

It is possible to alert on disk space thresholds with the existing check\_snmp plugin, but it is rather fiddly to set up (because, for example, you have to manually map the filesystem mountpoint to the OID index). So the approach given here is to install a new plugin, which handles this for you.

## 1. Create a plugin script

Create a file /usr/local/bin/check\_hrstorage.pl with the following contents (the #! line must be the very first line in the file)

```
# -----8<-----start-copying-below-this-line-----8<-----
#!/usr/bin/perl -w

unless ($ARGV[2]) {
    print STDERR "Usage: $0 <host> <community> <mountpoint> [<warn%> [<crit%>]]\n";
    exit 3;
}

my $res = `snmpwalk -On -Oq -r 2 -t 1 -c '$ARGV[1]' -v2c '$ARGV[0]' .1.3.6.1.2.1.25.2.3`;
unless ($res =~ /\^\.1.3.6/) {
    print "Unable to contact via SNMP\n";
    exit 3;
}

my $table = {};
my $index;
foreach my $line (split(/\n/, $res)) {
    my ($k, $v) = split(/ /, $line, 2);
    $table->{$k} = $v;
    if ($v eq $ARGV[2] && $k =~ /\^\.1.3.6.1.2.1.25.2.3.1.3\.(\d+)\$/ ) {
        $index = $1;
    }
}

unless ($index) {
    print "Unable to find mountpoint $ARGV[2]\n";
    exit 3;
}

my $size = $table->{"1.3.6.1.2.1.25.2.3.1.5.$index"};
$size += 4294967296 if $size < 0;
my $used = $table->{"1.3.6.1.2.1.25.2.3.1.6.$index"};
$used += 4294967296 if $used < 0;
my $percent = $used * 100.0 / $size;

my $block = $table->{"1.3.6.1.2.1.25.2.3.1.4.$index"};
if ($block =~ /\^(\d+)\$/) {
    $block = $1;
    $size = $size * 1.0 * $block / 1024 / 1024;
    $used = $used * 1.0 * $block / 1024 / 1024;
}
printf "%.2f%% used (%d out of %d MB)\n", $percent, $used, $size;
if ($ARGV[4] && $percent >= $ARGV[4]) {
    exit 2; # Critical
}
if ($ARGV[3] && $percent >= $ARGV[3]) {
    exit 1; # Warning
}
```

```
exit 0;
```

```
# -----8<-----stop-copying-below-this-line-----8<-----
```

Make it executable using the following command:

```
# chmod +x /usr/local/bin/check_hrstorage.pl
```

## 2. Configure the plugin

Create a new configuration file:

```
# editor /etc/nagios-plugins/config/hrstorage.cfg
```

```
define command {  
    command_name check_hrstorage  
    command_line /usr/local/bin/check_hrstorage.pl '$HOSTADDRESS$' '$ARG1$' '$ARG2$' '$ARG3$'  
}
```

## 3. Add a service check

A service check can now be added to an individual host, or to a hostgroup.  
For example:

```
define service {  
    host_name          noc  
    service_description Disk space /  
    check_command       check_hrstorage!NetManage!80!90  
    use                 generic-service  
    notification_interval 0  
}
```

The parameters to this check\_hrstorage are:

- \* SNMP community
- \* Filesystem mount point
- \* Warning threshold (%)
- \* Critical threshold (%)