

PTF U866665.bff allows AIX 5.3 to be supported on Power8 servers. It corrects a Power8 incompatibility in the 64-bit kernel. Since this is a kernel update, the PTF is not concurrent. The PTF will advance bos.mp64 fileset to 5.3.12.10. The PTF is compatible with all non-Power8 systems.

The PTF enables 5.3 TL12 Power8 support with the following limitations:

- \* The LPAR must be at AIX 5.3 TL12 SP9 (latest 5.3 release).
- \* The Power8 LPAR will run in Power6 compatibility mode and is limited to SMT2 mode, which is the natural operating mode for AIX 5.3. Power8 servers can support SMT4 and SMT8 modes as well that are available to more current AIX releases. IBM publishes SMT2 rPerf values that can be used to quantify Power8 SMT2 capacity
- \* 5.3 Power8 LPARs only support Virtual I/O configurations: vSCSI, NPIV, VLAN
- \* Power8 systems support a minimum entitlement of 0.05 physical processor units per VCPU (virtual processor). AIX 5.3 requires 0.1 physical processor units per virtual processor. If a 5.3 Power8 LPAR does not have sufficient entitlement, it will fail to start.
- \* 5.3 LPARs support a 64 VCPU maximum with the 64-bit kernel or a 32 VCPU maximum with the 32-bit kernel. Power8 systems allow LPARs with larger VCPU configurations. If the 5.3 VCPU maximum is exceeded, the LPAR will fail to start.

Only the following installation methods are supported:

- \* mksysb - First perform an in-place update to a supported (P5/P6/P7) 5.3 TL12 SP9 LPAR with PTF U866665. Standard mksysb command can then be used to capture a P8-capable mksysb image. The mksysb image can then be used to install Power8 LPARs.
- \* NIM - A 5.3 TL12 SP9 NIM environment must be updated to support Power8. A 5.3 TL12 SP9 NIM lpp\_source must be updated to include PTF U866665. A NIM SPOT must then be created or updated to utilize the updated lpp\_source.
- \* LPM - First perform an in-place update to a supported (P6/P7) 5.3 TL12 SP9 LPAR with PTF U866665. The update is not concurrent so an LPAR restart is required. Once the LPAR has been restarted, LPM can be used to migrate to a Power8 system. The P6/P7 LPM source must use VIOS 2.2.2.70/2.2.3.50/2.2.4.10 (or later) and any supported firmware level.

All Power8 systems are supported with the following restrictions:

- \* Power8 system must be at 840 firmware level
- \* Power8 LPAR must be served by a 2.2.4.10 or 2.2.3.60 VIOS (or later)

Other restrictions:

- \* Remote restart is not supported with Power8 5.3 LPARs
- \* Power8 5.3 LPARs are not supported with a VIOS using Shared Storage Pools.