How to Show Blocking users for Dynamics AX 2012

To be able to see the needed information , so we can find the AX users id direct in SQL server, we need to configure a new registry, which is not by default enabled since there can be a small performance overhead on having this enabled.

But for most customers it is much more critical to be able to resolve a blocking lock The Output will be.

- ***Blocking Type***
  - ROOTBLOCKED is this session is NOT waiting for a other SESSION
  - BLOCKED if this session are blocked by a other Session
- ***AXUSER is available***
  - Show the Dynamics Username if possible or else N/A
- ***SPID***
  - SPID in SQL server
- ***Blocked***
  - The SPID blocking this Session
- ***ClientComputer***
  - If an AX session, when the name of the Client where ax32.exe is running
- ***AOSID***
  - If ax AX session the then Instance name of the AOS
- ***AX Session ID***
  - The AX internal SessionID
- ***ClientType***
  - USER
  - BUISINESS CONNECTOR
  - WEB USER
  - IMPERSONATED SESSION
  - WORKER
- ***DBID***
  - Database ID of the database where the LOCK are
- ***LoginTime***
  - The time this Session was connected to SQL-Server
- ***Last_Batch***
  - The Last time this Session executed anything against the SQL-Server
- ***Waittime***
  - Number of ms a session have been blocked
- ***Hostname***
  - The Hostname of this session
- ***Current_SQL***
  - The SQL currently being executed on this Session
- ***Program_name***
  - The Program name that have started this Session

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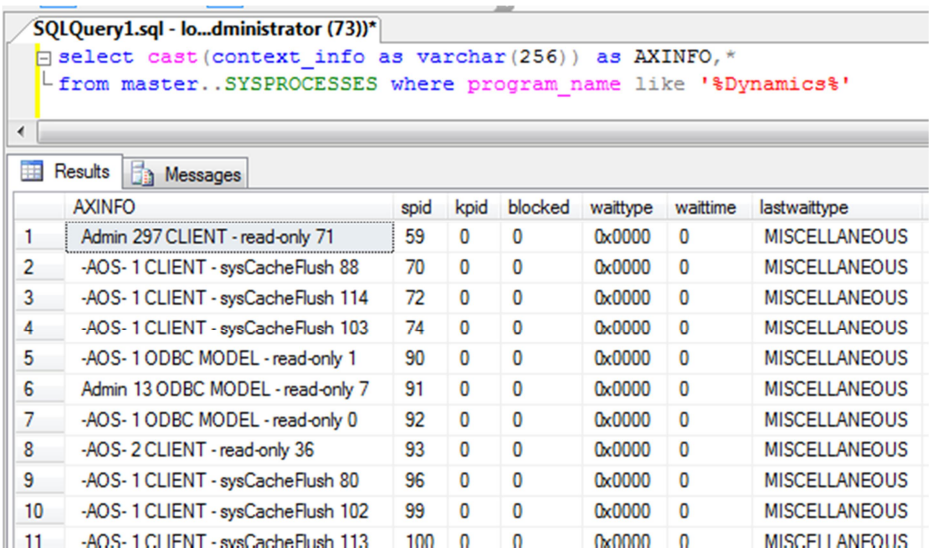
On the AOS server we need to add a string registry key for each Active configuration whee we want this enabled.

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\Dynamics Server\6.0\01\Original (installed configuration)
- Create a string registry value called ‘connectioncontext’ and set the value to 1.
- Restart the AOS.

Now we can see the needed information on users in sysprocesses and in views like sys.dm_exec_sessions

in the context_info field

select cast(context_info as varchar()256) as AXINFO,* from master..sysprocesses where program_name like '%Dynamics%'



	AXINFO	spid	kpid	blocked	waittype	waittime	lastwaittype
1	Admin 297 CLIENT - read-only 71	59	0	0	0x0000	0	MISCELLANEOUS
2	-AOS- 1 CLIENT - sysCacheFlush 88	70	0	0	0x0000	0	MISCELLANEOUS
3	-AOS- 1 CLIENT - sysCacheFlush 114	72	0	0	0x0000	0	MISCELLANEOUS
4	-AOS- 1 CLIENT - sysCacheFlush 103	74	0	0	0x0000	0	MISCELLANEOUS
5	-AOS- 1 ODBC MODEL - read-only 1	90	0	0	0x0000	0	MISCELLANEOUS
6	Admin 13 ODBC MODEL - read-only 7	91	0	0	0x0000	0	MISCELLANEOUS
7	-AOS- 1 ODBC MODEL - read-only 0	92	0	0	0x0000	0	MISCELLANEOUS
8	-AOS- 2 CLIENT - read-only 36	93	0	0	0x0000	0	MISCELLANEOUS
9	-AOS- 1 CLIENT - sysCacheFlush 80	96	0	0	0x0000	0	MISCELLANEOUS
10	-AOS- 1 CLIENT - sysCacheFlush 102	99	0	0	0x0000	0	MISCELLANEOUS
11	-AOS- 1 CLIENT - sysCacheFlush 113	100	0	0	0x0000	0	MISCELLANEOUS

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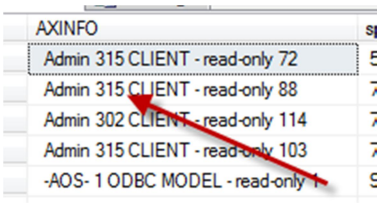
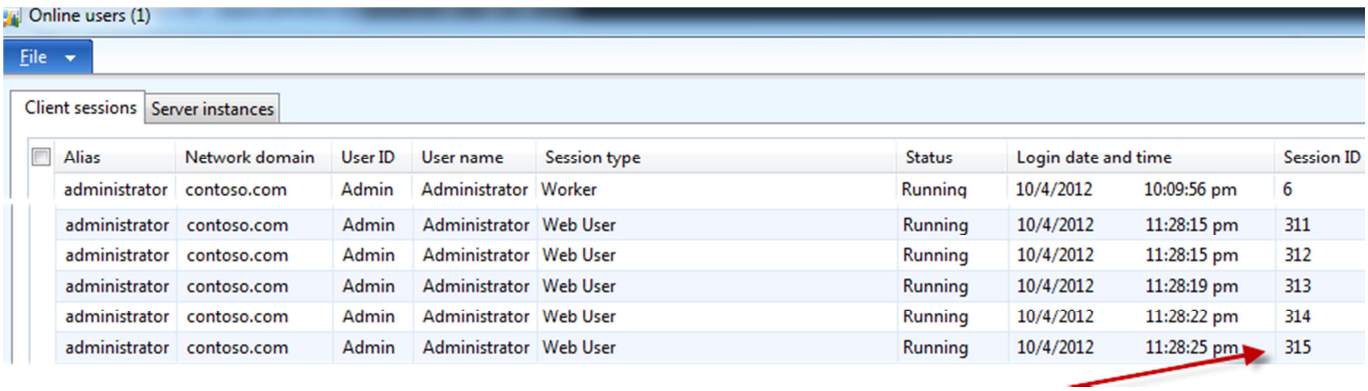
The information we need are

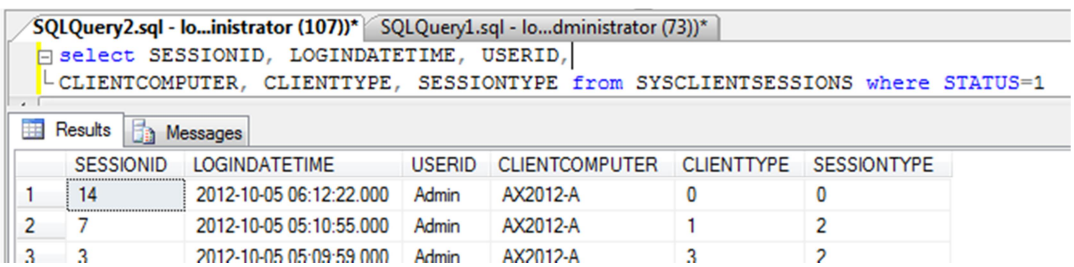


Which means that the connection is having SESSION ID 315 within Dynamics AX.



Alias	Network domain	User ID	User name	Session type	Status	Login date and time	Session ID
administrator	contoso.com	Admin	Administrator	Worker	Running	10/4/2012 10:09:56 pm	6
administrator	contoso.com	Admin	Administrator	Web User	Running	10/4/2012 11:28:15 pm	311
administrator	contoso.com	Admin	Administrator	Web User	Running	10/4/2012 11:28:15 pm	312
administrator	contoso.com	Admin	Administrator	Web User	Running	10/4/2012 11:28:19 pm	313
administrator	contoso.com	Admin	Administrator	Web User	Running	10/4/2012 11:28:22 pm	314
administrator	contoso.com	Admin	Administrator	Web User	Running	10/4/2012 11:28:25 pm	315

Now we can from SQL server, find the information on the users in the SYSCLIENTSESSIONS



	SESSIONID	LOGINDATETIME	USERID	CLIENTCOMPUTER	CLIENTTYPE	SESSIONTYPE
1	14	2012-10-05 06:12:22.000	Admin	AX2012-A	0	0
2	7	2012-10-05 05:10:55.000	Admin	AX2012-A	1	2
3	3	2012-10-05 05:09:59.000	Admin	AX2012-A	3	2

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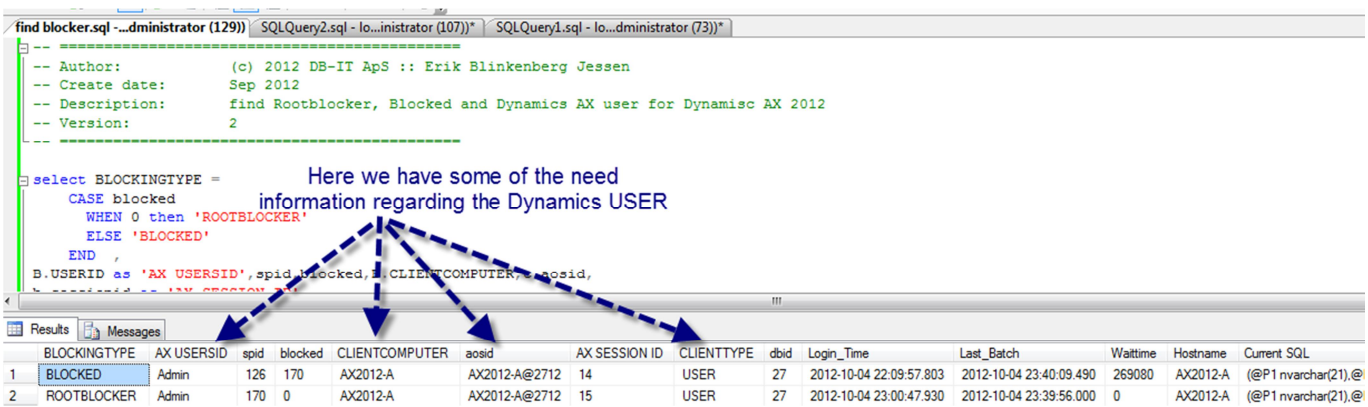
So for the Script (Se Script in appendix A) that shows blocking lock, we just need to Join those 2 table to get the information,

And a bit of “decode” to actual see the real CLIENTTYPE, possible Client type are

- USER
- BUISINESS CONNECTOR
- WEB USER
- IMPERSONATED SESSION
- WORKER

For the sessions that currently are blocked we can get the SQL statement they are being blocked on.



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APPENDIX A

```
-- ============================================
-- Author:          (c) 2012 DB-IT ApS :: Erik Blinkenberg Jessen
-- Create date:      Sep 2012
-- Description:     find Rootblocker, Blocked and Dynamics AX user for Dynamics AX 2012
-- Version:         2
-- ============================================

select BLOCKINGTYPE = CASE blocked
                               WHEN 0 then 'ROOTBLOCKER'
                              ELSE 'BLOCKED'
                              END  ,
B.USERID as 'AX USERSID',spid,blocked,B.CLIENTCOMPUTER,c.aosid,
--B.CLIENTTYPE as 'AX CLIENT TYPE',--b.sessiontype AS 'AX SESSSION TYPE',
b.sessionid as 'AX SESSION ID',
 CLIENTTYPE = CASE CLIENTTYPE
        WHEN 0 THEN 'USER'
        WHEN 1 THEN 'BUISINESS CONNECTOR'
        WHEN 5 THEN 'WEB USER'
        WHEN 3 THEN
    CASE SESSIONTYPE
              WHEN 0 THEN 'IMPERSONATED SESSION'
              ELSE 'WORKER'
          END
        ELSE 'OTHER'
end,
dbid,Login_Time,Last_Batch,  Waittime,Hostname,
(select [text] from ::fn_get_sql(sql_handle)) as "Current SQL",
(select top 1 (select [text] from ::fn_get_sql(sql_handle)) from sys.dm_exec_cursors(spid)) as "Previus SQL",
  Program_Name,NT_Username,
cast(context_info as varchar(128)) as 'AX CONTEXT'
from sysprocesses A , MicrosoftDynamicsAX..sysclientsessions  B, MicrosoftDynamicsAX..SYSSERVERSESSIONS c
where
 ( spid in(select distinct(blocked) from master..sysprocesses where blocked > 0) or
blocked > 0) and
 cast ((substring(cast(context_info as varchar(128)),
CHARINDEX(' ',cast(context_info as varchar(128)),2),
CHARINDEX(' ',cast(context_info as varchar(128)),CHARINDEX(' ',cast(context_info as varchar(128)),2) + 1) -
CHARINDEX(' ',cast(context_info as varchar(128)),2)))
as int) = b.sessionid and b.serverid=c.serverid
```

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