Specifications Sheet

The following Nagios-plugins for NetApp are available as of today.

Tip: Check out the detailed help-page by clicking on each check-plugins "[−−help]"-Link

Bundles

Base Bundle (Hardware, Usage, Status, Snapshots) Base-packet addressing the most important metrics. Hoever you can can order and use also a single plugin or any combination of them.

Complete Bundle (incl. Updates) Most complete Bundle - 3 years - including all updates.

Caches

BufferCache checks several metrics of the system buffer cache (=system memory) like Buffers being read, Buffers being written, Empty (unused) buffers, Buffers with modified data, Buffers associated with CP IO, ... [−−help]

FlashCache checks several metrics of the external FlashCache (PAM II) like External cache hit rate, Average latency of read I/Os, Number of wafl buffers served off the external cache, ... [−−help]

FlexCache checks several metrics of the FlexCache like Bandwidth savings on FlexCache volume, Proxy rate on FlexCache volume, Per-op hit rate on Flex-Cache volume, ... [−−help]

FlexCacheConnections checks the rate of data transmitted over a flexcache connection. [−−help]

NVRAM checks data-rates and latency of the NVRAM. [−−help]

Hardware

Hardware checks the NVRAM, cooling-devices, temperature-sensors and power-supplies of the head and its shelves. Also checks all disks in the system, if they are in a broken, pre-failed or replacing state. [−−help]

Management

StorageEfficiency (pre-alpha) Storage Efficiency answers the question, "How much more real storage would I have needed to install without some key storage saving technologies like deduplication, cloning, snapshots, etc.?"

StorageUtilization Storage Utilization answers the question, "Am I effectively using the storage capacity available to my applications. [−−help]

Network

PerfIf Checks and counts transfer-rates and errors per network-interface (ifnet). Especially useful for monitoring 10GbE-ports. [−−help]

Performance

ConsistencyPoints reads the performance-counter cp_count twice and calculates the rate of CPs per second. The argument −counter|-z defines the type of consistency-point (wafl-timer, back-to-back, ...). The information gathered from this plugin corresponds to the CPty-column of 'sysstat -x 1'. [−−help]

PerfAggr The area of application for this plugin is to monitor performance-relevant aspects of capacity management within an aggregate -in other words, the percentage of free blocks available for writes within an aggregate (ignoring all reservations, guarantees, or the like - just the free space available to the write allocator). This allows to proactively order additional storage for an aggregate before write performance is impacted. [−−help]

PerfCpu checks one or all processors in a NetApp system for their utilization. [−−help]

PerfDisk checks all disks in a NetApp system for their utilization (Percentage of time there was at least one

outstanding request to the disk). Optional the check can be limited to the disks of a single aggregate. [−−help]

PerfSys checks various performance counters of the NetApp-system (mostly operations/second and transfer-rates). Counters supported: net_data_sent, dafs_ops, total_ops, disk_data_written, net_data_recv, cifs_ops, streaming_pkts, http_ops, nfs_ops, fcp_ops, disk_data_read, iscsi_ops [−−help]

PerfVolume Checks the 'latency' and 'operations per second' (ops) per volume. Shows details for total, read, write and other. NetApp recommends monitoring latency as the primary performance indicator. [−−help]

Snap

SnapMirror checks and logs: lag-time, pair-state, pair-transfer-status, last-transfer-duration, transfer-errors. [−−help]

SnapVault monitors a SnapVault-relationship (lag-time, state, last-transfer-duration, transfer-errors) [−−help]

Storage

OvercommitAggr Returns a list of aggregates together with their overcommitment in percent. Overcommitment is the relation between the aggrgates size and the total of all its (thin provisoned) volumes sizes. [−−help]

Quotas sends an alarm, if one of the defined quotas are exceeded. One service-check can monitor the whole filer, since we use the internal definitions of the quota-system as thresholds. [−−help]

Snapshots checks, if the snap-reserve is still suffi-

cient. Thresholds are set in percent; performance-data can be either in percent or absolute (Byte). Additional criteria are the age or name of the snapshot. This can be used for monitoring snapshot-backups and whether they are up to date or not. Also can be used to find snapshots related to a specific application like SNMV and check all volumes for left-over snapshots. [−−help]

Usage checks the used space in volumes and aggregates. Thresholds can be set in GB or percent. [−−help]

Status

Cluster checks the cluster-members regarding their state (connected, taken over, takeover failed, ...) and time-master-status (master, slave). [−−help]

IfConfig checks if the network-interfaces are enabled or not [−−help]

iSCSI monitors one or all iSCSI-adapters (online, offline, local, partner, error). [−−help]

Raidstatus alarms, if one of the RAIDs is degraded. Checks aggregates and volumes. [−−help]

Status alarms, according to the global-status. [−−help]

StorageAdapter checks the link-state of the storage adapters [−−help]

Uptime checks the seconds since last reboot. [−−help]

vFiler monitors the status of a vFiler (if he is running) [−−help]

Other

modules Helper modules (Na, Il)