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# SMF Type 108 - Domino Server Statistics

This record type displays data for a Lotus Notes Domino Server running on an OS/390 system. The specific type of data reported is defined by the subtype field on the record (SMF108STP) in the standard record header.

Type 108 Subtypes:

1            Server Load ..... reports on global activity by the server

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## Subtype Descriptions:

### Subtype 1 - Server Load

This subtype, which is generated at the expiration of the SMF Global Interval (combination of INTVAL and SYNCVAL parameters in the SMFPRMxx parmlib member) contains counts of activity done by the server.

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## Record Environment

SMF Type 108 records are generated using the C language function 'smf\_record' which is a part of the OS/390 extensions to the language. The generated invocation results in an environment which equates to

**Macro**     SMFTWM (SVC level interface) -- record exit = IEFU83

**Mode**      Task

**Storage Residency** 31-bit

**SUBSYS**    'STC'

## Security Notice

Because the processing which generates these records is using the 'C' language interface there is some security setup that must be done in order to enable these records to be generated. The RACF commands (or their equivalent) must be issued before these records can be generated:

- RDEFINE FACILITY BPX.SMF UACC(NONE) -- may have already been done
- PERMIT BPX.SMF CLASS(FACILITY) ID(<server>) ACCESS(READ) --- allow access
- SETROPTS RACLIST(FACILITY) REFRESH --- refresh in-core tables

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## Record Mappings

The record mappings are shown in two sections, a Common Section which appear on all subtypes and then a Unique Section for each subtype.

## Common Sections

The following sections appear on each of the Type 108 subtype records and are included in the documentation once.

### Header Section

This section contains the common SMF record headers fields and the triplet fields (offset/length/number) that locate the other sections on the record.

Offsets		Name	Length	Format	Description												
0	0	SMF108LEN	2	binary	Record length. This field and the next field (total of four bytes) form the RDW (record descriptor word).												
2	2	SMF108SEG	2	binary	Segment descriptor (see record length field).												
4	4	SMF108FLG	1	binary	System indicator:  <table border="0"> <tr> <td><b>Bit</b></td> <td><b>Meaning When Set</b></td> </tr> <tr> <td>0</td> <td>Reserved</td> </tr> <tr> <td>1</td> <td>Subtypes used</td> </tr> <tr> <td>2</td> <td>Reserved</td> </tr> <tr> <td>3-6</td> <td>Version indicators*</td> </tr> <tr> <td>7</td> <td>Reserved.</td> </tr> </table>	<b>Bit</b>	<b>Meaning When Set</b>	0	Reserved	1	Subtypes used	2	Reserved	3-6	Version indicators*	7	Reserved.
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7	Reserved.																
5	5	SMF108RTY	1	binary	Record type 108 (X'6C').												
6	6	SMF108TME	4	binary	Time since midnight, in hundredths of a second, that the record was moved into the SMF buffer.												
10	A	SMF108DTE	4	packed	Date when the record was moved into the SMF buffer, in the form 0cyydddF.												
14	E	SMF108SID	4	EBCDIC	System identification (from the SID parameter).												
18	12	SMF108SSI	4	EBCDIC	Subsystem identification.												
22	16	SMF108STP	2	binary	Record Subtype  <table border="0"> <tr> <td><b>SubType Description</b></td> </tr> <tr> <td>1 Server Load</td> </tr> </table>	<b>SubType Description</b>	1 Server Load										
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24	18	SMF108PRO	4	binary	Offset to Product Section												
28	1C	SMF108PRL	2	binary	Length of Product Section												
30	1E	SMF108PRN	2	binary	Number of Product Sections (should be '1')												
32	20	SMF108SSO	4	binary	Offset to Self-Defining Section												
36	28	SMF108SSL	2	binary	Length of Self-Defining Section												
38	2A	SMF108SSN	2	binary	Number of Self-Defining Section (should be '1')												

### Product Section

This section contains the general information about the server and the system that it is running on.

Offsets		Name	Length	Format	Description
0	0	SMF108PRRVN	4	binary	Record Version Number (starting with '1')
4	4	SMF108PRPVN	8	EBCDIC	Product Version ('5.0' for example)
12	C	SMF108PRSVN	32	EBCDIC	Server Name (used to identify partitioned servers)

## Subtype 1 - Server Load

### Self-Defining Section

This section contains the triplet fields (offset/length/number) that locate the specific sections for this subtype on the record.

Offsets		Name	Length	Format	Description
0	0	SMF108SLO	4	binary	Offset to Server Load Section
4	4	SMF108SLL	2	binary	Length of Server Load Section
6	6	SMF108SLN	2	binary	Number of Server Load Section (should be '1')
8	8	SMF108TRO	4	binary	Offset to Transaction Section
12	C	SMF108TRL	2	binary	Length of Transaction Section
14	E	SMF108TRN	2	binary	Number of Transaction Section (1 per transaction type processed)

### Server Load Section

This section contains the counters showing activity at the server level (globally).

Offsets		Name	Length	Format	Description
0	0	SMF108SLCU	4	binary	current number of users
4	4	SMF108SLUA	4	binary	number of currently connected users that are currently active
8	8	SMF108SLUA1M	4	binary	number of currently connected users that have been active within the last 1 minute
12	C	SMF108SLUA3M	4	binary	number of currently connected users that have been active within the last 3 minutes
16	10	SMF108SLUA5M	4	binary	number of currently connected users that have been active within the last 5 minutes
20	14	SMF108SLUA15M	4	binary	number of currently connected users that have been active within the last 15 minutes
24	18	SMF108SLUA30M	4	binary	number of currently connected users that have been active within the last 30 minutes
28	1C	SMF108SLDMSENTL	4	binary	number of Domino mail messages delivered to local users
32	20	SMF108SLDMSENTLAS	4	binary	average size of Domino mail and SMTP messages delivered to local users
36	24	SMF108SLDMSENTR	4	binary	number of Domino mail and SMTP messages sent to other servers
40	28	SMF108SLDMSENTRAS	4	binary	average size of Domino mail messages sent to other servers
44	2C	SMF108SLSMREC	4	binary	number of SMTP messages received from other servers during interval
48	30	SMF108SLSMRECAS	4	binary	average size of SMTP messages received from other servers during interval
52	34	SMF108SLSMSENT	4	binary	number of SMTP messages sent to other servers during interval
56	38	SMF108SLSMSENTAS	4	binary	average size of SMTP messages sent to other servers during interval
60	3C	SMF108SLTRANS	4	binary	total number of transactions processed during interval
64	40	SMF108SLSVREPL	4	binary	number of replications initiated by this server
68	44	SMF108SLNWSSESIN	4	binary	number of incoming (to the server from clients) sessions established during the interval

Offsets		Name	Length	Format	Description
72	48	SMF108SLNWISESOUT	4	binary	number of outgoing sessions established during the interval
76	4C	SMF108SLNWBR	4	binary	number of network KBytes received during interval
80	50	SMF108SLNWBS	4	binary	number of network KBytes sent during interval
84	54	SMF108SLTT	2	binary	total number of physical thread pool threads, server_pool_tasks
86	56	SMF108SLVTIU	2	binary	number of virtual thread pool threads currently in use
88	58	SMF108SLAIOR	4	binary	number of async I/O reads during interval
92	5C	SMF108SLAIOW	4	binary	number of async I/O writes during interval
96	60	SMF108SLPOP3R	4	binary	number of POP3 reads during interval
100	64	SMF108SLIMAPR	4	binary	number of IMAP reads during interval
104	68	SMF108SLHTTPR	4	binary	number of HTTP reads during interval
108	6C	SMF108SLHTTPW	4	binary	number of HTTP writes during interval
112	70	SMF108SLVTIUMAX	2	binary	maximum number of virtual thread pool threads in use during interval
114	72	SMF108SLTASKS	2	binary	number of tasks currently in use
116	74	SMF108SLTASKSMAX	2	binary	maximum number of tasks in use during interval
118	76	SMF108SLPTIU	2	binary	number of physical thread pool threads currently in use
120	78	SMF108SLPTIUMAX	2	binary	maximum number of physical thread pool threads in use during interval

## Transaction Section

This section contains the data being reported for each transaction (by type) that is requested of the server. Only transactions with non-zero activity counts are included.

Offsets		Name	Length	Format	Description
0	0	SMF108TRTYPE	4	binary	transaction type
4	4	SMF108TRTYPENP	4	binary	number of transactions of type processed during interval
8	8	SMF108TRTYPETA	4	binary	total accumulated response time, in milliseconds, for all transactions of type that completed during interval