

2467292 - memAllocSystemPages failed with rc=12 - Cannot allocate memory

Version	5	Type	SAP Knowledge Base Article
Language	English	Master Language	English
Release Status	Released to Customer	Category	Problem
Component	HAN-DB (SAP HANA Database)	Released On	17.11.2020

Please find the original document at <https://launchpad.support.sap.com/#/notes/2467292>

Symptom

There are lot of "Out of Memory" situations and the indexserver trace contains many errors like:

```
[23132]{-1}{98/58569543} 2017-04-27 11:09:54.493200 e Memory Precharge.cpp(00146):  
memAllocSystemPages failed with rc=12, 12 (Cannot allocate memory)
```

When the issue occurred the system actually still had enough memory available.

For example you can see in the OOM-Dump:

[MEMORY_OOM]:

Failed to allocate 5147713536 byte (5,1GB)

[OS_MEMORY]:

MemTotal: 888750656 kB (888.7 GB)
MemFree: 391448448 kB (391.4 GB)

Environment

- SAP HANA, platform edition
- SLES 11 SP2 / SP3 / SP4
- SLES 12 SP1 / SP2/ SP3 / SP4 / SP5
- SLES 15 GA / SP1 / SP2

Cause

This error message indicates a system defined memory limit set on OS level. The database wants to allocate the memory which is available, but could not allocate it due to a configured limit.

Resolution

Check the recommended OS settings in regards to memory limits as described in SAP Notes:

- [1824819](#) - SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP2
- [1954788](#) - SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP3
- [2240716](#) - SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP4

- [2205917](#) - SAP HANA DB: Recommended OS settings for SLES 12 / SLES for SAP Applications 12
- [2684254](#) - SAP HANA DB: Recommended OS settings for SLES 15 / SLES for SAP Applications 15

If applicable please remove ulimit as it is described in the SAP Notes.

Keywords

memory, limit, SAP HANA, SLES, Linux, Unix, OS, limit

Products

SAP HANA, platform edition all versions

Other Components

Component	Description
BC-OP-LNX	Linux

This document refers to

SAP Note/KBA	Title
1999997	FAQ: SAP HANA Memory
2684254	SAP HANA DB: Recommended OS settings for SLES 15 / SLES for SAP Applications 15
2240716	SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP4
1980196	Setting Linux Kernel Parameter /proc/sys/vm/max_map_count on SAP HANA Systems
1954788	SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP3
1824819	SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP2

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