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Audit and monitor your Notes databases with InfoNSF

Olivier Zardini, Chief Technology Officer, CooperTeam



Olivier Zardini
Chief Technology Officer
CooperTeam

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When organizations come across a Domino infrastructure problem, such as database corruption or a server crash, their first resort is to deal with it internally, and if that fails, to turn to IBM support services. Your best option for keeping up with the pace of business in the midst of an unknown Domino infrastructure problem, however, is a powerful analysis tool that thoroughly monitors your infrastructure to deliver the insight you need, quickly and efficiently.

Comprehensive Domino content analysis

Because Domino infrastructure problems may have multiple causes, all database parameters should be quickly accessible in summary format. However, the only

immediately accessible data provided in any Notes database property box is the number of documents, the database size, and, if recorded, the user activity. This data is not sufficient to diagnose infrastructure problems because the causes of a problem are not necessarily linked to the number of documents or the size of the database.

To provide the necessary data, we developed InfoNSF, a comprehensive analysis tool that investigates volume data, user activity, documents, attached files, design elements, indexes, agents, code, security, replication parameters, and various database options. InfoNSF analyzes the content found in Notes databases and summarizes each database into a single Notes document (as Domino does with the Catalog.nsf database) to give the user visibility

into the infrastructure problem. What's more, InfoNSF processes and compiles the various data; computes ratios, trends, and average values; generates graphics that instantly indicate the database status; raises an alert as soon as a problem is detected in a database (see **Figure 1**); and allows you to set up custom alerts and thresholds for enhanced alert management features.

A 200MB Notes database is not a problem. But if it was only 50MB yesterday, it's important to determine the reason for the jump. InfoNSF can detect and report this kind of problem.

Because InfoNSF stores the database information in a Notes document as Notes fields, the resulting database may be easily customized in order to add views for isolating databases with common features (e.g., a set of databases without a defined administration server). Creating LotusScript agents to search for and extract complex information in result documents (by isolating databases containing a replication formula for server X) is also possible.

Know your Notes databases

When performing an analysis, InfoNSF not only extracts the access control list

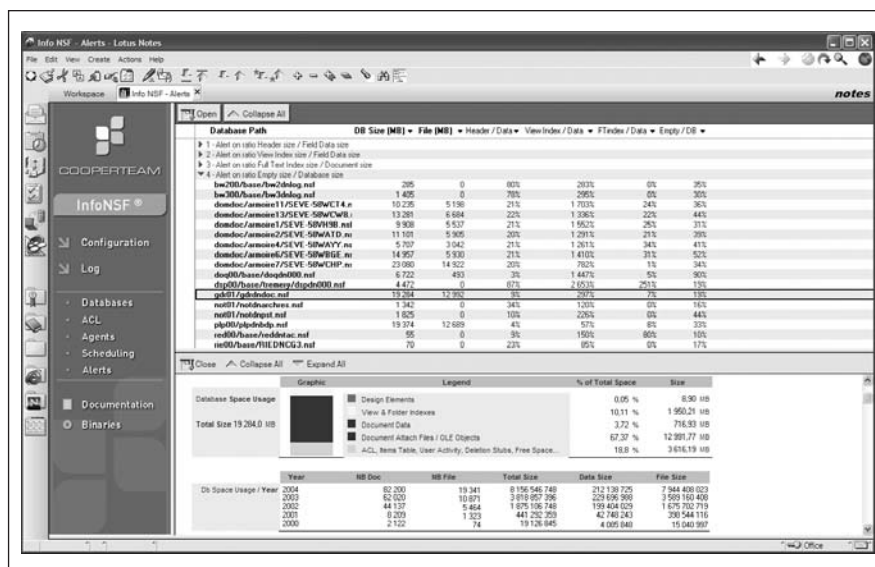


Figure 1 The InfoNSF Alerts view offers direct access to troubleshooting databases

(ACL) entries, but it also breaks out the members of groups listed in database ACLs, enabling you to find out the names and user rights of all persons accessing the database. During the database code analysis, the program searches for the constants present in the code in order to extract hard-coded values (server name, user name, database Replica ID, direct call to Notes DLL functions, etc.) and any element that may prevent the database from running after a change of server or operating system, or after a recertification.

A tool for administrators and developers

InfoNSF is designed to help administrators manage production Notes databases by providing, for instance, the list of scheduled agents, the latest execution date, the server used to run the agent, and the process duration of every database. InfoNSF raises an alert if this duration is close to the limit set on the server. For each database, you can view the execution dates of agents scheduled on a server on an hourly basis, which helps you to distribute agent start dates in order to limit concurrent executions and avoid bottlenecks.

Administrators can also validate application security by analyzing various items — ACLs, design-element signatures, private elements (such as views and agents), and contents of Reader and Author fields — and by extracting the code from the database (both @Formula and LotusScript). The code is extracted into a text file; therefore InfoNSF can search through the entire application code for analysis, as opposed to opening each Design element in the Notes database.

Developers can use InfoNSF in conjunction with another tool named CodeAnalyzer for further analysis of the Notes application code (for example, when validating the code during a

Case study: InfoNSF in action

A client once approached us at CooperTeam wondering why it took so long to run the LotusScript code in a Notes database hosted on a large Sun server. The database contained only 10,000 documents, and the LotusScript code analysis did not provide any clues. By the time they came to us, their Notes administrators had tried to modify the server parameters and had added some RAM, but with no success. InfoNSF quickly gave the answer: The database contained more than one million deletion stubs, inflating its size to over 400MB, and a daily import process was removing all documents from the database and re-creating them. Once the database was purged of its deletion stubs, and the method of importing documents was modified, the database dropped to 60MB in size and LotusScript was able to run optimally.

Notes upgrade in order to enforce corporate development rules or to detect errors from the Knowledge Base). CodeAnalyzer exploits InfoNSF result documents that contain the entire code of analyzed Notes databases in order to search for rule-defined failures. This way, hundreds of Notes databases may be processed sequentially in a few minutes' time.

Easy installation and configuration

The InfoNSF package includes an executable file and a Notes database that are used to set up the tool and to receive result documents. You can install the package onto a single Notes client or directly on servers, and it can scan both local databases and those hosted on remote servers. InfoNSF is usually installed on servers where it is used to implement a recurring process. For a one-shot audit at a client site, however, it can run from a client desktop.

Since InfoNSF adapts to the Notes version where it is installed (from release 4.5 to release 7), it won't be affected if you upgrade your Notes version. Windows, Linux, and AIX are currently the only operating systems

native to InfoNSF, but if you support your server on another operating system, such as AS/400 or OS/390, InfoNSF still allows for remote analysis of databases.

Conclusion

On average, an InfoNSF database analysis takes only a few seconds to complete, though processing times depend on selected options, database size, and running mode (local or remote). All the information needed for database analysis is stored in the result document, so it's possible for you to run InfoNSF, retrieve the result database, and analyze data regardless of the production environment. And because the result document of a database is created at the end of the analysis, you can start working on the results before process completion. For more information on InfoNSF, please visit <http://www.cooperteam.com>.

CooperTeam

245 First Street, 18th Floor
Riverview II
Cambridge, MA 02142 USA
Phone: +1 617 444-8438
Toll-free: +1 877 405-0350
E-mail: info@cooperteam.com
URL: <http://www.cooperteam.com>