



64-Bit Aggregate Recommendations

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1 64-BIT AGGREGATE RECOMMENDATIONS

HOW MANY DRIVES CAN BE USED IN A MAXIMUM SIZE 64-BIT AGGREGATE?

64-bit aggregates are supported with Data ONTAP 8.0 and later. Each platform has different maximum aggregate capacities for 64-bit aggregates. This section shows the RAID group recommendations for the various maximum aggregate capacities supported across all platforms. The following recommendations are based on attempting to provide the optimal RAID group layout, as explained in the answer to the question “Should all aggregates always use the default RAID group size?” earlier.

The column descriptions for the following tables are as follows:

- “Data Drives” is the number of data drives that fit within the maximum aggregate capacity (based on usable drive capacity).
- “RG Size” is the recommended RAID group size to use for the configuration.
- “Number of RGs” is the resulting number of RAID groups the aggregate will contain.
- “Drive Def.” is the number of drives deficient the configuration is from achieving event RAID group layout.
- “Data + Parity” is the total number of drives used for the aggregate configuration.

The top entries in the following tables show the recommendations for aggregate configurations that are using the maximum number of data drives. In many cases it is better to reduce data drives by a small number in order to achieve a better RAID group layout, as indicated by the bottom numbers, in parentheses.

1.1 MAXIMUM AGGREGATE SIZE: 30TB

64-Bit Aggregate Recommendations for Maximum Aggregate Size 30TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
400GB		82 (80)	23 (22)	4 (4)	2 (0)	90 (88)
800GB		41 (41)	16 (16)	3 (3)	1 (1)	47 (47)
1.6TB		20 (20)	22 (22)	1 (1)	(0) (0)	22 (22)
300GB	FC	115 (112)	15 (18)	9 (7)	2 (0)	133 (126)
450GB		75 (75)	17 (17)	5 (5)	0 (0)	85 (85)
600GB		56 (54)	16 (20)	4 (3)	0 (0)	64 (60)
300GB	SAS	115 (112)	15 (18)	9 (7)	2 (0)	133 (126)
450GB		75 (75)	17 (17)	5 (5)	0 (0)	85 (85)
600GB		56 (54)	16 (20)	4 (3)	0 (0)	64 (60)
900GB		36 (36)	20 (20)	2 (2)	0 (0)	40 (40)
1.2TB		27 (27)	16 (16)	2 (2)	1 (1)	31 (31)
500GB	SATA	74 (72)	17 (20)	5 (4)	1 (0)	84 (80)
1TB		37 (36)	15 (20)	3 (2)	2 (0)	43 (40)
2TB		18 (18)	20 (20)	1 (1)	0 (0)	20 (20)
3TB		12 (12)	14 (14)	1 (1)	0 (0)	14 (14)

1.2 MAXIMUM AGGREGATE SIZE: 50TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 50TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
400GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
800GB		68 (68)	19 (19)	4 (4)	0 (0)	76 (76)
1.6TB		34 (34)	19 (19)	2 (2)	0 (0)	38 (38)
300GB	FC	192 (192)	18 (18)	12 (12)	0 (0)	216 (216)
450GB		125 (119)	20 (19)	7 (7)	1 (0)	139 (133)
600GB		93 (90)	18 (20)	6 (5)	3 (0)	105 (100)
300GB	SAS	192 (192)	18 (18)	12 (12)	0 (0)	216 (216)
450GB		125 (119)	20 (19)	7 (7)	1 (0)	139 (133)
600GB		93 (90)	18 (20)	6 (5)	3 (0)	105 (100)
900GB		61 (60)	18 (17)	4 (4)	3 (0)	69 (68)
1.2TB		45 (45)	17 (17)	3 (3)	0 (0)	51 (51)
500GB	SATA	123 (119)	20 (19)	7 (7)	3 (0)	137 (133)
1TB		61 (60)	18 (17)	4 (4)	3 (0)	69 (68)
2TB		30 (30)	17 (17)	2 (2)	0 (0)	34 (34)
3TB		20 (18)	12 (20)	2 (1)	0 (0)	24 (20)
3TB	MSATA	18 (18)	20 (20)	1 (1)	0 (0)	20 (20)
4TB		13 (13)	13 (13)	1 (1)	0 (0)	15 (15)
4TB	NL-SAS	13 (13)	13 (13)	1 (1)	0 (0)	15 (15)

1.3 MAXIMUM AGGREGATE SIZE: 60TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 60TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
400GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
800GB		82 (80)	23 (22)	4 (4)	2 (0)	90 (88)
1.6TB		41 (40)	23 (22)	2 (2)	1 (0)	45 (44)
300GB	FC	74* (76)	17 (21)	5 (4)	1 (0)	84 (84)
450GB		74* (76)	17 (21)	5 (4)	1 (0)	84 (84)
600GB		74* (76)	17 (21)	5 (4)	1 (0)	84 (84)
300GB	SAS	128* (128)	18 (18)	8 (8)	0 (0)	144 (144)
450GB		128* (128)	18 (18)	8 (8)	0 (0)	144 (144)
600GB		112 (108)	18 (20)	7 (6)	0 (0)	126 (120)
900GB		73 (72)	17 (20)	5 (4)	0 (0)	83 (80)
1.2TB		54 (54)	20 (20)	3 (3)	0 (0)	60 (60)
500GB	SATA	128* (128)	18 (18)	8 (8)	0 (0)	144 (144)
1TB		74 (72)	17 (20)	5 (4)	1 (0)	84 (80)
2TB		37 (36)	15 (20)	3 (2)	2 (0)	43 (40)
3TB		24 (24)	14 (14)	2 (2)	0 (0)	28 (28)
4TB	NL-SAS	16 (16)	18 (18)	1 (1)	0 (0)	18 (18)
3TB	MSATA	20 (20)	12 (12)	2 (2)	0 (0)	24 (24)
4TB		16 (16)	18 (18)	1 (1)	0 (0)	18 (18)

1.4 MAXIMUM AGGREGATE SIZE: 70TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 70TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
400GB		86 (84)	24 (23)	4 (4)	4 (4)	94 (92)
800GB		96 (95)	22 (21)	5 (5)	4 (0)	106 (105)
1.6TB		48 (45)	18 (17)	3 (3)	0 (0)	54 (51)
300GB	FC	269 (255)	20 (19)	15 (15)	1 (0)	299 (285)
450GB		175 (170)	18 (19)	11 (10)	1 (0)	197 (190)
600GB		131 (126)	14 (20)	11 (7)	1 (0)	153 (140)
300GB	SAS	269 (255)	20 (19)	15 (15)	1 (0)	299 (285)
450GB		175 (170)	18 (19)	11 (10)	1 (0)	197 (190)
600GB		131 (126)	14 (20)	11 (7)	1 (0)	153 (140)
900GB		85 (85)	19 (19)	5 (5)	0 (0)	95 (95)
1.2TB		64 (64)	18 (18)	4 (4)	0 (0)	72 (72)
500GB	SATA	173 (170)	18 (19)	11 (10)	3 (0)	195 (190)
1TB		86 (85)	20 (19)	5 (5)	4 (0)	96 (95)
2TB		43 (36)	13 (20)	4 (2)	1 (0)	51 (40)
3TB		28 (28)	16 (16)	2 (2)	0 (0)	32 (32)
3TB	MSATA	39 (36)	15 (20)	3 (2)	0 (0)	45 (40)
4TB		19 (19)	21 (21)	1 (1)	0 (0)	21 (21)
4TB	NL-SAS	19 (19)	21 (21)	1 (1)	0 (0)	21 (21)

1.5 MAXIMUM AGGREGATE SIZE: 75TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 75TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		206 (204)	21 (19)	11 (12)	3 (0)	228 (228)
800GB		103 (100)	23 (22)	5 (5)	2 (0)	113 (110)
1.6TB		51 (49)	19 (18)	3 (3)	0 (0)	57 (54)
300GB	FC	289 (289)	19 (19)	17 (17)	0 (0)	323 (323)
450GB		188 (187)	12 (19)	19 (11)	2 (0)	226 (209)
600GB		140 (135)	16 (17)	10 (9)	0 (0)	160 (153)
300GB	SAS	289 (289)	19 (19)	17 (17)	0 (0)	323 (323)
450GB		188 (187)	12 (19)	19 (11)	2 (0)	226 (209)
600GB		140 (135)	16 (17)	10 (9)	0 (0)	160 (153)
900GB		91 (91)	20 (20)	5 (5)	0 (0)	100 (100)
1.2TB		68 (68)	19 (19)	4 (4)	0 (0)	76 (76)
500GB	SATA	185 (180)	19 (20)	11 (10)	2 (0)	207 (200)
1TB		92 (90)	18 (20)	6 (5)	4 (0)	104 (100)
2TB		46 (45)	18 (17)	3 (3)	2 (0)	52 (51)
3TB		30 (30)	17 (17)	2 (2)	0 (0)	34 (34)
4TB	NL-SAS	20 (18)	12 (20)	2 (1)	0 (0)	24 (20)

1.6 MAXIMUM AGGREGATE SIZE: 90TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 90TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		123 (120)	23 (22)	6 (4)	3 (0)	135 (132)
1.6TB		61 (60)	23 (22)	3 (3)	2 (0)	67 (66)
300GB	FC	346 (342)	14 (20)	29 (19)	2 (0)	404 (380)
450GB		225 (224)	17 (18)	15 (14)	0 (0)	255 (252)
600GB		168 (162)	16 (20)	12 (9)	0 (0)	192 (180)
300GB	SAS	346 (342)	14 (20)	29 (19)	2 (0)	404 (380)
450GB		225 (224)	17 (18)	15 (14)	0 (0)	255 (252)
600GB		168 (162)	16 (20)	12 (9)	0 (0)	192 (180)
900GB		110 (108)	13 (20)	10 (6)	0 (0)	130 (120)
1.2TB		82 (80)	19 (18)	5 (5)	3 (0)	92 (90)
500GB	SATA	223 (221)	18 (19)	14 (13)	1 (0)	251 (247)
1TB		111 (108)	18 (20)	7 (6)	1 (0)	125 (120)
2TB		55 (54)	13 (20)	5 (3)	0 (0)	65 (60)
3TB		37 (36)	15 (20)	3 (2)	2 (0)	43 (40)
3TB	MSATA	33 (32)	19 (18)	2 (2)	1 (0)	37 (36)
4TB		24 (24)	14 (14)	2 (2)	0 (0)	28 (28)
4TB	NL-SAS	24 (24)	14 (14)	2 (2)	0 (0)	28 (28)

1.7 MAXIMUM AGGREGATE SIZE: 100TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 100TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		137 (136)	25 (19)	6 (8)	1 (0)	149 (152)
1.6TB		68 (66)	19 (24)	4 (3)	0 (0)	76 (72)
300GB	FC	385 (384)	13 (18)	35 (24)	0 (0)	455 (432)
450GB		250 (240)	12 (18)	25 (15)	0 (0)	300 (270)
600GB		187 (180)	19 (20)	11 (10)	0 (0)	209 (200)
300GB	SAS	385 (384)	13 (18)	35 (24)	0 (0)	455 (432)
450GB		250 (240)	12 (18)	25 (15)	0 (0)	300 (270)
600GB		187 (180)	19 (20)	11 (10)	0 (0)	209 (200)
900GB		122 (120)	23 (22)	6 (6)	4 (0)	134 (132)
1.2TB		91 (90)	25 (20)	4 (5)	1 (0)	99 (100)
500GB	SATA	247 (240)	15 (18)	19 (15)	0 (0)	285 (270)
1TB		123 (119)	20 (19)	7 (7)	3 (0)	137 (133)
2TB		61 (60)	18 (17)	4 (4)	3 (0)	69 (68)
3TB		41 (36)	16 (20)	3 (2)	1 (0)	47 (40)
3TB	MSATA	60 (60)	17 (17)	4 (4)	0 (0)	68 (68)
4TB		44 (60)	13 (17)	4 (4)	0 (0)	52 (68)
4TB	NL-SAS	44 (60)	13 (17)	4 (4)	0 (0)	52 (68)

1.8 MAXIMUM AGGREGATE SIZE: 105TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 105TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		144 (144)	20 (20)	8 (8)	0 (0)	160 (160)
1.6TB		72 (72)	20 (20)	4 (4)	0 (0)	80 (80)
300GB	FC	404 (400)	17 (18)	27 (25)	1 (0)	458 (450)
450GB		263 (256)	14 (18)	22 (16)	1 (0)	307 (288)
600GB		196 (192)	16 (18)	14 (12)	0 (0)	224 (216)
300GB	SAS	404 (400)	17 (18)	27 (25)	1 (0)	458 (450)
450GB		263 (256)	14 (18)	22 (16)	1 (0)	307 (288)
600GB		196 (192)	16 (18)	14 (12)	0 (0)	224 (216)
900GB		128 (126)	18 (20)	8 (7)	0 (0)	144 (140)
1.2TB		96 (96)	18 (18)	6 (6)	0 (0)	108 (108)
500GB	SATA	260 (256)	15 (18)	20 (16)	0 (0)	300 (288)
1TB		129 (126)	15 (20)	10 (7)	1 (0)	149 (140)
2TB		64 (64)	18 (18)	4 (4)	0 (0)	72 (72)
3TB		43 (42)	13 (16)	4 (3)	1 (0)	51 (48)
4TB		43 (42)	13 (16)	4 (3)	1 (0)	51 (48)
3TB	MSATA	39 (36)	15 (20)	3 (2)	0 (0)	45 (40)
4TB		28 (28)	16 (16)	2 (2)	0 (0)	32 (32)
4TB	NL-SAS	28 (28)	16 (16)	2 (2)	0 (0)	32 (32)

1.9 MAXIMUM AGGREGATE SIZE: 162TB

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 162TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		222 (220)	18 (22)	14 (11)	2 (0)	250 (242)
300GB	FC	624 (624)	18 (18)	39 (39)	0 (0)	702 (702)
450GB		406 (405)	16 (17)	29 (27)	0 (0)	464 (459)
600GB		303 (289)	18 (19)	19 (17)	1 (0)	341 (323)
300GB	SAS	624 (624)	18 (18)	39 (39)	0 (0)	702 (702)
450GB		406 (405)	16 (17)	29 (27)	0 (0)	464 (459)
600GB		303 (289)	18 (19)	19 (17)	1 (0)	341 (323)
900GB		198 (198)	20 (20)	11 (11)	0 (0)	220 (220)
1.2TB		147 (144)	23 (20)	7 (8)	0 (0)	167 (160)
500GB	SATA	401 (400)	15 (18)	31 (25)	2 (0)	463 (450)
1TB		200 (198)	12 (20)	20 (11)	0 (0)	240 (220)
2TB		100 (98)	12 (16)	10 (7)	0 (0)	120 (112)
3TB		66 (64)	13 (18)	6 (4)	0 (0)	78 (72)
3TB	MSATA	60 (60)	17 (17)	4 (4)	2 (0)	68 (68)
4TB		45 (45)	17 (17)	3 (3)	0 (0)	51 (51)
4TB	NL-SAS	45 (45)	17 (17)	3 (3)	0 (0)	51 (51)

1.10 MAXIMUM AGGREGATE SIZE: 120TB

Controller: FAS2240, FAS220

ONTAP: 8.2.x

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 120TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		164 (162)	17 (20)	11 (9)	1 (0)	186 (180)
1.6TB		82 (80)	23 (22)	4 (4)	2 (0)	90 (88)
300GB	FC	462 (464)	24 (18)	21 (29)	0 (0)	506 (522)
450GB		301 (304)	21 (18)	16 (19)	3 (0)	333 (330)
600GB		224 (221)	18 (19)	14 (13)	0 (0)	252 (247)
300GB	SAS	462 (464)	24 (18)	21 (29)	0 (0)	506 (522)
450GB		301 (304)	21 (18)	16 (19)	3 (0)	333 (330)
600GB		224 (221)	18 (19)	14 (13)	0 (0)	252 (247)
900GB		146 (144)	23 (20)	7 (8)	1 (0)	160 (160)
1.2TB		110 (108)	24 (20)	5 (6)	0 (0)	120 (120)
500GB	SATA	297 (294)	13 (16)	27 (21)	0 (0)	351 (336)
1TB		148 (144)	12 (14)	15 (12)	2 (0)	178 (168)
2TB		74 (72)	13 (14)	7 (6)	3 (0)	88 (84)
3TB		49 (48)	12 (14)	5 (4)	1 (0)	56 (56)
4TB	NL-SAS	33 (30)	13 (12)	3 (3)	0 (0)	37 (36)
3TB	MSATA	44 (42)	13 (16)	4 (3)	0 (0)	52 (48)
4TB		33 (30)	13 (12)	3 (3)	0 (0)	39 (36)

1.11 MAXIMUM AGGREGATE SIZE: 150TB

Controller: FAS3210, FAS3140

ONTAP: 8.2.x

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 150TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		206 (204)	18 (19)	13 (12)	2 (0)	232 (228)
1.6TB		103 (102)	23 (19)	5 (6)	2 (0)	113 (114)
300GB	FC	578 (578)	19 (19)	34 (34)	0 (0)	646 (646)
450GB		377 (378)	23 (20)	18 (17)	2 (0)	412 (408)
600GB		280 (278)	22 (22)	14 (14)	0 (2)	308 (306)
300GB	SAS	578 (578)	19 (19)	34 (34)	0 (0)	646 (646)
450GB		377 (378)	23 (20)	18 (17)	2 (0)	412 (408)
600GB		280 (278)	22 (22)	14 (14)	0 (2)	308 (306)
900GB		183 (180)	19 (20)	11 (10)	4 (0)	205 (200)
1.2TB		137 (136)	22 (19)	7 (8)	3 (0)	151 (152)
500GB	SATA	371 (370)	14 (12)	31 (37)	1 (0)	433 (444)
1TB		185 (182)	13 (15)	17 (14)	2 (0)	219 (210)
2TB		92 (91)	14 (15)	8 (7)	4 (0)	108 (105)
3TB		55 (52)	13 (15)	5 (4)	0 (0)	65 (60)
4TB	NL-SAS	41 (40)	13 (12)	4 (4)	3 (0)	49 (48)
3TB	MSATA	55 (52)	13 (15)	5 (4)	0 (0)	65 (60)
4TB		41 (40)	13 (12)	4 (4)	3 (0)	49 (48)

1.12 MAXIMUM AGGREGATE SIZE: 180TB

Controller: FAS3240, FAS3220, & FAS3160

ONTAP: 8.2.x

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 180TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
1.6TB		123 (120)	23 (22)	6 (6)	3 (0)	135 (132)
300GB	FC	693 (690)	23 (17)	33 (46)	0 (0)	759 (782)
450GB		451 (450)	21 (20)	24 (25)	2 (0)	502 (500)
600GB		337 (336)	22 (23)	17 (16)	3 (0)	371 (368)
300GB	SAS	693 (690)	23 (17)	33 (46)	0 (0)	759 (782)
450GB		451 (450)	21 (20)	24 (25)	2 (0)	502 (500)
600GB		337 (336)	22 (23)	17 (16)	3 (0)	371 (368)
900GB		220 (220)	22 (22)	11 (11)	0 (0)	242 (242)
1.2TB		165 (162)	23 (20)	8 (9)	3 (0)	181 (180)
500GB	SATA	446 (444)	16 (14)	32 (37)	2 (0)	510 (518)
1TB		222 (221)	16 (15)	16 (17)	2 (0)	254 (255)
2TB		111 (108)	16 (14)	8 (9)	1 (0)	127 (126)
3TB		74 (72)	15 (14)	6 (6)	4 (0)	86 (84)
4TB	NL-SAS	49 (48)	15 (14)	4 (4)	3 (0)	57 (56)
3TB	MSATA	67 (66)	12 (13)	7 (6)	3 (0)	81 (78)
4TB		50 (50)	12 (12)	5 (5)	0 (0)	60 (60)

1.13 MAXIMUM AGGREGATE SIZE: 240TB

Controller: FAS6040, FAS3270, FAS3250, & FAS3170

ONTAP: 8.2.x

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 240TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
1.6TB		164 (162)	23 (20)	8 (9)	4 (0)	180 (180)
300GB	FC	925 (924)	21 (23)	49 (44)	6 (0)	1023 (1012)
450GB		602 (600)	21 (22)	32 (30)	6 (0)	666 (660)
600GB		449 (448)	20 (20)	25 (25)	1 (2)	499 (498)
300GB	SAS	925 (924)	21 (23)	49 (44)	6 (0)	1023 (1012)
450GB		602 (600)	21 (22)	32 (30)	6 (0)	666 (660)
600GB		449 (448)	20 (20)	25 (25)	1 (2)	499 (498)
900GB		293 (289)	23 (19)	14 (17)	1 (0)	321 (323)
1.2TB		220 (216)	22 (20)	11 (12)	0 (0)	242 (240)
500GB	SATA	594 (587)	15 (14)	46 (49)	4 (1)	686 (685)
1TB		296 (290)	13 (12)	27 (29)	1 (0)	350 (348)
2TB		148 (144)	12 (14)	15 (12)	2 (0)	178 (168)
3TB		99 (98)	13 (16)	9 (7)	0 (0)	117 (112)
4TB	NL-SAS	66 (65)	13 (15)	6 (5)	0 (0)	78 (75)
3TB	MSATA	89 (88)	12 (13)	9 (8)	1 (0)	107 (104)
4TB		67 (66)	12 (13)	7 (6)	3 (0)	81 (78)

1.14 MAXIMUM AGGREGATE SIZE: 324TB

Controller: FAS6220, FAS6210, & FAS6080

ONTAP: 8.2.x

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 324TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
1.6TB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
300GB	FC	1249 (1248)	27 (27)	50 (50)	1 (2)	1349 (1348)
450GB		812 (810)	19 (20)	48 (45)	4 (0)	908 (900)
600GB		606 (600)	21 (22)	32 (30)	2 (0)	670 (660)
300GB	SAS	1249 (1248)	27 (27)	50 (50)	1 (2)	1349 (1348)
450GB		812 (810)	19 (20)	48 (45)	4 (0)	908 (900)
600GB		606 (600)	21 (22)	32 (30)	2 (0)	670 (660)
900GB		396 (390)	20 (19)	22 (23)	0 (1)	440 (436)
1.2TB		297 (294)	22 (23)	15 (14)	3 (0)	327 (322)
500GB	SATA	802 (802)	13 (13)	63 (63)	3 (3)	828 (828)
1TB		400 (400)	12 (12)	40 (40)	0 (0)	480 (480)
2TB		148 (144)	12 (14)	15 (12)	2 (0)	178 (168)
3TB		133 (132)	11 (13)	15 (12)	2 (0)	163 (156)
4TB	NL-SAS	89 (88)	12 (13)	9 (8)	1 (0)	107 (104)
3TB	MSATA	120 (120)	12 (12)	12 (12)	0 (0)	124 (124)
4TB		90 (90)	12 (12)	9 (9)	0 (0)	108 (108)

1.15 MAXIMUM AGGREGATE SIZE: 400TB

Controller: FAS6290, FAS6280, FAS6250, & FAS6240

ONTAP: 8.2.x

64-Bit Aggregate Recommendations for Maximum Aggregate Capacity 400TB						
Capacity	Type	Data Drives	RG Size	Number of RGs	Drive Def.	Data + Parity
100GB	SSD	214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
200GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
400GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
800GB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
1.6TB		214 (210)	20 (17)	12 (14)	2 (0)	238 (238)
450GB	FC	1003 (1000)	23 (22)	48 (50)	5 (0)	1099 (1100)
600GB		748 (748)	19 (19)	44 (44)	0 (0)	836 (836)
450GB	SAS	1003 (1000)	23 (22)	48 (50)	5 (0)	1099 (1100)
600GB		748 (748)	19 (19)	44 (44)	0 (0)	836 (836)
900GB		489 (486)	19 (20)	29 (27)	4 (0)	547 (540)
1.2TB		367 (361)	18 (21)	23 (19)	1 (0)	413 (399)
1TB	SATA	494 (494)	15 (15)	38 (38)	0 (0)	570 (570)
2TB		247 (247)	15 (15)	19 (19)	0 (0)	285 (285)
3TB		165 (165)	13 (13)	15 (15)	0 (0)	195 (195)
4TB	NL-SAS	110 (110)	13 (13)	10 (10)	0 (0)	130 (130)
3TB	MSATA	149 (144)	12 (14)	15 (12)	1 (0)	179 (168)
4TB		111 (110)	16 (13)	8 (10)	1 (0)	127 (130)

Notes for the preceding tables:

- 100GB SSD capacity first supported with Data ONTAP 8.0.1
- 200GB SSD capacity first supported with Data ONTAP 8.1.2
- 600GB FC/SAS capacity first supported with Data ONTAP 7.3.2 and 8.0 RC3/GA
- 900GB SAS capacity first supported in Data ONTAP 7.3.5, 8.0.2, 8.1.0
- 2TB SATA capacity first supported with Data ONTAP 7.3.2 and 8.0 RC3/GA
- 3TB SATA capacity first supported with Data ONTAP 8.0.2
- 4TB SATA capacity first supported with Data ONTAP 8.1.2

Note that 64-bit aggregates are supported only in Data ONTAP 8.0 and later.

FAS2240 maximum aggregate capacity is 60TiB (this is the only platform currently using this maximum aggregate capacity). 300GB-600GB FC drives are limited by maximum external attachable DS14 shelves of 6 (84 drives total). 300GB and 450GB SAS drives and 500GB SATA drives are limited by total spindle count.

