

Channels en Repositories in Spacewalk

Nadat je [een Spacewalk server hebt geïnstalleerd](#) moet je deze nog van channels voorzien.

Het verdient aanbeveling even goed na te denken over de layout van je channels.

mijn setup ziet er zo uit :

```
centos_6-base
├─ centos_6-extras
├─ centos_6-updates
└─ epel_6

centos_7-base
├─ centos_7-extras
├─ centos_7-updates
└─ epel_7
```

Je zou kunnen overwegen om de dot releases als child channels te configureren en geen repository aan het base channel te koppelen. hierdoor wordt het opruimen van verouderde packages eenvoudiger en duurt het aanvankelijke synchen met de upstream repository korter.

Met het goedkoper worden van storage en het sneller worden van internet verbindingen wordt dit wel steeds minder belangrijk.

Base channel

[Maak een base channel aan door in het boven menu Channels](#) te kiezen en vervolgens in het zij menu **Manage Software Channels** en druk op het blauwe + **Create Channel**

The screenshot shows the Spacewalk web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user settings (admin). A search bar is present with a dropdown menu set to 'Systems'. The main navigation menu has tabs for Overview, Systems, Errata, Channels (selected), Audit, Configuration, and a summary for 0 systems selected with Manage and Clear buttons. Below this are links for Schedule and Users. The left sidebar contains a tree view with options like Software Channels, Package Search, Manage Software Channels (highlighted), Manage Software Packages, Manage Repositories, and Distribution Channel Mapping. The main content area is titled 'Software Channel Management' and includes links to Create Channel and Clone Channel. It states that no software channels are currently owned by the organization and provides instructions on how to manage them. A table with headers 'Channel Name' and 'Packages' is shown, containing the text 'No channels found.' The footer contains copyright information for Red Hat, Inc. and links to Privacy and Legal statements.

SPACEWALK

Knowledgebase Documentation admin

Systems Search

Overview Systems Errata Channels Audit Configuration 0 systems selected Manage Clear

Schedule Users

Admin Help

> Software Channels

> Package Search

> Manage Software Channels

> Manage Software Packages

> Manage Repositories

> Distribution Channel Mapping

Software Channel Management

+ Create Channel | Clone Channel

The following software channels are owned by your organization.

Modify an existing software channel by selecting it from the list below, or create a new software channel.

Channel Name	Packages
No channels found.	

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Vul de naam en label in, geen idee waarom er twee zijn, maar volgens de instructies mag er in geen van beide hoofdletters of spaties. Hou ze voor het gemak gelijk.

SPACEWALK

Knowledgebase Documentation admin

Systems Search

Overview Systems Errata **Channels** Audit Configuration 0 systems selected Manage Clear

Schedule Users

Admin Help

> Software Channels

> Package Search

> **Manage Software Channels**

> Manage Software Packages

> Manage Repositories

> Distribution Channel Mapping

Create Software Channel

Basic Channel Details

Create or edit software channels from this page.

If the parent channel is set to 'none', the channel is a base channel. Otherwise, the channel is a child of the specified channel.

Channel name and label are required.

They each must be at least 6 characters in length.

Channel name must not be longer than 256 characters and channel label must not be longer than 128 characters.

Channel name must begin with a letter and channel label may begin with a letter or digit.

They each must not begin with rhn, redhat or red hat.

They each must contain only lowercase letters, hyphens ('-'), periods ('.'), underscores ('_'), and numerals.

Channel name may also contain spaces, parentheses () and forward slashes ('/').

Channel summary is also required and must not exceed 500 characters.

Channel Name*:

centos_7-x86_64

Channel Label*:

centos_7-x86_64

Parent Channel:

None

Architecture:

x86_64

Yum Repository Checksum Type:

sha1

Tip: sha1 offers the widest compatibility with clients. sha-256 offers higher security, but is compatible only with newer clients: Fedora 11 and newer, or Enterprise Linux 6 and newer.

Channel Summary*:

Base Channel for CentOS 7

Scroll naar beneden, daar moet de GPG informatie worden ingevuld waar de rpm's uit de repository mee gesigned zijn.

Je krijgt deze informatie het eenvoudigst door de gpg-key te downloaden naar een linux machine, de spacewalk server zelf is een prima optie aangezien in afgeschermdde omgevingen dit überhaupt de enige server is die met de repo server die als bron gekozen is kan communiceren.

installeer wget :yum install wget

haal de gpgkey op:

```
cd /tmp
wget
http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/os/x86_64/RPM-GPG-KEY-CentOS-7
```

en haal de nodige gegevens uit de key door:

```
gpg --with-fingerprint RPM-GPG-KEY-CentOS-7
```

de output ziet er ongeveer zo uit. Het getal na de slash is het key ID

```
pub 4096R/F4A80EB5 2014-06-23 CentOS-7 Key (CentOS 7 Official Signing Key)
<security@centos.org>
    Key fingerprint = 6341 AB27 53D7 8A78 A7C2 7BB1 24C6 A8A7 F4A8 0EB5
```

[vul dit in en druk op](#) **Create Channel:**

Channel Access Control

Per-User Subscription Restrictions:

☒ All users within your organization may subscribe to this channel.

☐ Only selected users within your organization may subscribe to this channel.

Organization Sharing:

☒ This channel is **private** and cannot be accessed by any other organization.

☐ This channel is **protected** and may only be accessed by specific [trusted organizations](#).

☐ This channel is **public** and may be accessed by any of the [trusted organizations](#) trusted by this organization.

Security: GPG

GPG key URL:

GPG key ID:

Example: DB42A60E

GPG key Fingerprint:

Example: CA20 8686 2BD6 9DFC 65F6 ECC4 2191 80CD DB42 A60E

Create Channel

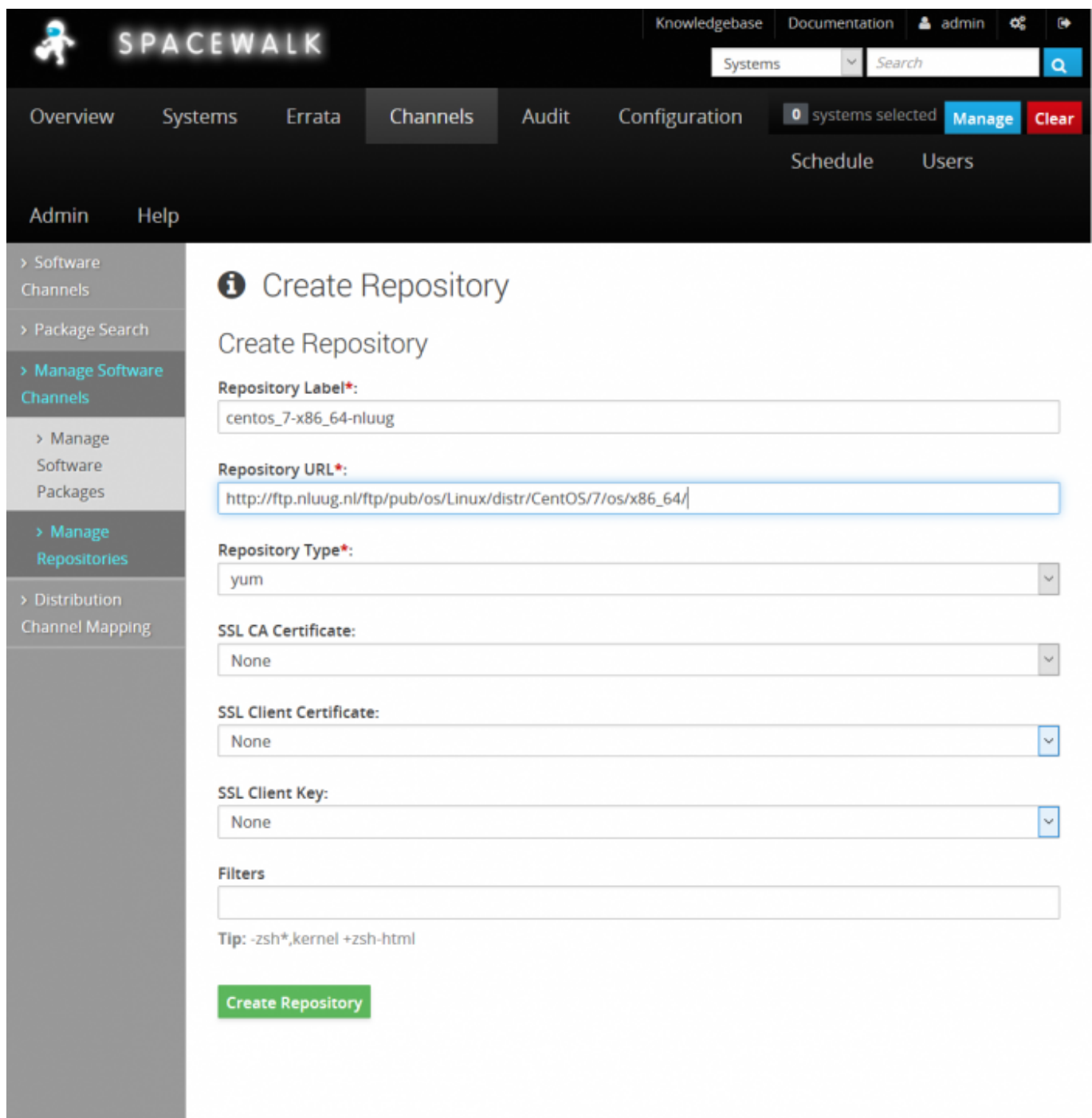
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nu is het tijd om een repository aan te maken, aan het channel te koppelen en te syncen met de

upstream. kies in het zij menu **Manage Repositories** en druk rechs boven op **+Create Repository**
vul vervolgens de velden in en druk op **Create Repository**:



The screenshot shows the Spacewalk web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user settings (admin, gear, refresh). A search bar is present with 'Systems' selected. The main navigation menu has tabs for Overview, Systems, Errata, Channels (selected), Audit, Configuration, and a summary bar showing '0 systems selected' with 'Manage' and 'Clear' buttons. Below this are links for Schedule and Users. The left sidebar contains a tree view with categories like Software, Channels, Package Search, Manage Software Channels, Manage Software Packages, Manage Repositories (highlighted), and Distribution Channel Mapping. The main content area is titled 'Create Repository' with an information icon. It contains several form fields: 'Repository Label*' with the value 'centos_7-x86_64-nluug', 'Repository URL*' with 'http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/os/x86_64/', 'Repository Type*' with a dropdown set to 'yum', 'SSL CA Certificate' with a dropdown set to 'None', 'SSL Client Certificate' with a dropdown set to 'None', and 'SSL Client Key' with a dropdown set to 'None'. There is also a 'Filters' text input field. A tip at the bottom reads 'Tip: -zsh*,kernel +zsh-html'. A green 'Create Repository' button is at the bottom of the form.

Vervolgt stap is de repository aan het channel koppelen. In **Manage Software Channels** klik op de channel waar de repository bij hoort, kies het tabblad **Repositories** selecteer de net gemaakte repository en druk op **Update Repositories**

The screenshot shows the Spacewalk web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user settings. The main navigation bar has tabs for Overview, Systems, Errata, Channels (selected), Audit, Configuration, and a summary for 0 systems selected. The left sidebar contains a tree view with options like Software Channels, Package Search, Manage Software Channels (selected), Manage Software Packages, Manage Repositories, and Distribution Channel Mapping. The main content area displays the 'centos_7-x86_64' channel details. A notification at the top indicates that the repository information was successfully updated. The 'Repositories' tab is active, showing a list of repositories. The 'centos_7-x86_64-nluug' repository is selected. The 'Update Repositories' button is located at the bottom right of the repository list.

Vervolgens is het tijd om het channel te syncen met de upstream repository. Log in op de spacewalk server en doe:

```
spacewalk-repo-sync -c centos_7-x86_64
```

Dit kan overigens even duren.

```
07:15:26 =====
07:15:26 | Channel: centos_7-x86_64
07:15:26 =====
07:15:26 Sync of channel started.
07:15:26 Repo URL:
http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/os/x86_64/
07:15:29 Packages in repo:          9363
07:15:48 Packages already synced:    0
07:15:48 Packages to sync:          9363
```

```
07:15:48 1/9363 : 389-ds-base-1.3.5.10-11.el7-0.x86_64
07:16:19 2/9363 : 389-ds-base-devel-1.3.5.10-11.el7-0.x86_64
07:16:20 3/9363 : 389-ds-base-libs-1.3.5.10-11.el7-0.x86_64
...

...
14:30:07 9361/9363 : zziplib-devel-0.13.62-5.el7-0.x86_64
14:30:16 9362/9363 : zziplib-devel-0.13.62-5.el7-0.i686
14:30:18 9363/9363 : zziplib-utils-0.13.62-5.el7-0.x86_64
14:30:19 Linking packages to channel.
14:30:30 Repo http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/os/x86_64/
has comps file comps.xml.
14:30:30 Repo http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/os/x86_64/
has 0 errata.
14:30:30 Sync of channel completed in 7:15:04.
14:30:30 Total time: 7:15:04
```

Om de local channel up to date te houden moet je nog een synchronisatie instellen. Klik op **Manage Software Channels** kies het tabblad **Repositories** en daaronder **Sync**.

[Selecteer Sync only latest packages](#) en stel een dagelijkse sync rond 5:00AM in:

> Software Channels

> Package Search

> Manage Software Channels

> Manage Software Packages

> Manage Repositories

> Distribution Channel Mapping

centos_7-x86_64

Delete software channel

Details

Managers

Errata

Packages

Repositories

Add / Remove

Sync

Channel Repositories

Last Sync Time

2017-02-11 20:30:30 CET

0 1 2 3 4 5 6 7 8 9

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1 - 1 of 1

25 items per page

Repository	Sync Status
centos_7-x86_64-nluug	

1 - 1 of 1

☐ Do not sync errata

☒ Sync only latest packages

☐ Create kickstartable tree

☐ Terminate upon any error

Sync Now

Select a schedule:

☐ Disable Schedule

☒ Daily

at

5:00 am

CET

4:30 am

5:00 am

5:30 am

6:00 am

6:30 am

☐ Weekly

Every

Sun

at

6:00 am

CET

☐ Monthly

Day

1

at

1:27 pm

CET

☐ Custom Quartz format

Schedule

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- <https://wiki.auriel.nl/>

Elk Base channel heeft een activation key nodig om later clients te kunnen verbinden. Maak een key aan door in het top menu **Systems** te kiezen en vervolgens in het zij menu **Activation Keys**

The screenshot shows the Spacewalk web interface. The top navigation bar includes links for English (change), Knowledgebase, Documentation, and user information (admin). A search bar is present with 'Systems' selected. The main navigation menu has 'Overview', 'Systems' (selected), 'Errata', 'Channels', 'Audit', and 'Configuration'. On the right, it shows '0 systems selected' with 'Manage' and 'Clear' buttons. Below the navigation, the left sidebar lists various system management options, with 'Activation Keys' highlighted. The main content area is titled 'Activation Keys' and includes a '+ Create Key' button. It explains that activation keys are used to register systems. A section titled 'Universal Default' states that if a universal default key is set, systems inherit its properties. A message box indicates that no universal default key is currently set. Below this, a table titled 'All Activation Keys' shows that no keys are currently available. A tip at the bottom states that the key is the organization's universal default activation key. The footer contains copyright information for Red Hat, Inc. and links to privacy and legal statements.

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klik op **+Create Key**

Child Channels

Child channels maak je onder een base Channel aan om repositories te ontsluiten die specifiek bij de OS release van dat Base Channel horen, zoals in dit voorbeeld de updates en de EPEL repositories.

update child channel

Maak eerst een repository aan, dit gaat hetzelfde als de repository voor het base Channel.

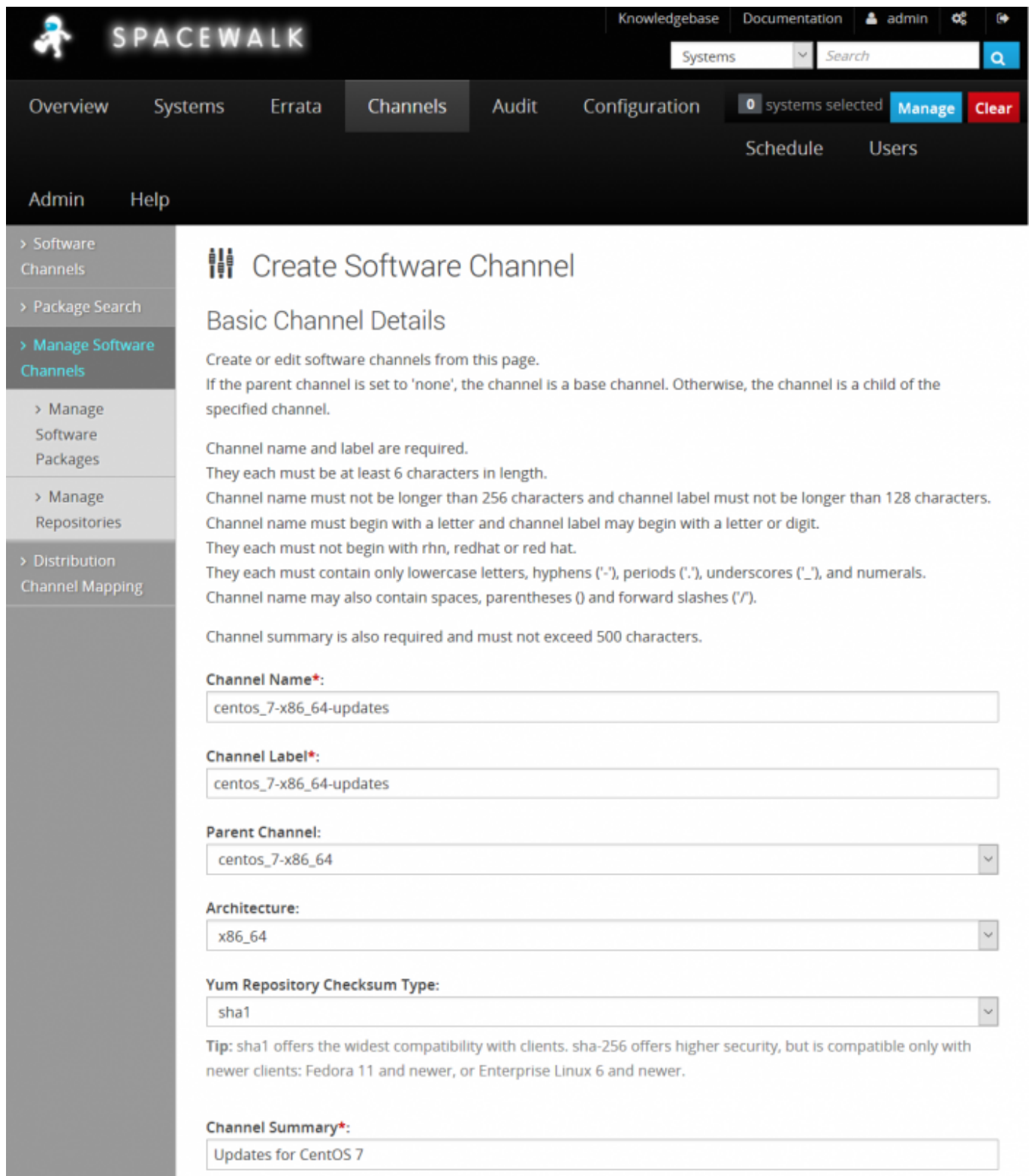
Ga naar **Channels** en kies in het zij menu **Manage Software Channels** -> **Manage Repositories** en druk op **+Create Repository**

Vul een naam in en de URL

http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/updates/x86_64/ en druk op

de groene knop **Create Repository**

Maak vervolgens het Child Channel aan. Ga naar **Manage Software Channels** en druk op **+Create Channel**, vul alles in en kies deze keer een **Parent Channel**



SPACEWALK Knowledgebase Documentation admin Settings

Systems Search

Overview Systems Errata **Channels** Audit Configuration 0 systems selected **Manage** **Clear**

Schedule Users

Admin Help

- > Software Channels
- > Package Search
- > **Manage Software Channels**
- > Manage Software Packages
- > Manage Repositories
- > Distribution Channel Mapping

Create Software Channel

Basic Channel Details

Create or edit software channels from this page.

If the parent channel is set to 'none', the channel is a base channel. Otherwise, the channel is a child of the specified channel.

Channel name and label are required.

They each must be at least 6 characters in length.

Channel name must not be longer than 256 characters and channel label must not be longer than 128 characters.

Channel name must begin with a letter and channel label may begin with a letter or digit.

They each must not begin with rhn, redhat or red hat.

They each must contain only lowercase letters, hyphens ('-'), periods ('.'), underscores ('_'), and numerals.

Channel name may also contain spaces, parentheses () and forward slashes ('/').

Channel summary is also required and must not exceed 500 characters.

Channel Name*:

Channel Label*:

Parent Channel:

Architecture:

Yum Repository Checksum Type:

Tip: sha1 offers the widest compatibility with clients. sha-256 offers higher security, but is compatible only with newer clients: Fedora 11 and newer, or Enterprise Linux 6 and newer.

Channel Summary*:

De GPG keys zijn hetzelfde, vul dus dezelfde waarden in al bij het Parent Channel en druk op de groene knop **Create Channel**:

Security: GPG

GPG key URL:

GPG key ID:

Example: DB42A60E

GPG key Fingerprint:

Example: CA20 8686 2BD6 9DFC 65F6 ECC4 2191 80CD DB42 A60E

[Create Channel](#)

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Ga vervolgens naar het tabblad **Repositories**, selecteer de net aangemaakte repository voor updates, en druk op **Update Repositories**

Log in op de server en doe `spacewalk-repo-sync -c centos_7-x86_64-updates`

```
14:15:16 =====
14:15:16 | Channel: centos_7-x86_64-updates
14:15:16 =====
14:15:16 Sync of channel started.
14:15:17 Repo URL:
http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/updates/x86_64/
14:15:18 Packages in repo:          807
14:15:19 Packages already synced:    0
14:15:19 Packages to sync:            807
14:15:19 1/807 : 389-ds-base-1.3.5.10-12.el7_3-0.x86_64
14:15:31 2/807 : 389-ds-base-1.3.5.10-15.el7_3-0.x86_64
...
...
15:35:42 806/807 : zsh-5.0.2-25.el7_3.1-0.x86_64
15:35:43 807/807 : zsh-html-5.0.2-25.el7_3.1-0.x86_64
15:35:43 Linking packages to channel.
15:35:44 Repo
http://ftp.nluug.nl/ftp/pub/os/Linux/distr/CentOS/7/updates/x86_64/ has 0
errata.
15:35:44 Sync of channel completed in 1:20:27.
15:35:44 Total time: 1:20:27
```

Stel nog wel een dagelijkse sync in: Ga naar het subtabblad **Sync** selecteer **Daily**, kies een tijdstip en

druk op **schedule**

Andere child channels

We nemen als voorbeeld de populaire EPEL repository. Nagenoeg hetzelfde als de update child channel.

Maak eerst een repository aan, ga naar **Channels** en kies in het zij menu **Manage Software Channels** -> **Manage Repositories** en druk op **+Create Repository**

Vul een naam in `epel_7-x86_64-nluug` en de URL

http://ftp.nluug.nl/pub/os/Linux/distr/fedora-epel/7/x86_64/ en druk op de groene knop **Create Repository**

Maak vervolgens het Child Channel aan `epel_7-x86_64`. Ga naar **Manage Software Channels** en druk op **+Create Channel**, vul alles in en kies deze keer een **Parent Channel** in dit geval `centos_7-x86_64`

De GPG key moet je weer downloaden en analyseren om die vervolgens in te vullen. `cd /tmp`
`wget http://ftp.nluug.nl/pub/os/Linux/distr/fedora-epel/RPM-GPG-KEY-EPEL-7`
`gpg --with-fingerprint RPM-GPG-KEY-EPEL-7`

```
pub 4096R/352C64E5 2013-12-16 Fedora EPEL (7) <epel@fedoraproject.org>  
Key fingerprint = 91E9 7D7C 4A5E 96F1 7F3E 888F 6A2F AEA2 352C 64E5
```

druk op **Create Channel**.

Vervolgens de repository aan dit channel koppelen: Ga naar het tabblad **Repositories**, selecteer `epel_7-x86_64-nluug` en druk op **Update Repositories**

log in op de server en doe `spacewalk-repo-sync -c epel_7-x86_64`

stel nog een sync schedule in en klaar.

Debian Channels en Repositories

Spacewalk kan ook voor Debian en Ubuntu werken.

Wordt aan gewerkt

zet de gpg keys:

<https://ftp-master.debian.org/keys.html>

<https://github.com/spacewalkproject/spacewalk/wiki/RegisteringClients>

<http://www.devops-blog.net/spacewalk/registering-ubuntu-and-debian-servers-with-spacewalk>

<http://purplepalmdash.github.io/2015/08/06/setup-spacewalker-trusty-channel/>

En Verder

Nu je je channels met repositories klaar hebt is het tijd om [clients te koppelen](#).

Bronnen

<http://www.unixmen.com/how-to-manage-spacewalk-channels-and-repositories/>

<https://www.redhat.com/archives/spacewalk-list/2012-January/msg00105.html>

<https://easyitstuff.wordpress.com/2015/08/17/how-to-create-spacewalk-channel/>

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