



Technical Bulletin

Nortel Business Communications Manager

System and component reliability indicators

The table on the right provides an estimate of the failure rates of the Nortel Business Communications Manager (BCM) systems and modules. The failure rates are expressed in Mean Time Between Failures (MTBF) in hours and in years, as well as an annualized percentage (%/year). These figures allow service plans and sparing strategies to be set.



BCM reliability indicators

Description	MTBF (Hours)	MTBF (Years)	Failure Rate (%/year)
BCM400 Base System: 0x0 with Motherboard, CPU, RAM, HDD, PS, Cooling Fan, Modem. With 2 MSPEC packs	376,780	43.1	2.3%
BCM400 Base System: 0x0 with Motherboard, CPU, RAM, HDD, PS, Cooling Fan, Modem. With 4 MSPEC packs	328,699	37.6	2.7%
BCM200 Base System: 0x0 with Motherboard, CPU, RAM, HDD, PS, Cooling Fan, Modem. With 1 MSPEC pack	411,748	47.1	2.1%
BCM200 Base System: 0x0 with Motherboard, CPU, RAM, HDD, PS, Cooling Fan, Modem. With 2 MSPEC packs	380,277	43.5	2.3%
BCM200 Base System: 0x0 with Motherboard, CPU, RAM, HDD, PS, Cooling Fan, Modem. With 4 MSPEC packs	331,322	37.9	2.6%
BCM Expansion Cabinet: 0x0 with HUB, PS, cooling fan	2,168,016	248.0	0.4%
BCM400 Base System: 0x0 with Motherboard, CPU, RAM, Redn. HDD, Redn. PS, Redn. Cooling Fan, Modem. With 2 MSPEC pack	277,121	31.7	3.2%
BCM400 Base System: 0x0 with Motherboard, CPU, RAM, Redn. HDD, Redn. PS, Redn. Cooling Fan, Modem. With 4 MSPEC packs	250,021	28.6	3.5%
BCM Expansion Cabinet: 0x0 with HUB, Redn. PS, Redn. Cooling Fan	1,158,315	132.5	0.8%
BCM450 Base System: Motherboard, CIF, HDD, PS, Cooling Fan with 0 Media Bay Modules	624,770	71	1.4%
BCM450 Base System: Motherboard, CIF, HDD, PS, Cooling Fan with 2 Media Bay Modules	446,760	51	1.96%
BCM450 Base System: Motherboard, CIF, HDD, PS, Cooling Fan with 4 Media Bay Modules	346,920	40	2.53%
BCM450 Base System: Motherboard, CIF, HDD, Redn. PS, Redn. Cooling Fan with 0 Media Bay Modules	499,750	57	1.75 %
BCM450 Base System: Motherboard, CIF, HDD, Redn. PS, Redn. Cooling Fan with 2 Media Bay Modules	378,566	43	2.32%
BCM450 Base System: Motherboard, CIF, HDD, Redn. PS, Redn. Cooling Fan with 4 Media Bay Modules	304,645	35	2.88%
BCM50 3.0	662,388	75.6	1.32%
BCM50a 3.0	384,469	43.9	2.28%
BCM50e 3.0	542,650	61.9	1.62%
BCM50b 3.0	562,221	64.1	1.56%
BCM50ba 3.0	445,883	50.9	1.97%
BCM50be 3.0	473,534	54.0	1.85%
BCM50 Expansion	2,098,284	239.4	0.42%

BCM reliability indicators – continued

Description	MTBF (Hours)	MTBF (Years)	Failure Rate (%/year)
BCM400 MSC Media Services Card without MSPEC	1,824,455	208.7	0.5%
BCM400 MSC Media Services Card with 2 MSPEC	1,063,027	121.6	0.8%
BCM400 MSC Media Services Card with 4 MSPEC	749,189	85.7	1.2%
BCM200 MSC Media Services Card without MSPEC	1,918,869	219.5	0.5%
BCM200 MSC Media Services Card with 2 MSPEC	1,093,624	125.1	0.8%
BCM200 MSC Media Services Card with 4 MSPEC	764,925	87.5	1.1%
4 Port Global Analog Trunk Media Bay Module (GATM4)	3,942,642	692.0	0.14%
8 Port Global Analog Trunk Media Bay Module (GATM8)	2,762,472	519.0	0.19%
COMBO CTM4 and DSM16 single density (COM4X16)	1,097,121	125.5	0.8%
Global 4x16 Module - 4 Port Global Analog Trunk and 16 port Digital Station Media Bay Module	1,358,507	155.4	0.6%
Global 8x16 Module - 8 Port Global Analog Trunk and 16 port Digital Station Media Bay Module	2,137,440	244	0.41 %
4 Port BRI S/T Media Bay Module (BRI4)	2,456,502	425.0	0.24%
Digital Trunk Media Bay Module (DTM)	3,243,282	633.0	0.16%
R2MFC: E1-R2 MFC Media Bay Module	979,104	112.0	0.9%
16 Stn Digital Station Media Bay Module+ (DSM16+)	3,252,024	356.0	0.28%
32 Stn Digital Station Media Bay Module+ (DSM32+)	1,835,820	355.0	0.28%
8 Stn Analog Station Media Bay Module+ (ASM8+)	1,660,106	189.9	0.5%
8 Stn Global Analog Station Media Bay Module (GASM8)	1,626,012	435.0	0.23%
Digital Drop and Insert MUX Media Bay Module (DDIM)	2,045,628	362.0	0.28%
Fiber Expansion Media Bay Module (FEM)	821,748	441.0	0.23%
Analog Direct Inward Dial Module 4-port (ADID4)	1,526,344	174.1	0.6%
Analog Direct Inward Dial Module 8-port (ADID8)	1,250,828	142.7	0.7%
BCM Embedded Modem	7,188,547	822.3	0.1%
NA WAN Interface Card (V.35/T-1)	2,773,837	317.3	0.3%
Dual WAN Interface Card (V.35/V.35)	2,773,837	317.3	0.3%
Int'l WAN Interface Card (V.35/X.21)	2,773,837	317.3	0.3%
BCM 200 / 400 / 450 Universal Standard Power Supply	5,631,596	380.0	0.26%
BCM400 / 450 Redundant PS Module, Single	4,175,179	477.6	0.2%
BCM200/400 Mother Board	1,267,590	145.0	0.7%
BCM400/1000 Case Cooling Fan	9,972,874	1,140.8	0.1%
BCM200 Case Cooling Fan	9,972,874	1,140.8	0.1%
BCM50 Cooling FAN	9,972,874	1,140.8	0.1%
BCM200/400 CPU cooling FAN	19,944,873	2,281.5	0.0%
BCM 128 MB Memory Module	21,312,996	2,438.0	0.0%
BCM 256 MB Memory Module	21,312,996	2,438.0	0.0%
BCM 200/400 Programmed Hard Drive	2,849,018	325.9	0.3%
BCM RAID Controller	4,926,991	563.6	0.2%
BCM450 Programmed Hard Drive (80GB, SATA)	2,855,760	326	0.31 %
BCM450 Cooling Fan	9,995,160	1141	0.09%
BCM450 Motherboard	1,235,160	141	0.71 %
BCM450 Base Function Tray (with single hard drive)	867,240	99	1.01 %
BCM450 Chassis Interface Card	22,723,440	2594	0.05%
BCM450 Capacity Expansion Card	1,454,160	166	0.16%



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