

4.1.1.1 Hardware Platform

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In [Distributed System](#), each [Network Node](#) in the [Node Network](#) is associated with a [Computer Architecture](#). As a consequence, a requirement of the distributed system is to specifically identify the computer architectures which are permitted

Gyanu Kumar gave an excellent review of the computer architectures. This list summarizing his findings is provided here as a reference. For details about each of these architectures, please use the original work.¹⁾

Embedded CPU architectures

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- [arm](#) ARM, sARM architecture (32-bit)ARM64 (64/32-bit)
- [avr](#) Atmel's AVR architecture
- [pic](#) Microchip's PIC architecture
- [msp430](#) Texas Instruments's MSP430 architecture
- [mcs-51](#) Intel's 8051 architecture
- [z80](#) Zilog's Z80 architecture
- Western Design Center's 65816 architecture
- Hitachi's SuperH architecture
- Axis Communications' ETRAX CRIS architecture
- Power Architecture (formerly PowerPC)
- EnSilica's eSi-RISC architecture
- Milkymist architecture
- Inmos' Transputer architectures

Microcomputer CPU architectures

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- Pre-x86
- x86 Intel's IA-32 architecture, also called x86-32x86-64 with AMD's AMD64 and Intel's Intel 64 version of it
- Motorola's 6800 and 68000 architectures
- MOS Technology's 6502 architecture
- Zilog's Z80 architecture
- Power Architecture (formerly POWER and PowerPC)
- ARM'sARM (32-bit) (previously Advanced RISC Machines ARM, originally Acorn's RISC Machine) and StrongARM /XScale architecturesARM64 (64/32-bit)

- Renesas RX CPU architecture - Combination of RISC and CISC architectures

Workstation/Server CPU Architectures

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- DEC's Alpha architecture
- HP's PA-RISC architecture
- Power Architecture (formerly POWER and PowerPC)
- Intel's Itanium architecture (formerly IA-64)
- MIPS Computer Systems Inc.'s MIPS architecture
- Oracle's (formerly Sun Microsystems's) SPARC architecture

Mini/Mainframe CPU architectures

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- Burroughs large systems architecture (1961–present) currently supported in the Unisys ClearPath/MCP series.
- IBM's System/360, System/370, ESA/390 and z/Architecture (1964–present)
- DEC's PDP-8 architecture, the successor PDP-11 architecture, and its final form, the VAX architecture
- UNIVAC 1100/2200 series architecture (currently supported by Unisys ClearPath IX computers)
- MIL-STD-1750A - the U.S.'s military standard computer
- AP-101 - the space shuttle's computer

Mixed-core CPU architectures

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- IBM's Cell architecture (a general purpose architecture that uses a POWER4 based core and 8 RISC based co-processors)
- CAS's Loongson
- Parallax Propeller, a 160 MIPS multicore microcontroller with eight 32-bit RISC cores.

¹⁾

Gyanu Kumar, [What are the types of computer architectures in a CPU?](#), 19 May 2019, Accessed 24 May 2020, <https://www.quora.com/What-are-the-types-of-computer-architectures-in-a-CPU>

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