

Technical Note – How to apply custom MSPB configuration and monitoring checks.

Ingredients:

8x custom device properties (MSPB endpoint details) [system level]
2x custom filters (all MSPB devices, LSV-enabled devices) [system level]
1x AMP-based scheduled task profile check (MSPB configuration) [SO level]
2x AMP-based custom monitor checks (MSPB sync-cloud/LSV) [system level]
3x Service templates (laptop, workstation, servers) [system level]
2x deployment rules (Cloud check, LSV check) [SO level]

Recipe:

Part I, MSPB - Configuration Check [scheduled task profile]
Part II, MSPB - Custom Service Monitors [AMPs, Rules, Service Templates]



Part I, MSPB - Configuration Check [scheduled task profile]

Overview:

Amp-based scheduled task profile used to retrieve select SolarWinds backup and recovery endpoint configuration information and capture them in N-central Custom Properties. These properties are native to N-central and are provided in part to facilitate Local Speed Vault monitoring in N-central. In addition they can be used to create filters that could be used for N-central dashboards, rules as well as to provide easy access at the device level via the custom properties tab. This information today is mostly found in the SolarWinds Backup and Recovery dashboard view that is provided via an iFrame view so the information present is not readily used as part of N-central features and functions per the examples above. Some information is also provided via the N-central backup and recovery monitoring metrics that would be used to create notifications/tickets but wouldn't be available per the examples above. The information this provides is:

- Account*
- Product*
- Client Version*
- Profile Name*
- Installation type standalone or integrated
- LSV enabled
- Custom Properties last updated timestamp updated each time the task runs

Requirements for Use:

- Create Custom Device Properties that are used to capture configuration values
- Upload MSPB_CFG_CHECK_<version_number>.amp to the N-central repository
- Create a SO-level scheduled task profile,
 - select ADD|Automation Policy|<Select the .amp noted above>
 - set schedule type to Recurring, every 8h¹

Note1:

It shouldn't be necessary to run this policy often as MSPB configuration shouldn't change often.

Usage Details:

Step 1 - Custom Properties

Create the following Custom Properties² per the image below with a default value of 'default' for all but MSPB_selfHealingTriggerDate that should be set to 'not triggered'. Ensure they are set to propagate to new customers/sites:

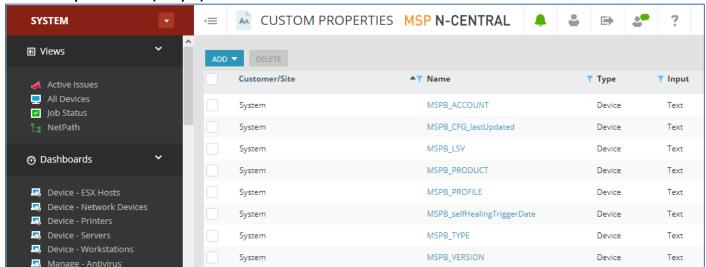
Note2

The names are currently hard coded in related monitoring etc. scripts. Any name changes will need to be propagated to the scripts

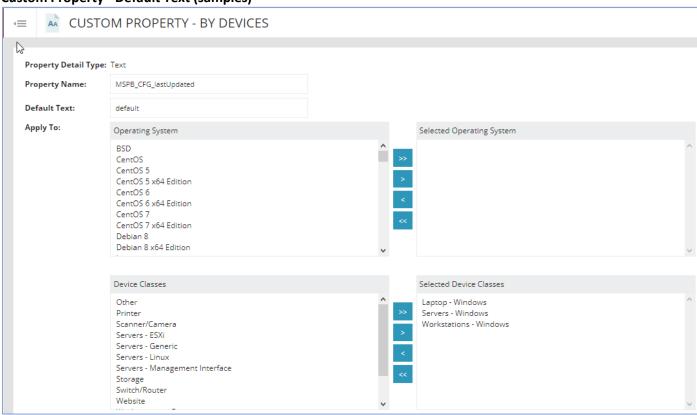
^{*}refer to SolarWinds Backup and Recovery documentation for definition details



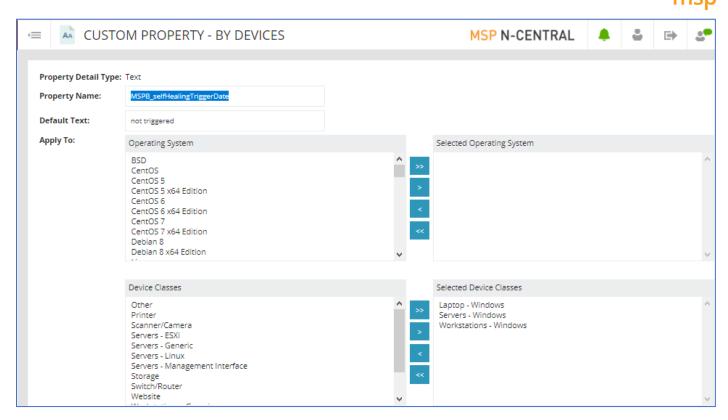
Custom Properties – List(sample)



Custom Property - Default Text (samples)



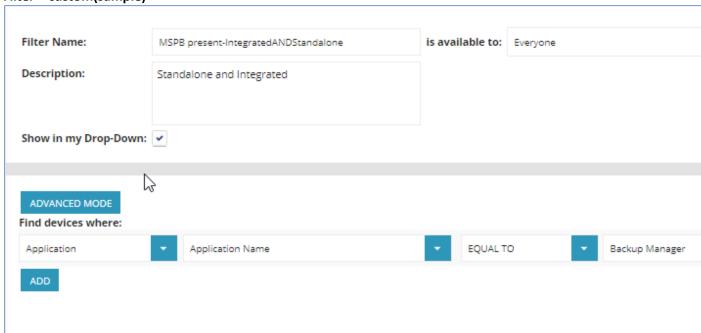




Step 2 - Filter

Ensure the following filter or similar exists to identify devices with MSPB installed, both standalone and integrated in this case:

Filter - custom(sample)



Step 3 - AMP



Upload **MSPB_CFG_CHECK_<version_number>.amp** to the N-central repository ref: <u>Add content to the SolarWinds N-central repository</u>

Step 4 - Scheduled Task^{3,4}

Use in a scheduled task profile to retrieve key MSPB configuration items and present them in Custom Device Properties (CDPs). These CDPs are used to provide in-GUI information rather than going to the MSPB dashboard and searching for the device details. Select CDPs are also used in other filters that provide related monitoring/rules. Helper screenshots below:

Note3:

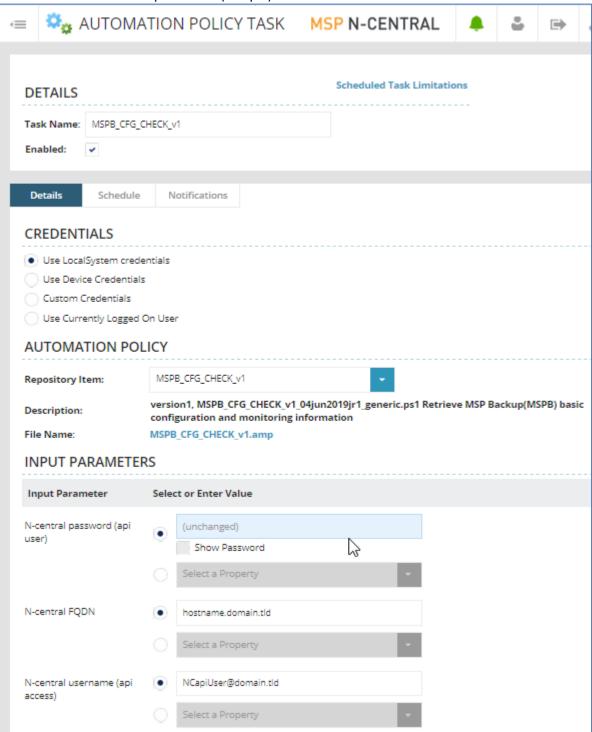
If your version of N-central is below v12.1.0.744 the 'OUTPUT PARAMETERS' above will not be available and 'INPUT PARAMETERS' MUST also be provided.

Note4:

The policy will check the <u>Agent version</u> and use API calls to achieve same in absence of this mapping being available. If N-central is at or above v12.0.1.744 but the Agent Version is below(not updated) the policy will still use the API method for CDPs and the 'INPUT PARAMETERS' would still need to be provided to avoid policy errors.



Scheduled Task Profile – input details (sample)



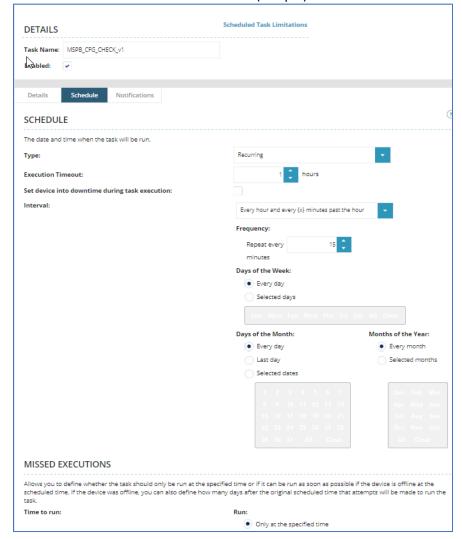


Scheduled Task Profile – output parameter mapping details (N-central 12.0.1.744 and above sample)

OUTPUT PARAMETERS	
Output Parameter	Custom Property
MSPB account	MSPB_ACCOUNT
MSPB CDPs last updated	MSPB_CFG_lastUpdated
MSPB client version	MSPB_VERSION
MSPB installation type	MSPB_TYPE
MSPB LSV	MSPB_LSV -
MSPB product	MSPB_PRODUCT -
MSPB profile name	MSPB_PROFILE



Scheduled Task Profile – schedule details(sample)



Step 5 - Rule

Apply this scheduled task profile to MSPB devices using a rule, included as part of Part II below.

<Proceed to Part II>



Part II, MSPB - Custom Service Monitors [AMPs, Rules, Service Templates]

MSPB, Cloud Synchronization Check -

Overview:

AMP-based custom service to monitor MSPB Cloud synchronization status for easy indication of issues, a status message to provide context of the issue and to provide 'Storage Used' as an additional metric that was originally intended to beused with a custom property input that would represent a storage limit and therefore be used as part of the service to provide a dedicated 'overage' flag for PSA, dashboards, filters etc. The latter was not fully implemented but storage used is left in for possible future or further customization with minimal change required. Outputs provided are:

- Cloud Sync Status Message –
 Indicates an error when synchronization has failed and warrants further investigation. Status can be one of:
 - error, synchronization failed (2)
 - Synchronized (0)
 - Synchronizing (1)
 - error, data invalid or not found (2)

(note: numbers in braces are the resulting values applied to the Cloud Sync Status metric):

- Cloud Sync Status see numbers in braces above
- Used Storage see backup and recovery documentation for details

Requirements for Use:

- Upload MSPB_CLOUD_CHECK_
 version_number>.amp to the N-central repository
- Create custom service
- Create service template
- create rule

Usage Details:

Step 1 - AMP

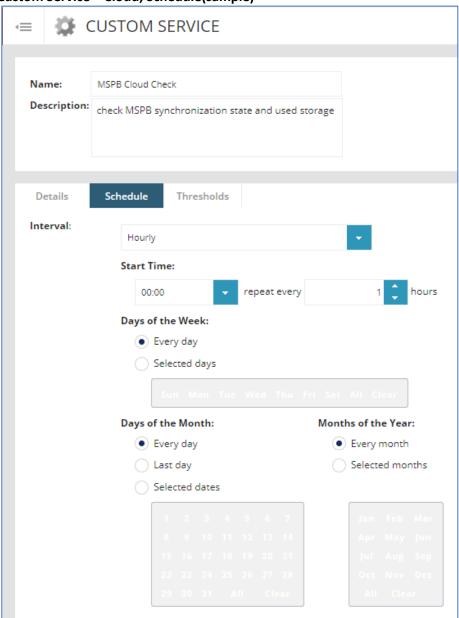
Upload MSPB_CLOUD_CHECK_<version_number>.amp to the N-central repository ref: Add content to the SolarWinds N-central repository

Step 2 - Custom Service

Create an AMP-based custom service using the uploaded file, schedule defaults should be fine. Sample threshold helper screenshot below. Adjust 'USED STORAGE' per your policy or leave as is (1TB normal) ref: Create AMP-based Custom Monitoring Services

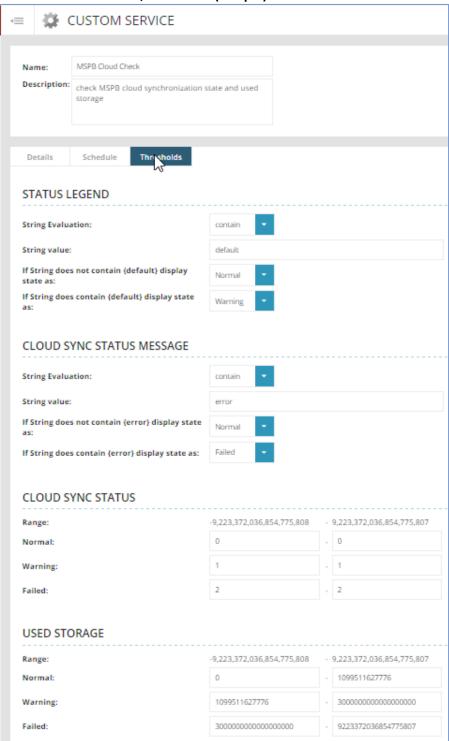


Custom Service – Cloud, Schedule(sample)





Custom Service – Cloud, Thresholds(sample)

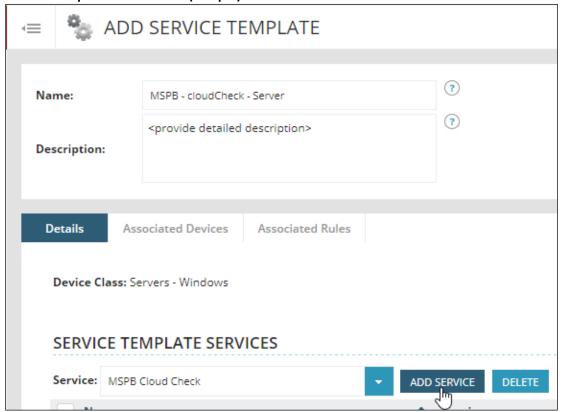


Step 3 - Service Template

Create service template(s) that include this service for applicable device classes. Sample for Server below, replicate for others as applicable; Servers, Workstations and Laptops.



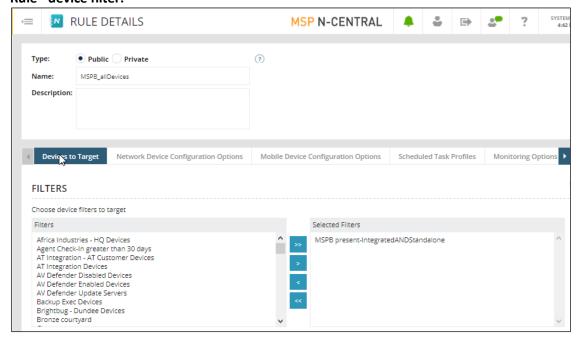
Service Template - add service(sample)



Step 4 - Rule

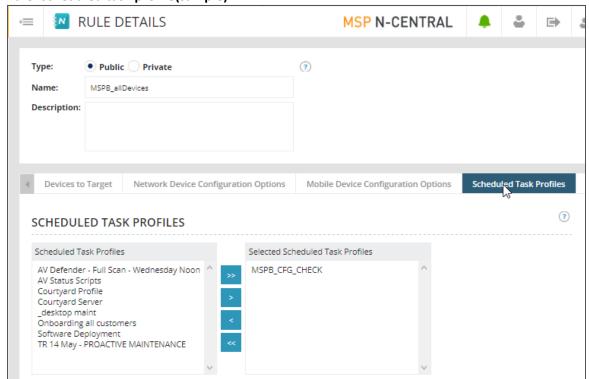
Create a rule to apply the scheduled task profile to all MSPB devices using the previous filter created/available and to apply the monitoring service template(s) created above. Helper screenshots for rule creation:

Rule - device filter:

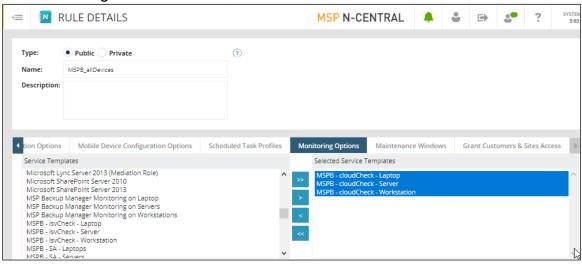




Rule- scheduled task profile(sample)



Rule - Monitoring





MSPB, Local Speed Vault Synchronization Check

Overview:

AMP-based custom service to monitor MSPB LSV synchronization status and self-healing trigger details that are not provided by currently available N-central monitoring services. A status metric provides for easy indications of issues for PSA, notifications etc. and a status message metric provides context of the issue. Outputs provided are:

- LSV Sync Status Message Indicates an error when synchronization has failed and warrants further investigation. Status can be one of:
 - error, synchronization failed (2)
 - Synchronized (0)
 - Synchronizing (1)
 - error, data invalid or not found (2)

(note: numbers in braces are the resulting values applied to the LSV Sync Status metric):

- LSV Sync Status see numbers in braces above
- LSV Self-Healing Triggered indicates the self-healing countdown has been triggered because both cloud and vault are in a not synchronized state. A time out (normally 14d) after this event would trigger a full synchronization between cloud and vault that can involve large amounts of data and time to reconcile. This is an indicator of that countdown being started. Further investigation is warranted once the timeout limit approaches and/or the trigger event persists for some time. To reduce coding complexity and reduce reacting to short-lived events, this metric should be used with N-central notification timeout delays to align with the configured backup and recovery 'LocalSpeedVaultUnavailabilityTimeoutInDays' found in the local backup and recover config.ini file (the 14d default mentioned above). See the backup and recovery documentation for further details.
- LSV Days Since Selfhealing Trigger per the LSV Self-Healing Triggered metric notification mentioned above this metric uses a custom property to maintain a calculated number of days since the trigger until is returns to a normal state. This can be used as an alternative to the notification delay method provided the property is available and accessible via API.

Requirements for Use:

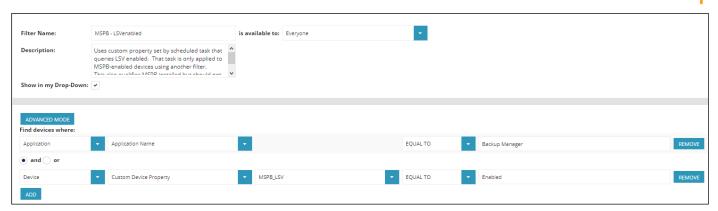
- Ensure the Custom Property "MSPB selfHealingTriggerDate" has been applied to the devices
- Create filter to identify LSV-enabled devices
- Upload MSPB_LSV_CHECK_<version_number>.amp to the N-central repository
- Create custom service
- Create service template that includes custom service
- Create rule to apply service template

Usage Details:

Step 1 - Filter.

Create filter to identify LSV-enabled devices(sample)





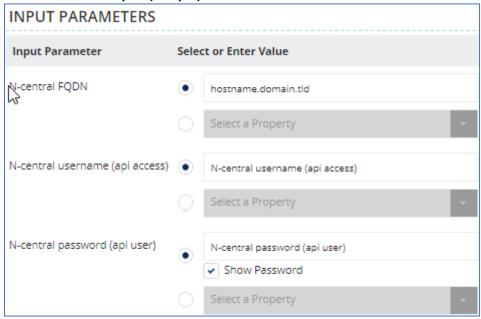
Step 2 - AMP

Upload MSPB_LSV_CHECK_<version_number>.amp to the N-central repository ref: Add content to the SolarWinds N-central repository

Step 3 - Custom Service

Create an AMP-based custom service using the uploaded file, schedule defaults should be fine. Sample threshold helper screenshot below. Adjust 'USED STORAGE' per your policy or leave as is (1TB normal) ref: Create AMP-based Custom Monitoring Services

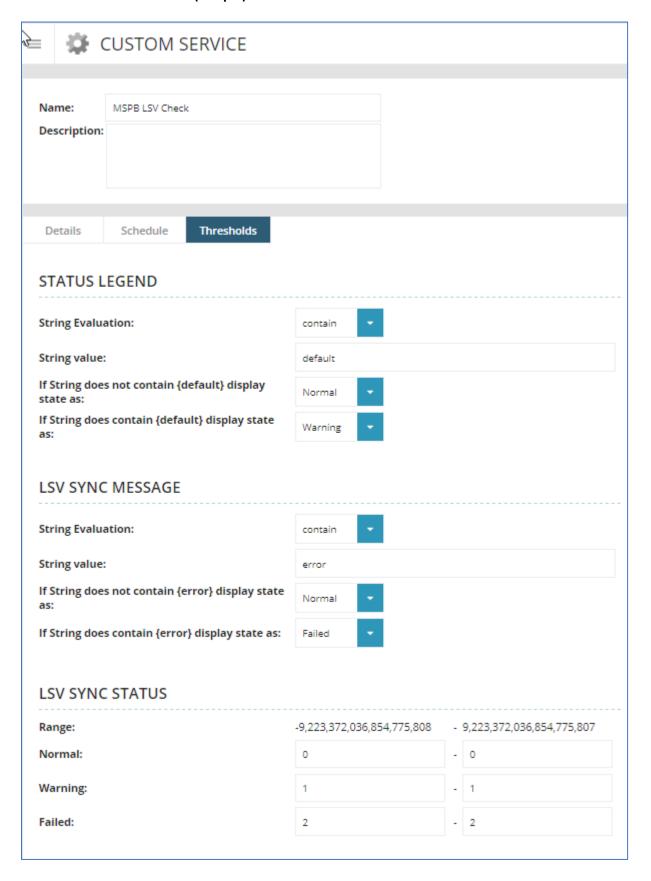
Custom Service – Inputs(sample)



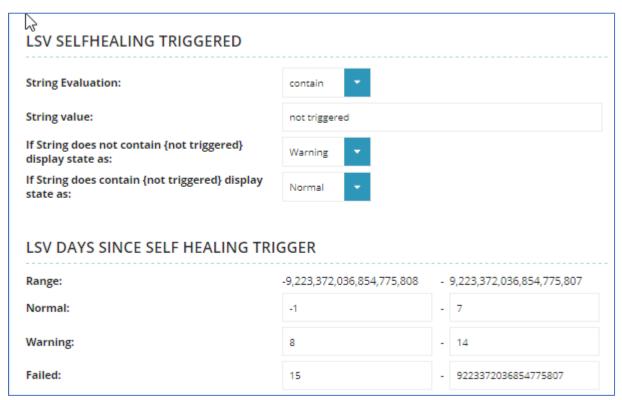
These credentials will be needed to retrieve the custom property that is used to store timestamp information between scans (could be replace with a local file containing same if API is not desired)



Custom Service – Thresholds(sample)



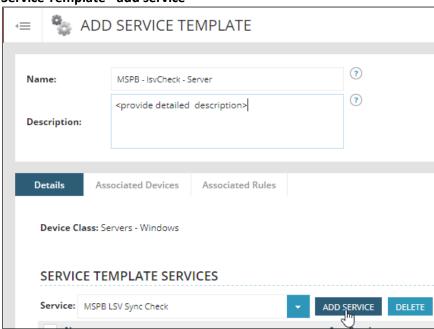




Step 4 - Service Template

Create service template(s) that include this service for applicable device classes. Sample for Server below, replicate for others as applicable; Servers, Workstations and Laptops.

Service Template - add service



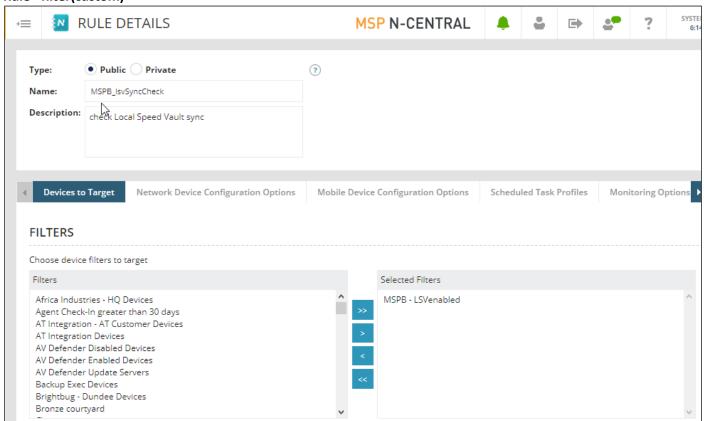
Use the filter above to apply this monitor to all MSPB devices using a service template tied to a rule

Step 5 - Rule

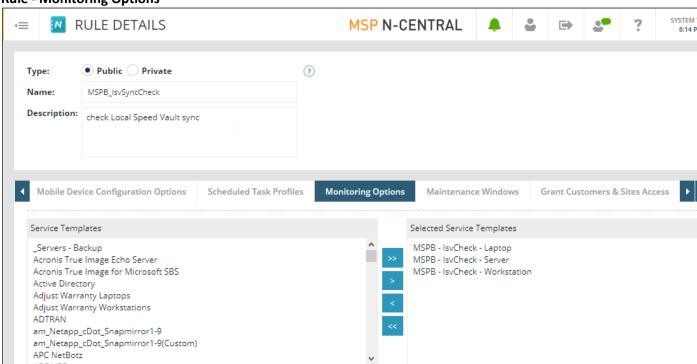


Create a rule to apply the scheduled task profile to all MSPB devices using the previous filter created/available and to apply the monitoring service template(s) created above. Helper screenshots for rule creation:

Rule - filter(custom)



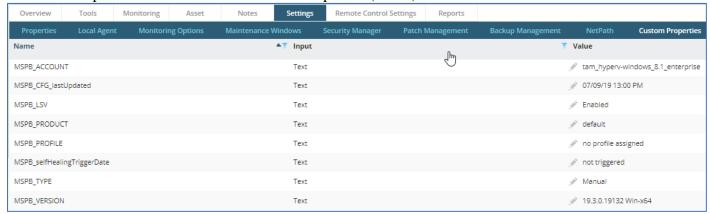
Rule - Monitoring Options





Post application results

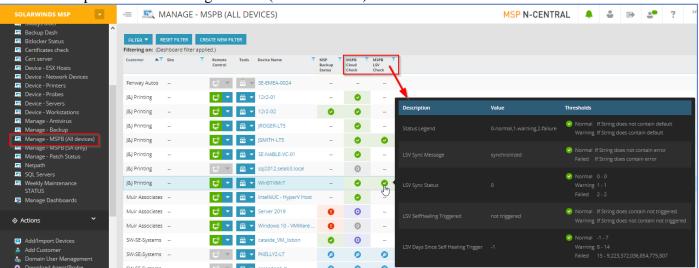
MSPB – Sample device level Custom Device Properties (CDPs):



MSPB – Sample Cloud monitoring metrics (via dashboard)



MSPB – Sample LSV monitoring metrics (via dashboard)



End Note.