

# Upgrade NSC 2.0 to NSC 2.1

**WARNING:** If NSC does not start after an upgrade, this is probably due to old DSP module firmware.

The following information applies if you are updating SBC software version from 2.0.X-XXX->2.1.X-XXX. If you are simply updating from version 2.1.X-XXX->2.1.X-XXX then use the [standard update procedure](#) and navigate away from this page

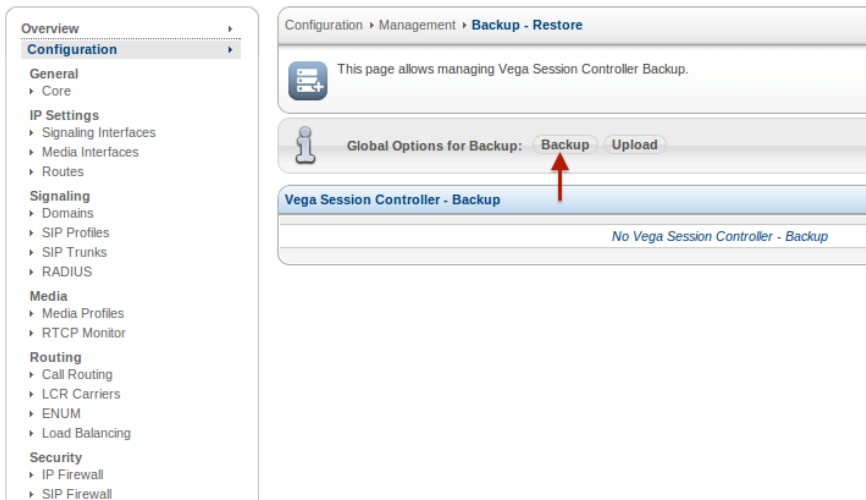
Follow the steps below to update from 2.0.X-XXX->2.1.X-XXX:

## Perform Backup

Create a backup of your entire SBC by navigating to the following location, from the SBC webGUI:

**Configuration -> Management -> Backup-Restore**

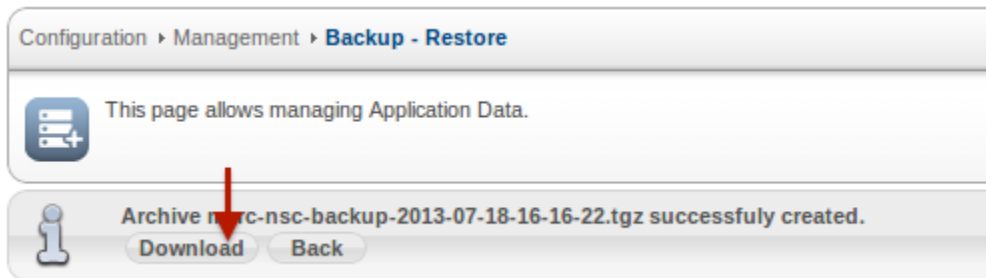
Then click **Backup**



The backup will contain all configuration and license information

Once you have created the backup, you will see a screen shot similar to the one below.

Click on the *Download* button to save the package package (.tgz file) to a safe location off this server, to be used later for restore purposes.



## Updating Software release

Because there are many signification improvements in 2.1.X-XXX release versions (when compared to a 2.0.X-XXX release) the update procedure involves a complete installation of the ISO (which will reformat the current SBC software).

\*Please verify that you have created your SBC backup, and saved it to a safe location off the SBC server

1. Navigate to the [SBC Download](#) page to download the new ISO

From the software release versions available in the above link, right-click on the iso link from the first row in the *Current Release table*, and save the ISO image to a local server  
*i.e*

### Current Release

SBC Release	Download Link	Description	ChangeLog	Date
2.1.1-28-GA	<a href="#">nsc-2.1.1-28-GA.iso</a>	Complete NSC Installation ISO Image	<a href="#">Release Notes</a>	March 26 2014
2.1.1-28-GA	<a href="#">nsc-2.1.1-28-GA.update.tgz</a>	Upgrade Package ( <a href="#">Update Instructions</a> )	<a href="#">Release Notes</a>	March 26 2014

### Maintenance Release

SBC Release	Download Link	Description	ChangeLog	Date
2.0.7-139-GA	<a href="#">nsc-2.0.7-139-GA.iso</a>	Complete NSC Installation ISO Image	<a href="#">Release Notes</a>	March 19 2014
2.0.7-139-GA	<a href="#">nsc-2.0.7-139-GA.update.tgz</a>	Upgrade Package ( <a href="#">Update Instructions</a> )	<a href="#">Release Notes</a>	March 19 2014

*the Maintenance release table can be ignored. This table is used for pre-2.1 release versions only*

2. Burn the downloaded ISO image onto a DVD disk or USB stick
  3. Insert USB stick into one of the SBC USB ports or use a DVD USB adapter, reboot and select the proper boot device in the BIOS.  
(the steps that follow are standard ISO installation screens, which will be skipped here)
- \* Please remember the login credentials and IP information you have enter here as they will be used to log into your SBC after update.
4. Once the update is complete you can now log into the SBC webGUI:

NetBorder  
SESSION CONTROLLER

Login

Username

Password

Login

SANGOMA Powered By ClearCenter

5. When logged in you will notice a the following screen indicating fresh installation

Overview > Dashboard > Control Panel

This page allows controlling Application hardware and software.

- System stopped
- Configuration not completed.

**Warning:** Vega Session Controller configuration is not completed.

Configuration Checklist				
<input checked="" type="checkbox"/>	Vega Session Controller	License	Not Installed	Configure
<input checked="" type="checkbox"/>	SIP	Profile	Not defined	Configure
<input checked="" type="checkbox"/>	Media Server	Configuration	No Transcoding Modules	Configure
<input checked="" type="checkbox"/>	Vega Session Controller	Configuration	Not generated	Configure

6. To view the software release version of the SBC, navigate to:  
**"Help -> About"**

Help > System > About

This page displays detailed information about the product components.

- System stopped.
- Configuration not completed.

**NetBorder Session Controller - 2.1.1-28 (GA)**

Module	Branch	Reference	Date
nsc	maint/nsc-2.1/master	e8f5217	Tue Mar 25 13:04:11 2014
core/ortp	maint/nsc-2.1/master	3d0ec27	Tue Apr 3 13:48:15 2012
core/pycrypto	maint/nsc-2.1/master	07fae68	Tue Jul 3 12:23:36 2012
core/coding_standards	maint/nsc-2.1/master	a759afe	Fri Sep 21 10:41:56 2012
web/requests	maint/nsc-2.1/master	c415c95	Fri Oct 4 12:04:26 2013

## Restoring your Configuration from your backup file

At this point you can restore the new SBC to previous configuration using the backup file created at the beginning of this process.

Note: When you restore your SBC configuration, your original dialplan will be located in "Advanced Call Routing" section of the dialplan (text editor based).

More on the new dial plan changes described in new dial plan features

- Navigate to:  
**"Management -> Backup - Restore"**

You will see the screen below:

Overview

**Configuration**

- General
  - Core
- IP Settings
  - Signaling Interfaces
  - Media Interfaces
  - Routes
- Signaling
  - Domains
  - SIP Profiles
  - SIP Trunks
  - RADIUS

Configuration > Management > **Backup - Restore**

This page allows managing Vega Session Controller Archive. ● System stopped.  
● Configuration not completed.

Global Options for Archive: Backup Upload

**Vega Session Controller - Archive**

No Vega Session Controller - Archive

To restore your backup file simply click on the *upload* button which will prompt you to find your backup file you have saved to upload to the SBC and automatically restore

- Click **Choose File**, then browse for the package you have downloaded. Then click **Upload**

**Upload Archive** ✕

Archive File:  No file chosen

- The system will load the package onto the SBC

Please wait...

100%

File Uploaded successfully! System processing...

- The last step is to click on **"Restore"** to begin the restoration process

Configuration > Management > **Backup - Restore**

This page allows managing Vega Session Controller Archive. ● System stopped.  
● Configuration not completed.

Global Options for Archive: Backup Upload

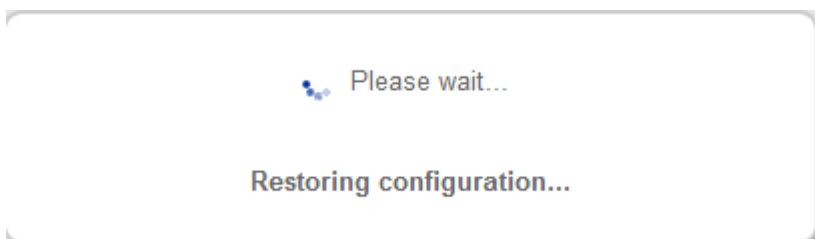
**Vega Session Controller - Archive**

10 ▾ Showing 1 to 1 of 1 entries |<< 1 ▾ >>|

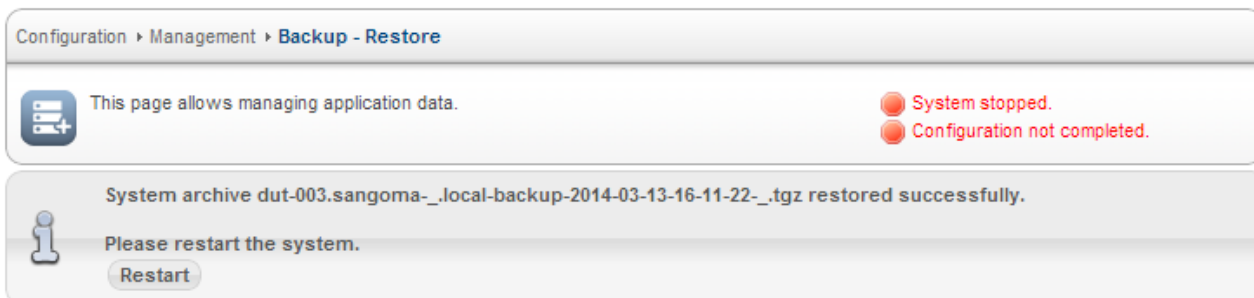
Name	Type	
dut-003.sangoma-_local-backup-2014-03-13-16-11-22-_.tgz	system	<input type="button" value="Download"/> <input type="button" value="Delete"/> <input style="border: 2px solid red;" type="button" value="Restore"/>

In the example above, the uploaded backup file was called "dut-003.sangoma\_.local-backup-2014-03-13-16-11-22\_.tgz"

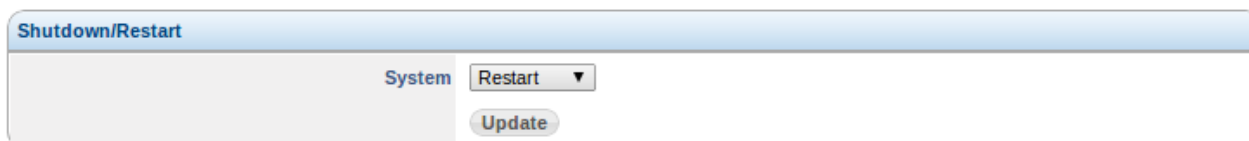
You will then see a screen similar to the one shown below, to confirm the restoration process. Select the "OK" button when ready to being.



5. The restoration process will complete and ask you to restart your SBC server. You will see a screen similar to the one below.



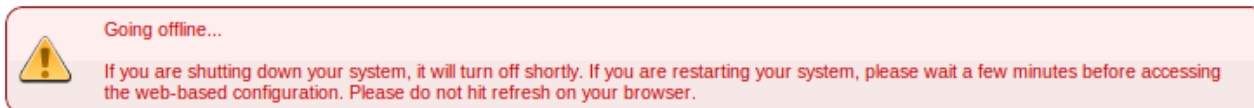
click on the *Restart* button to restart your server. You will notice the following prompts:



Then click **Continue** to confirm the reboot once more.



At this point the SBC is rebooting, wait for a few minutes for it to come back online.



Once the server is restarted, you may log back into the SBC GUI.

Below is an example dialplan *Call Routing* section after a restore from software release 2.0.7->2.1.1. Notice how the original dialplan (called "new\_dialplan1" in this example) was inserted into the *Advanced Call Routing*, where the GUI based routing ("Basic Call Routing") was left blank.

Read new dial plan features for details

Configuration > Routing > Call Routing

This page allows managing Call Routing Configuration.

System stopped.  
Configuration not completed.

### Basic Call Routing

No Basic Call Routing

Add

### Advanced Call Routing

Showing 1 to 1 of 1 entries

Name	Description
new_dialplan1	

Edit Delete

Add

## Hardware DSP Firmware update

This section only applies to you if:

- > SBC includes a Sangoma hardware DSP (i.e. D100, D150, D500), and
- > you are updating software release version from 2.0.6-XXX to any 2.1-X-XXX

Please skip this step if the above two points are not applicable to you

A hardware DSP firmware update is required to update the DSP with the new features and capabilities introduced with the new SBC software release.

1. Perform a DSP discover scan by navigating to the following section in the SBC webGUI:  
**"Configuration -> IP Settings -> Media Interfaces"**
2. Click on the **"Modify"** button of the **"Media Server Configuration"** section.

Configuration > IP Settings > Media Interfaces

This page allows managing Media server interfaces.

System stopped.  
Configuration is up to date.

### Media Server Configuration

Media Server Mode	Hardware
Media Server Interfaces IP Mode	Exposed

Modify

3. In the following screen select the desired interface from the *Detect Media Interfaces* section, then click on the *Detect* button

The screenshot shows the 'Media Server Parameters' section of the configuration page. The 'Enable/Disable Media Interfaces' dropdown is set to 'Enable'. Under 'Detect Media Interfaces', the 'eth1' checkbox is checked, and a red arrow points to it. Below this, there are input fields for 'Base IP address' (192.168.168.120), 'VLAN Identifier', 'Base External IP address', 'Network Mask' (255.255.255.0), 'Default Gateway', 'First UDP port' (14000), and 'Last UDP port' (17999). A red arrow also points to the 'Detect' button at the bottom of the form.

You should see the following screen pop up indicating the DSP firmware is outdated and requires your attention before continuing with the DSP detection

The screenshot shows the 'Media Server Configuration' page. The 'Media Server Mode' is set to 'Hardware' and 'Media Server Interfaces IP Mode' is set to 'Exposed'. A red warning banner at the bottom states 'Media Server Modules Version Out Of Date.' with an 'Update' button next to it.

If you do not see the above message, then the firmware on your hardware DSP is already up to date, in which case you can skip this Firmware Hardware DSP Update section

4. Click on the *Update* button in the above warning message to begin DSP firmware update. You should see the following status screen during updating

The screenshot shows a status screen with a loading icon and the text 'Please wait...'. Below this, it says 'Updating Media Server Interfaces...' and 'This may take several minutes'.

This process may take a few minutes. Do not navigate away from the webpage while firmware is being updated.

5. Once the firmware update is complete, you will see a screen similar to the below. Click on the *Click here to re-scan* button

The screenshot shows the 'Media Server Configuration' page with a green information icon and the text 'Media Server Interfaces Update Completed Successfully.' Below this, it says 'Please Click Here to re-scan.' with a red arrow pointing to the 'Click Here to re-scan' button.

6. You will be taken back to the DSP detection page. Click on the *Detect* button and you will now be able to proceed

## New Dialplan features

One of the significant changes in SBC software release 2.1 and above is the all new GUI based dialplan.

Below is a screenshot of the dialplan section after the fresh installation:

As seen in the diagram above, the dialplan is split into two sections:

- *Basic Call Routing*. GUI Based Dialplan creation. Complete dialplan is configured by selecting category drop down selections
- *Advanced Call Routing*. Text based dialplan creation. For dialplan editing not available via the *Basic Call routing*. This is used to compliment the main dialplan that resides under the *Basic Call Routing* section.

When configuring the dialplan in SBC 2.1 and above, you should always use the GUI based *Basic Call Routing*. However, when you restore your SBC configuration (from backup file) from software release below to 2.1, the entire dialplan will restore to the *Advanced Call Routing* section and will leave the *Basic Call Routing* empty. If you decide to modify your dialplan in the future you will need to continue using the *Advanced Call Routing* section and leave the *Basic Call Routing* empty.

If you decide that you want to use the new GUI based dial plan, you will need to reconfigure everything via *Basic Call Routing* dial plan section, then edit all your SIP profiles to use the new dial plans (replacing the old ones).