

BGP DB2 Default Tuning Values

The following are some values for important db2 and linux tunable parameters that were used in a large BGP environment to help performance on a system that was booting 400 simultaneous blocks. Further below are the changes needed to facilitate even larger numbers of block boots.

DB Configuration	Value
400 Blocks Booting	
DFT_QUERYOPT	1 or 3
DFT_DEGREE	1
SELF_TUNING_MEM	ON
LOCKLIST	AUTOMATIC
MAXLOCKS	AUTOMATIC
PCKCACHESZ	AUTOMATIC
SHEAPTHRES_SHR	AUTOMATIC
SORTHEAP	AUTOMATIC
DBHEAP	3500
CATALOGCACHE_SZ	650
LOGBUFSZ	128
UTIL_HEAP_SZ	233666
APPGROUP_MEM_SZ	40000
GROUPHEAP_RATIO	80
APP_CTL_HEAP_SZ	128
STMTHEAP	4096
APPLHEAPSZ	2500
STAT_HEAP_SZ	4500
LOCKTIMEOUT	-1
CHNGPGS_THRESH	80
MAXAPPLS	AUTOMATIC
MAXIFLOP	128
LOGFILSIZ	1024
AUTO_RUNSTATS	ON

DBM Configuration

MON_HEAP_SZ	256
JAVA_HEAP_SZ	4096

SHEAPTHRES	0
ASLHEAPSZ	15
QUERY_HEAP_SZ	1000
MAXAGENTS	1500
NUM_POOLAGENTS	250
NUM_INITAGENTS	250
MAX_COORDAGENTS	MAXAGENTS – NUM_INITAGENTS (-1)
MAXCONNECTIONS	3000
MAX_QUERYDEGREE	1
INTRA_PARALLEL	NO
FCM_NUM_BUFFERS	AUTOMATIC
FCM_NUM_CHANNELS	AUTOMATIC

LINUX Configuration

Number of Open files – bgpsysdb /proc/sys/kernel/sem	125000 256 1048576 256 4096
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Buffer Pool Size - ibmdefaultbp 200,000 8k pages

800 Block Boot Changes

DBM Configuration - MAXAGENTS	2500
MAXCONNECTIONS	5000

Linux Configuration - Number of Open Files (bgpsysdb) /proc/kernel/sem	200000 256 2097152 256 8192
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More then 800 Blocks Booting

DBM Configuration - MAXAGENTS	4000
MAXCONNECTIONS	8000

Linux Configuration - Number of Open Files (bgpsysdb) /proc/kernel/sem	275000 256 4194304 256 16384
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