Introduction

Instant IMtegrity 5 for IBM Sametime

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Instant IMtegrity 5 for IBM Sametime is a complete solution to increase the value and manageability of your IBM Sametime infrastructure.
Instant IMtegrity enables you to centrally block, log, filter, review, audit, archive and manage IBM Sametime instant messages ("IM") in your enterprise.

Instant IMtegrity provides you with:

- **New in Version 5:** Chat rules to enforce 'ethical firewalls' to control who can chat with whom in real-time.
- **New in Version 5:** Disclaimer text rules to send disclaimer texts to users in real-time.
- **New in Version 5:** Enhanced action rules .
- Automatic server-side storage of IM chat transcripts complete with images and emoticons in a Lotus Notes database, plain text files and/or XML files.
- Expert insight into the usage and content of IBM Sametime IM in your department or enterprise.
- Options to automatically notify compliance officers, Human Resource personnel or administrators based on content found in IM chats such as restricted words, phrases, profanity, etc.
- Browser-based or Lotus Notes-based access, search and retrieval of IM text based on criteria you specify.
- Options to customize and extend the log database with additional views, etc.

What's new in Instant IMtegrity 5.65

What's new in Instant IMtegrity 5.65 (8/25/2016):

Improvements:

- Improved HTML processing of chat messages originating from IBM iNotes Web Access clients.

What's new in Instant IMtegrity 5.64 (10/5/2015):

Improvements:

- Long-running chats with a commit interval enabled will now correctly import when there are more than 127 part files for the chat.

What's new in Instant IMtegrity 5.63 (9/18/2015):

Improvements:

- If a chat document can't get successfully saved to the chat log database, throw an exception and move the log file into the \errors folder, instead of endlessly retrying over and over.
- Remove the plain text chat abstract item if the chat body gets encrypted via action rules.
- Correctly log the processing time for each chat log.

What's new in Instant IMtegrity 5.62 (6/24/2015):

Improvements:

- Improved transferred file import handling; During log import, if any referenced transferred files cannot be found, the importer will still log an error **but will continue the import** and log the missing transferred file inside the file transfer log document.

What's new in Instant IMtegrity 5.61 (5/4/2015):

Improvements:

- Fixed "ERROR: WIA.ImageFile.1: The file exists. (#213)" when importing image files who either have no file extension or whose image type cannot be determined based on the file content.

What's new in Instant IMtegrity 5.60 (4/7/2015):

Improvements:

- Updated imtconfig.exe tool to show the relevant services to restart depending on the installed version of IBM Sametime Community server.
  (The "ST Places" service is only relevant prior to IBM Sametime version 8.5.2)
- Updated documentation about required fixes when running IBM Sametime Community server versions 8.5.2 or 8.5.2.1
- Improved rendering of file transfer logs from IBM Sametime Community server versions 8.5.2 and higher
- Prevent casual editing of chat log documents to deter tampering.

- Fixed a regression bug introduced in IMtegrity version 5.40 which occasionally caused error message "Unable to open file '<image>': File not found"
- Fixed a regression bug introduced in IMtegrity version 5.40 which prevented excluded log files (via matching inclusion/exclusion rules) from getting removed from disk.
- Prevent inclusion/exclusion rules from running on multi-part logs; only action rules are supported for multi-part log files. Updated the documentation to reflect this.
- Improved importing of "part" files in long-running chats which occasionally caused error message "Unable to append part file <name>: Cannot find main GUID <guid>. Will try again at next import."
- Improved rendering of disclaimer texts. In previous versions, disclaimers would sometimes start with an additional empty line if the very first message included emoticons.

What's new in Instant IMtegrity 5.50 (12/30/2014):

Improvements:

- Improved error detection in core Sametime logging code to ensure all files get correctly written and flushed to disk without errors (i,e. out of disk space, out of file handles, etc.).
  Any errors returned from the operating system will now be logged in diagnostic output (if enabled) to aid in support and troubleshooting.

- Improved image file import handling; During log import, if any referenced image files such as emoticons/smileys etc. cannot be found, the importer will still log an error **but will continue the import** and log the missing image files inside the chat log document.
  In place of the missing image a textual reference will be logged (for example, for emoticons, the keyboard shortcut like :-) will be logged, along with the title of the image, like "smile").

- Improved HTML/RichText conversion fidelity to correctly render chat texts with different fonts/colors/sizes.
- Text sizes smaller than 7pt will now be rendered at 7pt to increase legibility in the log documents (to prevent "hidden" messages sent at a 1pt font size from being not easily recognizable).
- Fixed error "Error: Can't append list to a null item (#4360) in: classParser:CPARSER::SERIALIZELOGITEMS (line 817)" when importing announcements to a large number of users.
- Improved view and log document representation for announcements.

What's new in Instant IMtegrity 5.42 (09/17/2014):

Improvements:

- Fixed error "Overflow (#6) in classHTMLText:CHTMLTEXT::SETFONTSIZE (line 454)" when trying to import chat log files with extremely large font sizes.

What's new in Instant IMtegrity 5.41 (02/16/2014):

Improvements:

- Updated the product documentation with a new topic "Limiting the size of the chat log database" to aid administrators in effectively managing the size of the Instant IMtegrity chat log database.
- No code changes have been made; this release is a documentation update only.

What's new in Instant IMtegrity 5.40 (02/07/2014):

Improvements:

- Greatly improved handling of transient file access errors (such as files temporarily locked by virus scanners, etc):
  - Locked chat log files to be imported will be skipped and re-tried again later.
  - Locked image files to be imported will be re-tried a few times. If the image files can't be imported, the log file will be skipped and re-tried again later.
  - Locked image files to be deleted will be re-tried a few times. If the image files can't be deleted, they will be marked for deletion later and the log file import will succeed .
  - Imported files marked for deletion will be periodically re-tried for deletion until they can be successfully deleted.
  - New IBM Domino server statistic "`Instant.IMtegrity.Import.Logs.Skipped`" counts skipped logfiles
  - New IBM Domino server statistic "`Instant.IMtegrity.Import.Deletions.Pending`" counts files current marked for deletions
    All statsistics are available via console command "`show stat Instant`"
- New console server command "`tell IMtegrity reset`" to reset all Instant.IMtegrity runtime statistics.
- In the IBM Notes Client chat logs can now be full text searched in the search bar via the "Author..." and "Fill out example form" conditions
- All views now include an action button "Search Bar" to toggle the full text search bar on/off.

What's new in Instant IMtegrity 5.31 (11/07/2013):

Improvements:
- Fixed a server crash when sending very large instant messages while the option "Enable IMtegrity diagnostic output" was enabled and running in debug mode.
- Optimized internal diagnostics code to minimize memory consumption and performance when running in debug mode.

What's new in Instant IMtegrity 5.3 (04/11/2013):

Improvements:
- Fixed error "Overflow (#6) in classFileEnumerator:CFILEENUMERATOR::ENUMLOGFILES (line 170)" when trying to import more than 32K chat log files at once.
- Optimized import process to reduce CPU spikes and memory consumption when importing large amounts of log files at once.

What's new in Instant IMtegrity 5.2 (02/23/2013):

Improvements:
- Real-time chat rules and disclaimer rules now work with IBM Sametime servers configured for LDAP directories.
- Added more detailed logging to aid in troubleshooting and customer support.
- Fixed an issue with attachment file names containing two exclamation marks, like "theReport!!!.xls"

What's new in Instant IMtegrity 5.1 (08/01/2012):

New features:
- New action rule option to retrieve and include additional Domino Directory fields for chat participants .

- New action rule option to stop processing any further action rules.
- Added print-optimized chat form.
  To use, from any View select File, Print..., Documents Style, then "An alternative Form" and select "Chat (Print-optimized)".

Improvements:
- Custom X-Headers for SMTP emails now have their values quoted to preserve empty values for multi-value fields.
- Updated installer to require IBM Sametime Version 8 or higher.
- Re-categorized help/documentation database.

What's new in Instant IMtegrity 5.02 (04/28/2012):

New features:
- New customizable real-time chat rules to enforce "ethical firewalls" which control who can chat with whom. (5.0)
- New customizable real-time disclaimer text rules to send disclaimer texts to users. (5.02)
- New option in the IMtegrity configuration tool to start/stop the Sametime ST Place service. (5.0)

Improvements:
- The IMtegrity server add-in task command "tell imtegrity help" now works via Remote Console and Java Console. (5.01)
- Improved support for Chat Announcements (requires IBM Sametime 8.5.x servers) (5.0)
- Improved installation for IBM Sametime 8.5.x servers. (5.0)
- Improved API support for IBM Sametime 8.5.x servers. (5.0)
- Improved overall performance. (5.0)
- Improved rich text import of HTML chats (5.01)
- Improved documentation (5.02)

Instant IMtegrity 5.x also contains all features and fixes found in Instant IMtegrity 4.x

System requirements

In order to successfully install and operate Instant IMtegrity 5, the following requirements must be met:

Supported Microsoft Windows versions :

- Microsoft Windows XP
- Microsoft Windows 2003 Server
- Microsoft Windows 2008 Server
- Microsoft Windows 2008 R2 Server

Note:
On 64bit versions, IBM Domino, IBM Sametime and Instant IMtegrity will run in 32bit mode.
This is a supported configuration.

Supported IBM Sametime versions :

- IBM Sametime Community Server 8.x
- IBM Sametime Community Server 8.5.x
- IBM Sametime Community Server 9.0.x

Note:
When running IBM Sametime Community Server 8.5.2 or 8.5.2.1, you **must** at least install IBM Sametime 852 Cumulative Fix 2
See section "Special fix requirements when running IBM Sametime Community server version 8.5.2 or 8.5.2.1"

Ethical firewall and Disclaimer texts :

- Requires IBM Sametime Server version 8.0.x or higher

Logging of Announcements :

- Requires IBM Sametime Server version 8.5.x or higher

Special fix requirements when running IBM Sametime Community server version 8.5.2 or 8.5.2.1

If you are running IBM Sametime Community server version 8.5.2 or 8.5.2.1 without additional fixes, you might experience IBM Domino server crashes either when restarting IBM Sametime services or during IBM Domino server shutdown.

The root cause of these crashes is IBM Sametime SPR #ARIY8L2JMQ:
"Chat Logging Black box init/term done from different threads for StChatLogging and StFileTransfer."

Instant IMtegrity is directly affected by this bug, so it is important to apply any one of these available fixpacks:

- **Sametime 852 Cumulative Fix 2 for IBM Sametime Community Server 8.5.2 Based Versions**

  http://www-01.ibm.com/support/docview.wss?uid=swg21644227
  Search for: **852IFR_NNUM-9A5DHD_20130406_win**

- **Sametime 852 Cumulative Fix 3 for IBM Sametime Community Server 8.5.2 Based Versions**

  http://www-01.ibm.com/support/docview.wss?uid=swg21659409
  Search for: **852-ST-COMMUNITY-IF-NNUM-9DSGWB_WIN**

All fixpacks can be downloaded at IBM Fix Central: http://www-933.ibm.com/support/fixcentral/

Deployment considerations before you install Instant IMtegrity

To consistently and effectively log all IBM Sametime IM chats, you need to install Instant IMtegrity on **every** IBM Sametime server in your organization.
Otherwise only IM chats originating from users which are connected to a IBM Sametime server running the Instant IMtegrity software will be logged.

Note: You need to purchase enough Instant IMtegrity licenses for all users being logged, regardless of the number of IBM Sametime servers being used.

Upgrading from Instant IMtegrity Version 4 to Version 5

Instant IMtegrity 5 must be installed on the same computer also running the IBM Sametime server software and you must be logged in to Windows with an Administrator account.

Steps to upgrade from Version 4 to Version 5

Un-install Instant IMtegrity 4

Step 1: Gracefully shut down the **IBM Sametime Server** (but leave the **IBM Lotus Domino** server running!)

Run the following Lotus Domino console command:

```
> tell imtegrity import
```

Let the IMtegrity importer task import all remaining chat log files.

Make sure that there are no chat log XML files in the IMtegrity logs directory anymore:

Check the logs directory for any remaining .XML files

If there are any, repeat the console command until all log files have been imported.

Step 2: Shutdown the Lotus **Domino** server:

Run the following Lotus Domino console command:

```
> quit
```

Step 3: Un-install "Instant IMtegrity 4"

When prompted to reboot the system, it is safe to choose "Later".

You only need to reboot the system after you *finished* the upgrade after step 5 below.

Install Instant IMtegrity 5

Step 4: Install "Instant IMtegrity 5"

Unpack the IMtegrity 5 ZIP file which contains the installer
Run SETUP.EXE
Click "Next" at the splash screen
Click "Next" at the welcome page
Read the license agreement and click "Next" if you accept it
Select the target installation folder and click "Next"
Click "Next" to start the installation
Click "Close" to exit the installer

Step 5: When prompted to reboot the system, click "Yes"

Important: It is **required** to reboot the system at this time. IM chats will not be logged until the system has rebooted.

Installing IMtegrity Version 5

Instant IMtegrity 5 must be installed on the same computer also running the IBM Sametime server software.
You must be logged in to Windows with an Administrator account.

Note: If you currently have IMtegrity Version 4.x installed, you need to un-install it first. See topic Upgrading from Instant IMtegrity Version 4 to Version 5

Steps to install Version 5

Step 1: Unpack the IMtegrity 5 ZIP file which contains the installer
Run SETUP.EXE
Click "Next" at the splash screen
Click "Next" at the welcome page
Read the license agreement and click "Next" if you accept it
Select the target installation folder and click "Next"
Click "Next" to start the installation
Click "Close" to exit the installer

Step 2: When prompted to reboot the system, click "Yes"

Important: It is **required to reboot** the system at this time. IM chats will not be logged until the system has rebooted.

Changes performed by the Instant IMtegrity 5 Installer

The Instant IMtegrity 5 installer performs the following changes to your IBM Sametime server :

- Deploys the "imtconfig.exe" program into your selected installation directory
- Deploys the "nimtegrity.exe" server add-in task into the Lotus Domino program directory
- Deploys the "stchatlog.dll" file into the Lotus Domino program directory
- Deploys the "stfilelog.dll" file into the Lotus Domino program directory
- Deploys the "imtchatlog5.ntf" and "imtconfig.ntf" templates into the Lotus Domino data directory
- Deploys the "imthelp.nsf" database into the Lotus Domino data\help directory
- Creates a "\logs" subdirectory inside the selected installation directory if it doesn't already exist
- Creates a new chat log database named "imtchatlog**5**.nsf" ("Instant IMtegrity 5 Chat Logs") in the Lotus Domino data directory, or upgrades the design of the existing database
  Note: All existing chats from the previous version 4 can still be found in the "imtchatlog4.nsf" database

  Note: Each newly created imtchatlog5.nsf database has a unique replica ID and will not replicate with other chat log databases by default
  To create a domain-specific replica ID, see topic Creating a domain-wide replica ID for the imtchatlog5.nsf db to enable replication
- Creates a new configuration database named "imtconfig.nsf" ("Instant IMtegrity Configuration"), or upgrades the design of the existing database
  Note: The newly created imtconfig.nsf database has a domain-specific replica ID and automatically replicates between all IBM Sametime servers
- Disables the scheduled import agent in any previous version 3 "imtchatlog.nsf" database (if found)
- Adds the IMtegrity server add-in task to the SERVERTASKS= line in the server's notes.ini file (if not already there)
- Automatically loads the IMtegrity server add-in task into the Lotus Domino server
- Sets chat logging mode to "strict" in the IBM Sametime configuration database "stconfig.nsf" (in the "CommunityServices" document)
- Enables chat logging in the sametime.ini file (for IBM Sametime 8.5.x servers only)

Importing existing 3.x chat log databases into the new imtchatlog 5.nsf database

When you install Instant IMtegrity 5, the installer creates a new imtchatlog5.nsf database.
If you are upgrading from IMtegrity 3.x and want to consolidate your existing chat logs from the previous imtchatlog.nsf database into the new imtchatlog5.nsf database, you can import them.

To import existing 3.x chat logs:

- Open the new imtchatlog5.nsf database with a Lotus Notes Client
- Select "Actions\Import Instant IMtegrity V3 Database..." from the menu bar
- Click the "Browse..." button
- Select the previous 3.x Instant IMtegrity chat log database you want to import from.
- Click "OK"

Note:

- You need at least Author ACL access and the "Create documents" ACL priviledge in the imtchatlog5.nsf database you want to import into.
- You need at least Reader ACL access and the "[ReadEverything]" ACL role in the V3 imtchatlog.nsf database you want to import from.
- AOL chat logs will not be imported; the importer will ignore them. Only IBM Sametime chat logs will be imported.
- The importer is smart about importing chat logs only once:
  If you attempt to re-import from a database you previously already imported, the importer will ignore already imported chat logs to avoid duplicates.

Importing existing 4.x chat log databases into the new imtchatlog 5.nsf database

It is neither recommended nor necessary to import chat documents from imtchatlog 4.nsf into imtchatlog5.nsf because the documents and database design are essentially identical.
If you do need to move the chat documents anyway, you can simply cut and paste the documents from one database into the other.

Creating a domain-wide replica ID for the imtchatlog 5.nsf db to enable replication

When you install Instant IMtegrity 5, the installer creates the imtchatlog5.nsf database with a **unique** replica ID.
This means that if you install Instant IMtegrity on multiple servers, the imtchatlog 5.nsf databases between these servers do **not** replicate by default.

If you prefer to have a common, replicated imtchatlog5.nsf between all IBM Sametime servers, you can use the Instant IMtegrity Configuration tool to set each imtchatlog5.nsf database automatically to a common, domain-wide replica ID to enable replication.

To set a domain-wide replica ID for imtchatlog 5.nsf:

- Open a command prompt window
- Change into the Instant IMtegrity installation folder
- Run **`imtconfig.exe /SetLogDomainReplicaID`**

Note: You need to perform the above steps on all servers you want to include in the replication of imtchatlog5.nsf

Note: The IMtegrity configuration database imtconfig.nsf will automatically replicate on all servers in the same domain.
You do not need to manually set a domain-wide replica ID; the installer does this by default.

Configuration overview

Simple, easy automatic configuration out of the box

The Instant IMtegrity 5 installer configures the server automatically with default configuration settings, so that all server-based chat logging takes place automatically after installation and reboot of the system. There is no client-side configuration necessary, all chats are logged directly on the server.

By default, IBM Sametime chats will be automatically logged into the \logs subfolder inside your Instant IMtegrity program folder as XML files and from there imported by the IMtegrity Importer (a Lotus Domino server add-in task) into the IMtegrity chat log database (imtchatlog5.nsf) once a minute.

You can setup rules in the Instant IMtegrity configuration db to control who can chat, who receives disclaimers, which IM chats should be imported into the imtchatlog 5.nsf database and which ones should be ignored and discarded, various action rules to notify compliance officers and such and you can change the import interval of the server add-in task via a TELL command on the server console. In addition, you can configure chat rules in the IMtegrity configuration db to control which users and groups can chat and with whom.

In order to have the chat logs available in the searchable Instant IMtegrity Chat Log database (imtchatlog5.nsf), you must enable the **XML** file format as a log format, as only XML files will be imported. Plain text files will not be imported. The text file option is merely provided as a convenience feature so that you do not have to manually write XML transformations to obtain the plain text content of the chat logs.

By default, after the XML files have been imported, they will be deleted from the \logs subfolder.
To keep these XML files, you can enable the "Store XML files as attachments" feature in the imtconfig.exe tool.
Once enabled, all XML files will be stored as attachments with the respective log documents inside the IMtegrity chat log database.

- System configuration changes are made with the Instant IMtegrity Configuration application ("imtconfig.exe")
- Rule configuration changes are made in the Instant IMtegrity Configuration database ("imtconfig.nsf")
- Server add-in task configuration changes are made via TELL commands on the server console ("> tell imtegrity help")

Note: Some configuration changes you make in the Instant IMtegrity configuration tool ("imtconfig.exe") require that you restart the "ST Chat Logging" and "ST Places" services.
In this case the configuration tool will prompt you, updates will not be picked up until the service has been stopped and restarted.

Note: All rule configuration changes made inside the imtconfig.nsf database will automatically take effect within one minute. Service restarts are not required.

Using the IMtegrity Domino server add -in task

Instant IMtegrity 5 features a Lotus Domino server add-in task ("IMtegrity Importer") which takes care of importing the XML chat logs into the imtchatlog5.nsf database.

By default, the installer automatically adds the IMtegrity Importer task to the SERVERTASKS= line in your servers notes.ini file and starts the task.
By default, the IMtegrity Importer task imports chat logs every **60** seconds.
By default, the IMtegrity Importer task processes **all** chat log files which are ready for import at the time of the run interval.
To configure how many chat log files should be processed, see "Limiting the number of log files per import" for mode details.

Adjusting the log import interval

To see the current import interval, enter the following console command:

```
> tell imtegrity interval
```

Note: You can also see the current import interval with the `> show tasks` command.

```
> show tasks

HTTP Server           Listen for connect requests on TCP Port:80
Agent Manager         Executive '1': Idle
Sametime Server       Running
IMtegrity Importer    Idle, importing every 10 seconds
Directory Indexer     Idle
Agent Manager         Idle
```

To change the import interval (for example, to 2 minutes = 120 seconds), enter the following console command:

```
> tell imtegrity INTERVAL 120
```

This changes the import interval to 120 seconds.

Note: It is not recommend to set the import interval to less than 5 seconds due to the load/overhead placed on the system.

Available TELL command line options

The server add-in task supports a variety of TELL commands to configure it at run-time:

`> tell imtegrity HELP`	lists the available command line options
`> tell imtegrity VERSION`	shows the current version and build date
`> tell imtegrity INTERVAL`	shows the current import interval
`> tell imtegrity INTERVAL n`	sets the import interval to "n" seconds
`> tell imtegrity PAUSE`	temporarily pauses the importer
`> tell imtegrity RESUME`	resumes previously paused imports
`> tell imtegrity IMPORT`	performs a one time manual import (useful when in PAUSE mode)

Note: The PAUSE, RESUME and IMPORT mode are only useful for troubleshooting purposes and when working with Instant Technologies Customer support.

Using the Instant IMtegrity Configuration Tool ("imtconfig.exe")

The Instant IMtegrity Configuration tool is used to view or edit the following configuration options:

- **Log all instant messages:**

  Select this option to capture all IBM Sametime chats. If this option is disabled, no chats will be logged.
  Important: Real-time chat and disclaimer rules require this option to be enabled!
  Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

  - **Save chat transcript logs in this folder:**

    Provide a valid folder path where the log files should be temporarily stored. The Instant IMtegrity Importer server add-in task will import log files from this folder only.
    Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

  - **File format:**

    - **XML:**
      Select this option to save chat logs in XML format. This is the default selection and is required for Lotus Notes database storage (imtchatlog5.nsf).
      Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

      - **Encrypt XML content:**
        Select this option to optionally encrypt the content of the XML log files on disk. See for more details.

        Note: logged image files will not be encrypted.
        Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

    - **Plain Text:**
      Select this option if you also want to store the chat logs in plain text format, for example to import them into word processors, etc.

      Note: The Instant IMtegrity Importer server add-in task does not use nor require the plain text log format.
      Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

  - **Commit long-running chat logs to disk every *n* minutes:**

    Select how often long-running chats should be periodically flushed to disk so that they appear sooner in the Instant IMtegrity chat log database ("imtchatlog5.nsf").
    The default selection is "0" which means ongoing chats will not get imported until they have ended. This the recommended setting.
    It is recommended to only change this option if you have a need to log persistent chat rooms (which can last indefinitely and therefore never really end) or similar applications.
    Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

  - **Enable IMtegrity diagnostic output to "<domino>\trace\imtegrity.txt":**

    It is highly recommended to **not** enable this option unless specifically requested by Instant Technologies Customer Support to help troubleshoot any potential problems.
    Enabling this option will write extensive diagnostic output to the 'imtegrity.txt' file in the Domino program\trace folder.

Depending on how busy the server is, this file can grow very large very quickly, and also reduce performance of the IBM Sametime server itself.
Changing this option requires a restart of the ST Chat Logging service and the ST Places service.

- **Log all file transfers :**

  Select this option to capture all IBM Sametime file transfers.
  Changing this option requires a restart of both the Domino and Sametime Server.

  - **Save file transfers in this folder :**

    Provide a valid folder path where the transferred files should be temporarily stored.
    The Instant IMtegrity Importer server add-in task will import log files from this folder only.
    Changing this option requires a restart of both the Domino and Sametime Server

- **Store XML files as attachments in log documents :**

  Select this option to keep the original XML log file as an attachment inside each chat log document in the Instant IMtegrity Chat Log database.
  This option is selected by default.

  Note: If the option "Encrypt XML content" is enabled, it is recommended to disable storing XML files as attachments, because the encrypted XML files cannot be decrypted by anyone other than the Instant IMtegrity Importer server add-in task itself.
  Changing this option takes place immediately at the next import interval

- **Store transferred files as attachments in log documents :**

  Select this option to keep the file transfers as attachments inside a chat log document in the Instant IMtegrity Chat Log database.
  This option is selected by default.
  Changing this option takes place immediately at the next import interval

- **Update full text index of database after each import :**

  Select this option to force an immediate update to the full text index of the Instant IMtegrity Chat log database every time new chats have been imported.
  For performance reasons, we recommend that you leave this option disabled.
  The Lotus Domino server will automatically update the full text index on an hourly schedule anyway.
  This option is disabled by default.
  Changing this option takes place immediately at the next import interval

- **When importing XML files, log :**
  Changing this option takes place immediately at the next import interval

  - **Nothing:**
    Select this option to prevent any server console / log file output during imports.

  - **Errors only:**
    Select this option to only log import errors to the server console / log file.

  - **Summary:**
    Select this option to show possible errors and a summary of how many logs/messages have been imported each time an import runs.
    If no new log files are found, nothing will be logged.
    This option is the default.

  - **Details:**
    Same as Summary, but additionally shows import activity each time an import runs.

  - **Debug:**
    Extensive and verbose logging only intended to aid troubleshooting.
    For performance reasons, we recommend that you leave this option disabled.

- **If import errors occur, send mail to :**

  Select this option to have Instant IMtegrity send an email to the provided email address, if it detects any errors during imports.
  The email will include the type and possible cause of the error and the file name of the particular chat log causing the error.
  The email address can be either in Lotus Notes format or internet RFC821 format.

- **Sametime 'ST Chat Logging' Service :**

  This Windows service provides the logging for IBM Sametime one-on-one (1:1) chats.
  This service got automatically installed by the IBM Sametime server installer.

  - **Start Service:** Starts the Windows service
  - **Stop Service:** Stops the Windows service

- **Sametime 'ST Places' Service :**

  This Windows service provides the logging for IBM Sametime n-way (multi-person) chats.
  This service got automatically installed by the IBM Sametime server installer.

  - **Start Service:** Starts the Windows service
  - **Stop Service:** Stops the Windows service

Using the Instant IMtegrity Configuration Database ("imtconfig.nsf")

Use the Instant IMtegrity configuration database ("imtconfig.nsf") to view, create and edit:

- Chat rules
- Disclaimer rules
- Inclusion rules
- Exclusion rules
- Action rules

See topic Rules Overview

Committing long-running chat logs periodically to disk

Instant IMtegrity 5 supports periodic logging of long, on-going IM chats and flushes them to disk every x minutes (configurable).
You can change the interval in Instant IMtegrity Configuration tool.

This feature was added especially for the "Instant Team Sessions" product where chats can go on for a very long time and never really "end", but is also useful in general for all long-winded chats. Previously, in Instant IMtegrity 3, a chat would not get imported at all until it was completely done. Now, a chat appears as on-going in the imtchatlog5.nsf database as soon as the flush interval has been reached, and gets gradually assembled until complete.

Note: Periodic logging is only supported for XML files.

Encryption of intermediate XML chat log files

Instant IMtegrity 5 allows administrators to encrypt all intermediate XML chat logs on disk using strong RSA encryption.
You can enable encryption via the Instant IMtegrity Configuration tool.

Details:

When the option "Encrypt XML content" is enabled, textual content inside of each XML log file is encrypted via a machine-specific 128 bit RSA RC4 key.
The server creates an asymmetric RSA public and private key pair once (at first start-up) and a random 128 bit RC4 symmetric encryption key (every time on service start). All names and IM chat messages in each XML log file are then encrypted using that RC4 key. The RC4 key itself is then encrypted using the server's machine specific public key and stored in the XML log file itself.

At import time, that RC4 key is decrypted using the server's machine-specific private key and is then used to decrypt the actual XML log file content.
128 bit RSA RC4 keys are sufficiently complex for this purpose, and the private key required to decrypt the content is only available on the very same server, so decryption can only take place on that particular server, means 'stealing' the files and trying to decrypt them elsewhere won't work.

Performance implications:

Encryption is fairly fast, since the most computationally "expensive" operation of creating a set of private/public keys is done only once at server start up.
Also, symmetric encryption using RC4 keys of small content (IM user names and chat messages) is extremely fast (and this is where the server spends most of it's time, encrypting names and messages passing through the server).

The RC4 key then sealed with the public key only once when Instant IMtegrity stores/saves the XML chat log file.
In comparison, public key operations are ca. 1000 times slower than symmetric key operations, so since Instant IMtegrity 4 is doing this only once (and only on the RC4 key itself, rather than on the entire chat message), it's very fast.

Limiting the number of log files per import

By default, the IMtegrity importer task processes **all** chat log files which are ready for import at the time of the run interval.
To configure how many chat log files should be processed, you can set the notes.ini variables listed below.

Note: It is recommended to **not** configure these variables unless specifically requested by Instant Technologies customer support.
Setting these variables with low values on busy servers might result in the IMtegrity importer task never being able to "catch up" with importing all chat log files.

notes.ini variables :

imtegrity_maxSingleLogs= the max number of 'single' log files to be imported per import run
imtegrity_maxStartLogs= the max number of 'start' log files to be imported per import run
imtegrity_maxPartLogs= the max number of 'part' log files to be imported per import run
imtegrity_maxFinalLogs= the max number of 'final' log files to be imported per import run
imtegrity_maxFileLogs= the max number of 'file' log files to be imported per import run

Note: The maximum allowed value for these notes.ini variables is **32765**

Limiting the size of the chat log database

The size of the Instant IMtegrity chat log database (imtchatlog5.nsf) can grow large very fast, depending on these factors:

- The number of active users using Sametime to chat with each other.
- The number of chats users perform throughout the day.
- The number and size of files users send to each other.
- The umber and and size of images users send to each other.
- Whether or not you attach the original chat .xml files to the chat log documents.

Save space by not storing source XML files as attachments

To limit rapid growth of the chat log database we recommend to **not** attach the original chat XML files to the chat log documents, since all of the relevant content such as dates, times, names and chat content gets imported into the chat log documents.
The main purpose of the XML files are simply to act as intermediate files only; they get created by the core Instant IMtegrity chat logging component running on the IBM Sametime server, and then imported into native IBM Notes documents by the Instant IMtegrity server addin task.
To verify that the XML files are not stored as attachments, run the imtconfig.exe tool and make sure that the option "Store XML files as attachments in log documents" is **not checked.**

Save space by not storing transferred files as attachments

When users transfer files in IM chats, Instant IMtegrity by default captures these transferred files and imports them into the chat log database as attachments.
If you don't need the content of these files inside the chat log database then you can save space by disabling this feature.
To disable storing transferred files as attachments, run the imtconfig.exe tool and make sure that the option "Store transferred files as attachments in log documents" is **not checked.**
Transferred files are stored on the file system (as specified in the imtconfig.exe tool under the option "Save file transfers in this folder:") and their file name matches the chat ID of the chat log file transfer document (viewable under the "Administration" tab in the document).
For example, if the chat ID is "`dec736e5-0726-4819-9adf-9182fc1d4ce6`" then the file name is "`imt5_`**`dec736e5-0726-4819-9adf-9182fc1d4ce6.`**`bin`"
(The original file name is available inside the chat log file transfer document; however files stored on disk use the unique chat log ID to avoid file name clashes of duplicate files)

Save space by storing transferred files on the server file system using DAOS

If you do need the files transferred by users as attachments in the database then you can still save space by utilizing DAOS.
DAOS is available in IBM Domino 8.5.0 and higher.
For details on how to configure and use DAOS see the IBM on-line documentation at:
http://www-10.lotus.com/ldd/dominowiki.nsf/dx/DAOS_Deployment_Guide

Enable LZ1 attachment compression, design and document compression

We recommend that you enable these advanced database properties for the Instant IMtegrity chat log database:

- "Use LZ1 compression for attachments"
- "Compress database design"
- "Compress document data"

To verify that these options are enabled, open the imtchatlog5.nsf database using an IBM Notes Client, open the database properties infobox, select the last tab with the beanie hat and make sure that all three options are checked.
Important: It is not enough to simply enable these options. If you enabled any of these options then you additionally have to compact the database for these options to actually take effect!

Tip: You can also enable the "compress database design" and "compress document data" options directly on the Domino server console using the following console commands:

```
> load compact imtchatlog5 -n -v
> load compact imtchatlog5 -c
```

Keep individual chat log databases smaller by disabling replication

By default, each Instant IMtegrity chat log database has a unique replica ID and therefore does not replicate with other chat log databases on other servers.
This keeps the size of each individual chat log database small because only chat logs captured on the server where the database resides are imported.
If the databases replicate, all databases contain the chat logs of all other servers, which makes the database convenient to search across all servers,
but also drastically increases the database size of each replica by containing all chat logs captured by all other servers.
To make all imtchatlog5.nsf databases replicas of each other, see "Creating a domain-wide replica ID for the imtchatlog5.nsf db to enable replication"

Manage the size of the chat log database by periodically deleting old documents

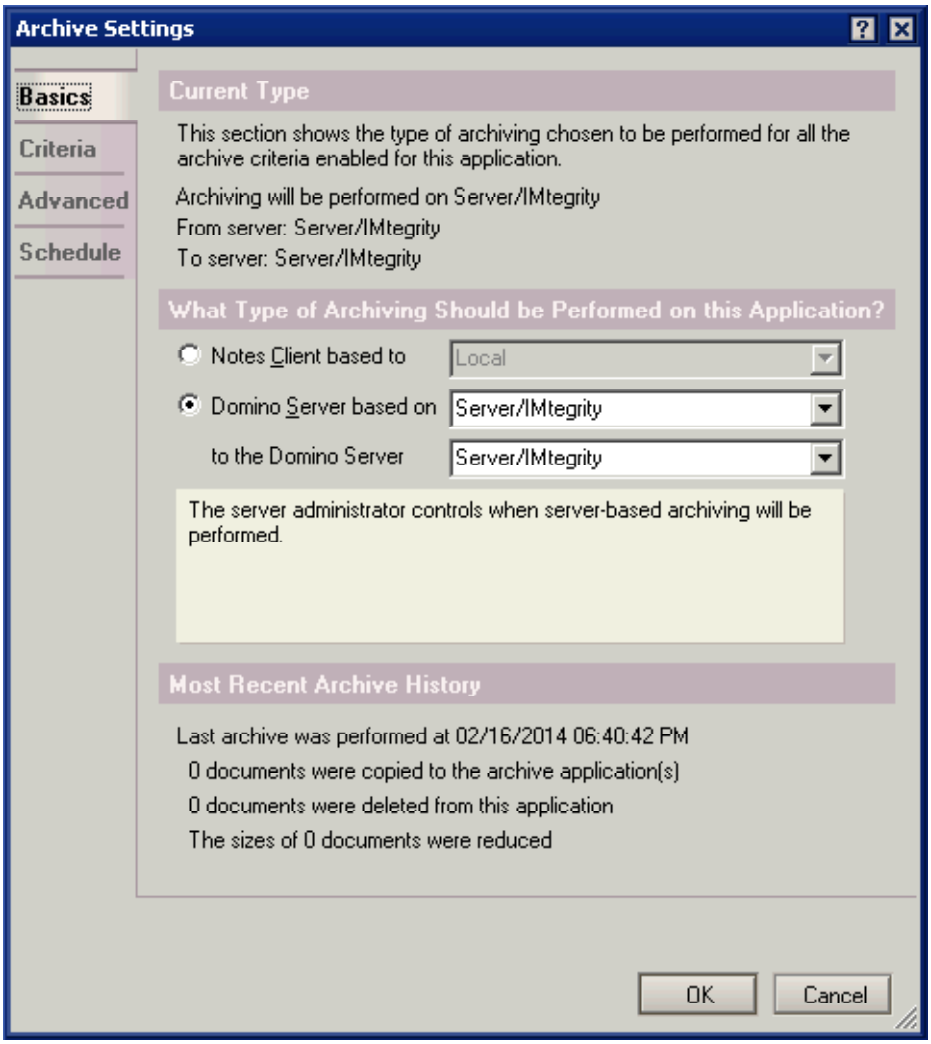
To keep the size of the chat log database manageable we recommend that you make use of the Document Archiving tool available in IBM Notes and Domino.
For an overview of the tool see the IBM on-line documentation at:
http://publib.boulder.ibm.com/infocenter/domhelp/v8r0/index.jsp?topic=%2Fcom.ibm.help.domino.admin.doc%2FDOC%2FH_ARCHIVING_WITH_POLICIES_OVER.html

You can either simply delete chat documents older than *n* days from the chat log database, or first archive them to an archive database on a central archive server and then delete them from the chat log database.
To configure deletion and archiving, you:

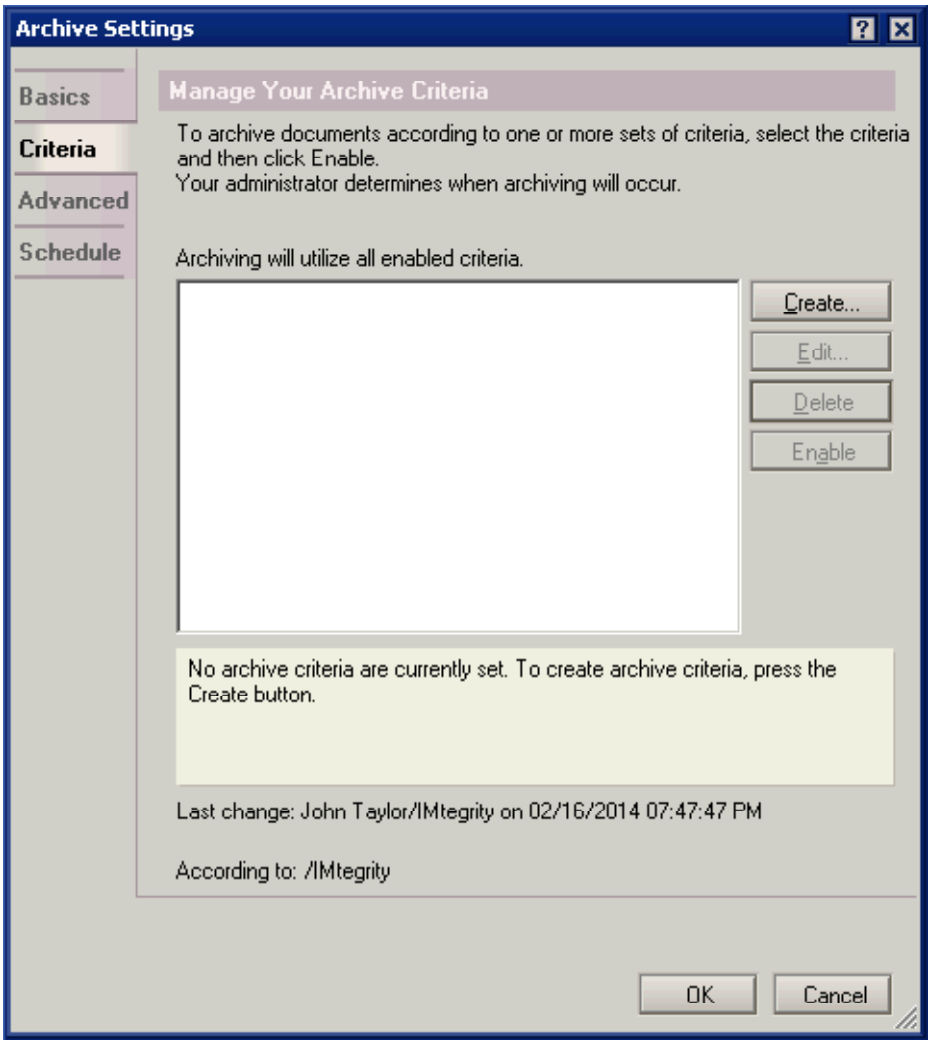
- first create an archiving profile in the Instant IMtegrity chat log database
- then create a program document to run the compact task periodically to execute the archiving profile.

Create an archive profile:

- Open the database properties infobox for imtchatlog5.nsf
- Click the button "Archive Settings"
- Click the "Basics" tab
- Select "Domino Server based on" and select your current Domino server
- To archive to a different archiving server, select that other archive server in "to the Domino server"
  (If you only want to delete old chat log documents without archiving, the "to the Domino Server" option is irrelevant)



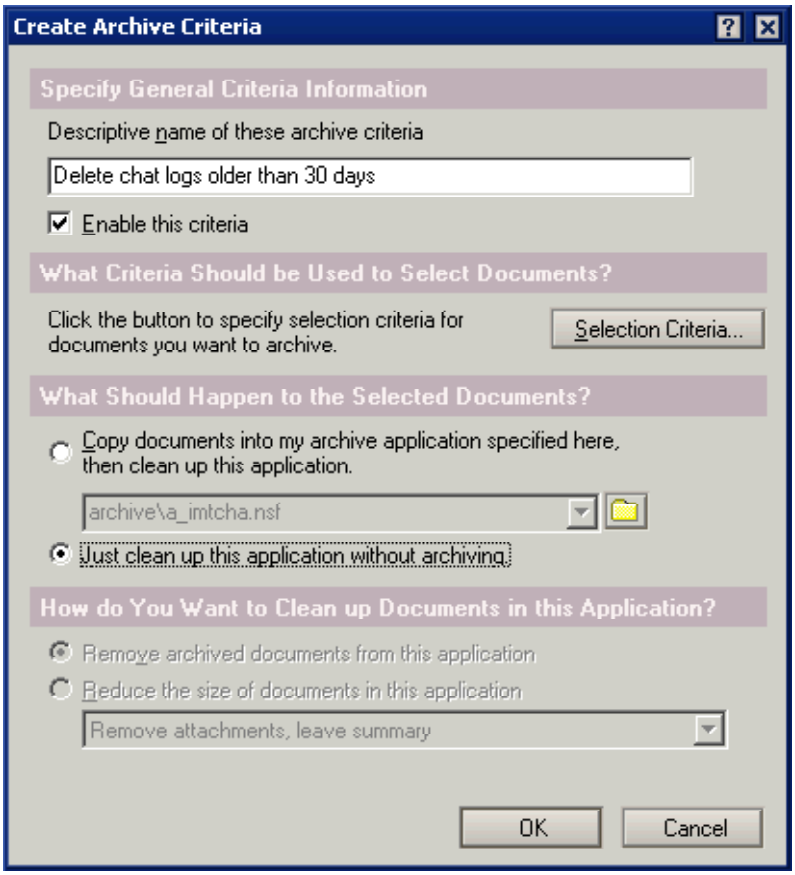
- Click the "Criteria" tab
- Delete any exiting sample criteria profiles



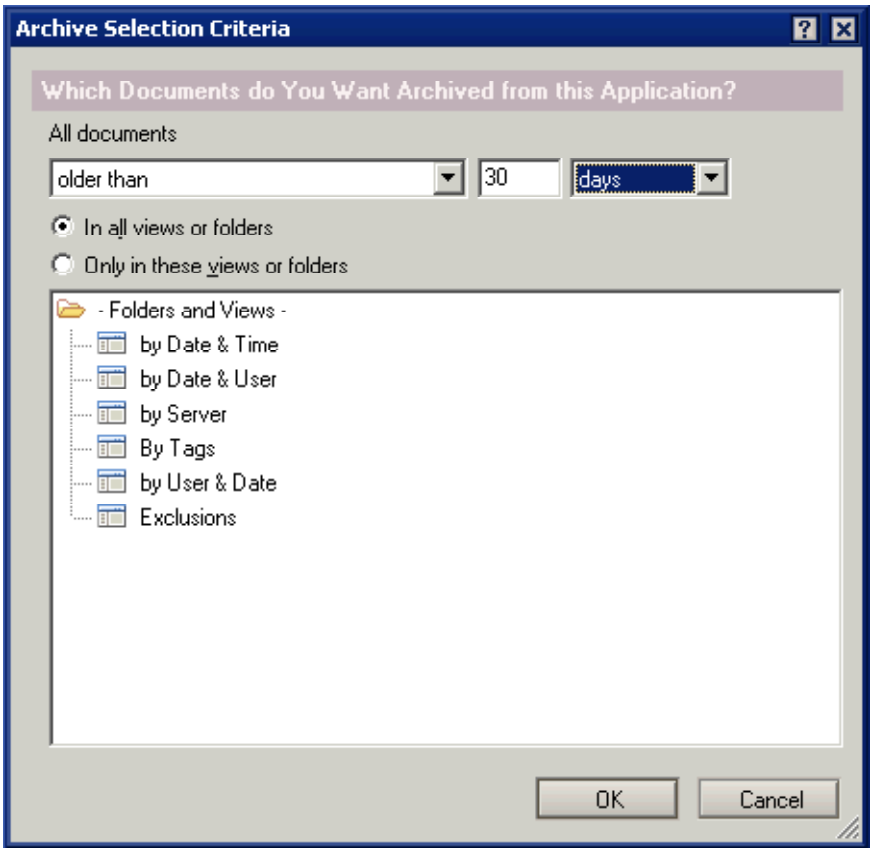
- Click "Create..." to create a new archive criteria
- Provide a descriptive name for the criteria, like "Delete chat logs older than 30 days"
- Check "Enable this criteria"

- If you want to archive documents and then delete them, select the option "Copy documents into my archive application specified here, then clean up this application" and specify an archive database to archive into.

- If you only want to delete documents without archiving then, select the option "Just clean up this application without archiving"

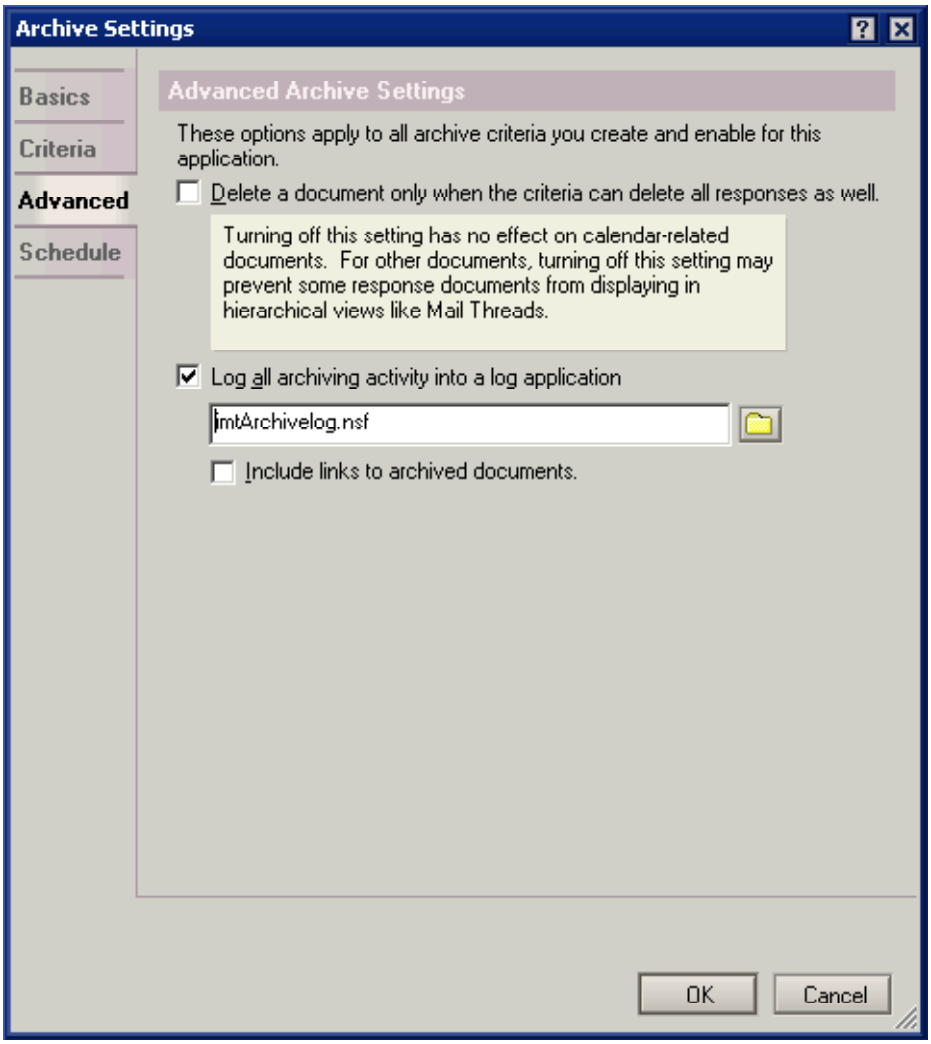


- Click the button "Selection Criteria..."
- Select the drop-down option "older than" and provide a number of days (or months)
- Select the option "In all views or folders"



- Click the "Advanced" tab
- Uncheck the option "Delete a document only when the criteria can delete all responses as well ."

- **Optional :** Check the option "Log all archiving activity into a log application " and specify an archive log database like "imtArchivelog.nsf"
  Enabling this option will make it easier to verify if chat log documents get archived and deleted as expected.



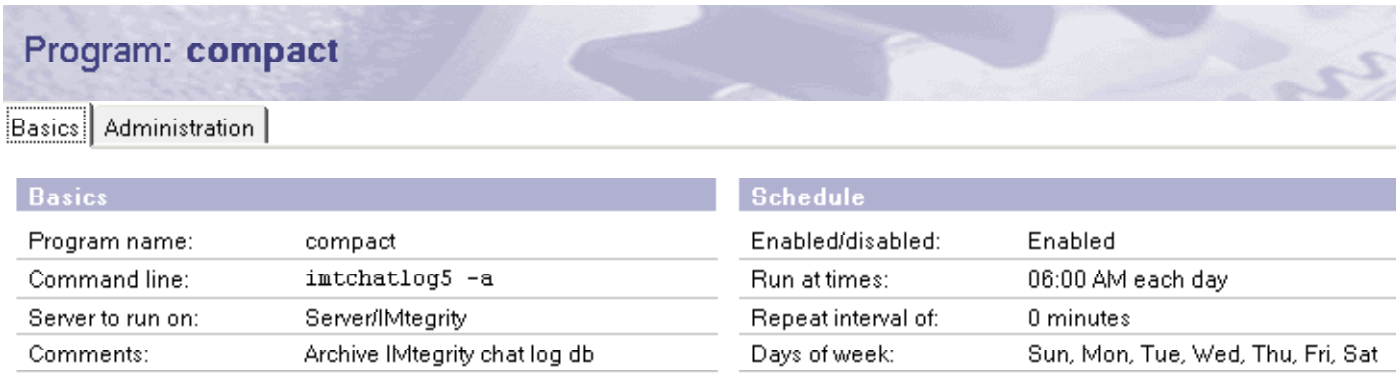
Note: The "Schedule" tab is not used to server-based deleting and archiving.

Important: When you set up archiving, the archive tool signs the archive settings with your signature; the Compact task then uses this signature to verify that you have the necessary database access rights to archive/delete and then archives/deletes on your behalf.
If you don't have the necessary rights then the Compact task will not archive or delete any documents, so make sure that the user who edits/saves the archive settings has sufficient rights to copy and delete documents in the database ACL.

Create a program document to run the compact task :

- Open the Domino Directory database (names.nsf)
- Expand "Configuration"
- Expand "Servers"
- Click the "Programs" view
- Click the "Add Program" action button
- Set the fields to these values:
  - Program name: **compact**
  - Command line: **imtchatlog 5 -a**
  - Server to run on: **<Your Domino server name>**

- Enable the program and schedule it for a convenient time to run, like 6AM each morning.
- Save the program document



The Domino server will now schedule the compact task to archive/clean up the imtchatlog5.nsf database every day at 6 AM, deleting and/or archiving all documents older than n days (as specified in the archive settings profile).

Tip: To verify that the compact task performs the archiving and/or deletions as expected, check the archive log database (imtarchivelog.nsf as specified in the archive settings).

Tip: If you don't want to wait until the scheduled program document gets executed, you can also run this command manually on the Domino server console:

```
> load compact imtchatlog5 -a
```

The server output should be similar to this (here we only clean up document without archiving them):

```
Archiving documents from imtchatlog5 (Instant IMtegrity Chat Logs)
Archived imtchatlog5, 0 documents were archived and 2521 were deleted
Compacting imtchatlog5 (Instant IMtegrity Chat Logs)
Compacted  imtchatlog5, 1812K bytes recovered (3%)
Database compactor process shutdown
```

Rules overview

Instant IMtegrity 5 has a highly configurable, flexible and powerful rules engine which supports 5 different types of rules:

- Chat rules allow or deny chats between different IBM Sametime users in real-time.
- Disclaimer rules send one or more customizable disclaimer texts to IBM Sametime users in real-time.
- Inclusion rules determine which IBM Sametime chat messages should be imported into the chat log database.
- Exclusion rules determine which IBM Sametime chat messages should *not* be imported.
- Action rules can automatically run predefined actions for chats matching one or more selection criteria.

By default, no rules exist; all chats are allowed, no disclaimers are sent, all chat log files will be imported and no custom actions are executed.

Rule evaluation order

Overall rule evaluation order :

- Chat rules will be evaluated in real-time whenever IBM Sametime users are about to start new chat sessions.
- Disclaimer rules will then be evaluated and sent in real-time if IBM Sametime users are allowed to start new chat sessions.
- Inclusion rules and Exclusion rules will be evaluated by the IMtegrity importer task after the chat concluded and has been logged.
- Finally, Action rules will be evaluated and executed by the IMtegrity importer task **even** if a log file is excluded from being imported as a result of inclusion or exclusion rules .

Detailed rule evaluation order :

All enabled rules are evaluated in the following order:

Pre chat (in real-time):

Step 1: Chat rules

- If no enabled chat rules exist, all IBM Sametime chats are allowed to take place.
  Evaluation continues with *Step 2: Disclaimer rules*
- If one or more enabled chat rule(s) exist, then chat rules of type "Deny access" are evaluated first:
  - If any "Deny access" chat rule matches the chat participants:
    - Rule evaluation will stop.
    - The chat initiator receives a customizable message about the chat being prohibited and the chat gets aborted.
    - The chat recipient will not receive any messages from the chat initiator .
  - If no "Deny access" chat rules exist or match, rule evaluation will continue with any enabled chat rules of type "Allow access":
    - If no "Allow access" chat rules exist, the chat will take place between the chat participants.
      Evaluation continues with *Step 2: Disclaimer rules*
  - If any "Allow access" chat rule matches the chat participants:
    - The chat will take place between the chat participants.
      Evaluation continues with *Step 2: Disclaimer rules*
  - If no "Allows access" chat rule(s) match the chat participants:
    - Rule evaluation will stop
    - The chat initiator receives a customizable message about the chat being prohibited and the chat gets aborted.
    - The chat recipient will not receive any messages from the chat initiator .

Step 2: Disclaimer rules

- If no enabled disclaimer rules exist, no IBM Sametime chat participant will receive any disclaimer text(s).

After the chat concluded, evaluation continues with *Step 3: Inclusion rules*

- If one or more enabled disclaimer rule(s) exist, then:
  - For each disclaimer rule that matches the chat participants:
    - Both the chat initiator and the chat recipient receive a customizable message at the beginning of the chat.
      After the chat concluded, evaluation continues with *Step 3: Inclusion rules*

Post chat (on schedule):

Step 3: Inclusion rules

- Inclusion rules do **not** apply to *multi-part log files
- If no enabled inclusion rule(s) exist, the log file is considered eligible for import, and evaluation continues with *Step 4: Exclusion rules*
- If one or more enabled inclusion rule(s) exist, the log file must satisfy at least one enabled inclusion rule for the current server to be considered eligible for import.
  If so, evaluation then continues with *Step 4: Exclusion rules*
- If not at least one enabled rule for the current server is satisfied by the log file, it will be deleted and not be imported, but evaluation continues with *Step 5: Action rules*

Step 4: Exclusion rules

- Exclusion rules do **not** apply to *multi-part log files
- If no exclusion rule(s) exist, the log file is considered eligible for import, and evaluation continues with *Step 5: Action rules*
- If one or more enabled exclusion rule(s) exist, and if the log file satisfies at least one enabled exclusion rule,
  it will be deleted and not be imported, but evaluation continues with *Step 5: Action rules*
- If not a single enabled exclusion rule is satisfied by the log file, it will be considered eligible for import, and evaluation continues with *Step 5: Action rules*

Step 5: Action rules

Action rules apply to all log files and are evaluated and executed **even** if a log file is excluded from being imported as a result of inclusion or exclusion rules.

As of version 5.1.0, action rules can be sorted by setting the "Rule sort order" field.
If an action rule has a sort order set, it will be executed in numerical, ascending order relative to other action rules with a sort order set.
If an action rule has no particular sort order set, it will be executed *after* any action rules who do have a sort order specified, and in alphabetical order.
Note: If you use the "Stop Action Rules" action, it is highly recommended that you set the "Rule sort order" field for **all** action rules to ensure a correct sort order.

Note: Certain action rules have no effect if the log file is not being imported.

- For example, if a log file is excluded from import but matches an action rule with an action to "Tag" the chat, the tag will be lost, because the chat log will not be saved.
- However, an action rule with an action to "Send an Email Notification" will still send the chat log as an email, even though it won't be saved in the chat log database (and the email notification will include a comment indicating that the log is not saved).

* multi-part log files get generated for long-running chats if the option "Commit long-running chats to disk" is set to anything other than '0' in the imtconfig.exe tool

Rule server(s)

You need to specify at least one Lotus Domino server name for an inclusion, exclusion or action rule to run on.
By default, the field contains the the current Domino server name.

Note: Chat rules always run in real-time on each IBM Sametime server Instant IMtegrity is installed on. You don't have to specify a server in chat rule documents.

Note: If you operate multiple IBM Sametime servers, it is highly recommended to include all server names for consistent rule coverage across all your servers.

Note: Domino group names such as "LocalDomainServers" are **not** supported, you need to list all servers individually.

Action rules

Action Rules can automatically run pre-defined actions for chats matching one or more selection criteria.

Action Rules are evaluated and executed **even** if a log file is excluded from being imported as a result of Inclusion or Exclusion Rules.

Note: Action rules apply to all types of logs, incl. multi-part log files (multi-part log files get generated for long-running chats if the option "Commit long-running chats to disk" is set to anything other than '0' in the imtconfig.exe tool)

Evaluation order : See topic Rule evaluation order

Note: Certain Action Rules have no effect if the log file is not being imported.

- For example, if a log file is excluded from import but matches an Action Rule with an action to "Tag" the chat, the tag will be lost, because the chat log will ultimately not be saved.
- However, an Action Rule with an action to "Send an Email Notification" will still send the chat log as an email, even though it won't be saved in the chat log database
  (In this case, the email notification will include a comment indicating that the log wasn't saved).

Rule criteria "Messages contain these phrases "

- **Any of these :**

  At least one listed word must be found and match in the IM chat text to satisfy the criteria

- **All of these :**

  All listed words must be found and match in the IM chat text to satisfy the criteria

  The word **car** also matches **racecar** and **carmaker**

Wildcards are supported:

F??bar matches **Foobar** (and **SuperFooBar**)
F?bar does not match **Foobar**, but matches **Fobar**

F*bar matches both **Foobar** and **Fobar**

You do NOT need to surround keywords with wildcards (like *car*) to find combinations like "racecar" or "carmaker".
If you list the word **car** , IMegrity implicitely searches for ***car*** anyway.

Note: To find only "car", but not "racecar" or "carmaker", enter the word surrounded with spaces

Note: Only the IM chat content (not the user names) will be searched for matching words.

Rule criteria "Participants names match "

- **Any of these :**

  At least one listed participant must be involved in the IM to satisfy the criteria

- **All of these :**

  All listed participants must be involved in the IM to satisfy the criteria

You can specify abbreviated names, canonicalized names or simple names

Peyton matches **Peyton McManus /Instant/US** but not **Lisa McManus /Instant/US**
Manus matches **Peyton McManus /Instant/US** and **Lisa McManus /Instant/US**
on matches both **Monique Leyda /Instant/US** and **Peyton McManus /Instant/US**
Lisa McManus does not match **Peyton McManus /Instant/US**

/O=US matches everyone in the /US country certifier name space
CN=Peyton McManus matches **Peyton McManus /Instant/US**

Wildcards are supported.

Note: You do NOT need to surround keywords with * wildcards
If you list the name **/Instant** , IMegrity implicitly searches for ***/Instant*** anyway.

Note: Instant IMtegrity first checks matches for abbreviated names, then canonical names (ie. Peyton McManus/Instant/US), then for canonicalized names (ie. CN=Peyton McManus/O=Instant/C=US)

Note: IMtegrity processes matches in the order they are listed in the rule . This is relevant in particular when using wildcards.

Rule criteria "Directory lookup matches "

- **Any participants :**

  At least one chat participant must have a field/value match in his/her person record in the directory to satisfy the criteria

- **All participants :**

  All chat participants must have a field/value match in their person records in the directory lookup to satisfy the criteria

Wildcards are supported for value matches.

Advanced directory lookup options :

These options directly impact on how the directory lookup is performed.
They directly correspond with IBM Domino's NameLookup API which is used to perform the directory lookups.
By default, the keyword [NoUpdate] is implicitly used by default.

Optionally, you can add these additional flags:

- **[NoSearching]**

  Searches only the first Domino Directory containing the "($Users)" view, which is the local names.nsf database on the Domino server.
  This keyword specifies to not retrieve values from the mail server's directory.

  Note: For best performance it is recommended to use this option if all your Sametime users are registered in the primary Domino Directory (usually "names.nsf") on the server.
  Do not use this option if you use Directory Assistance or if the Domino Directory is not a 'full' Domino Directory containing all your users.

- **[Exhaustive]**

  Searches all Domino Directories listed in the NAMES variable in notes.ini or configured via Directory Assistance.
  This keyword returns values from the local names.nsf database on the Domino server as well as the mail server's directory.
  If the mail server is unavailable, it retrieves values from the current name server.
  If you are using LDAP, it also retrieves values from the LDAP directory.

- **[TrustedOnly]**

  Searches only those Domino Directories that contain trust information.

Rule action "Include Directory Fields "

This action allows you to retrieve one or more additional fields from the person record in the Domino Directory for each chat participant.
If found, the field(s) will be copied into the chat log document as multi-value fields, with values for each user.
The fields and their values will also be immediately available for other actions of the current and subsequent rules.

Sample use case:

A sample use case would be to retrieve and include the employee ID, work location and manager for each user, for better discovery/archiving/searching later on.

Let's assume a chat between "Joe" and "Denise".
Joe's employee ID is "Joe123" and Denise's employeeID is "Denise456".
Joe's location is "Boston" and Denise's location is "Atlanta".
Joe's manager is "John Taylor/IMtegrity", Denise currently has no manager assigned.

The Domino Directory stores the employee ID, location and manager values in fields aptly named "EmployeeID", "Location" and "Manager"

When the rule gets executed, Instant IMtegrity will perform three directory lookups; one for each field.
The more fields you list, the more lookups will be performed (regardless of the number of chat users).
Note: For performance reasons, it is recommended to keep the number of fields to a minimum.

Instant IMtegrity will then create and save new fields to the chat log document, with these names and values:

Field name:	Field values (multi-value list)
EmployeeID	"Joe123" "Denise456"
Location	"Boston" "Atlanta"
Manager	"CN=John Taylor/O=IMtegrity" ""

Note: The first entry in each multi-value list matches the person who initiated the chat. In this example, Joe would have been the chat initiator.

Include these fields from the person record of each chat participant :

Add one or more field names like **EmployeeID** and **Location** from the sample use case above.
You cannot use wildcards.

Field name prefix when saved :

To avoid field name collisions, you can opt to save the retrieved field names with a custom prefix in the chat log document.
For example, if you choose **Domino_** as the prefix, the fields will be stored like this instead:

Field name:	Field values (multi-value list)

Domino_EmployeeID	"Joe123" "Denise456"
Domino_Location	"Boston" "Atlanta"
Domino_Manager	"CN=John Taylor/O=IMtegrity" ""

Note: If you use a custom field prefix, make sure to also include the custom prefix when you refer to these fields from other actions
(i.e. the "Copy fields from chat log to email" option in the "Send Email Notification" action).

Advanced directory lookup options :

These options directly impact on how the directory lookup is performed.
They directly correspond with IBM Domino's NameLookup API which is used to perform the directory lookups.
By default, the keyword [NoUpdate] is implicitly used by default.

Optionally, you can add these additional flags:

- **[NoSearching]**

  Searches only the first Domino Directory containing the "($Users)" view, which is the local names.nsf database on the Domino server.
  This keyword specifies to not retrieve values from the mail server's directory.

  Note: For best performance it is recommended to use this option if all your Sametime users are registered in the primary Domino Directory (usually "names.nsf") on the server.
  Do not use this option if you use Directory Assistance or if the Domino Directory is not a 'full' Domino Directory containing all your users.

- **[Exhaustive]**

  Searches all Domino Directories listed in the NAMES variable in notes.ini or configured via Directory Assistance.
  This keyword returns values from the local names.nsf database on the Domino server as well as the mail server's directory. If the mail server is unavailable, it retrieves values from the current name server. If you are using LDAP, it also retrieves values from the LDAP directory.

- **[TrustedOnly]**

  Searches only those Domino Directories that contain trust information.

Rule action "Send Email Notification": "Custom subject"

If no custom subject is specified, the default subject will be **Match found for rule "<RuleName>"**
For example, if you have an action rule named "Compliance Alert", then the subject line will be:
Match found for rule "Compliance Alert"

To override the default subject, you can specify a custom subject.
The custom subject can also include actual field values from the current log file being processed by the action rule.
(See "Action Rule Keyword Expansion" for details)

Rule action "Send Email Notification": "Custom sender name" and "Custom SMTP from address"

- **Custom sender name**

  If no custom sender name is specified, the default sender name will be **IMtegrity Notification**

  To override the default sender name, you can specify a custom sender name.
  The custom sender name can also include actual field values from the current log file being processed by the action rule.
  (See "Action Rule Keyword Expansion" for details)

- **Custom SMTP from address**

  If no custom SMTP from address is specified, the default from address will be **do-not-reply@imtegrity.com**

  It is highly recommended that you:

  - specify your own custom SMTP address if you send SMTP email notifications
  - use a RFC 822 address which matches the custom sender name above.

  Doing so will ensure a consistent sender address in both the "sender" and "from" SMTP headers.

  For example, if you use **Chat Notifications** as the custom sender name,
  you should use **Chat Notifications <notifications@yourDomain.com>** as the custom SMTP from address.

  Note: If you do not use a 'friendly name' portion in the custom SMTP from address (for example, you only use **notifications@yourDomain.com**)
  and if you do not use a custom sender name, then the SMTP "From" field will be **IMtegrity Notification <notifications@yourDomain.com>**
  (Because no custom sender name is specified, so the default sender name will be used in combination with the custom SMTP from address part).

  Note: Custom SMTP from addresses are only relevant for SMTP emails.
  If your notification emails are sent as NRPC emails to another Notes recipient or mail-in database,
  you do not need to specify a custom SMTP from address.

Rule action "Send Email Notification": "Include fields as SMTP X-Headers"

If this option is enabled, then all fields specified in the "Copy fields from chat log to email" option will be included as custom X-Headers if the notification email is sent via SMTP.

The X-Headers have the following format: **X-IMtegrity-<field name>:<field value(s)>**

For example, if you chose to include the field **ChatGUID** and enable this option, then the following X-Header will be included in SMTP emails:

```
X-IMtegrity-ChatGUID: 42d39820-ea24-449a-92e1-0d6dbbde50d7
```

Note: Multi-value items include their field values separated by a semicolon.
Note: If no fields are specified in the "Copy fields from chat log to email" option, then this option is ignored (no X-Headers will be included).
Note: X-Headers will only be included if the mail router is configured to send SMTP emails and/or at least one recipient is an internet RFC 822 address.

Rule action "Stop Action Rules"

If this option is enabled, any action rules following the current rule will not be executed anymore.
The order of rule execution is determined by the "Rule sort order" field.

If an action rule has a sort order set, it will be executed in numerical, ascending order relative to other action rules with a sort order set.
If an action rule has no particular sort order set, it will be executed *after* any action rules who do have a sort order specified, and in alphabetical order.

Note: If you use the "Stop Action Rules" action, it is highly recommended that you set the "Rule sort order" field for **all** action rules to ensure a correct sort order.

Action rule keyword expansion

You can include actual field values from the current log file being processed by the action rule .
To include such field values, include the fieldname surrounded by **{% %}, {$ $} or {# #}** in your custom text.

For example, the start of each chat is stored in a field named "ChatStart" in each chat log document.
To include the value of this ChatStart field, use **{%ChatStart%}** in your custom text, like so:
Chat started at {%ChatStart%}

- **Multi-value handling:**

  If the field name you specify contains multiple values, they will be concatenated using a comma .
  For example, if you include the field name **{%ListUserNames%}** , the list of all user names will be concatenated like so:
  CN=John Taylor/O=Instant/C=US, CN=Peyton McManus/O=Instant/C=US

  As of IMtegrity 4.10, you can use the list subscript operator **[]** to refer to a specific element in a multi-value field.
  A subscript consists of a numeric value in square brackets, like **[0]**. The first element of a list is subscript **[0]**
  A subscript that is less than [0] or that is greater than the number of elements in the list will return an empty string.

  For example, if the multi-value field **ListUserNames** contains the values **CN=John Taylor/O=Instant/C=US** and **CN=Peyton McManus/O=Instant/C=US**

{%ListUserNames[0]%}	will return **"CN=John Taylor/O=Instant/C=US"**
{%ListUserNames[1]%}	will return **"CN=Peyton McManus/O=Instant/C=US"**
{%ListUserNames[2]%}	will return **""**
{%ListUserNames[-1]%}	will return **""**

- **Abbreviated name formatting :**

  To format names in abbreviated mode, use **$** instead of **%**
  For example, if you include the field name **{$ListUserNames$}**, the abbreviated list of all user names will be concatenated like so:
  John Taylor/Instant/US, Peyton McManus/Instant/US

- **GMT time zone conversion for date -time fields:**

  To normalize date-time field values into GMT, use **#** instead of **%**
  For example, if you include the field name **{#ChatStart#}**, the date-time value will be converted into GMT and suffixed with "GMT".

Note: You can refer to non-names fields using the **$** instead of the **%** char; the results will be the same. The only difference between **$** and **%** is that fields of type "Reader", "Author" or "Names" are abbreviated if **$** is used.

Note: You can refer to non-datetime fields using the **$** instead of the **#** char; the results will be the same. The only difference between **$** and **#** is that DateTime fields are normalized from the local timezone to GMT if **#** is used.

Note: If the field name specified does not exist in the chat log document, it will be replaced with an empty string.

For example, if you use **`The %Lazy% Dog`** in your custom text, the actual text will be just **`The Dog`**
because the field "Lazy" does not exist in the chat log documents.

Using wildcards for inclusion, exclusion and action rules

Supported Wildcards for inclusion, exclusion and action rules :

Characters:	Matches:
*	Any number of characters (zero or more)
?	Any one character
#	Any one digit from 0 through 9
[*characters*]	Any one of the *characters* in the list or range specified here
[!*characters*]	Any one character not included in the list or range of *characters* specified here

Matching characters in a list

To match characters in a list, enclose the characters between square brackets with no spaces or other delimiters between characters (unless you want the space character to be part of the list). For example, [1, 2, 3, A, B, C] represents the characters 1, comma, space, 2, 3, A, B, and C (the redundant occurrences of the space and comma are ignored). But [123ABC] represents the characters 1, 2, 3, A, B, and C (with no space or comma character).

Matching characters in a range

To match characters in a range, separate the lower and upper bounds with a hyphen, as in [1-5]. Always specify the range in ascending sort order (A-Z rather than Z-A).
When you specify multiple ranges, you don't have to separate them with anything: for example, [1-5A-C] contains the ranges 1-5 and uppercase A-C.
A range specified in ascending order will produce a valid pattern string .

Matching special characters

To match one of these characters, include it in a *characters* list:

- Hyphen (**-**)
- Question mark (**?**)
- Asterisk (*****)
- Number sign (**#**)
- Open bracket (**[**)

Be sure to place the hyphen at the beginning of the list; if you're using the [!*characters*] format, the hyphen immediately follows the exclamation point, as in [!-123]. The other characters can appear anywhere in the *characters* list. For example, [-?A-Z] matches the hyphen, the question mark, and any uppercase letter from A through Z.

To match one of these characters, place the character anywhere within your wildcard specification except in a *characters* list or range:

- Comma (**,**)
- Close bracket (**]**)
- Exclamation mark (**!**)

For example, !,[1-6] matches the exclamation point, the comma, and any digit from 1 through 6.

Chat rules

Chat rules determine in real-time if an IBM Sametime user is allowed or denied to chat to certain other IBM Sametime users.
Chat rules cover 1:1 (one-on-one) chats, group (n-way) chats and announcements.

Note: Logging and/or enforcing chat rules for announcements requires IBM Sametime 8.5.x servers or higher.
Important: Chat rules require that the option "Log all instant messages" is enabled in the Instant IMtegrity configuration program ("imtconfig.exe")

Evaluation order : See topic Rule evaluation order

Updates:

Changes to chat rule documents automatically take effect within one minute.
Changes to chat rule documents only affect the creation of *new* chat sessions; existing chat sessions will continue to exist.

Configuration examples :

Example 1:

Configuration: No chat rules exist.
Result: All chats will take place.

Example 2:

Configuration: 1 or more "Deny access" chat rules, no "Allow access" chat rules.
Result: Chat participants matching any Deny access chat rule will be prohibited from chatting with each other.

All other chats will take place.

Example 3:

Configuration: No "Deny access" chat rule, 1 or more "Allow access" chat rules.
Result: Chat participants matching any Allow access chat rule will be allowed to chat with each other.

All other chats will be prohibited.

Example 4:

Configuration: 1 or more "Deny access" chat rules, 1 or more "Allow access" chat rules.
Result: Chat participants matching any Deny access chat rule will be prohibited from chatting with each other.

Chat participants matching any Allow access chat rule will be allowed to chat with each other.

All other chats will be prohibited.

Rule criteria "Between" & "And"

- **Between:**

  Provide one or more user or group names.

- **And:**

  Provide one or more user or group names.

* Wildcards are supported.

Note: If no wildcards are used, only **exact** name matches are performed.

Note: There is no distinction between "chat initiators" and "chat recipients".

For example, to prevent chats between users in the ***/Brokers** and ***/Sales** organizations, both configurations yield the same result:

Between: */Brokers
And: */Sales

...is the same as:

Between: */Sales
And: */Brokers

Note: The following Lotus Domino group types are supported:

- Multi-purpose
- Access Control List only
- Deny List only

Note: The following Lotus Domino group types are **not** supported:

- Mail only
- Servers only

Chat rule messages

Message:

You can provide a custom message which will be sent to the chat initiator if he is prohibited from talking to the intended chat recipient.
You can use **%s** as a substitution placeholder for the chat recipient's name.

Example: `You are not authorized to chat with %s.`

Default message:

If no custom message is provided, IMtegrity sends this default message to the chat initiator:

```
Chats with %s have been prohibited by your administrator.
```

Message formatting:

You can use multi-line messages.
You cannot use custom HTML formatting in chat rule messages

Using wildcards for chat and disclaimer rules

Supported wildcards for chat and disclaimer rules :

Character:	Matches:
*	Any number of characters (zero or more)

The only supported wildcard character in chat and disclaimer rules is the asterisk : *

Note: Wildcard matches are performed against user names and group names.

For example, if you use ***East***, any user who happens to be in a group named "SouthEast Sales Team" would be considered a match.
It is therefore recommended to use longer, unique words with a higher specificity to reduce the potential of unwanted matches.

For example, if you only want to match people who have an organizational unit /East/US in their name, use ***/East/US** rather than just ***East***

Examples:

F*bar matches both **Foobar** and **Fobar**

***/Instant** matches Peyton McManus/Instant

P*/Instant matches Peyton McManus/Instant but not Lisa McManus/Instant

Disclaimer rules

Disclaimer rules determine in real-time if IBM Sametime users should receive a disclaimer text at the beginning of their conversations.
Disclaimer rules cover 1:1 (one-on-one) chats, n-way (group) chats and announcements

Disclaimers are usually used to remind employees that their chats are being logged for legal reasons, and so on.
Disclaimers can be either plain text or HTML. Multi-line disclaimers are also supported.

Note: Logging and/or sending disclaimers for announcements requires IBM Sametime 8.5.x servers or higher.
Important: Disclaimer rules require that the option "Log all instant messages" is enabled in the Instant IMtegrity configuration program ("imtconfig.exe")

Evaluation order : See topic Rule evaluation order

Updates:

Changes to disclaimer rule documents automatically take effect within one minute.
Changes to disclaimer rule documents only affect the creation of *new* chat sessions.

Configuration examples :

Example 1:

Configuration: No chat rules exist.
Result: All chats will take place.

Example 2:

Configuration: 1 or more "Deny access" chat rules, no "Allow access" chat rules.
Result: Chat participants matching any Deny access chat rule will be prohibited from chatting with each other.
All other chats will take place.

Example 3:

Configuration: No "Deny access" chat rule, 1 or more "Allow access" chat rules.
Result: Chat participants matching any Allow access chat rule will be allowed to chat with each other.
All other chats will be prohibited.

Example 4:

Configuration: 1 or more "Deny access" chat rules, 1 or more "Allow access" chat rules.
Result: Chat participants matching any Deny access chat rule will be prohibited from chatting with each other.
Chat participants matching any Allow access chat rule will be allowed to chat with each other.
All other chats will be prohibited.

Disclaimer rule messages

Message:

You can provide a custom message which will be sent once to both the chat initiator and the chat recipient at the beginning of the chat.

Group chats:

Even if you target only specific users or groups, once a user matches your criteria and receives a disclaimer text, all other users of this group chat will also see this disclaimer text .
This is because in group chats, all messages sent are seen by all participants of the group chat; it is not possible to send a specific message to a particular user.
To prevent disclaimer messages from being seen by all members of a group (n-way) chat, uncheck the option "Send disclaimer in group chats".

User name substitution :

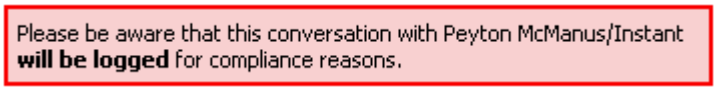
You can use **%s** as a substitution placeholder for the chat recipient's name.

Example: `All messages between you and %s are logged.`

Message formatting :

You can use multi-line messages and HTML formatting in disclaimer messages.

Example: To send this formatted disclaimer text:



...you use the following HTML as the disclaimer text:

```
<div style="border:2px solid red; background-color: #ffd2d2;
padding: 5px; margin-right:70px;">
Please be aware that this conversation with %s <b>will be logged</b>
for compliance reasons.
</div>
```

Note: Make sure to add the entire dislcaimer text above as a single line.

Exlusion rules

Exclusion rules determine which IBM Sametime chat log files should ***not*** be imported into the chat log database ("imtchatlog5.nsf").

Note: Exclusion rules do **not** apply to multi-part log files (multi-part log files get generated for long-running chats if the option "Commit long-running chats to disk" is set to anything other than '0' in the imtconfig.exe tool)

Evaluation order : See topic Rule evaluation order

- If no exclusion rule(s) exist, the log file is considered eligible for import, and evaluation continues with Action Rules
- If one or more enabled exclusion rule(s) exist, and if the log file satisfies at least one enabled exclusion rule, it will be deleted and not be imported, but evaluation continues with Action Rules
- If not a single enabled exclusion rule is satisfied by the log file, it will be considered eligible for import, and evaluation continues with Action Rules

Inclusion rules

Inclusion rules determine which IBM Sametime chat log files should be imported into the chat log database ("imtchatlog5.nsf")

Note: Inclusion rules do **not** apply to multi-part log files (multi-part log files get generated for long-running chats if the option "Commit long-running chats to disk" is set to anything other than '0' in the imtconfig.exe tool)

Evaluation order : See topic Rule evaluation order

- If no enabled inclusion rule(s) exist, the log file is considered eligible for import, and evaluation continues with Exclusion Rules.
- If one or more enabled inclusion rule(s) exist, the log file must satisfy at least one enabled inclusion rule for the current server to be considered eligible for import .
  If so, evaluation then continues with Exclusion Rules.
- If not at least one enabled inclusion rule for the current server is satisfied by the log file, it will be deleted and not be imported, but evaluation continues with Action Rules.