



HP StorageWorks Tape Automation Feature Comparison Matrix

August 2004

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HP StorageWorks Tape Automation Features Comparison Matrix

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Autoloaders Features Comparison

	StorageWorks 1/8 autoloader	StorageWorks 1/8 autoloader	StorageWorks 1/8 autoloader	StorageWorks 1/8 autoloader	StorageWorks SSL1016	StorageWorks SSL1016
Drive Type	DLTs80	LTO Ultrium 230	SDLT320	LTO Ultrium 460	SDLT320	LTO Ultrium 460
Unit Dimensions (H x W x D) Inch/cm	3.34 x 16 x 24 in (8.5x 40.6x 61.0 cm)	3.34 x 16 x 24 in (8.5x 40.6x 61.0 cm)	3.34 x 16 x 24 in (8.5x 40.6x 61.0 cm)	3.34 x 16 x 24 in (8.5x 40.6x 61.0 cm)	3.5x 17.7x 29.71 in (8.9 x 45. x 75.5 cm)	3.5x 17.7x 29.71 in (8.9 x 45. x 75.5 cm)
Shipping Dimensions (H x W x D) (cm)	7x 21.5x 29 in (17.8x 54.6x 73.7cm)	7x 21.5x 29 in (17.8x 54.6x 73.7cm)	7x 21.5x 29 in (17.8x 54.6x 73.7cm)	7x 21.5x 29 in (17.8x 54.6x 73.7cm)	11.8x 23.5 x 39.5 in (29.8x 59.7x 100.3 cm)	11.8x 23.5 x 39.5 in (29.8x 59.7x 100.3 cm)
Unit Weight (lbs/Kg)	22 lb (10 kg)	22 lb (10 kg)	22 lb (10 kg)	22 lb (10 kg)	50 lb (22.73 kg);	50 lb (22.73 kg);
Shipping Weight (lbs/Kg)	25 lb (11.36 kg)	25 lb (11.36 kg)	25 lb (11.36 kg)	25 lb (11.36 kg)	68.2 lb (31 kg)	68.2 lb (31 kg)
Bar Code reader	No	No	No	No	Yes	Yes
Native Drive Throughput (MB/s)	3	15	16	30	16	30
Recording method	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine
Maximum number of drives supported in a single unit	1	1	1	1	1	1
Native backup Performance (GB/hr)	10.8	54	57.6	108	57.6	108
Number of slots	8	8	8	8	16	16
Native Backup capacity (GB)	320	800	1280	1600	2560	3200
Multi-unit scalability	No	No	No	No	No	No
Interface	Ultra2 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra3 SCSI (LVD)
Control Panel	LCD based	LCD based	LCD based	LCD based	LCD based	LCD based
Power Requirements	100 –127 VAC or 200 –240 VAC,50 –60 Hz	100 –127 VAC or 200 –240 VAC,50 –60 Hz	100 –127 VAC or 200 –240 VAC,50 –60 Hz	100 –127 VAC or 200 –240 VAC,50 –60 Hz	110 to 120 VAC/220 to 240 VAC, 50 - 60 Hz	110 to 120 VAC/220 to 240 VAC, 50 - 60 Hz
Warranty	One year, next business day exchange	One year, next business day exchange	One year, next business day exchange	One year, next business day exchange	One year, next business day exchange	One year, next business day exchange
Mission Critical Support services	Optional	Optional	Optional	Optional	Optional	Optional
Servers Supported**	HP ProLiant Servers HP-UX Servers HP Integrity Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers

** For specific servers supported by individual libraries refer to products Quick Specs www.hp.com/go/automated

For software, servers, HBA, OS compatibility information go to <http://h18006.www1.hp.com/products/storageworks/tapecompatibility.html>

HP StorageWorks Tape Automation Features Comparison Matrix

Autoloaders Comparison | Business Class Comparison | Enterprise Class Comparison

Business Class Libraries Comparison						
	hp StorageWorks MSL5030	hp StorageWorks MSL5026S2	hp StorageWorks MSL6030	hp StorageWorks MSL5060	hp StorageWorks MSL5052S2	hp StorageWorks MSL6060
Drive Type	LTO Ultrium 230	SDLT 320	LTO Ultrium 460	LTO Ultrium 230	SDLT 320	LTO Ultrium 460
Unit Dimensions (H x W x D) Inch/cm	8.75x17x30 in / 22.2x43.2x76.2 cm	8.75x17x30 in / 22.2x43.2x76.2 cm	8.75x17x30 in / 22.2x43.2x76.2 cm	44.5x43.2x76.2 cm / 17.5x17x30 in /	44.5x43.2x76.2 cm / 17.5x17x30 in /	44.5x43.2x76.2 cm / 17.5x17x30 in /
Shipping Dimensions (H x W x D) (cm)	15.25x23x38.25 in / 38.7x58.4x97.2 cm	15.25x23x38.25 in / 38.7x58.4x97.2 cm	15.25x23x38.25 in / 38.7x58.4x97.2 cm	33x47x31 in / 83.8x119.4x78.7 cm	33x47x31 in / 83.8x119.4x78.7 cm	33x47x31 in / 83.8x119.4x78.7 cm
Unit Weight (lbs/Kg)	43lbs / 19.5kg	43lbs / 19.5kg	43lbs / 19.5kg	95lbs / 43.1kg	95lbs / 43.1kg	95lbs / 43.1kg
Shipping Weight (lbs/Kg)	75 lbs / 34kg	75 lbs / 34kg	75 lbs / 34kg	147 lbs / 66.7kg	147 lbs / 66.7kg	147 lbs / 66.7kg
Native Drive Throughput (MB/s)	15	16	30	15	16	30
Recording method	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine
Maximum number of drives supported in a single unit	2	2	2	4	4	4
Single Unit maximum Native backup Performance (GB/hr)	108	115.2	216	216	230.4	432
Single Unit number of slots	30	26	30	60	52	60
Single Unit Native Backup capacity (TB)	3	4.16	6	6	8.32	12
Robotics Reliability (MSBF)	2 Million	2 Million	2 Million	2 Million	2 Million	2 Million
Multi-unit scalability	Yes, up to 8 units	Yes, up to 8 units	Yes, up to 8 units	Yes, up to 4 units	Yes, up to 4 units	Yes, up to 4 units
Maximum native scaled capacity (TB)	24	33.28	48	24	33.28	48
Maximum native scaled performance (GB/hr)	864	921.6	1728	864	921.6	1728
Interface	Ultra2 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra3 SCSI (LVD)
High Availability Features	Hot Plug Drives	Hot Plug Drives	Hot Plug Drives	Hot Plug Drives	Hot Plug Drives	Hot Plug Drives
				Dual Redundant Power Supply	Dual Redundant Power Supply	Dual Redundant Power Supply
Control Panel	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen
Power Requirements	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz
Power Consumption (typical/max)	180 W/200 W	180 W/200 W	180 W/200 W	300 W/360 W	300 W/360 W	300 W/360 W
Warranty	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site
Mission Critical Support services	Optional	Optional	Optional	Optional	Optional	Optional
Servers Supported**	HP ProLiant Servers HP-UX Servers HP NetServers	HP AlphaServers HP ProLiant Servers HP-UX Servers	HP ProLiant Servers HP-UX Servers HP NetServers	HP ProLiant Servers HP-UX Servers HP NetServers	HP AlphaServers HP ProLiant Servers HP-UX Servers	HP ProLiant Servers HP-UX Servers HP NetServers

** For specific servers supported by individual libraries refer to products Quick Specs www.hp.com/products/tapestorage

For software, servers, HBA, OS compatibility information go to <http://h18006.www1.hp.com/products/storageworks/tapecompatibility.html>

HP StorageWorks Tape Automation
Features Comparison Matrix

Autoloaders Comparison | Business Class Comparison | Enterprise Class Comparison

Enterprise Class Libraries Features Comparison										
	hp StorageWorks ESL9322	hp StorageWorks ESL9322	hp StorageWorks ESL9322	hp StorageWorks ESL9595	hp StorageWorks ESL9595	hp StorageWorks ESL9595	hp StorageWorks ESL E-Series 286e	hp StorageWorks ESL E-Series 322e	hp StorageWorks ESL E-Series 630e	hp StorageWorks ESL E-Series 712e
Drive Type	LTO Ultrium 230 SCSI	SDLT 320 SCSI	LTO Ultrium 460 SCSI	LTO Ultrium 230 SCSI	SDLT 320 SCSI	LTO Ultrium 460 SCSI	SDLT 320 SCSI	LTO Ultrium 460 SCSI and Native FC	SDLT 320 SCSI	LTO Ultrium 460 SCSI and Native FC
Unit Dimensions (H x W x D) Inch/cm	75x40x29 in / 190.5x101.6x73.7 cm	75x40x29 in / 190.5x101.6x73.7 cm	75x40x29 in / 190.5x101.6x73.7 cm	75x60x29 in / 190.5x152.4x73.7 cm	75x60x29 in / 190.5x152.4x73.7 cm	75x60x29 in / 190.5x152.4x73.7 cm	75x30x 50 in 191x76x127cm	75x30x 50 in 191x76x127cm	75x30x 50 in 191x76x127cm	75x30x 50 in 191x76x127cm
Shipping Dimensions (H x W x D) (cm)	80x52x48 in / 203.2x132.1x121.9 cm	80x52x48 in / 203.2x132.1x121.9 cm	80x52x48 in / 203.2x132.1x121.9 cm	80x71x48 in / 203.2x180.3x121.9 cm	80x71x48 in / 203.2x180.3x121.9 cm	80x71x48 in / 203.2x180.3x121.9 cm	80 x 48 x 56 in 203.2 x 121.9 x 142.2 cm	80 x 48 x 56 in 203.2 x 121.9 x 142.2 cm	80 x 48 x 56 in 203.2 x 121.9 x 142.2 cm	80 x 48 x 56 in 203.2 x 121.9 x 142.2 cm
Unit Weight (lbs/Kg)	1335lbs / 605.5kg	1335lbs / 605.5kg	1335lbs / 605.5kg	1660lbs / 753kg	1660lbs / 753kg	1660lbs / 753kg	1294 lbs (483 kg)	1294 lbs (483 kg)	1294 lbs (483 kg)	1294 lbs (483 kg)
Shipping Weight (lbs/Kg)	1362 lbs / 617.8kg	1362 lbs / 617.8kg	1362 lbs / 617.8kg	1822 lbs / 826.4 kg	1822 lbs / 826.4 kg	1822 lbs / 826.4 kg	1459 lbs (544.6kg)	1459 lbs (544.6kg)	1459 lbs (544.6kg)	1459 lbs (544.6kg)
Native Drive Throughput (MB/s)	15	16	30	15	16	30	16	30	16	30
Recording method	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine	Linear Serpentine
Maximum number of drives supported in a single unit	8	8	8	16	16	16	24	24	24	24
Single Unit maximum Native backup Performance (GB/hr)	432	460.8	864	864	921.6	1728	1382.4	2592	1382.4	2592
Single Unit number of slots	222, 322	222, 322	222, 322	400, 500, 595	400, 500, 595	400, 500, 595	up to 286	up to 322	up to 630	up to 712
Single Unit Native Backup capacity (TB)	32.2	51.52	64.4	59.5	95.2	119	up to 45.8	up to 64.4	up to 100.8	up to 142.4
Robotics Reliability (MSBF)	3 Million	3 Million	3 Million	3 Million	3 Million	3 Million	3 Million	3 Million	3 Million	3 Million
Multi-unit scalability	Yes, up to 5 units	Yes, up to 5 units	Yes, up to 5 units	Yes, up to 4 units	Yes, up to 4 units	Yes, up to 4 units	Yes, up to 5 units*	Yes, up to 5 units*	Yes, up to 5 units*	Yes, up to 5 units*
Maximum native scaled capacity (TB)	146.8	235.84	337.6	227.8	364.48	455.6	up to 504 TB*	up to 712 TB*	up to 504 TB*	up to 712 TB*
Maximum native scaled performance (GB/hr)	2160	2304	4320	3456	3586.4	6912	6681.6*	12528*	6681.6*	12528*
Inventory Time	less than 7 minutes	less than 7 minutes	less than 7 minutes	less than 7 minutes	less than 7 minutes	less than 7 minutes	less than 3 minutes	less than 3 minutes	less than 3 minutes	less than 3 minutes
Average slot to drive time	6 seconds	6 seconds	6 seconds	6 seconds	6 seconds	6 seconds	6 seconds	6 seconds	6 seconds	6 seconds
Average cartridge swaps (bin to drive + load media)	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour	180 swaps/hour
Management and Diagnostics Interface	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools	hp Library and Tape Tools
Interface	Ultra2 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra2 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra3 SCSI (LVD)	Ultra3 SCSI (LVD)
High Availability Features	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives	Hot plug drives
	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input	Hot swap redundant power and cooling Dual AC power input
Control Panel	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen	GUI touch screen
Power Requirements	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz	90-132V AC @ 47-63Hz 180-264V AC @ 47-63Hz
Power Consumption	1200W	1200W	1200W	1600 W	1600 W	1600 W	1600 W	1600 W	1600 W	1600 W
Warranty	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site	One year, next business day on-site
Mission Critical Support services	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Servers Supported**	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers	HP ProLiant Servers HP-UX Servers HP Integrity Servers HP-Alpha Servers

* Multi-unit scalability is currently not supported, will be supported early 2005

** For specific servers supported by individual libraries refer to products Quick Specs www.hp.com/go/automated

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