in as mvf user)

### Restarting SMMS server alerts

1. On the SMMS server, double-click the **Enable GSC Notifications** icon.
2. Open the file `C:\agfa\config\emailcmd.cfg` for editing.
3. Change the line `enabled = 'false'` to `enabled = 'true'`.
4. Save the file and close it.

### Re-enabling IMPAX crontab entries

1. Log into the Database Server as the **oracle** or **service** user.
2. To open the crontab file, type `crontab -e`.
3. Locate all entries related to IMPAX that have been commented out.
4. Remove the `#` marks to re-enable these entries.
5. Save and close the file.

### Re-enabling archive logging

1. Log into the Database Server as the **oracle** user.
2. Type the following commands:  
`mvf@os1spar: /usr/mvf$ sqlplus /nolog`  
`SQL> connect /as sysdba`  
`SQL> shutdown immediate`

```
SQL> startup mount exclusive
SQL> alter database archivelog;
SQL> alter database open;
SQL> archive log list;
SQL> exit;
```

## Performing a warm backup of the database

1. Log into the Database Server as the **oracle** user.
2. If backing up to tape, record the date on the tape jacket and insert the tape into the tape drive.
3. Change to the **/usr/mvf** directory.
4. To reconfigure the database, type  
**configure\_backup**
5. Type **runbackup**

## Generating the portable password file

1. Log into the AS3000 Database Server as the **root** user.
2. Change to the **/usr/mvf** directory.
3. To export the passkey for installing IMPAX on remote machines, type  
**./bin/passkey -M EXPORT -k temporary\_password**
4. To copy the portable password file from the Database Server to the target server, type  
**scp /usr/mvf/mvf.portable.psd service@target\_host\_name:/usr/mvf/mvf.portable.psd**
5. When you are finished copying the password file to the target servers, delete **/usr/mvf/mvf.portable.psd** from the Database Server.

## Installing the mvf license key on a Solaris server

1. Match up the correct license key with the machine's MAC address.
2. Change to the **/usr/mvf** directory.
3. Copy the license key file to the mvf directory on the hard drive.
4. Rename the license key file to:  
**mvf.lic**

## Installing the archive license key on a Solaris server

1. Match up the correct license key with the machine's MAC address.
2. Change to the **/usr/mvf** directory.
3. Copy the license key file to the mvf directory on the hard drive.
4. Rename the license key file to:  
**mvfarch.lic**

## Installing and starting Compressor

If lossy compression was not enabled when IMPAX was installed, and you want to enable it now, you must manually install and start the Compressor Scheduler package on the Database Server (or single-host server). For instructions, refer to "Installing Compressor Scheduler manually" (topic number 6969) in the *IMPAX 6.5.1 AS3000 Installation and Configuration Guide*.

The Compressor files are already installed on those systems with the IMPAXmvfc package (such as Network Gateways and Archives); however, Compressor is not actively running and must be manually started, if required. For instructions, refer to "Starting Compressor manually" (topic number 6925) in the *IMPAX 6.5.1 AS3000 Installation and Configuration Guide*.

## Upgrading Windows Server 2003 to Windows Server 2003 SP2

1. Connect to the network or computer where you want to create the distribution folder.
2. In the shared folder, create a distribution folder for the service pack.
3. Copy **WindowsServer2003-KB914961-SP2-XXX-LLL.exe** into the distribution folder.
4. Open a command prompt.
5. To extract the files, type the following:  
**WindowsServer2003-KB914961-SP2-XXX-LLL.exe /X:[distribution\_folder\_path]**
6. To install the service pack from a remote shared distribution folder, run **Update.exe**.
7. Follow the instructions in the Setup Wizard.
8. When the installation process is complete, restart the computer.

## Uninstalling the previous version of Oracle Client

1. Select **Start > All Programs > Oracle - ohome > Oracle Installation Products > Universal Installer**.
2. Click **Deinstall Products**.
3. In the Inventory dialog on the Contents tab, select the **OraClient10\_home1** checkbox, where *home1* can be any text.
4. Click **Remove**.
5. In the Confirmation dialog, to confirm the uninstall, click **Yes**.
6. After the uninstall is complete, to close the Universal Installer, click **Close**, then **Cancel**.
7. Open the Windows Administrative Tools and select **Services**.
8. Select the **Distributed Transaction Coordinator** service. If it started, click **Stop** to stop it.

9. From Windows Explorer, delete the **drive\_letter:\oracle** directory.
10. From Windows Explorer, delete the **C:\Program Files\Oracle** directory.
11. Run regedit and delete the **HKEY\_LOCAL\_MACHINE\SOFTWARE\ORACLE** key.
12. Restart the computer.

## Installing and configuring the Oracle 10g Client for Windows

1. Insert the IMPAX Oracle for Windows 32-bit DVD.
2. From the DVD drive, run **setup.bat**.
3. At the Install Oracle "client" or "server"? prompt, type **client**.
4. At the Hostname of the Oracle server [ ] ? prompt, type the correct host name of the IMPAX Database Server.
5. At the What machine is the repository host? [localhost] prompt, if it is the localhost, press **Enter**. Otherwise, specify the appropriate IP address.
6. At the Where is the software repository? prompt, if installing from the DVD drive on F, press **Enter**. Otherwise, type the DVD drive or software repository directory.
7. At the Where is the temporary work directory? [ C:\cygwin\temp ] ? prompt, click **Enter** to accept the default location. Otherwise, type the directory to use.
8. After the Oracle installation complete message appears, restart the server.

## Upgrading to the 10.2.0.4 version of the Oracle Client for Windows

1. Insert the Oracle on Windows 32-bit DVD.
2. Open a command prompt.
3. Change to the **C:\mvf-mig6\bin** directory.

4. Type **bash upgrade-oracle location\_of\_DVD\_drive\_or \_Oracle\_software\_repository**
5. When you see the message Ready to upgrade Oracle using repository Oracle software location. Do you want to proceed? [y/n], verify that the oracle software location is correct. If the location is correct, type **y** and press **Enter**.

## Setting up a connection to the Oracle database

1. If the Net Configuration Assistant is not open, select **Start > All Programs > Oracle - ohome > Configuration and Migration Tools > Net Configuration Assistant**.
2. In the Oracle Net Configuration Assistant Welcome dialog, select **Local Net Service Name configuration** and click **Next**.
3. If the Naming Methods Configuration dialog appears, select **Local Naming**. Click **Next**.
4. In the Net Service Name Configuration screen, select **Add**. Click **Next**.
5. In the Service Name field, type **MVF**. Click **Next**.
6. From the list of protocols, select **TCP**. Click **Next**.
7. In the TCP/IP dialog, type the hostname of the Oracle server.
8. Accept the default port number (1521). Click **Next**.
9. Select **Yes, perform a test**. Click **Next**.
10. Click **Change Login**.
11. In the Username field, type **mvf**, and type the password for the mvf user.
12. Click **OK**.
13. Click **Next**.
14. In the Net Service Name field, ensure that **MVF.world** appears. Click **Next**.

15. If you do not want to add a net service name for RIS, select **No**. Click **Next**.  
or

To add a net service name for RIS, at the prompt to configure another net service name, select **Yes**. Click **Next**. Then repeat all previous steps using a different service name (for example, qprod), as well as a different host name, login, and net service name (for example QPROD.WORLD).

16. In the Net Service Name Configuration Complete dialog, click **Next**.
17. In the Naming Methods Configuration Complete dialog, click **Next**.
18. To close the Net Configuration Assistant dialog, click **Finish**.

## Reconfiguring ODBC data source names

1. Open the Windows Administrative Tools.
2. Select **Data Sources (ODBC)**.
3. Switch to the **System DSN** tab.
4. Click **Add**.
5. In the Create New Data Source dialog, select **Oracle in Oracle\_instance\_name**
6. Click **Finish**.
7. In the Data Source Name field, type **mvf**.
8. Type a description, if needed.
9. In the TNS Service Name field, type **MVF.world**.
10. In the User Name field, type **mvf**.
11. To save the changes and close the dialog, click **OK**.
12. To save the new sources and exit the ODBC Data Source Administrator dialog, click **OK**.
13. If reconfiguring the Application Server, repeat the previous steps for the **mvf\_ora** DSN as well.

## Upgrading to Internet Explorer 7

1. Launch Internet Explorer on a computer connected to the Internet.
2. Go to  
**http://www.microsoft.com/windows/internet-explorer/ie7/**
3. From this page, you can either download Internet Explorer 7 or order it on CD.
4. Once you have obtained the software, run it on each server that needs upgrading.
5. To install the software, follow the on-screen prompts.

## Retrieving the portable password file from the target server

1. On the server (Application Server, Curator, Network Gateway, or Archive Server), open a command prompt.
2. Type  
**scp  
service@target\_host\_name:/usr/mvf/  
mvf.portable.psd  
/cygdrive/c/mvf.portable.psd**
3. Exit the command prompt.

## Recording the names of previously installed IMPAX AS300 software packages

1. On the IMPAX 6.4 or later server, open Control Panel.
2. Select **Add or Remove Programs**.
3. Select **AGFA IMPAX AS300** and click **Change**.
4. After the installer launches, click **Modify**.
5. Click **Next**.
6. Make note of the installed packages.

To record the names of previously installed IMPAX 6.2 or 6.3 AS300 software packages

1. On the IMPAX 6.2 or 6.3 Windows server to upgrade, select **Start > Run**.
2. In the Open field, type **regedit** and click **OK**.
3. In the Registry Editor, select **HKEY\_LOCAL\_MACHINE\SOFTWARE\Mitra Imaging Inc.** and **HKEY\_LOCAL\_MACHINE\SOFTWARE\Mitra** and make note of the installed packages.

## Uninstalling the previous IMPAX software packages

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **Agfa IMPAX 6.2 version**, **Agfa IMPAX 6.3 version**, or **Agfa IMPAX AS300** (used for IMPAX 6.4 and later).
4. Click **Change/Remove**.  
or  
For uninstalling IMPAX 6.4 and later, click **Remove**.
5. When prompted, type your name (minimum three characters). Click **Next**.
6. In the Confirmation dialog, click **OK** or **Yes**.
7. On the Maintenance Complete screen, click **Finish**.
8. Restart the server.

## Installing the IMPAX 6.5.1 AS300 Network Gateway and Archive Server packages

1. Insert the IMPAX AS300 DVD.
2. Navigate to D:\programs\mvf and double-click **as300-installer.exe**.
3. Type your name (minimum three characters).

4. On the Welcome screen, click **Next**.
5. On the Select features screen, all Default Packages are selected. Clear the checkboxes of any packages that should not be installed.
6. Clear the **Database Packages** checkbox.
7. For Archive Servers, select the **Archive Package** label. The MVFhsm is the only archive package listed and is selected by default. If not using an HSM archive, clear the **MVFhsm** checkbox; otherwise, keep it selected.  
For dedicated Network Gateway servers, clear the **Archive Packages** checkbox.
8. Select the **Optional Packages** label.
9. Select any optional packages that should be installed, and clear the other checkboxes.
10. Click **Next**.
11. If installing a Network Gateway or Archive Server/Network Gateway combination, browse to the location of the MVF license file and click **OK**.
12. If installing an Archive Server or Archive Server/Network Gateway combination, browse to the location of the MVF archive license file and click **OK**.
13. Browse to the location of the portable password file and click **OK**.
14. Type the temporary password used to create the portable password file and click **Next**.
15. On the Summary screen, click **Next**.
16. After all the packages have been installed, click **Yes, I want to restart my computer now**.

## Installing and configuring Store and Remember archiving

Some sites may want to have their studies mirrored at another site through PACS Store and Remember archiving. This mirroring protects against loss of data and allows studies from one PACS to be viewed at another. This can be

achieved effectively using the PACS Archive Provider (PAP).

For instruction on installing and configuring a PACS Archive Provider, refer to "Configuring a PACS Archive Provider (PAP)" (topic number 11586) in the *IMPAX 6.5.1 AS300 Installation and Configuration Guide*.

## Upgrading the Application Server from a previous version

Upgrade all Application Servers in the cluster to IMPAX 6.5.1.

## Upgrading the ADAM database

If you are upgrading a cluster to Windows Server 2008, you must replicate the ADAM database instance on a new Windows 2008 server, which uses the AD LDS database.

## Backing up the ADAM database

1. Select **Start > All Programs > Accessories > System Tools > Backup**.
2. Select **Tools > Options**.
3. Switch to the **Exclude Files** tab.
4. In the list of file names, select **C:\Program Files\Microsoft ADAM** and click **Remove**. Click **OK**.
5. When the Backup or Restore Wizard is displayed, clear the **Always start in Wizard mode** checkbox and click **Advanced Mode**.
6. On the Welcome screen, click **Backup Wizard**.
7. On the Backup Wizard screen, click **Next**.
8. On the What to Backup screen, select **Backup selected files, drives, or network data**. Click **Next**.
9. On the Items to Backup screen, select the folder containing the ADAM data as well as the **World Wide Web Publishing Service** folder. Click **Next**.

10. If backing up to a tape drive, under Backup media type, select the tape drive, and in the backup media area, click **New media**. Click **Next**.

or

If backing up to any other media type, select the location where the backup is to be saved, and type a name for the backup. Click **Next**.

11. On the Completing the Backup Wizard screen, click **Advanced**.
12. On the Type of Backup screen, select **Normal**. Click **Next**.
13. On the How to Backup screen, select **Verify data after backup and Use hardware compression if available**. Click **Next**.
14. On the Backup Options screen, select **Replace the existing backups**. Click **Next**.
15. On the When to Backup screen, select **Now**. Click **Finish**.
16. In the Backup Progress dialog, click **Close**.
17. Close the Backup Utility.

## Stopping services on the Application Servers

1. On an Application Server, open the Windows Administrative Tools and select **Services**.
2. In the list of services, highlight the **World Wide Web Publishing Service**.
3. Click **Stop**.
4. Repeat steps 2 and 3 for the following services:
  - a. **IMPAX Distributed License Manager**
  - b. **IMPAX Messaging Service**
  - c. **IMPAX App Server Data Manager**
  - d. **IMPAX Audit Event Log Manager**
  - e. **IMPAX Dicom Object Sender**
  - f. **AGFA HealthCare Service**

## Uninstalling IMPAX 6.2 documentation

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **IMPAX 6.2 Documentation**.
4. Click **Change/Remove**.
5. In the Confirmation dialog, click **OK**.
6. In the Maintenance Complete dialog, click **Finish**.
7. Under Currently installed programs, select **IMPAX Application Server Knowledge Base**.
8. Click **Change/Remove**.
9. In the Confirmation dialog, click **OK**.
10. In the Maintenance Complete dialog, click **Finish**.
11. Under Currently installed programs, select **Impax Client Knowledge Base**.
12. Click **Change/Remove**.
13. In the Confirmation dialog, click **OK**.
14. In the Maintenance Complete dialog, click **Finish**.
15. Under Currently installed programs, select **IMPAX Server Knowledge Base**.
16. Click **Change/Remove**.
17. In the Confirmation dialog, click **OK**.
18. In the Maintenance Complete dialog, click **Finish**.

## Uninstalling IMPAX 6.3 or later documentation

1. Open Control Panel.
2. In Windows 2008 Service Pack 2, select **Programs and Features**.
3. In the Programs and Features dialog, under Currently installed programs, select **AGFA**

### **IMPAX version Knowledge Base buildnumber Documentation.**

4. Click **Remove**.
5. In the confirmation dialog, click **OK**.
6. Close the Programs and Features dialog.

### **Uninstalling the IMPAX Installation Server**

1. Open Control Panel.
2. In Windows 2008 Service Pack 2, select **Programs and Features**.
3. Select **Agfa IMPAX Installation Server version\_number** where *version\_number* is the version of the installed Installation Server.
4. Right-click and select **Uninstall**.

### **Determining the version of the installed Oracle Client**

1. Open a command prompt.
2. Type  
**sqlplus -V**

### **Removing ODBC entries prior to uninstalling the Oracle Client**

1. Open the Windows Administrative Tools and select **Data Sources (ODBC)**.
2. In the ODBC Data Source Administrator screen, select the System DSN tab.
3. For each driver listed, select the associated name and click **Remove**.
4. Click **OK**.

### **Uninstalling the previous version of Oracle Client**

1. Select **Start > All Programs > Oracle - ohome > Oracle Installation Products > Universal Installer**.
2. Click **Deinstall Products**.

3. In the Inventory dialog on the Contents tab, select the **OraClient10\_home1** checkbox, where *home1* can be any text.
4. Click **Remove**.
5. In the Confirmation dialog, to confirm the uninstall, click **Yes**.
6. After the uninstall is complete, to close the Universal Installer, click **Close**, then **Cancel**.
7. Open the Windows Administrative Tools and select **Services**.
8. Select the **Distributed Transaction Coordinator** service. If it started, click **Stop** to stop it.
9. From Windows Explorer, delete the **drive\_letter:\oracle** directory.
10. From Windows Explorer, delete the **C:\Program Files\Oracle** directory.
11. Run regedit and delete the **HKEY\_LOCAL\_MACHINE\SOFTWARE\ORACLE** key.
12. Restart the computer.

### **Installing and configuring the Oracle 10g Client for Windows**

1. Insert the IMPAX Oracle for Windows 32-bit DVD.
2. From the DVD drive, run **setup.bat**.
3. At the Install Oracle "client" or "server"? prompt, type **client**.
4. At the Hostname of the Oracle server [ ] ? prompt, type the correct host name of the IMPAX Database Server.
5. At the What machine is the repository host? [localhost] prompt, if it is the localhost, press **Enter**. Otherwise, specify the appropriate IP address.
6. At the Where is the software repository? prompt, if installing from the DVD drive on F, press **Enter**. Otherwise,

type the DVD drive or software repository directory.

7. At the Where is the temporary work directory? [ C:\cygwin\temp ] ? prompt, click **Enter** to accept the default location. Otherwise, type the directory to use.
8. After the Oracle installation complete message appears, restart the server.

### **Setting up a connection to the Oracle database**

1. If the Net Configuration Assistant is not open, select **Start > All Programs > Oracle - ohome > Configuration and Migration Tools > Net Configuration Assistant**.
2. In the Oracle Net Configuration Assistant Welcome dialog, select **Local Net Service Name configuration** and click **Next**.
3. If the Naming Methods Configuration dialog appears, select **Local Naming**. Click **Next**.
4. In the Net Service Name Configuration screen, select **Add**. Click **Next**.
5. In the Service Name field, type **MVF**. Click **Next**.
6. From the list of protocols, select **TCP**. Click **Next**.
7. In the TCP/IP dialog, type the hostname of the Oracle server.
8. Accept the default port number (1521). Click **Next**.
9. Select **Yes, perform a test**. Click **Next**.
10. Click **Change Login**.
11. In the Username field, type **mvf**, and type the password for the mvf user.
12. Click **OK**.
13. Click **Next**.
14. In the Net Service Name field, ensure that **MVF.world** appears. Click **Next**.

15. If you do not want to add a net service name for RIS, select **No**. Click **Next**.

or

To add a net service name for RIS, at the prompt to configure another net service name, select **Yes**. Click **Next**. Then repeat all previous steps using a different service name (for example, qprod), as well as a different host name, login, and net service name (for example QPROD.WORLD).

16. In the Net Service Name Configuration Complete dialog, click **Next**.
17. In the Naming Methods Configuration Complete dialog, click **Next**.
18. To close the Net Configuration Assistant dialog, click **Finish**.

## Reconfiguring ODBC data source names

1. Open the Windows Administrative Tools.
2. Select **Data Sources (ODBC)**.
3. Switch to the **System DSN** tab.
4. Click **Add**.
5. In the Create New Data Source dialog, select **Oracle in Oracle\_instance\_name**
6. Click **Finish**.
7. In the Data Source Name field, type **mvf**.
8. Type a description, if needed.
9. In the TNS Service Name field, type **MVF.world**.
10. In the User Name field, type **mvf**.
11. To save the changes and close the dialog, click **OK**.
12. To save the new sources and exit the ODBC Data Source Administrator dialog, click **OK**.
13. If reconfiguring the Application Server, repeat the previous steps for the **mvf\_ora** DSN as well.

## Upgrading to the 10.2.0.4 version of the Oracle Client for Windows

1. Insert the Oracle on Windows 32-bit DVD.
2. Open a command prompt.
3. Change to the **C:\mvf-mig6\bin** directory.
4. Type **bash upgrade-oracle location\_of\_DVD\_drive\_or \_Oracle\_software\_repository**
5. When you see the message Ready to upgrade Oracle using repository Oracle software location. Do you want to proceed? [y/n], verify that the oracle software location is correct. If the location is correct, type **y** and press **Enter**.

## Upgrading the IMPAX Application Server software to 6.5.1

1. Insert the IMPAX Business Services CD.
2. Navigate to the CD ROM drive, which contains the Business Services software.
3. Run **AGFA IMPAX Business Services Setup.exe**.
4. Click **Install**.
5. On the Welcome screen, click **Next**.
6. On the license agreement screen, select **I accept the terms in the license agreement**. Click **Next**.
7. On the Web Services Installation Folder screen, click **Change**.
8. Set the path to the **wwwroot** directory so that it matches the pre-upgrade installation location. Click **OK**.
9. Click **Next**.
10. On the Setup Type screen, select **Custom**. Click **Next**.
11. If you have an IMPAX RIS to connect to, click **RIS Web Services** and select **This feature will be installed on local hard drive**.

12. If you are using SmartCard authentication, verify that **NHS SmartCard Web Services** is selected. If it is not selected, select it. Select **This feature will be installed on local hard drive**.
13. Click **Next**.
14. Click **Install**.
15. On the InstallShield Wizard Completed screen, select **Launch IMPAX Business Services Configuration tool**. Click **Finish**.
16. When the message Previous configuration found from version 6.X.X... appears, click **Yes**. This message is not displayed when upgrading from IMPAX 6.5 to IMPAX 6.5.1.
17. In the Configuration Tool, click **Apply**.
18. To close the Configuration Tool, click **OK**.

## Installing the IMPAX documentation

1. Insert the IMPAX Documentation DVD.
2. From the DVD root, double-click **IMPAXDocumentationSetup.exe**.
3. On the Welcome screen, click **Next**.
4. On the Setup Type screen, select the appropriate option and click **Next**.
5. If you selected Select Documentation to Install, on the Choose Features screen, you can select particular Knowledge Bases or languages to install.
6. On the Ready to Install the Program screen, click **Install**.
7. On the InstallShield Wizard Completed screen, click **Finish**.

## Running the IMPAX Installation Server package

1. From the IMPAX Client CD or a network location, run **IMPAXInstallationServerSetup.exe**.

2. On the Welcome to the InstallShield Wizard for IMPAX Installation Server screen, click **Next**.
3. To install the application into C:\Inetpub\wwwroot\ClientInstaller, on the Destination Folder screen, click **Next**.  
or  
To install the application to another location, click **Change**. In the Change Current Destination Folder dialog, browse for the directory location to install into and click **OK**. On the Destination Folder screen, click **Next**.
4. On the Ready to Install the Program screen, click **Install**.
5. On the Installation Wizard Completed screen, click **Finish**.
6. On the second Installation Wizard Completed screen, click **Finish**.

### Running Healthcheck from a URL to check the status of web services

1. Ensure that the Healthcheck web.config file has been configured to the site's needs.
2. On the Application Server, launch Internet Explorer.
3. In the address bar, if Healthcheck has not been configured to automatically log in, type **https://fully\_qualified\_domain\_name/AgfaHC.Healthcheck.Escrow**  
or  
**https://fully\_qualified\_domain\_name/AgfaHC.Healthcheck.Escrow/EscrowForm.aspx**
4. If Healthcheck has not been configured to automatically log in, type an IMPAX Administrator username and password, select the login domain, and click **Log in**.

5. To determine what the problem is for any web services with the status Failed, review the **Comments**.
6. To check the status of the web services again, in Internet Explorer, click **Refresh**.

### Upgrading additional Application Servers in the cluster

1. Upgrade the IMPAX Application Server software.
2. Verify the installation.

### Upgrading the AD LDS database from IMPAX 6.5 to IMPAX 6.5.1

Unlike previous versions of the IMPAX Application Server, the AD LDS database must be migrated when upgrading from IMPAX 6.5 to 6.5.1. The migration is performed automatically during the software upgrade.

### Creating a one-time backup of AD LDS

1. To open an elevated command prompt, click **Start**, right-click **Command Prompt** and select **Run as administrator**.
2. At the command prompt, type **dsdbutil**
3. At the dsdbutil prompt, type **activate instance AgfaHealthcare**
4. At the dsdbutil prompt, type **ifm**
5. At the ifm prompt, type **create full location**
6. At the ifm prompt, type **quit**  
At the dsdbutil prompt, type **quit**

### Stopping services on the Application Servers

1. On an Application Server, open the Windows Administrative Tools and select **Services**.
2. In the list of services, highlight the **World Wide Web Publishing Service**.
3. Click **Stop**.
4. Repeat steps 2 and 3 for the following services:
  - a. **IMPAX Distributed License Manager**
  - b. **IMPAX Messaging Service**
  - c. **IMPAX App Server Data Manager**
  - d. **IMPAX Audit Event Log Manager**
  - e. **IMPAX Dicom Object Sender**
  - f. **AGFA HealthCare Service**

### Uninstalling IMPAX 6.3 or later documentation

1. Open Control Panel.
2. In Windows 2008 Service Pack 2, select **Programs and Features**.
3. In the Programs and Features dialog, under Currently installed programs, select **AGFA IMPAX version Knowledge Base buildnumber Documentation**.
4. Click **Remove**.
5. In the confirmation dialog, click **OK**.
6. Close the Programs and Features dialog.

### Uninstalling the IMPAX Installation Server

1. Open Control Panel.
2. In Windows 2008 Service Pack 2, select **Programs and Features**.
3. Select **Agfa IMPAX Installation Server version\_number** where *version\_number* is the version of the installed Installation Server.

4. Right-click and select **Uninstall**.

## Upgrading the IMPAX Application Server software to 6.5.1

1. Insert the IMPAX Business Services CD.
2. Navigate to the CD ROM drive, which contains the Business Services software.
3. Click **Install**.
4. On the Welcome screen, click **Next**.
5. On the license agreement screen, select **I accept the terms in the license agreement**. Click **Next**.
6. On the Web Services Installation Folder screen, click **Change**.
7. Set the path to the **wwwroot** directory so that it matches the pre-upgrade installation location. Click **OK**.
8. Click **Next**.
9. On the Setup Type screen, select **Custom**. Click **Next**.
10. If you have an IMPAX RIS to connect to, click **RIS Web Services** and select **This feature will be installed on local hard drive**.
11. If you are using SmartCard authentication, verify that **NHS SmartCard Web Services** is selected. If it is not selected, select it. Select **This feature will be installed on local hard drive**.
12. Click **Next**.
13. Click **Install**.
14. On the InstallShield Wizard Completed screen, select **Launch IMPAX Business Services Configuration tool**. Click **Finish**.
15. In the Configuration Tool, click **Apply**.
16. To close the Configuration Tool, click **OK**.

## Installing the IMPAX documentation

1. Insert the IMPAX Documentation DVD.

2. From the DVD root, double-click **IMPAXDocumentationSetup.exe**.
3. On the Welcome screen, click **Next**.
4. On the Setup Type screen, select the appropriate option and click **Next**.
5. If you selected Select Documentation to Install, on the Choose Features screen, you can select particular Knowledge Bases or languages to install.
6. On the Ready to Install the Program screen, click **Install**.
7. On the InstallShield Wizard Completed screen, click **Finish**.

## Running the IMPAX Installation Server package

1. From the IMPAX Client CD or a network location, run **IMPAXInstallationServerSetup.exe**.
2. On the Welcome to the InstallShield Wizard for IMPAX Installation Server screen, click **Next**.
3. To install the application into C:\Inetpub\wwwroot\ClientInstaller, on the Destination Folder screen, click **Next**.  
or  
To install the application to another location, click **Change**. In the Change Current Destination Folder dialog, browse for the directory location to install into and click **OK**. On the Destination Folder screen, click **Next**.
4. On the Ready to Install the Program screen, click **Install**.
5. On the Installation Wizard Completed screen, click **Finish**.
6. On the second Installation Wizard Completed screen, click **Finish**.

## Running Healthcheck from a URL to check the status of web services

1. Ensure that the Healthcheck web.config file has been configured to the site's needs.
2. On the Application Server, launch Internet Explorer.
3. In the address bar, if Healthcheck has not been configured to automatically log in, type **https://fully\_qualified\_domain\_name/AgfaHC.Healthcheck.Escrow**  
or  
**https://fully\_qualified\_domain\_name/AgfaHC.Healthcheck.Escrow/EscrowForm.aspx**
4. If Healthcheck has not been configured to automatically log in, type an IMPAX Administrator username and password, select the login domain, and click **Log in**.
5. To determine what the problem is for any web services with the status Failed, review the **Comments**.
6. To check the status of the web services again, in Internet Explorer, click **Refresh**.

## Upgrading additional Application Servers in the cluster

1. Upgrade the IMPAX Application Server software.
2. Verify the installation.

## Migrating an Application Server from a Windows 2003 server to a Windows 2008 server

All Application Servers in the same cluster must be running the same operating system—either Windows Server 2003 or Windows Server 2008. When migrating from Windows 2003 to Windows 2008, you must replicate the ADAM data on the Windows 2003 server to the AD LDS database on the new Windows 2008 server.

## Configuring the Audit Record Repository database connection

1. On the IMPAX Database Server, open a command prompt or terminal window.
2. Change to the **C:\mvf\bin** (AS300) or **/usr/mvf/bin** (AS3000, logged in as mvf user) directory.
3. Type **clui**.
4. To check if the entry already exists in the database, type
5. If the entry exists, to update the entry, type

## Uninstalling the previous IMPAX software packages

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **Agfa IMPAX 6.2 version** , **Agfa IMPAX 6.3 version** , or **Agfa IMPAX AS300** (used for IMPAX 6.4 and later).
4. Click **Change/Remove**.  
or  
For uninstalling IMPAX 6.4 and later, click **Remove**.
5. When prompted, type your name (minimum three characters). Click **Next**.
6. In the Confirmation dialog, click **OK** or **Yes**.
7. On the Maintenance Complete screen, click **Finish**.
8. Restart the server.

## Installing the Curator and CD Export server software

1. Insert the IMPAX AS300 DVD.
2. Navigate to D:\programs\mvf and double-click **as300-installer.exe**.
3. Type your name (minimum three characters).

4. On the Welcome screen, click **Next**.
5. Clear the **Database Packages** checkbox.
6. Clear the **Archive Packages** checkbox.
7. Select the **Optional Packages** label and select the appropriate packages. **MVFCurator** must stay selected. **MVFCdexport** is also required except, perhaps, on slave Curators.
8. Click **Next**.
9. Browse to the location of the portable password file and click **OK**.
10. Type the temporary password used to create the portable password file and click **Next**.
11. On the Summary screen, click **Next**.
12. After all the packages have been installed, click **Yes, I want to restart my computer now**.

## Manually uninstalling the IMPAX 6.2 or later Client software (optional)

1. If running, log out of the IMPAX Client and close the Login window.
2. Open Control Panel.
3. Select **Add or Remove Programs**.
4. Under Currently installed programs, select **AGFA IMPAX Client build\_number** .
5. Click **Remove**.
6. When asked to confirm the removal, click **Yes**.

## Installing the IMPAX Client

1. From the IMPAX Client CD or the IMPAX Client Installation web page ([https://install\\_server\\_name/clientinstaller/language\\_code](https://install_server_name/clientinstaller/language_code)), start the IMPAX Client installation program, **IMPAXClientSetup.exe**.
2. If a File Download dialog appears, click **Open** or **Run**.

3. If a prompt appears about downloading and installing missing components, click **OK**.
4. Follow the prompts to download and install Microsoft .NET Framework 3.5, Microsoft .NET Framework 3.5 SP1, or all.
5. On the Welcome to the InstallShield Wizard for IMPAX Client screen, click **Next**.
6. On the License Agreement screen, read the license agreement. If you agree, select **I accept the terms in the license agreement**. Click **Next**.
7. To install the application into C:\Program Files\Agfa\IMPAX Client, on the Destination Folder screen, click **Next**.  
or  
To install the application to another location, click **Change**. In the Change Current Destination Folder dialog, browse for the directory location to install into and click **OK**. On the Destination Folder screen, click **Next**.

8. On the IMPAX Application Server screen, in the Get or confirm application server name field, type the fully qualified domain name of the Application Server to use. Click **Next**.
9. On the IMPAX Login Type screen, select the appropriate authentication method: Windows, IMPAX, or Smart Card.
10. Click **Next**.
11. On the Ready to Install the Program screen, click **Install**.
12. On the InstallShield Wizard Completed screen, click **Finish**.

## Redirecting studies to the production server

If necessary, you can now configure the modalities to redirect studies to the production server, rather than the traveling server. How studies are redirected is modality-specific and is not documented in this publication.

## Migrating studies from the traveling server

Using the Administration Tools or CLUI, you can send the studies on the traveling server to the production server.

## Transmitting studies using the Administration Tools

1. In Administration Tools, on the Daily tab, click **Study Manager**.
2. Search for studies, and from the results list, select the studies to transmit.
3. Click **Transmit**.
4. In the dialog, select the station you want to transmit the study to.
5. Click **Transmit**.

## Creating SEND jobs using CLUI

1. In CLUI, specify the list of studies to transfer with the following command:

```
study send study_ref_1 study_ref_2 ...  
study_ref_n destination
```

or

Generate the list of studies to transfer with the following query:

```
save_refs a select study_ref from  
dosr_study where column = constraint
```

2. Go to menu mode by typing **go menu**.
3. Select **1** for Study Manager, then **9** for Send.
4. At the prompt for the list of studies to process, enter **a** to reference the save\_refs list of studies.
5. At the prompt for the destination, enter the destination.

## Migrating a cache volume from a flat to a hierarchical structure

1. At a command prompt on the system where the cache volume is local, type

```
cache_migration.exe parameters  
(Windows)
```

or

```
cache-migration parameters (Solaris,  
logged in as mvf user)
```

## Testing the installed software

1. On the IMPAX Database Server, run the Administration Tools and ensure that you can log in using the administration password.
2. On the Application Server, open a web browser and connect to `http://localhost`. Ensure that the "Welcome to IMPAX" page is displayed.
3. Run the IMPAX Client and ensure that you can log in using the administration password.

## Restarting antivirus software

1. On a Windows server where scanning was stopped, launch the antivirus software.
2. Start the scan operation according to the vendor's instructions.

## Restarting Connectivity Manager queues

1. In the Connectivity Manager Service Tools, click **Queue Manager**.
2. In the Queue List table, select the checkbox beside the queue of any system device or real world device with a *DM Out* or *impax\_report\_server* Component.
3. Click **start**.

## Taking a post-upgrade system snapshot

1. In a command prompt or terminal window, change to the directory containing the migration\_inventory tool.
2. On a Windows server, type

```
migration_inventory -s -d  
database_name -U  
database_user_name -P  
database_password -D  
database_server_host_name
```

On a Solaris server, log in as mvf user and type

```
./migration_inventory -s -d  
database_name -U  
database_user_name -P  
database_password -D  
database_server_host_name
```

3. To create a report file with this information, in Windows, type

```
mig_reporter -t system_inventory_tool
```

In Solaris, type

```
./mig-reporter -t  
system_inventory_tool
```

## Comparing pre- and post-upgrade snapshots

Open the report file that contains the pre- and post-upgrade snapshot information. Compare the pre- and post-upgrade information. Ensure that all expected studies, objects, stations, and DICOM printers are still listed.

## Installing the PSARMT and cache tools on a Solaris server

1. Log in as the **root** user.
2. Insert the IMPAX AS3000 DVD.
3. For the cache check and repair tools, navigate to the `IMPAX_R6.5-impax_build_label` directory.
4. To install the cache check and repair tools, type **pkgadd -d IMPAXcchk**.
5. When asked to select packages, to install all packages, press **Enter**.
6. When asked if you want to continue with the installation, type **y**.

7. For the PSARMT Migration Tools, navigate to the `IMPAX_R6.5-impax_build_label` directory.
8. To install the PSARMT Migration Tools, type **pkgadd -d IMPAXsrmt**.
9. When asked to select packages, to install all packages, press **Enter**.
10. When asked if you want to continue with the installation, type **y**.
11. Remove the IMPAX AS3000 DVD.

### Running PSARMT to mark studies as PACS archived

1. Log in as the **mvf** or **service** user.
2. Change to the `/usr/mvf/bin` directory.
3. To build the PSARMT database tables in IMPAX, run **build-mvf-psarmt-database**.
4. Specify the migration configuration by running **mvf-psarmt-config-manager**. Parameters are as follows:
5. Perform the migration, based on the configuration defined in step 4, by running **mvf\_psarmt**.
6. Update the missing information in the database from incoming study objects by running **mvf-study-fixer**.

### Detecting and correcting IMPAX cache corruption

The Cache Check and Repair Tools are used to identify missing cache files and to repair or remove damaged ones. These tools are normally run across all of the cache file systems on the affected server, because files missing from a damaged cache can sometimes be found on another cache. Performance of the tools is hardware-dependent.

### Uninstalling the IMPAX Migration Tools from a Windows computer

1. Open Control Panel.

2. On Windows 2003 servers, select **Add or Remove Programs**.  
On Windows 2008 servers, select **Programs and Features**.
3. Select **IMPAX 6.5.1 AS300 Migration 6.5.0.xxx**
4. On Windows 2003 servers, click **Change/Remove**. On Windows 2008 servers, click **Uninstall**.
5. In the Confirm File Deletion dialog, click **Yes**.
6. At the Uninstall complete prompt, click **Finish**.

### Uninstalling the IMPAX Migration Tools from a Solaris computer

1. Log in as the **root** user.
2. Type **pkgrm IMPAXmigration**.
3. Type **y** to remove the package.
4. Type **y** again to continue removing the package.

### Uninstalling the Cross-Cluster Dictation Interlock tool

1. On the previous version IMPAX Application Server where the Cross-Cluster Dictation Interlock components were installed, open the Windows Administrative Tools and select **Services**.
2. Right-click the **Impax Study Status Relay** service and select **Stop**.
3. Close the Services window by selecting **File > Exit**.
4. Open a command prompt.
5. Change to the directory containing the Cross-Cluster Dictation Interlock components—possibly `C:\Program Files\Agfa\Impax Business Services`.
6. Type **uninstall\_study\_status\_relay\_service.bat**.

7. Close the command prompt by typing **exit**.
8. From Windows Explorer, navigate to and delete the **study-status-signal-relay** folder (possibly from `C:\Program Files\Agfa\Impax Business Services`).
9. On the IMPAX 6.5.1 Application Server where the 6.5.1 Cross-Cluster Dictation Interlock components were copied, follow steps 1 to 7.
10. Log into a previous version IMPAX Client as an administrator user.
11. From the Configure area - Users and Roles section, delete the **remote-dictation** user from the Study Status Relay role, then delete the **Study Status Relay** role.
12. Log into an IMPAX 6.5.1 Client as an administrator user and repeat the previous step on it.

### Updating Heartlab polling procedures

1. On the Database Server, log in as the **oracle** user.
2. Run the following script from sqlplus:  
**update map\_ini set ini\_value = 'T' where ini\_key = 'HEARTLAB\_ENABLED';**

### Synchronizing Windows servers to an external time source

1. To open Registry Editor, select **Start > Run**, type **regedit**, and click **OK**.
2. To change the synchronization server to NTP, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters\Type** subkey, change the REG\_SZ value from NT5DS to **NTP**.
3. To specify if the local machine is a local time server, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Config\AnnounceFlags** subkey, change the REG\_DWORD value to **5**.

4. To enable the NTPServer, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\TimeProviders\NtpServer\Enabled** subkey, change the REG\_DWORD value to **1**.
5. To specify where the computer obtains time stamps, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters\NtpServer** subkey, enter the list of DNS names or IP addresses.
6. To set the poll interval, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\TimeProviders\NtpClient\SpecialPollInterval** subkey, change the REG\_DWORD value to the number of seconds between each poll.
7. To specify the maximum positive difference that triggers a synchronization, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Config\MaxPosPhaseCorrection** subkey, change the REG\_DWORD value to the maximum number of seconds.
8. Similarly, to specify the maximum negative difference that triggers a synchronization, in the **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Config\MaxNegPhaseCorrection** subkey, change the REG\_DWORD value to the maximum number of seconds.
9. Exit the Registry Editor.
10. To stop and restart the Windows Time server, at a command prompt, type **net stop w32time && net start w32time**.