Gentran Migration

How to Migrate Gentran:Server to a New Machine

Shane Cargal
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Purpose

This paper covers the steps required to move a Gentran:Server system from one machine to another. These steps can be used also to restore from a backup in a disaster recovery scenario.

Note: All steps in the document should be followed to ensure a successful migration of Gentran.

Background

Many times it is beneficial to have a working copy of the Gentran:Server production environment. This replica of the Gentran:Server production system can be for use in a testing/development environment without endangering the production data.   The following steps will assist you in creating a working copy of the production data.

A migration process cannot be used to keep two Gentran:Server systems in sync with one another and there is no communications between the two machines. Once the services have been started on either machine after a migration is complete, the two machines will no longer be in sync. If a hot backup is needed, a clustered system will need to be setup, not a migration process.

These steps are not an alternative to upgrading Gentran, and please note that the two machines involved must have the same version of Gentran installed. In other words, a Gentran 5.0 system and its data cannot be moved to a 4.0 sp2 system. However, in many cases the operating system and the database versions on the two machines do not have to be identical. If there is any question, be sure to contact Gentran:Server support (1-800-GENTRAN) for clarification.

Example: A Gentran 5.0 system and its data located on a Windows 2000 Server machine and can be migrated to a Gentran 5.0 system located on a Windows 2003 machine.

If migrating Gentran to a new machine that does not have Gentran installed on it yet, Gentran along with all options and extension <u>must</u> be installed prior to starting the migration steps.

If an upgrade is planned for the new machine, the upgrade cannot take place until migration is complete and successful.

Example: A Gentran 4.0.02 system and its data must be migrated to the new machine that already has Gentran 4.0.02 installed. Once the migration is complete, then the Gentran system can be upgraded to version 5.0.

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Solution Steps

GETTING STARTED

Note: Please note that all steps in the document should be followed to ensure a successful migration of Gentran.

Since there are two machines involved, the original Gentran:Server Primary System Controller will be referred to as Box1 and the migration's destination machine will be referred to as Box2. If these steps are being performed in a disaster recovery scenario, then the backup of Gentran can be used as a substitute for the original Gentran:Server Primary System Controller (Box1).

Gentran:Server must be installed on Box2 prior to starting the migration and it must be the same version of Gentran that is installed on Box1. As mentioned in the background, if Gentran is being migrated to a new machine that does not have Gentran installed on it yet, Gentran along with all options and extension must be installed prior to starting the migration steps.

It is good practice to set up the new server (Box2) with its own security and its own Administrative ID. By setting up a new administrative ID on the new server, you will be able to deny that ID access to the production server. This will remove the possibility of interaction between the systems. Once up and running in the test environment, existing users can be added as needed. This will keep Collection Mailboxes and Process Control Sessions on the Box2 from potentially pulling data in from Box1, while the migration is being performed.

The two machines involved in the migration of Gentran from one machine to another do not have to have the same computer name. The components that are dependent upon the computer name are covered later in the document.

The two instances of Gentran involved in the migration do not have to have the same Gentran System names. The Gentran System Name is used primarily to differentiate separate Gentran systems from one another.

If a user is connecting to the production Gentran system using a Gentran client, then the two Gentran systems must have separate ODBC DSN names. This will allow a client to connect to either system if needed.

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MIGRATION STEPS

1) Install Gentran:Server, Gentran:Server Options Pack, Gentran extensions, and any patches to the new machine (Box2).

   a. Use a different Gentran System Name and different ODBC DSN names from those used on the machine from which that the data is being migrated.

2) All Gentran:Server services must be stopped on Box1 and Box2.

3) Create a complete backup of the Gentran database from Box1 and restore it to Box2 overwriting the current tables. This can be a true database backup, database export.

   a. Another method would be to modify the System DSN on the Box2 to use to the database that Box1 is using. If this method is used be sure that Box1 will never use the database again to ensure problems do not occur.
   b. For more information regarding steps to be taken to back up and restore the database, contact your DBA or database vendor.

4) Create a complete backup (copy) of the Gentran installation directory (<root drive>\GENSRVNT\), and restore it to the appropriate directories of Box2.

5) If needed, create a complete backup (copy) or the Gentran data-store directories, and restore it to the appropriate directories of Box2.

   a. The Gentran data-store directories are defined during the installation of Gentran.
   b. The Gentran data-store directories can be viewed or modified from the Directories tab within Gentran Server Configuration.

6) If needed, create a complete backup (copy) of any user defined directories from Box1 one and restore them to the appropriate directories of Box2.

   a. User defined directories that may be used by any Gentran Processes that are not located within either the Gentran installation directory or the Gentran datastore directories will need to be backed up and restored to Box2.
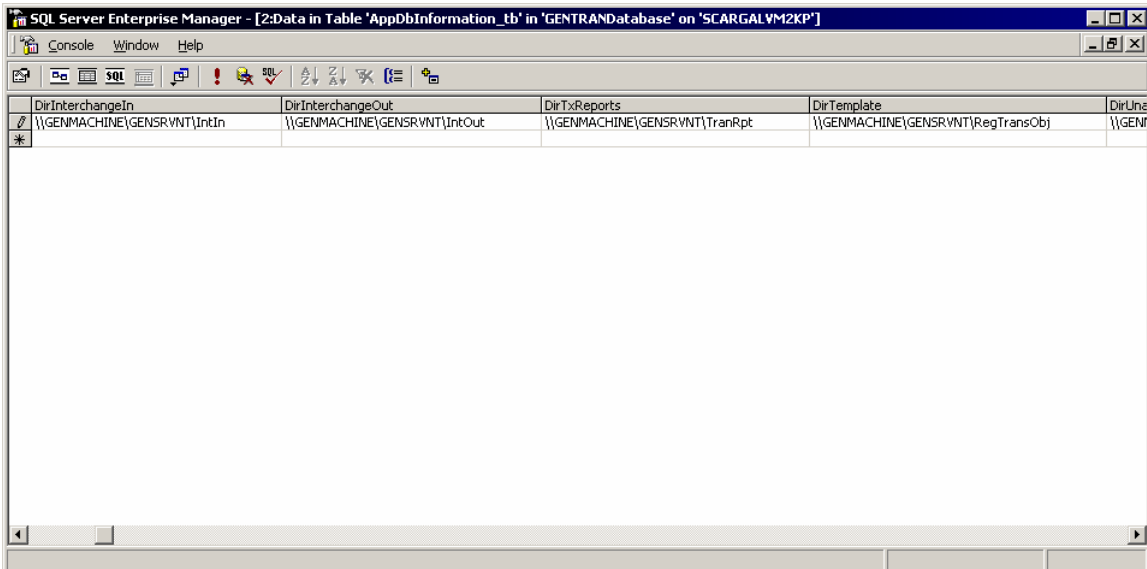
Once the data has been moved over from Box1 to Box2 certain entries within the Database, the Registry, and the Gentran:Server Mailbox system must be updated before the migration will be complete.

Note: Do not start the Gentran services until noted in the steps below.

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DATABASE MODIFICATIONS

Certain entries located within the Gentran database must be updated in order for Gentran to run correctly. Below are instructions for updating these entries. The screenshots provided below are from a SQL Server 2000 system. The same steps apply to Oracle systems.

1) The following fields will need to be updated from within AppDbInformation_tb table located in the Gentran database for Box2 to reflect the correct server name and share path. The method of updating these values is up to the Database Administrator.

- ➢ DirInterchangeIn
- ➢ DirInterchangeOut
- ➢ DirIntRNPIP0A1 – applicable for Gentran:Server version 5.0 and higher
- ➢ DirTxReports
- ➢ DirTemplate
- ➢ DirUnattended
- ➢ DirArchive
- ➢ DirDocuments
- ➢ DirCommDatabase - should be set to <null>
- ➢ DirCommLogs   - should be set to <null>
- ➢ DirCommScripts   - should be set to <null>
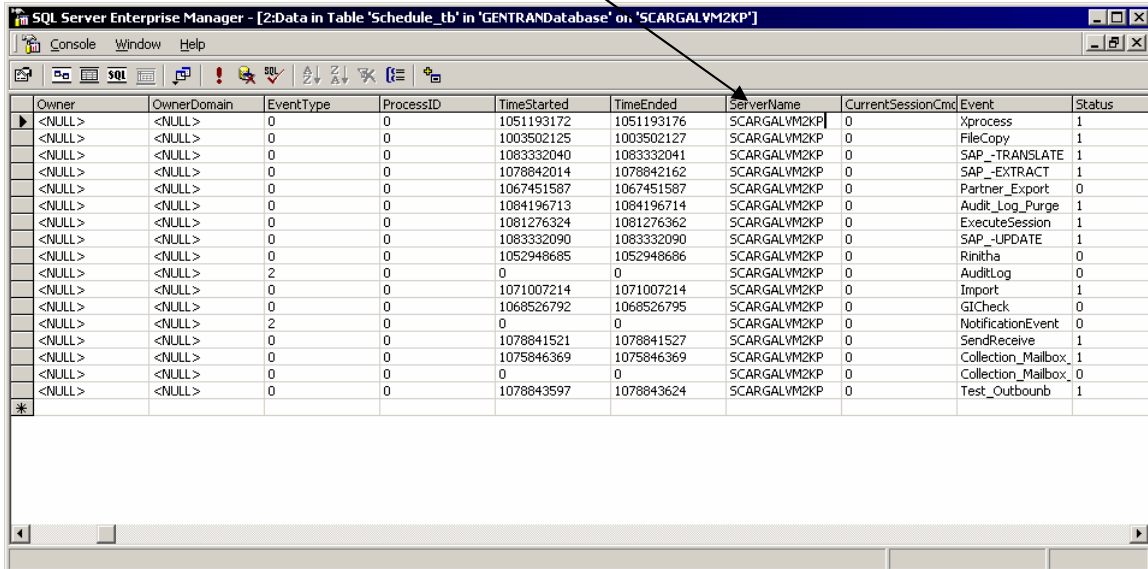- ➢ DirTransmitIn
- ➢ DirTransmitOut
- ➢ DirErrData
- ➢ DirExtData

2) The ServerName field within Schedule_tb table located in the Gentran database for Box2 will need to be updated to reflect the new server's name for each row. The method of updating these values is up to the Database Administrator.

    a. Note, the value entered into the ServerName field must be in uppercase.

Owner	OwnerDomain	EventType	ProcessID	TimeStarted	TimeEnded	ServerName	CurrentSessionCmd	Event	Status
<NULL>	<NULL>	0	0	1051193172	1051193176	SCARGALVM2KP	0	Xprocess	1
<NULL>	<NULL>	0	0	1003502125	1003502127	SCARGALVM2KP	0	FileCopy	1
<NULL>	<NULL>	0	0	1083332040	1083332041	SCARGALVM2KP	0	SAP_-TRANSLATE	1
<NULL>	<NULL>	0	0	1078842014	1078842162	SCARGALVM2KP	0	SAP_-EXTRACT	1
<NULL>	<NULL>	0	0	1067451587	1067451587	SCARGALVM2KP	0	Partner_Export	0
<NULL>	<NULL>	0	0	1084196713	1084196714	SCARGALVM2KP	0	Audit_Log_Purge	1
<NULL>	<NULL>	0	0	1081276324	1081276362	SCARGALVM2KP	0	ExecuteSession	1
<NULL>	<NULL>	0	0	1083332090	1083332090	SCARGALVM2KP	0	SAP_-UPDATE	1
<NULL>	<NULL>	0	0	1052948685	1052948686	SCARGALVM2KP	0	Rinitha	0
<NULL>	<NULL>	2	0	0	0	SCARGALVM2KP	0	AuditLog	0
<NULL>	<NULL>	0	0	1071007214	1071007214	SCARGALVM2KP	0	Import	1
<NULL>	<NULL>	0	0	1068526792	1068526795	SCARGALVM2KP	0	GICheck	0
<NULL>	<NULL>	2	0	0	0	SCARGALVM2KP	0	NotificationEvent	0
<NULL>	<NULL>	0	0	1078841521	1078841527	SCARGALVM2KP	0	SendReceive	1
<NULL>	<NULL>	0	0	1075846369	1075846369	SCARGALVM2KP	0	Collection_Mailbox_	1
<NULL>	<NULL>	0	0	0	0	SCARGALVM2KP	0	Collection_Mailbox_	0
<NULL>	<NULL>	0	0	1078843597	1078843624	SCARGALVM2KP	0	Test_Outbounb	1

3) The purpose of the following step is to collect and store some setup information that may be needed in the event that errors are reported during startup of the Gentran services. It is important to save this information until the migration process is complete and successful.

    a. Run the following queries against the Gentran database for Box2 and log the values returned for each.

> ➢ Select max ("AuditEntryKEY") from "ProcAuditLog_tb"
> ➢ Select max ("AuditEntryKEY") from "DataAuditLog_tb
> ➢ Select max ("AuditEntryKEY") from "NotifyLog_tb"
>
> ➢ Select max ("EventID") from "ProcAuditLog_tb"
> ➢ Select max ("EventID") from "DataAuditLog_tb"
> ➢ Select max ("EventID") from "NotifyLog_tb"
>
> ➢ Select max ("NotifyEntryKEY") from "NotifyLog_tb"
>
> ➢ Select max ("ListID") from "AddressBook_tb"
> ➢ Select max ("AttachmentId") from "Attachment_tb"
> ➢ Select max ("MessageId") from "Message_tb"

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REGISTRY MODIFICATIONS

The following steps are used to turn off Process Control's Scheduler and Poller so that Gentran's unattended processes do not kick off once the services have been started up the first time. File system mailbox processes will not interfere with the production system if the recommendation is followed regarding using separate user accounts in the Getting Started (page 4) section.

1) On Box2, open the Registry Editor within Windows (Click on the Start Menu, select Run, type regedt32, then click OK) and navigate to the following registry key:

    HKEY_LOCAL_MACHINE/Software/Sterling Commerce/ GENTRAN/Server/<Gentran version>/Server

2) Verify the value for both the following DWORD values is set to 0. If the values for both of the DWORD values are set to something other than 0, then update them to be set to 0. The two DWORD values are:

    ➢ Autostart Poller
    ➢ Autostart Scheduler

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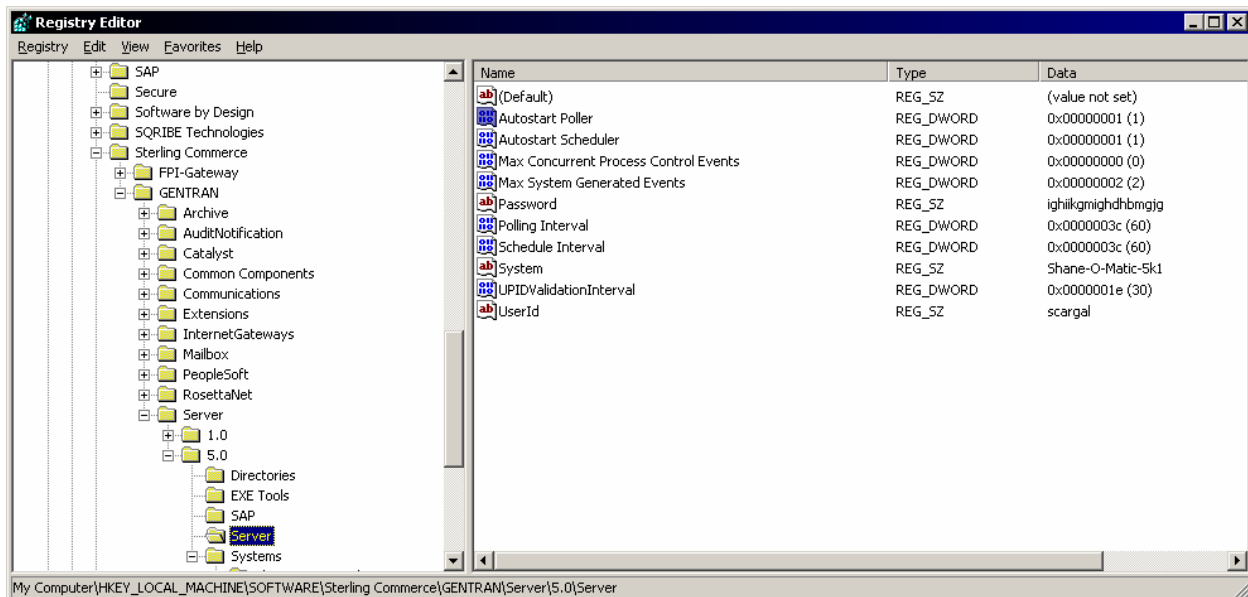
Certain entries located in the Windows Registry must be updated in order for Gentran to start up and run correctly when using older versions of Gentran Server.

Newer versions of Gentran:Server perform these updates automatically, so these steps are not required in all cases. We recommend following these steps if an error such as a "FindHighestEventId" is reported when starting the services.

1) On Box1, open the Registry Editor within Windows (Click on the Start Menu, select Run, type regedt32, then click OK) and navigate to the following registry key:

   HKEY_LOCAL_MACHINE/Software/Sterling Commerce/GENTRAN/ AuditNotification/<Gentran version>/Server

   Record the values for the following entries after selecting to view the value in decimal mode:

   ➢ AuditEntryKEY
   ➢ EventID
   ➢ NotifyEntryKEY
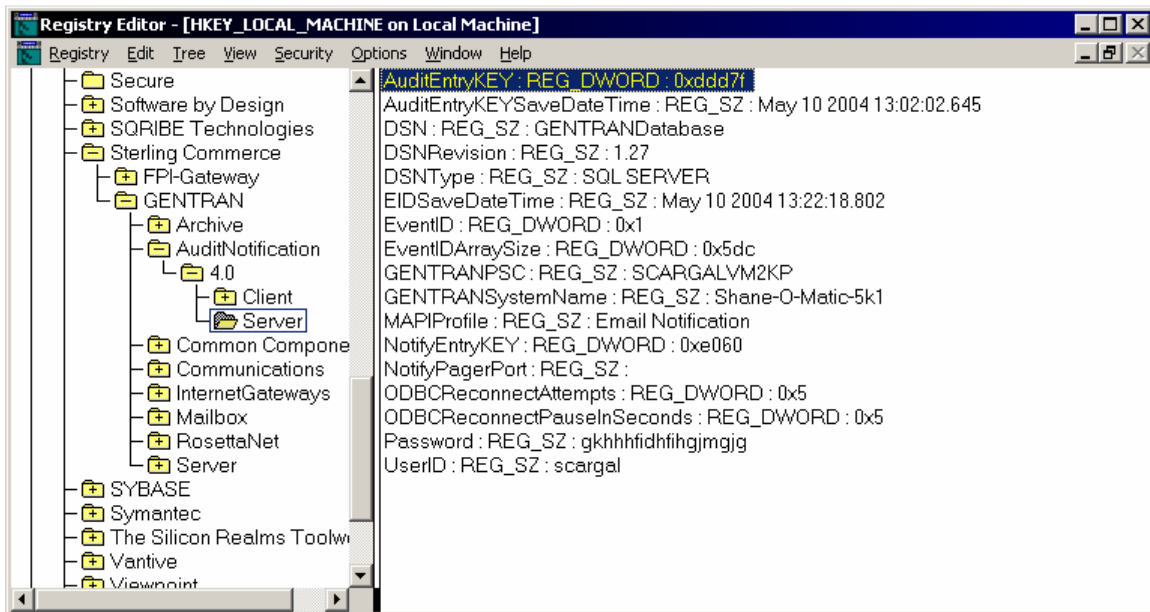
2) On Box2, open the Registry Editor (Click on the Start Menu, select Run, type regedt32, then click OK), and navigate to the same Registry key:

HKEY_LOCAL_MACHINE/Software/Sterling Commerce/GENTRAN/ AuditNotification/<Gentran version>/Server

Update the value for the following entries using the values that were logged in the previous step. Be sure to specify the Decimal view when updating them:
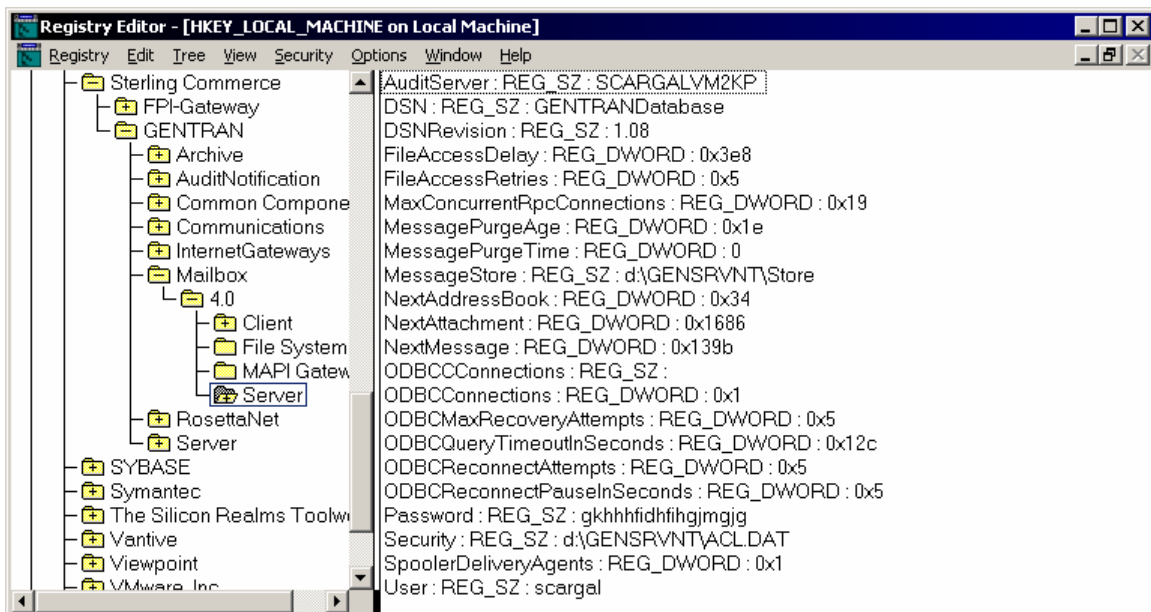
> AuditEntryKEY
> EventID
> NotifyEntryKEY

3) On Box1, open the Registry Editor within Windows (Click on the Start Menu, select Run, type regedt32, then click OK) and navigate to the following registry key:

HKEY_LOCAL_MACHINE/Software/Sterling Commerce/GENTRAN/ Mailbox/<Gentran version>/Server

Record the values for the following entries after selecting to view the value in decimal mode:

> NextAddressBook
> NextAttachment
> NextMessage

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4) On Box2, open the Registry Editor within Windows (Click on the Start Menu, select Run, type regedt32, click OK) and navigate to the following registry key:

HKEY_LOCAL_MACHINE/Software/Sterling Commerce/GENTRAN/ Mailbox/<Gentran version>/Server

Update the value for the following entries using the values that were logged in the previous step. Be sure to specify the Decimal view when updating them:

  ➢ NextAddressBook
  ➢ NextAttachment
  ➢ NextMessage

5) On Box2, start the Gentran Audit Notification service and the Gentran:Server Mailbox service.

6) On Box2, stop both of the services that where just started.

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MAILBOX MODIFICATIONS

The Gentran Mailbox Store may need to be redefined after the migration process. The Mailbox datastore directory location is not stored in the database as the other directories are. If the Store directory had been moved outside of the GENSRVNT\ directory then the following steps will need to be taken to update it's location for Gentran.

1. On Box2, start only the Gentran Audit Notification and Mailbox services.

2. On Box2, Open Gentran:Server Mailbox – Server Manager by clicking on the Windows Start menu, select Programs, click Gentran Server, select Gentran Server Mailbox.

3. From within Gentran:Server Mailbox – Server Manager, register the server (if needed) by right clicking Gentran:Server Mailbox, and selecting Register Server.

4. Right-click the server name, select Properties, then click on the Files tab.

5. Update the Message Store field and the Security Information field (if needed) to the location of these directories.

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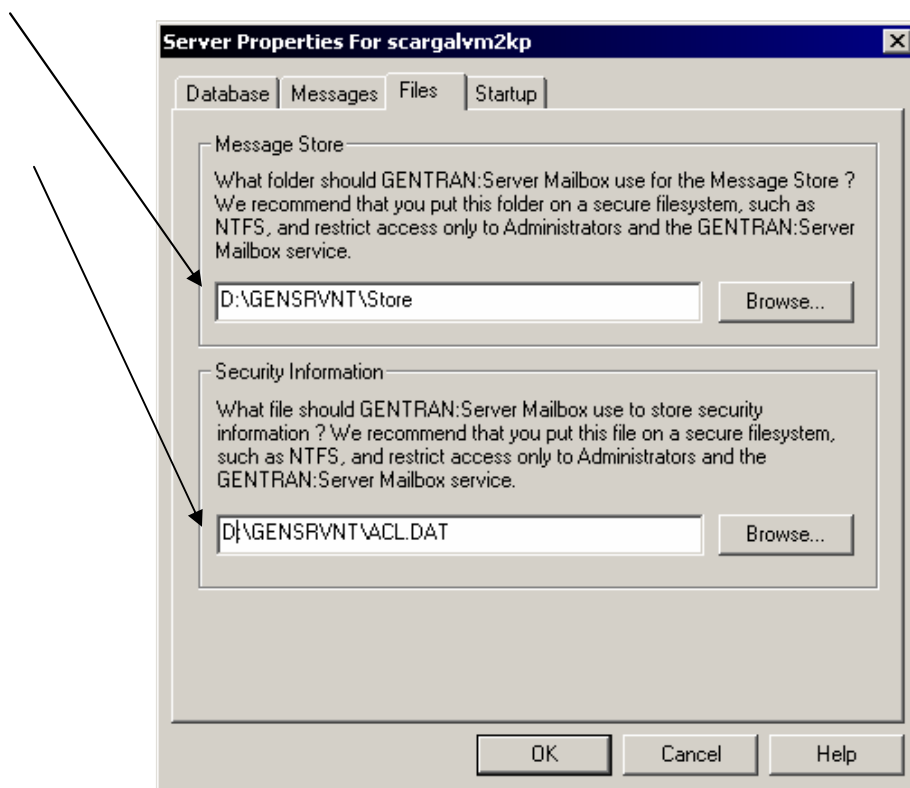
The GENTRAN:Server Communications Gateway properties must be updated before Communications can be successfully initiated. The devices attached to each pool must be removed and the added for the correct Communications server, because of the way the Gentran Server Communications Gateway works.
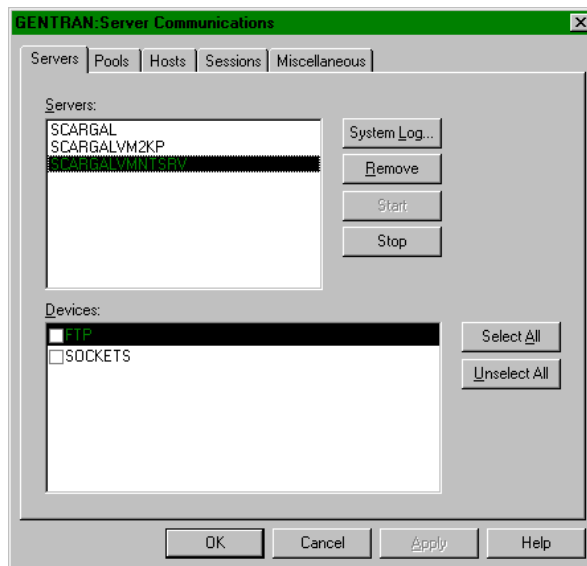
Below are the instructions for updating the GENTRAN:Server Communications Gateway.

1) Start the GENTRAN:Server Communications service.

2) Open Gentran:Server Mailbox – Server Manager by clicking on the Windows Start menu, select Programs, click Gentran Server, select Gentran Server Mailbox.

3) From within Gentran:Server Mailbox – Server Manager, register the server by right clicking Gentran:Server Mailbox, and selecting Register Server. Then enter the Gentran:Server Primary Controller's Computer name.

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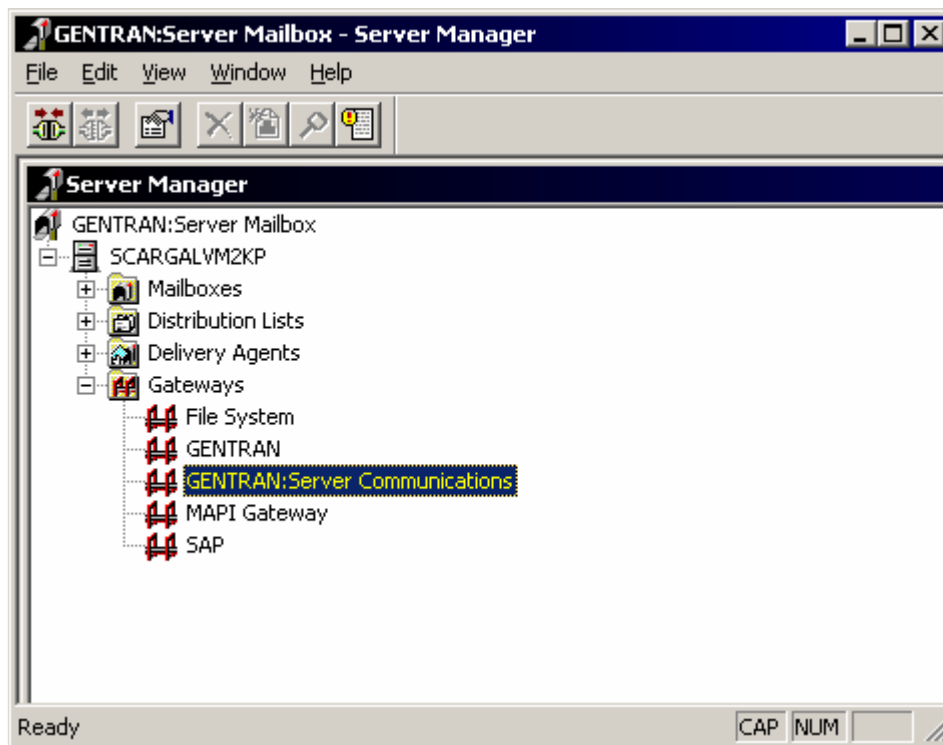
4) Drill down into the Server by double clicking the server name, double clicking the Gateways folder, right clicking GENTRAN:Server Communications, and selecting Properties.

In the Servers tab of the Properties of the GENTRAN:Server Communications Gateway, both Box1 and Box2 should be listed in the Servers window, and the Devices window should update according to which server is selected.

In the Pools tab, only Pools setup on Box1 should be available and this needs to be updated with new pools for Box2. The instructions for updating the Pools vary according to which version of Gentran is installed.
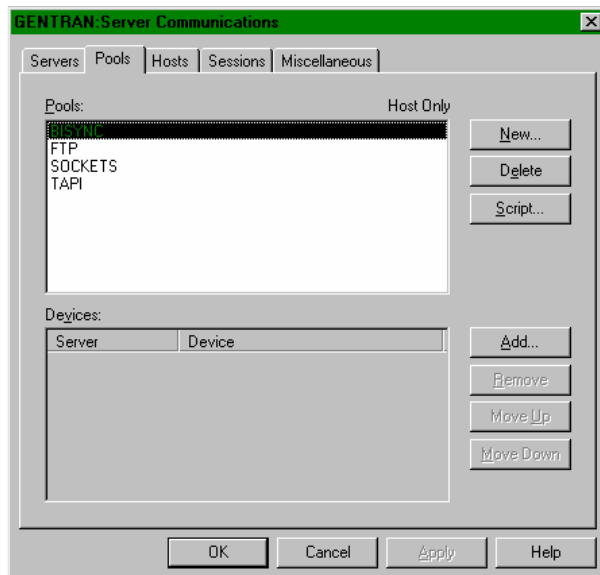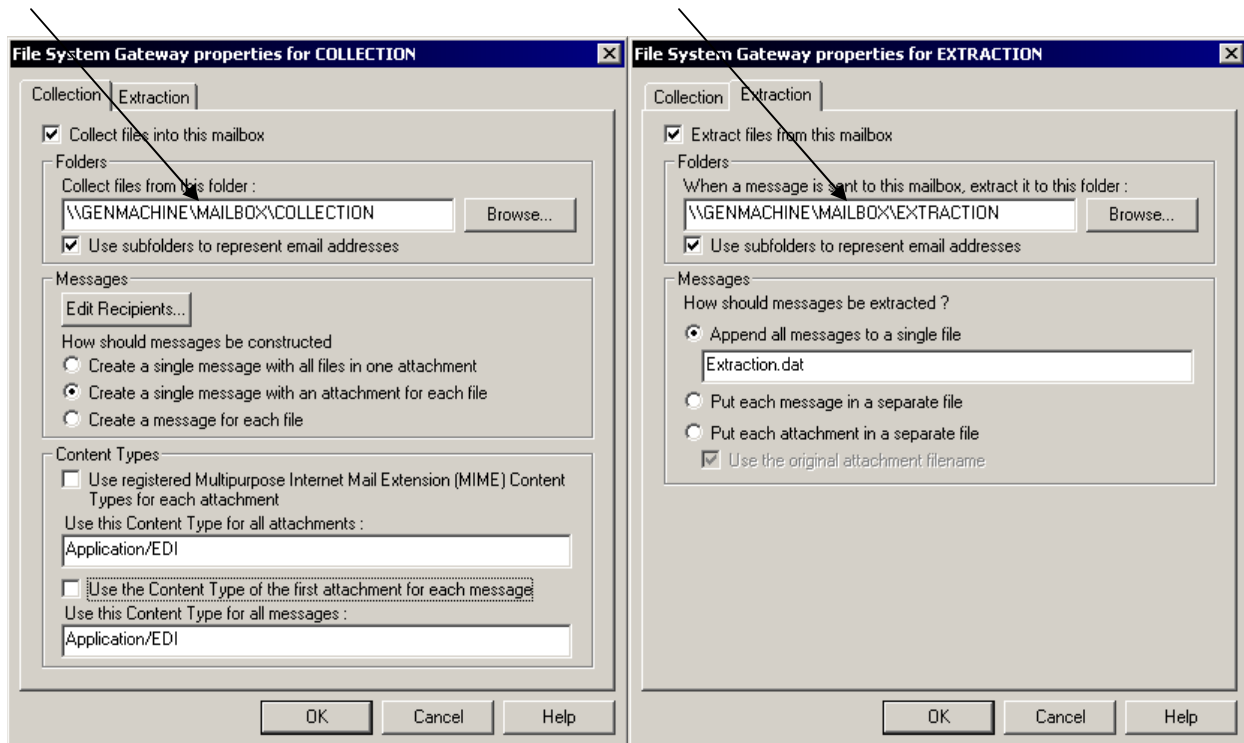
5) For Gentran machines version 3.2 sp1 and newer, step through the following instructions:

 a) Click on the "Pools" tab inside the GENTRAN:Server Communication Gateway properties.
 b) Delete then recreate all of the pools using the same pool names as Box1.
 c) Remove Box1 from the Servers windows within the Servers tab.
 d) Check the properties of all the mailboxes that use these pools and confirm the properties page has the correct settings.

5) For Gentran machines version 3.1.1 and older, step through the following instructions:

 a) In the Servers window of the Servers tab Highlight Box2, and select the devices for a new pool.
 b) In the Pools tab, create a new pool that has a different name than the pool for Box1.
 c) Add the needed devices to that pool and save all new gateway information.
 d) Change all Communication mailboxes to use the newly defined pool.

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Any Collection Mailbox Properties that may be referencing the wrong computer name or an invalid path in the "Collect files from this folder" field will need to be updated with a valid and correct path.
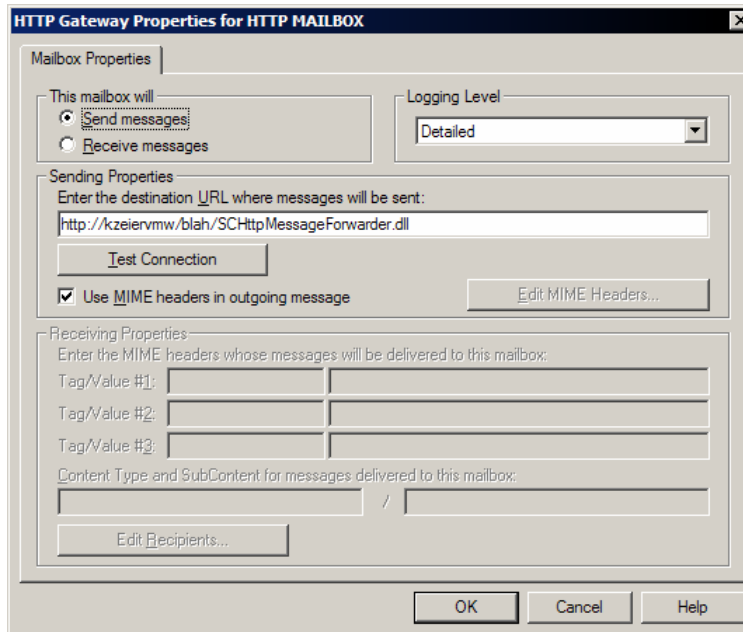
Any Extraction Mailbox properties that may be referencing the wrong computer name or an invalid path in the "When a message is sent to the mailbox, extract it to this folder" field will need to be updated with a valid and correct path.

1) On Box2, verify the configuration of each File System mailbox, both Collection and Extraction tabs, and confirm that the correct server name and share names are used in the file paths.

File System Gateway properties for COLLECTION

Collection | Extraction

☑ Collect files into this mailbox

Folders
Collect files from this folder :
`\\GENMACHINE\MAILBOX\COLLECTION`   [Browse...]
☑ Use subfolders to represent email addresses

Messages
[Edit Recipients...]
How should messages be constructed
○ Create a single message with all files in one attachment
● Create a single message with an attachment for each file
○ Create a message for each file

Content Types
☐ Use registered Multipurpose Internet Mail Extension (MIME) Content Types for each attachment
Use this Content Type for all attachments :
`Application/EDI`

☐ Use the Content Type of the first attachment for each message
Use this Content Type for all messages :
`Application/EDI`

[OK] [Cancel] [Help]

File System Gateway properties for EXTRACTION

Collection | Extraction

☑ Extract files from this mailbox

Folders
When a message is sent to this mailbox, extract it to this folder :
`\\GENMACHINE\MAILBOX\EXTRACTION`   [Browse...]
☑ Use subfolders to represent email addresses

Messages
How should messages be extracted ?
● Append all messages to a single file
`Extraction.dat`
○ Put each message in a separate file
○ Put each attachment in a separate file
☑ Use the original attachment filename

[OK] [Cancel] [Help]

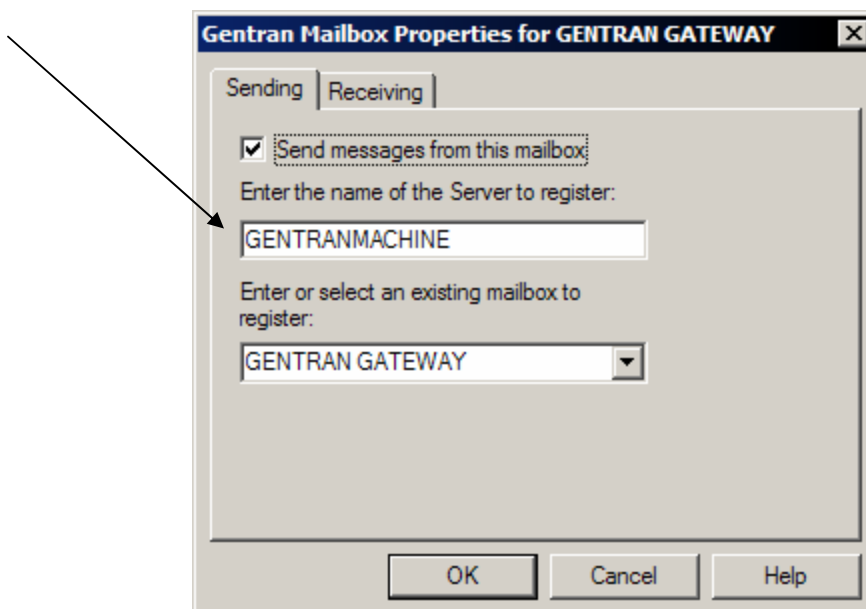*Author: Shane Cargal*

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Other gateways and mailboxes may also need to be checked. It is recommended that the properties for each gateway and mailbox is verified and updated if needed. This is especially true if the newly migrated system will be used only for testing purposes.
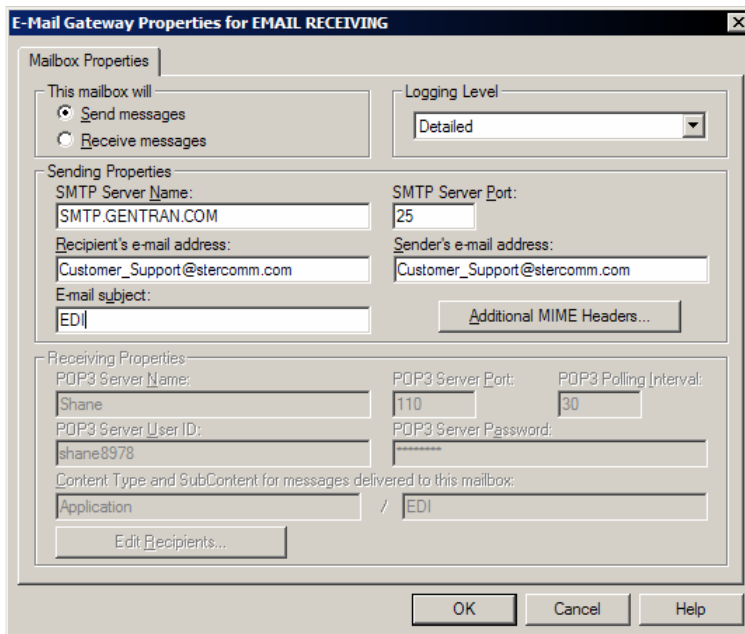
2) HTTP Gateway Mailbox Properties may need to be updated to prevent the HTTP Mailbox on this new machine from sending data to a trading partner.


3) The server name specified in a Gentran Gateway Mailbox may need to be updated with the new server name to prevent the Gentran Gateway Mailbox on this new machine from sending data to the wrong destination.

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4) E-mail Gateway Mailbox Properties may need to be updated to prevent this new server from sending or receiving data through the POP3 account specified to a trading partner or internal user.

5) MAPI Gateway Mailbox Properties may need to be updated to prevent this new server from sending and/or receiving data through the MAPI e-mail account to a trading partner or internal user.
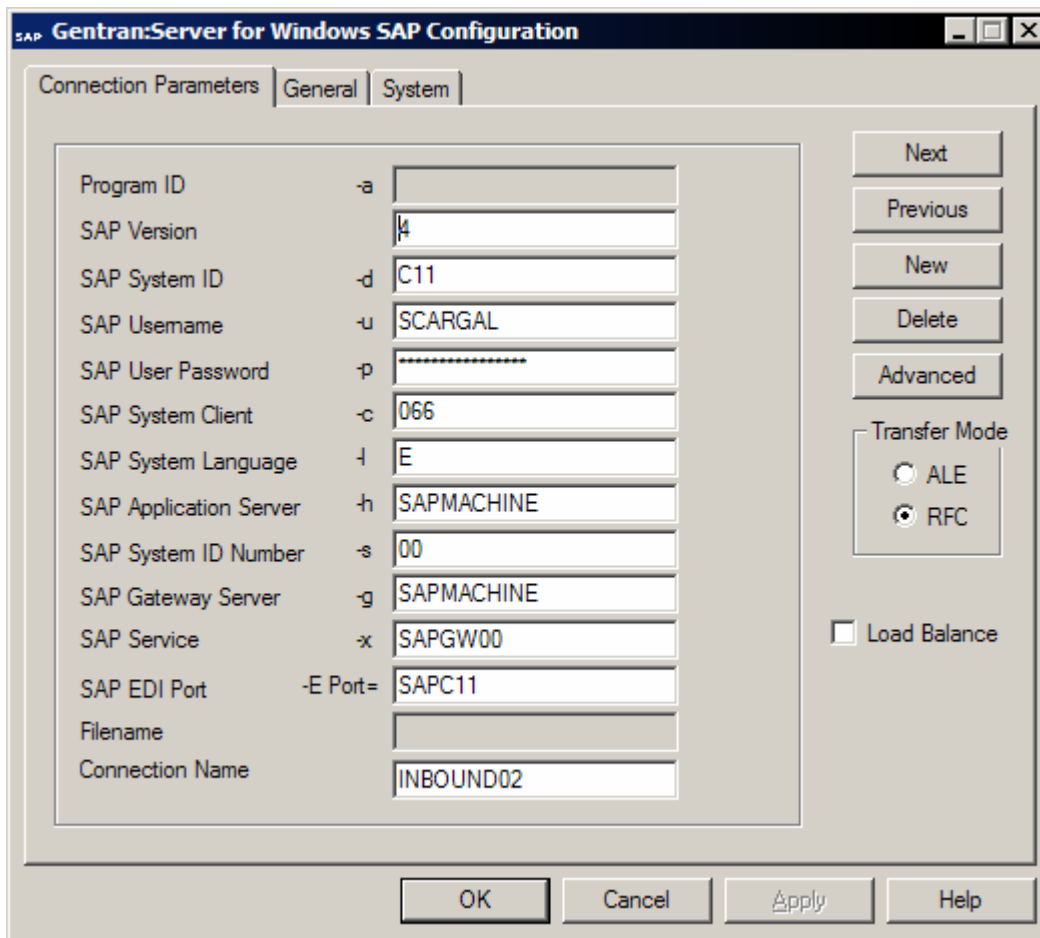
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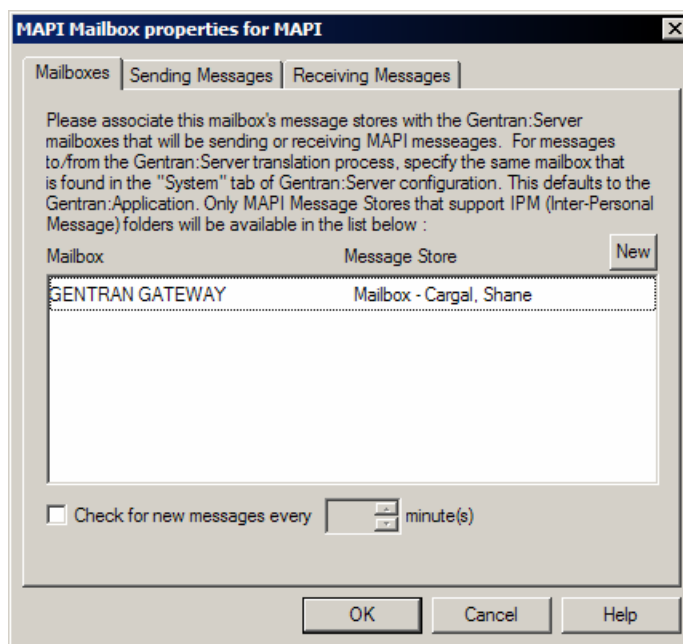
6) SAP Gateway Mailbox Properties may need to be updated to prevent this new server from sending or receiving data to and from SAP through the SAP Gateway.

    a. Please note that all four tabs will need to be updated.
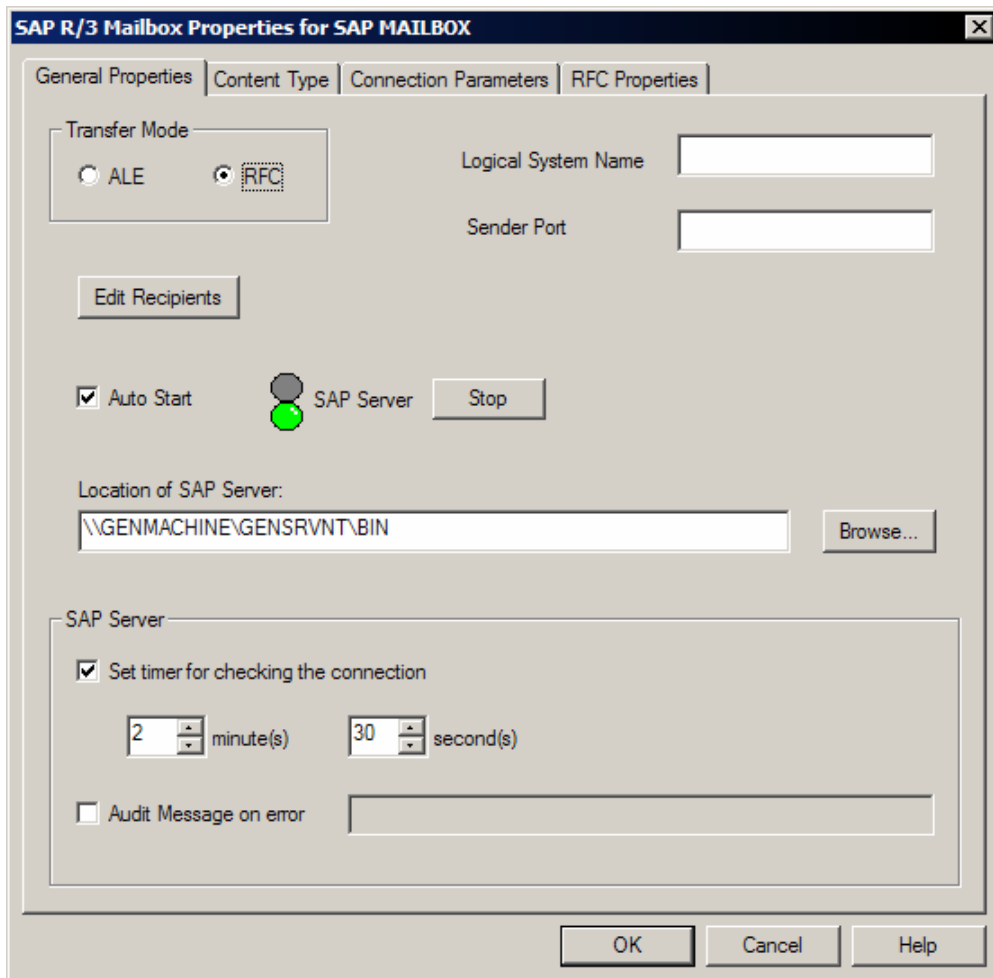
SAP EXTENSION MODIFICATIONS

1) If the Gentran:Server Extension for SAP R/3 is installed then verify or modify the Connection Parameters for Box2 so that it is setup to send data to the correct SAP System or SAP Port.

```
SAP  Gentran:Server for Windows SAP Configuration              _ □ ×

 Connection Parameters | General | System |

    Program ID            -a  [                    ]        Next
    SAP Version               [4                   ]      Previous
    SAP System ID         -d  [C11                 ]        New
    SAP Username          -u  [SCARGAL             ]       Delete
    SAP User Password     -p  [****************    ]      Advanced
    SAP System Client     -c  [066                 ]
    SAP System Language   -l  [E                   ]    ─Transfer Mode─
    SAP Application Server -h [SAPMACHINE          ]        ○ ALE
    SAP System ID Number  -s  [00                  ]        ● RFC
    SAP Gateway Server    -g  [SAPMACHINE          ]
    SAP Service           -x  [SAPGW00             ]      □ Load Balance
    SAP EDI Port      -E Port= [SAPC11             ]
    Filename                  [                    ]
    Connection Name           [INBOUND02           ]


              OK      Cancel      Apply      Help
```
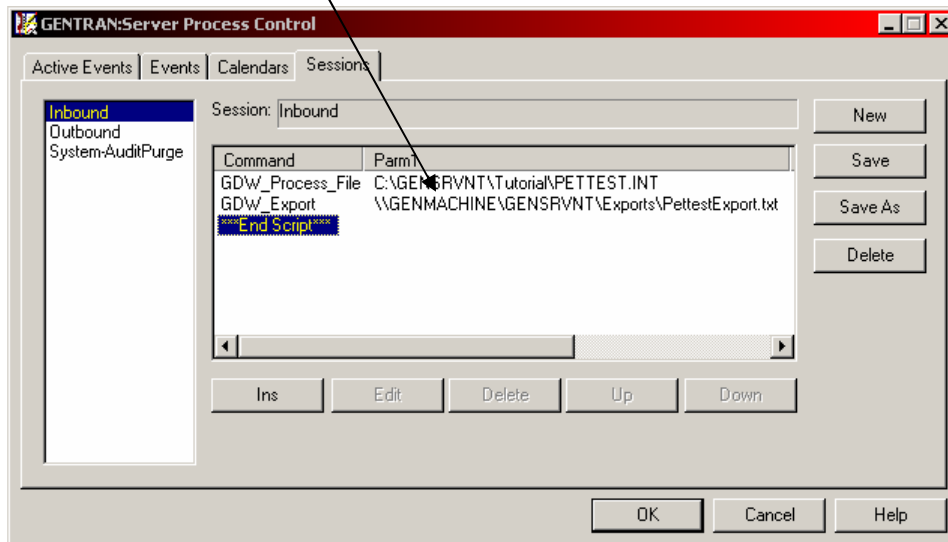
PROCESS CONTROL MODIFICATIONS

All of the Gentran:Server services now be started. However, Process Control sessions, Imports configuration, and any user created scripts will need to be updated before they will successfully complete. Below are these areas that will need to be updated.

1) Any Process Control Event that contains the server name for Box1 in the 'Controller' field will need to be updated to reflect the correct server name for Box2.

Event Setup

Description System Audit-Purge

Session Audit_Log_Purge

Controller GENMACHINE

☐ Notification Type Event

Timed Polled

File name \\GENMACHINE\AUDITLOGPUR

Result True

OK
Cancel
Browse
Help
Browse
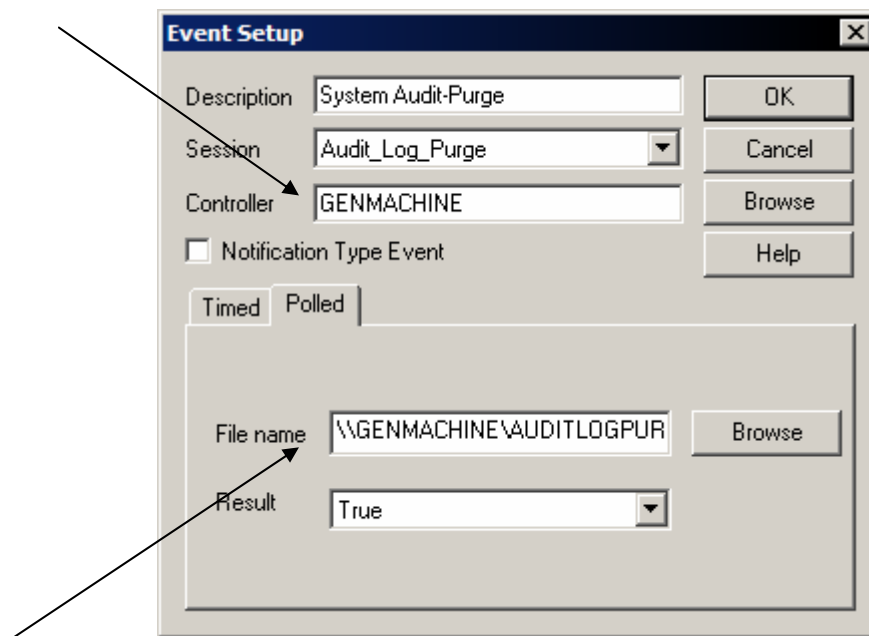
2) Any Polled Events that are referencing a UNC path with a machine name will need to be updated to reflect the correct server name for Box2.

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3) Any Process Control sessions that contain a reference to the server name in a share path or a file path for Box1 will need to be updated to reflect the server name and the correct file path for Box2.

Note: Process Control Sessions can be updated through the GUI as shown above or by modifying the session files directory. The session files are located in the GENSRVNT\Unattend directory, and can be opened then modified with a text editor such as Notepad.exe.

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OTHER MODIFICATIONS

1) Entries in the Imports tab of Gentran:Server for Windows System Configuration may need to be updated if they are referencing the wrong server name for a file share or contain an incorrect path in the file path field.
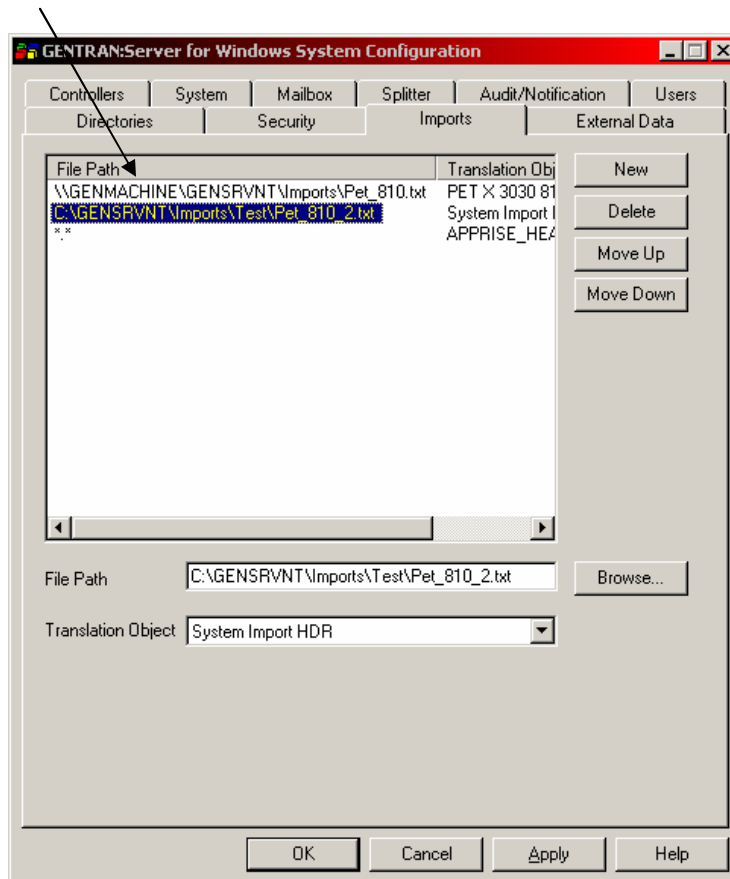
2) Any user-defined scripts that are required for Gentran to successful process data may need to be updated if they are referencing the wrong server name or contain invalid paths.

3) Any user-defined scripts that have embedded User ID's or passwords may need to be updated to reflect a User Id and Password that has correct access to the resourced referenced within the script.

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FINALIZING THE MIGRATION

1) Now is the time to start testing all Gentran processes to verify the stability of the newly migrated system.

2) After all the processes have been tested, the system can be:

   a. Moved into Production, if migrating to the machine is to eventually use it as a Production machine.
   b. Upgraded, if migrating to this machine is to eventually use it as a test for upgrades or to move into production after upgrading.

3) Keep in mind, that all of the above steps <u>must</u> be completed before a Migrated Gentran System can be moved into production or used as a test machine.

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