SNMP Monitoring for Smart-UPS

SNMP Metrics Catalogue, ref: PowerNet MIB, UPS MIB RFC-1628

Part Number: 990-9982 Revision 1

Notes:
1. This Metric Catalogue describes the key OID metrics that are provided in Monitor Kit Integration sets for selected RMM tools. System Administrators can enable or disable the OIDs to suit their particular installation and monitoring needs.

2. If an Integration Kit or manufacturer-built policies are not provided, IT administrators can build and deploy their own SNMP based monitoring policies depending on the capabilities of their Remote Monitoring and Management tool. Please refer to Application Note [AN-195] for more information.

3. Most installations take an iterative approach in deploying remote network monitoring, to balance the amount of collected information with the operational procedures in place to process it. Data points that are important to monitor include but are not limited to UPS Status (online/on battery), Battery Runtime Remaining, Battery Temperature, Battery needs replacement, Low Battery and Overload. Temperature and load values can also be monitored for sudden changes even if changes are within permitted range.

4. SNMP Polling: Remote Monitoring and Management (RMM) tools use network polling to retrieve static and dynamic data from the SNMP enabled devices on the network. To increase efficiency, administrators can create alert rule configurations on the RMM tool, so that the RMM tool can generate notifications when it detects that threshold conditions on the OIDs have been met. RMM tools offer varying capabilities on their user-interface to allow alert rule configurations. All SNMP Data Types returned from the network devices may not be supported on all tools. For the OIDs listed in this document, Smart-UPS return the following SNMP data types: 'display strings', 'enumerations', 'numbers', 'integers' that are treated as numbers, 'timeticks', 'ASCII strings' or a cumulative value. If an alert configuration cannot be created to trigger an alert for a particular OID, most RMM tools allow viewing of the polled OID values on the built-in dashboard.

5. SNMP Traps are unsolicited events generated from the alerting device (APC Smart-UPS) to the Trap receiver on the RMM tool. Predefined conditions exist on the alerting device to trigger the event generation. Some legacy polling OIDs have been replaced in modern UPSs by the use of Traps.

Installation and Configuration Guides are available for each Managed Services Integration Kit on the APC website, www.apc.com.
Note: For more information on configuring alerts for SNMP data types, see the Knowledge Base articles available on the **APC website**:
Kaseya: **FA307604**
SolarWinds N-able N-central: **FA307607**
AVG Managed Workplace: **FA307605**

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
Device Monitoring - SNMP Polls (GETs)								
UPS								
About Policy (Static information except for Firmware Revision)								
upsBasicIdentModel	*	*	*	*	NA	Initial Discovery	UPS model name, e.g. 'APC Smart-UPS 600'.	Display String
upsAdvIdentFirmwareRevision	*	*	*	-	NA	Daily	The firmware revision of the UPS system's microprocessor.	Display String
upsAdvIdentDateOfManufacture	*	*	*	*	NA	Initial Discovery, Weekly	The date when the UPS was manufactured in mm/dd/yy (or yyyy) format.	Display String
upsAdvIdentSerialNumber	*	*	*	*	NA	Initial Discovery	A string of characters identifying the serial number of the UPS in Smart-UPS.	Display String
upsAdvIdentSkuNumber	*	*	*	*	NA	Initial Discovery	The SKU Number of a UPS device.	Display String
upsAdvBatteryInternalSKU	(*)	(*)	(*)	(*)	NA	Initial Discovery	Internal Battery SKU. Not present in all UPS models.	Display String
upsAdvBatteryExternalSKU	(*)	(*)	(*)	(*)	NA	Initial Discovery	External Battery SKU. External batteries not supported in all UPS models. Smart-UPS allow for a maximum of ten additional battery packs.	Display String

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
upsBasicBatteryLastReplaceDate	*	*	*	*	NA	Monthly	The date when the UPS system's batteries were last replaced in mm/dd/yy (or yyyy) format. For Smart-UPS models, this value is originally set in the factory. When the UPS batteries are replaced, this value should be reset by the Admin through the Network Management Card web interface or the UPS LCD display if present on the UPS model.	Display String
upsAdvBatteryRecommendedReplaceDate	(*)	(*)	(*)	(*)	NA	Monthly	The recommended replacement date for the battery based on the UPS internal battery life algorithm.	Display String
sysContact	*	*	*	*	NA	Initial Setup	The textual identification of the contact person for this managed node, together with information on how to contact this person. The UPS identification field content is set by the Admin from the NMC web interface.	Display String, set by Admin
sysLocation	*	*	*	*	NA	Initial Setup	The physical location of this node (e.g., 'telephone closet, 3rd floor'). The UPS identification field content is set by the Admin from the NMC web interface.	Display String set by Admin
Configuration Policy (Set by the administrator, mostly static information)								
upsAdvConfigHighTransferVolt	*	*	*	-	NA	Monthly	The maximum line voltage in VAC allowed before the UPS system transfers to battery backup. For a list of allowed values supported by your UPS model, see the UPS User's Manual. If a value other than a supported value is provided in a set request, the UPS interprets it as a the next higher acceptable value. If the provided value is higher than the highest acceptable value, the highest acceptable value is used.	Integer (number)
upsAdvConfigLowTransferVolt	*	*	*	-	NA	Monthly	The minimum line voltage in VAC allowed before the UPS system transfers to battery backup. For a list of allowed values supported by your UPS model, see the UPS User's Manual. If a value other than a supported value is provided in a set request, the UPS interprets it as the next lower acceptable value. If the provided value is lower than the lowest acceptable value, the lowest acceptable value is used.	Integer (number)
upsAdvConfigAlarm	*	(*)	*	-	NA	Monthly	A flag indicating how the UPS should handle audible line fail alarms: timed(1): UPS alarm will sound after a pre-set timed duration starting from the line fail condition (see OID upsAdvConfigAlarmTimer for the alarm timer value) atLowBattery(2): UPS alarm will sound when the UPS has reached a Low Battery condition during a line fail never(3): Disables the UPS audible alarm mute(4): Mutes the current alarm for some UPSs only when it is in an alarm state and will return to the previously configured option when the UPS recovers from the alarm condition.	Enumeration
upsAdvConfigAlarmTimer	(*)	(*)	(*)	-	NA	Monthly	The time after initial line failure at which the UPS begins emitting audible alarms (beeping). This timer is observed only if the value of extControlAlarm is timed(2). Allowed values are 0 or 30 seconds. If a value other than a supported value is provided in a set request, the UPS interprets it as a the next lower acceptable value. If the provided value is lower than the lowest acceptable value, the lowest acceptable value is used.	TimeTicks
upsAdvConfigLowBatteryRunTime	*	*	*	*	NA	Weekly	The desired run time of the UPS, in seconds, once the low battery condition is reached. During this time the UPS will produce a constant warning tone which can not be disabled. For a list of allowed values supported by your UPS model, see the UPS User's Manual. If a value other than a supported value is provided in a set request, the UPS interprets the value as the next higher acceptable value. If the provided value is higher than the highest acceptable value, the highest acceptable value is used.	TimeTicks

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
upsAdvTestDiagnosticSchedule	*	*	*	*	Periodic	Monthly	The UPS system's automatic battery test schedule. INTEGERS: unknown(1), biweekly(2), weekly(3), atTurnOn(4), never(5), fourWeeks(6), twelveWeeks(7), biweeklySinceLastTest(8), weeklySinceLastTest(9)eightWeeks (10), twentysixWeeks (11), fiftytwoWeeks (12)	Enumeration
upsBasicStateOutputState	*	*	*	-	In **Configuration Policy** this OID checks for Flag 51 only (Eco-Mode/Green Mode). Green mode allows the UPS to operate more efficiently but may allow voltage variations to the load.	5 minutes	An ASCII string containing the 64 flags representing the current state(s) of the UPS, supported in Next Generation Smart-UPS and in legacy devices. If the Network Card is unable to determine the state of the UPS, this variable is set to 'UNKNOWN'. The flags are numbered 1 to 64, read from left to right.	ASCII String 64 flags. In Config Policy only the state of Eco/Green Mode is checked.
SNMP Status Information (Current operating conditions of the UPS)								
upsBasicStateOutputState	*	*	*	-	Alert on the following flags: Utility Status: 2,3,4, Communications between NMC and UPS:6, Utility:19, Bypass:12, 13, 14. Additional flags to monitor are Replace Battery: 5, Overload: 9 and High Battery Temp: 26.	1 minute	An ASCII string containing the 64 flags representing the current state(s) of the UPS, supported in Next Generation Smart-UPS and in legacy devices. If the Network Card is unable to determine the state of the UPS, this variable is set to 'UNKNOWN'. The flags are numbered 1 to 64, read from left to right. The flags are defined as follows: Flag 1: Abnormal Condition Present Flag 2: On Battery Flag 3: Low Battery Flag 4: On Line Flag 5: Replace Battery Flag 6: Serial Communication Established Flag 7: AVR Boost Active Flag 8: AVR Trim Active Flag 9: Overload Flag 10: Runtime Calibration Flag 11: Batteries Discharged Flag 12: Manual Bypass Flag 13: Software Bypass Flag 14: In Bypass due to Internal Fault Flag 15: In Bypass due to Supply Failure Flag 16: In Bypass due to Fan Failure Flag 17: Sleeping on a Timer Flag 18: Sleeping until Utility Power Returns Flag 19: On Flag 20: Rebooting Flag 21: Battery Communication Lost Flag 22: Graceful Shutdown Initiated Flag 23: Smart Boost or Smart Trim Fault Flag 24: Bad Output Voltage Flag 25: Battery Charger Failure Flag 26: High Battery Temperature Flag 27: Warning Battery Temperature Flag 28: Critical Battery Temperature Flag 29: Self Test In Progress Flag 30: Low Battery / On Battery Flag 31: Graceful Shutdown Issued by Upstream Device Flag 32: Graceful Shutdown Issued by Downstream Device Flag 33: No Batteries Attached Flag 34: Synchronized Command is in Progress Flag 35: Synchronized Sleeping Command is in Progress Flag 36: Synchronized Rebooting Command is in Progress Flag 37: Inverter DC Imbalance Flag 38: Transfer Relay Failure Flag 39: Shutdown or Unable to Transfer Flag 40: Low Battery Shutdown Flag 41: Electronic Unit Fan Failure Flag 42: Main Relay Failure Flag 43: Bypass Relay Failure Flag 44: Temporary Bypass Flag 45: High Internal Temperature Flag 46: Battery Temperature Sensor Fault Flag 47: Input Out of Range for Bypass Flag 48: DC Bus Overvoltage Flag 49: PFC Failure Flag 50: Critical Hardware Fault Flag 51: Green Mode/ECO Mode Flag 52: Hot Standby Flag 53: Emergency Power Off (EPO) Activated Flag 54: Load Alarm Violation Flag 55: Bypass Phase Fault Flag 56: UPS Internal Communication Failure Flag 57: Efficiency Booster Mode, Flag 58: Off, Flag 59: Standby, Flag 60: Minor or Environment Alarm	ASCII String with 64 flags.

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
upsBasicOutputStatus	-	-	-	*	Alert for 1,3,10	5 minutes	The current state of the UPS. If the UPS is unable to determine the state of the UPS this variable is set to unknown(1). Enumerations: unknown (1), onLine (2), onBattery (3), onSmartBoost (4), timedSleeping (5), softwareBypass (6), off (7), rebooting (8), switchedBypass (9), hardwareFailureBypass (10), sleepingUntilPowerReturn (11), onSmartTrim (12), ecoMode (13), hotStandby (14), onBatteryTest (15), emergencyStaticBypass (16), staticBypassStandby (17), powerSavingMode (18), spotMode (19), eConversion (20), chargerSpotmode (21), inverterSpotmode (22)	Enumeration
upsAdvBatteryRunTimeRemaining	*	*	*	*	Alert on [significant] changes.	5 minutes	The UPS battery run time remaining before battery exhaustion, returned in hh:mm:ss. Sudden changes in Runtime Remaining may that indicate that load was plugged in/unplugged or that utility power dropped/returned.	TimeTicks
upsAdvInputLineFailCause	*	*	*	*	The UPS returns enumerated values, see list.	15 minutes	The reason for the occurrence of the last transfer to UPS battery power. The variable is set to: - noTransfer(1) -- if there is no transfer yet. - highLineVoltage(2) -- if the transfer to battery is caused by an over voltage greater than the high transfer voltage. - brownout(3) -- if the duration of the outage is greater than five seconds and the line voltage is between 40% of the rated output voltage and the low transfer voltage. - blackout(4) -- if the duration of the outage is greater than five seconds and the line voltage is between 40% of the rated output voltage and ground. - smallMomentarySag(5) -- if the duration of the outage is less than five seconds and the line voltage is between 40% of the rated output voltage and the low transfer voltage. - deepMomentarySag(6) -- if the duration of the outage is less than five seconds and the line voltage is between 40% of the rated output voltage and ground. The variable is set to - smallMomentarySpike(7) -- if the line failure is caused by a rate of change of input voltage less than ten volts per cycle. - largeMomentarySpike(8) -- if the line failure is caused by a rate of change of input voltage greater than ten volts per cycle. - selfTest(9) -- if the UPS was commanded to do a self test. - rateOfVoltageChange(10) -- if the failure is due to the rate of change of the line voltage.	Enumerations
upsHighPrecOutputLoad	*	*	*	*	Alert on '900'	5 minutes	The current UPS load expressed in tenths of percent of rated capacity. '900' equals 90%. Load thresholds depend on environment and type of connected equipment. Load is related to efficiency and to the Runtime Remaining.	Number
upsHighPrecOutputCurrent	*	*	*	-	Consult with IT Operations Manager	5 minutes	The current in tenths of amperes drawn by the load on the UPS. Refer to the documentation of the connected equipment to determine acceptable tolerances to set this value.	Number
upsHighPrecBatteryCapacity	*	*	*	*	Alert for less than 20%	1 minute	The remaining battery capacity (state of charge) expressed in tenths of percent of full capacity. This usage does not account for the connected Load. If Runtime Remaining is monitored as key metric it will account also for load and battery age relative to remaining battery capacity.	Number
upsHighPrecBatteryTemperature	*	*	*	*	Environmentally dependent	5 minutes	The current internal UPS temperature expressed in tenths of degrees Celsius. Please refer to the Technical Specification of the battery model for recommendations.	Number

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
upsHighPrecOutputEfficiency	*	*	*	-	IT Operations Mgr.	10 minutes	The efficiency of the UPS in tenths of percent. A positive value represents the efficiency of the UPS in tenths of percent. A negative value is returned (-1) if the UPS model supports this OID, but the value can not be retrieved. (-2) Load is too low to report efficiency. (-3) Output off and efficiency is 0 (-4) On battery, efficiency is not measured or calculated in this mode (-5) In Bypass, efficiency is not measured or calculated in this mode (-6) Battery charging, battery is charging and adversely affecting efficiency (-7) Poor AC input, the main input is outside the optimum efficiency range Efficiency of 90% (900) or higher is considered good. A low load to ensure high runtime for the connected equipment results in a low efficiency - e.g. below 75%. Low efficiency can generate higher costs over time.	Number and Enumeration
upsHighPrecOutputEnergyUsage	*	*	*	-	N/A	10 minutes	The output energy usage of the UPS in tenths of kWh.	Cumulative value.
upsHighPrecBatteryActualVoltage	*	*	*	-	Facilities Mgr. or IT Operations Mgr.	5 minutes	The actual battery bus voltage in tenths of Volts.	Number
upsHighPrecOutputVoltage	*	*	*	-	IT Operations Manager	5 minutes	The output voltage of the UPS system in tenths of VAC. Refer to the UPS manual to see recommended voltages and frequency tolerances. Also consult with your IT Operations Manager to determine the voltage tolerances for the equipment that is connected to the UPS. Set tolerances near input voltage and within tolerances of the connected equipment and express it in high-precision values. EMEA typically 230V, NAM120V, APAC 230V	Number
upsHighPrecInputLineVoltage	*	*		-	Facilities Mgr. or IT Operations Mgr.	5 minutes	The current utility line voltage in tenths of VAC. The UPS detects and reacts to line voltage distortions by transferring to battery operation to protect connected equipment. In situations of poor power quality, the UPS may frequently transfer to battery operation. Consult with your Facilities Manager to determine your typical high and low input voltage points and variations. Refer to the Smart-UPS User Manual to view the factory-set values and the available choices on the UPS. Then set the RMM tool to alert appropriately E.g. 98-108 VAC for the 100V model, 106-135 VAC for the 120 V model. Grid voltages in US are over 110V and in Europe over 220-240V. Express the value in high-precision values, e.g. 115V: 1115. Variations in input voltage may be discovered by tracking how often the UPS transfers to OnBattery/OnLine or in/out of AVR mode for Line Interactive units. Trends are more important than occasional events, trend capacity is RMM tool dependent.	Number
upsHighPrecOutputFrequency	*	*	*	-	IT Operations Mgr.	5 minutes	The current output frequency of the UPS system in tenths of Hz. Varies according to region.	Number
upsHighPrecInputFrequency	*	*	*	-	Consult with Facilities Mgr.	5 minutes	The current input frequency to the UPS system in tenths of Hz. Set the value according to regional variances (NAM/EMEA/APJ) and express the value in high-precision values, e.g. 50Hz: 500. This usage is most appropriate in poor power regions. Adequate power regions see very little variance in frequency.	Number
upsAdvTestDiagnosticsResults	*	*	*	*	Alert on (2)	Daily	The results of the last runtime calibration. Value ok(1) means a successful runtime calibration. Value invalidCalibration(2) indicates last calibration did not take place since the battery capacity was below 100%. Value calibrationInProgress(3) means a calibration is occurring now.	Enumeration

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
upsAdvStateAbnormalConditions	*	*	*	*	See list of flags.	1 minute	Legacy OID value, no longer present in Next Generation Smart-UPSs models (e.g. models starting with prefix SMX, SMT, SRT). An ASCII string containing the 32 flags representing the current active UPS faults. If the Network Card is unable to determine the values of the flags, this variable is set to 'UNKNOWN'. If this variable is not supported by the connected UPS, this variable is set to 'NOT SUPPORTED'. The flags are numbered from 1 to 32, and read from left to right. The flags are defined as follows: Flag 1: Power Module Failure Flag 2: Main Intelligence Module Failure Flag 3: Redundant Intelligence Module Failure Flag 4: Battery Failure Flag 5: Load(kVA) Alarm Threshold Violation Flag 6: Redundancy Lost Flag 7: Redundancy Below Alarm Threshold Flag 8: Bypass not in Range; Either Frequency or Voltage Flag 9: Bypass Contactor Stuck in Bypass Condition Flag 10: Bypass Contactor Stuck in On-Line Condition Flag 11: In Bypass due to an Internal Fault Flag 12: In Bypass due to an Overload Flag 13: In Maintenance Bypass Flag 14: Input Circuit Braker Tripped Open Flag 15: System Level Fan Failure Flag 16: Redundant Intelligent Module in Control Flag 17: IIC Inter-Module Communication Failure Flag 18: No Working Power Modules Flag 19: Load Shutdown From Bypass; Input Frequency Flag 20: Runtime Below Alarm Threshold Flag 21: Extended Run Frame Fault Flag 22: Output Voltage out of Range Flag 23: UPS Not Synchronized Flag 24: No Batteries Installed Flag 25: Battery Voltage High Flag 26: UPS Specific Fault Detected Flag 27: Site Wiring Fault Flag 28: Backfeed Protection Relay Opened Flag 29: Flag 30: Flag 31: Flag 32:	ASCII String 32 Flags
upsOutletGroupStatusIndex	*	-	-	-	N/A	Initial Discovery	The index to the outlet group entry, meaning number of rows in the table indicates the number of outlets on the polled device.	Integer
upsOutletGroupStatusTableSize	*	-	*	-	N/A	Initial Discovery	The number of outlet groups for the UPS.	Integer
upsOutletGroupStatusName	*	-	*	-	N/A	Initial Discovery	The name of the outlet group. This OID is provided for informational purposes only. This value (friendly name) is set by the upsOutletGroupConfigName OID.	Display String
upsOutletGroupStatusGroupState	*	-	*	-	Alert for (2) and (3)	5 minutes	Getting this variable will return the outlet group state. If the outlet group is on, the upsOutletGroupStatusOn (1) value will be returned. If the outlet group is off, the upsOutletGroupStatusOff (2) value will be returned. If the state of the outlet group cannot be determined, the upsOutletGroupStatusUnknown (3) value will be returned. E.g. an overload situation while onBattery may result in load shedding, i.e. an outlet group turning off.	Enumeration
upsOutletGroupConfigPowerOnDelay	*	-	*	-	N/A	Daily	The amount of time (seconds) the outlet group will delay powering on when the delayed on, reboot, or shutdown command is applied. Allowed values vary by UPS model. The value of -1 is used for Never if supported by the UPS model and the outlet group.	Integer (number)
upsOutletGroupConfigPowerOffDelay	*	-	*	-	N/A	Daily	The amount of time (seconds) the outlet group will delay powering off when the delayed off, reboot, or shutdown command is applied. Allowed values vary by UPS model. The value of -1 is used for Never if supported by the UPS model and the outlet group.	Integer (number)
iemStatusProbeCurrentTemp	-	-	-	*	Environmentally dependent. Set to alert on high variations	5 minutes	The current temperature reading from the probe displayed in the units shown in the 'iemStatusProbeTempUnits' OID (Celsius or Fahrenheit). Proper ventilation and a climate controlled environment helps extend the service life of your UPS. Recommended ambient room temperature is 0-32ºC, ideally <25ºC. The Temperature probe is an accessory for certain Network Management Cards.	Number

	Kaseya	N-central	AVG	NPM	Threshold	Polling Frequency	Description	SNMP Data Type
iemStatusProbeCurrentHumid	-	-	-	*	Environmentally dependent. Set to alert on high variations.	5 minutes	The current humidity reading from the probe in percent relative humidity. Recommended humidity is from 0-95%, non condensing relative humidity. The combined temperature/humidity probe is a separate accessory.	Number

	Kaseya	N-central	AVG	NPM			Description
Device Monitoring - Traps							
UPS							
communicationLost	*	-	*	*	*SNMP Traps triggered by the UPS are received in real-time provided the network load is not too high. Thresholds and polling frequency is N/A for Traps.*		SEVERE: Communication to the UPS has been lost. Steps to re-establish communication are in progress.
upsOverload	*	-	*	*			SEVERE: The UPS has sensed a load greater than 100 percent of its rated capacity.
upsOverloadCleared	*	-	*	*			INFORMATIONAL: The overload condition has been cleared.
upsDiagnosticsFailed	*	-	*	*			SEVERE: The UPS failed its internal diagnostic self-test.
upsOnBattery	*	-	*	*			WARNING: The UPS has switched to battery backup power
lowBattery	*	-	*	*			SEVERE: The UPS batteries are low and will soon be exhausted. If utility power is not restored the UPS will put itself to 'sleep' and immediately cut power to the load
communicationEstablished	*	-	*	-	*Sys Admins should set the appropriate trap-based condition evaluation and process flow on the RMM tool interface.*		INFORMATIONAL: Communication with the UPS has been established.
powerRestored	*	-	*	*			INFORMATIONAL: Utility power has been restored.
upsDiagnosticsPassed	*	-	*	*			INFORMATIONAL: The UPS passed its internal self-test.
returnFromLowBattery	*	-	*	-			INFORMATIONAL: The UPS has returned from a low battery condition
upsTurnedOff	*	-	*	*			WARNING: The UPS has been turned 'off' by the management station.
upsSleeping	*	-	*	*			WARNING: The UPS is entering 'sleep' mode. Power to the load will be cut off.
upsWokeUp	*	-	*	-			INFORMATION: The UPS has returned from 'sleep' mode. Power to the load has been restored
upsBatteryNeedsReplacement	*	-	*	*			SEVERE: The batteries of the UPS need immediate replacement.
hardwareFailureBypass	*	-	*	*			SEVERE: UPS on bypass due to internal fault
returnFromBypass	*	-	*	*			INFORMATIONAL: UPS has returned from bypass
upsTurnedOn	*	-	*	-			INFORMATIONAL: A UPS is turned on.
smartAvrReducing	*	-	*	-			WARNING: The UPS is reducing the line voltage via SmartTrim(TM).
smartAvrReducingOff	*	-	*	-			INFORMATIONAL: The UPS has returned from SmartTrim(TM).
upsBatteryReplaced	*	-	*	-			INFORMATIONAL: A bad battery fault has been cleared.
batteryOverTemperature	*		*	*			WARNING: The battery temperature threshold has been violated.
batteryOverTemperatureCleared	*	-	*	*			SEVERE: A UPS critical condition was detected. The first variable is the error condition text message. The second variable is the error number.
upsCriticalcondition	*	-	*	*			SEVERE: A UPS critical condition was detected. The first variable is the error condition text message. The second variable is the error number.
upsCriticalConditionCleared	*	-	*	*			INFORMATIONAL: A UPS critical condition has been cleared. The first variable is the fault condition.
noBatteries	*	-	*	-			WARNING: The UPS has no batteries attached.
noBatteriesCleared	*	-	*	-			INFORMATIONAL: The UPS's batteries have been attached.
upsOutletGroupCommand	*	-	*	-			WARNING: The specified Outlet Group command has been issued.

	Kaseya	N-central	AVG	NPM			Description
upsOutletGroupTurnedOn	*	-	*	-			INFORMATIONAL: The specified Outlet Group turned on.
upsOutletGroupTurnedOff	*	-	*	-			WARNING: The specified Outlet Group turned off.
apcInternalCommunicationFault	*	-	*	-			SEVERE: An internal UPS communication fault exists.
apcInternalCommunicationFaultCleared	*	-	*	-			INFORMATIONAL: An internal UPS communication fault no longer exists.
upsWarningCondition	*	-	*	*			WARNING: A UPS warning condition has been detected. The first variable is the fault
upsWarningConditionCleared	*	-	*	*			WARNING: A UPS warning condition has been cleared
upsInformationalCondition	*	-	*	*			INFORMATIONAL: A UPS informational condition has been detected. The first variable is the fault condition.
upsInformationalConditionCleared	*	-	*	*			INFORMATIONAL: A UPS informational condition has been cleared. The first variable is the fault condition.

Customer support information is available on the APC website www.apc.com