

FINACLE SUPPORT CONNECT

Knowledge Series

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Finacle Support brings you this fortnightly knowledge bulletin to augment your problem-solving capability. There is more to it. Every edition is put together with utmost diligence to ensure that best practices and known resolutions are shared. In this edition you will find the following articles:

- Preventing Stack Overflow Error in Finacle Application
- On-the-Go Report Configuration in Finacle Online Banking
- About FI Config Parameter - MAX_RECS_FOR_STATEMENT

So let's start reading!



Preventing Stack Overflow Error in Finacle Application

Product: IBM Websphere Application Server (WAS)

The **Stack** is a section of memory which contains methods, local variables, and reference variables. If the Stack gets overloaded, the **WAS** will go down. This will make the **Finacle Application** unavailable. During the installation of WAS, the stack size will be defaulted to 128K.

However, banks are requested to review the parameters holistically with an increase in their business volume.

1. How to identify Stack Related Issue in case of downtime?

- In **SystemErr.log**, the **java.lang.StackOverflowError** will be observed. This means that the stack size is most likely getting breached

```
[2/18/21 11:37:29:874 GMT+04:00] 00001bf3 SystemErr      R java.lang.Exception: TagContextManagerReturn:ARJspReturn :Error while forwarding
                                     |to default Path :com.ibm.websphere.servlet.error.ServletErrorReport: java.lang.StackOverflowError
at com.infy.bbu.jsputil.TagContextManagerReturn.ARJspReturn(Unknown Source)
at com.infy.finbranch.groups.fincoreBeanBase.endMenu(fincoreBeanBase.java:2718)
at com.infy.finbranch.groups.tmBean.getNextPage(tmBean.java:267)
```

2. How can you check the Stack Size?

- On the frontend server, execute the command **ulimit -a**

```
$ ulimit -a
time(seconds)          unlimited
file(blocks)           unlimited
data(kbytes)           unlimited
stack(kbytes)          8192
coredump(blocks)       unlimited
nofiles(descriptors)   65536
vmemory(kbytes)        unlimited
```

3. How to increase the Stack size?

- Log on to **WAS Console**
- Navigate to **Enterprise Applications > server1 > Process definition > Java Virtual Machine**
- Add **-Xss256k** in **Generic JVM** arguments



On-the-Go Report Configuration in Finacle Online Banking

Product: Finacle Online Banking Version: 11.0.x and 11.2.x

The **Reports framework** in Finacle Online Banking allows the bank to configure reports on-the-go without any development. These reports can be generated as per the bank's need based on the data available in the Online Banking tables. Custom reports can be configured for either the user, administrative, transaction, or audit activities. Every report will have a unique code and description. The user can define the search criteria and select the details to be displayed from the tables and the columns.



Report Configuration and Generation will include the following steps:

1. Entry to be made in **Working Directory/data/ReportConfiguration.xml**, for any new table to appear under the list of tables for creating report design
2. In **Reports Administration → Report Designer → Create Report Design**, assign a unique code and description for the report to be created
3. Select the tables and columns which will be used in the search criteria (query) and in the report display. Also, the **Where** condition in the search query for report generation needs to be written
4. Click on the **Submit** button to create the report template
5. In **Reports Administration → Report Designer → Registration of Reports** - Link the report template created above to a User Type
6. Perform a cache refresh
7. After the cache refresh, the report template will be made available in **Report Administration → Reports → Generate Report**
8. Select the report, and personalize it by giving the necessary input data
9. On clicking the **View Report Button**, the report will be generated and shown to the user, who can also download the report



About FI Config Parameter - MAX_RECS_FOR_STATEMENT

Product: Finacle Integrator Version: 10.x onwards

There are two statement related APIs- **getFullAccountStatement** and **getFullAccountStatementWithPagination**. Both these APIs are Connect 24 route APIs and the response of these APIs from C24 can fetch a certain message length as per the ISO standards.

The **getFullAccountStatementWithPagination** API can fetch 20 transactions per request and send the response to channel. The pagination is expected to be controlled at the channel end, which will fire subsequent requests as required for the next set of transactions and goes on till the entire records are fetched. This may cause an increase in network traffic and overall fetch may be more.

However on the other hand, the **getFullAccountStatement** API will hit C24 multiple times from FI itself till it gets number of transactions as sent in request XML or as configured in the parameter **MAX_RECS_FOR_STATEMENT**, whichever is lower. By default, the value for this parameter is set to 99 in the **CEADM.FCSEUBSAPPTAB** table. This can be increased further based on the bank's business scenario. While there is no upper limit, configuring with the higher values will increase the response time accordingly.

To summarize, the **getFullAccountStatementWithPagination** API can be used where pagination is supported in the channel. Alternatively, the **getFullAccountStatement** API can also be used wherein iterations are taken care at the FI end, with the requisite value of **MAX_RECS_FOR_STATEMENT** configured.

Hope you like this edition. Is there anything that you'd like to see in the forthcoming series? We'd love to hear from you!

Write to us at finaclesupport@edgeverve.com