Minnesota IT Standards
Itanium, PowerX and SPARC servers
Effective 5/15/2008 to 11/15/2008

Tab number	1	2	3	4	5	6	7	8
Minnesota standards - Fall 2008 SPARC and PowerX servers	**SPARC standard 1**	**SPARC standard 2**	**SPARC standard 3**	**SPARC standard 4**	**PowerX standard 1**	**PowerX standard 2**	**PowerX standard 3**	**PowerX standard 4**
Specification	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**
Manufacturer SKU	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration	Provide manufacturer sku for standard configuration
Manufacturer Name	Specify manufacturer	Specify manufacturer	Specify manufacturer	Specify manufacturer	Specify manufacturer	Specify manufacturer	Specify manufacturer	Specify manufacturer
Manufacturer Base Model Name	Specify the base model name	Specify the base model name	Specify the base model name	Specify the base model name	Specify the base model name	Specify the base model name	Specify the base model name	Specify the base model name
Manufacturer Base Model Number	Specify the base model number	Specify the base model number	Specify the base model number	Specify the base model number	Specify the base model number	Specify the base model number	Specify the base model number	Specify the base model number
Processor Sockets	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify
Processor	Specify quantity, type and speed	Specify quantity, type and speed	Specify quantity, type and speed	Specify quantity, type and speed	Specify quantity, type and speed	Specify quantity, type and speed	Specify quantity, type and speed	Specify quantity, type and speed
Front Side Bus	Specify front side bus speed	Specify front side bus speed	Specify front side bus speed	Specify front side bus speed	Specify front side bus speed (half speed of Processor)	Specify front side bus speed (half speed of Processor)	Specify front side bus speed (half speed of Processor)	Specify front side bus speed (half speed of Processor)
Chipset	Specify chipset	Specify chipset	Specify chipset	Specify chipset	Specify chipset	Specify chipset	Specify chipset	Specify chipset
RAM - installed capacity	Specify quantity and number of chips used	Specify quantity and number of chips used	Specify quantity and number of chips used	Specify quantity and number of chips used	Specify quantity and number of chips used	Specify quantity and number of chips used	Specify quantity and number of chips used	Specify quantity and number of chips used
RAM - speed	Specify memory speed	Specify memory speed	Specify memory speed	Specify memory speed	Specify memory speed	Specify memory speed	Specify memory speed	Specify memory speed
RAM - total capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)	Specify total memory capability (GB)
RAM - total capacity (GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)	Specify total memory capacity (in GB)
RAM - memory slots	Specify total number of memory slots	Specify total number of memory slots	Specify total number of memory slots	Specify total number of memory slots	Specify total number of memory slots	Specify total number of memory slots	Specify total number of memory slots	Specify total number of memory slots
Hard Drive(s) installed	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives	Specify quantity, capacity speed of hard drives
Hard drives - hot swappablility	Specify if drives are hot swappable	Specify if drives are hot swappable	Specify if drives are hot swappable	Specify if drives are hot swappable	Specify if drives are hot swappable	Specify if drives are hot swappable	Specify if drives are hot swappable	Specify if drives are hot swappable
Internal disk capability	Specify disk quantity maximum	Specify disk quantity maximum	Specify disk quantity maximum	Specify disk quantity maximum	Specify disk quantity maximum	Specify disk quantity maximum	Specify disk quantity maximum	Specify disk quantity maximum
Disk controller	Specify disk controller	Specify disk controller	Specify disk controller	Specify disk controller	Specify disk controller	Specify disk controller	Specify disk controller	Specify disk controller
Raid (Hardware)	Specify hardware RAID levels supported	Specify hardware RAID levels supported	Specify hardware RAID levels supported	Specify hardware RAID levels supported	Specify hardware RAID levels supported	Specify hardware RAID levels supported	Specify hardware RAID levels supported	Specify hardware RAID levels supported
Optical Drive	Specify type of optical drive included	Specify type of optical drive included	Specify type of optical drive included	Specify type of optical drive included	Specify type of optical drive included	Specify type of optical drive included	Specify type of optical drive included	Specify type of optical drive included
Network	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included	Specify type and quantity of network interface(s) included
PCI Slots	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included	Specify quantity and type of PCI slots included
PCI-X slot speed:	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify
Full or half-height slots	Specify full or half-height slots	Specify full or half-height slots	Specify whether PCI slots are full or half-height	Specify whether PCI slots are full or half-height	Specify full or half-height slots	Specify full or half-height slots	Specify full or half-height slots	Specify full or half-height slots
Fibre channel support	Specify if included	Specify if included	Specify if included	Specify if included	Specify if included	Specify if included	Specify if included	Specify if included
Video	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)	Specify type included (VGA or DVI with adapter)
Keyboard	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included
Mouse	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included	Specify type included
USB ports - total	2 USB 2.0 ports	2 USB 2.0 ports	2 USB 2.0 ports	2 USB 2.0 ports	2 USB 2.0 ports	2 USB 2.0 ports	2 USB 2.0 ports	2 USB 2.0 ports
USB ports - front side	Specify number of front USB ports	Specify number of front USB ports	Specify number of front USB ports	Specify number of front USB ports	Specify number of front USB ports	Specify number of front USB ports	Specify number of front USB ports	Specify number of front USB ports
Warranty	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)	Warranty - 3 year, 9x5 Onsite, NXTBD (statewide coverage)

Minnesota IT Standards
Itanium, PowerX and SPARC servers
Effective 5/15/2008 to 11/15/2008

Form factor	Specify form factor (tower or rack)	Specify form factor (tower or rack)	Specify form factor (tower or rack)	Specify form factor (tower or rack)	Specify form factor (tower or rack)	Specify form factor (tower or rack)	Specify form factor (tower or rack)	Specify form factor (tower or rack)
Device height	Specify height in "U"	Specify height in "U"	Specify height in "U"	Specify height in "U"	Specify height in "U"	Specify height in "U"	Specify height in "U"	Specify height in "U"
Rack hardware	Must include rails for rack mount devices	Must include rails for rack mount devices	Must include rails for rack mount devices	Must include rails for rack mount devices	Must include rails for rack mount devices	Must include rails for rack mount devices	Must include rails for rack mount devices	Must include rails for rack mount devices
Rack hole pattern	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack	Specify round-hole rack or square-hole rack
Power - Type	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)	Specify Power Connect Type (NEMA or IEC)
Power - BTU rating	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)	Specify BTU Rating (specify minimum/maximum)
Power - Amps and Voltage	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)	Specify Amps/Voltage (specify minimum/maximum)
Power - Watts	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)	Specify Watts (specify minimum/maximum)
Power - single phase	Specify Single Phase Standard	Specify Single Phase Standard	Specify Single Phase Standard	Specify Single Phase Standard	Specify Single Phase Standard	Specify Single Phase Standard	Specify Single Phase Standard	Specify Single Phase Standard
Power - three phase	Specify if three phase is available	Specify if three phase is available	Specify if three phase is available	Specify if three phase is available	Specify if three phase is available	Specify if three phase is available	Specify if three phase is available	Specify if three phase is available
Power redundancy	Redundant power supply	Redundant power supply	Redundant power supply	Redundant power supply	Redundant power supply	Redundant power supply	Redundant power supply	Redundant power supply
Chassis	NA	NA	NA	NA	NA	NA	NA	NA
Operating systems supported	Specify what is supported	Specify what is supported	Specify what is supported	Specify what is supported	Specify what is supported	Specify what is supported	Specify what is supported	Specify what is supported
Operating systems preloaded	Specify what is preloaded	Specify what is preloaded	Specify what is preloaded	Specify what is preloaded	Specify what is preloaded	Specify what is preloaded	Specify what is preloaded	Specify what is preloaded
Automated Deployment Kit	Specify what is provided	Specify what is provided	Specify what is provided	Specify what is provided	Specify what is provided	Specify what is provided	Specify what is provided	Specify what is provided
Other product features	Brief description of other significant product features	Brief description of other significant product features	Brief description of other significant product features	Brief description of other significant product features	Brief description of other significant product features	Brief description of other significant product features	Brief description of other significant product features	Brief description of other significant product features
Price and contract mechanism								
Contract Mechanism (State contract, GSA, WSCA)	Specify type of contract used to offer product	Specify type of contract used to offer product	Specify type of contract used to offer product	Specify type of contract used to offer product	Specify type of contract used to offer product	Specify type of contract used to offer product	Specify type of contract used to offer product	Specify type of contract used to offer product
List Price (day one of refresh cycle)	Provide the manufacturer's list price	Provide the manufacturer's list price	Provide the manufacturer's list price	Provide the manufacturer's list price	Provide the manufacturer's list price	Provide the manufacturer's list price	Provide the manufacturer's list price	Provide the manufacturer's list price
Contract Price (day one of refresh cycle)	Provide the current contract price	Provide the current contract price	Provide the current contract price	Provide the current contract price	Provide the current contract price	Provide the current contract price	Provide the current contract price	Provide the current contract price
MN IT Standards Price	Provide price offered by this program	Provide price offered by this program	Provide price offered by this program	Provide price offered by this program	Provide price offered by this program	Provide price offered by this program	Provide price offered by this program	Provide price offered by this program
Standard options	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**	**Minimum requirements**
Hard drive options								
Hard drive option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Hard drive option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Hard drive option 3	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Memory board expansion								
Memory board expansion option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Memory board expansion option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Memory board expansion option 3	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Controllers								
Controller option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Controller option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU

Minnesota IT Standards
Itanium, PowerX and SPARC servers
Effective 5/15/2008 to 11/15/2008

Controller option 3	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Processor - additional processor to match base model	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Optical drive options (ie. DVD-RW)								
Optical drive option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Optical drive option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
3.5 inch floppy drive option	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
PCI Expansion (risers)	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Video card options								
Video card option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Video card option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Mgmt. Adapters								
Management Adapter option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Management Adapter option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Management Adapter option 3	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Warranty options								
3 yr. 7x24 Onsite - 4hr response	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku
4 yr. 9x5 Onsite - NXTBD	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku
5 yr. 9x5 Onsite - NXTBD	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku
3 yr. 9x5 Onsite - 4 hr response	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku
4 yr. 9x5 Onsite - 4 hr response	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku
5 yr. 9x5 Onsite - 4 hr response	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku	Specify coverage area and provide price and sku
Value Added options								
Value Added Option 1	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Value Added Option 2	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Value Added Option 3	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Value Added Option 4	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Value Added Option 5	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU	Provide description, price and MNSKU
Delivery Options/Schedule	Provide delivery options and schedule information	Provide delivery options and schedule information	Provide delivery options and schedule information	Provide delivery options and schedule information	Provide delivery options and schedule information	Provide delivery options and schedule information	Provide delivery options and schedule information	Provide delivery options and schedule information
Disclaimers	Provide disclaimers	Provide disclaimers	Provide disclaimers	Provide disclaimers	Provide disclaimers	Provide disclaimers	Provide disclaimers	Provide disclaimers