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## 8e6 3000 | Enterprise Filter



## R3000 Backup/Restore for Synchronization

### Scope

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The scope of this white paper is to give a technical description as to the reasons and process behind using the backup/restore for synchronization feature on the R3000 to move the configurations from a master R3000 to a slave R3000.

### Product Definition

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The 8e6 R3000 Enterprise Filter is a hardware-based appliance solution that allows users to monitor, filter and log an organization's Internet traffic. Through user-defined parameters based on 8e6's 75+ categories of Web content, an R3000 filter will help improve employee productivity, reduce liability and preserve network resources.

The R3000 can be setup to operate in standalone mode, master mode, or slave mode.

When in standalone mode the R3000 operates as the only Internet filter on the network. This white paper would not apply to an R3000 operating in standalone mode. However, information on how to use the backup/restore procedure can be found in the R3000 User Guide found at <http://www.8e6.com>.

When in Master Mode the R3000 will be configured to not only function as a content filter, but also to act as a central management console for all other R3000 appliances on the network. Whenever a filtering configuration change is made on the R3000, that change is sent to all of the slaves that have been identified to the master via the Synchronization configuration section of the R3000 GUI. This means that all filtering configurations should be done on the master R3000. This also means that all user-level filter authentication should take place on the master R3000 so that those filtering changes can then be disseminated out of all R3000 slaves.

When in Slave Mode, the only configuration that will be done is to ensure that the network interfaces are configured (for network communication). Otherwise,

all filtering information will be loaded from the master. This is very useful in a network where multiple R3000s are to be deployed.

## Introduction

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Using Master/Slave mode on the R3000 can make it very easy for an administrator to configure several R3000s in a multi-unit environment. However, it is possible (as with all network equipment) for the Master R3000 to fail. When this happens, the Slave R3000s will continue to run using the last known configuration loaded from the Master. All dynamic profiles (Authentication based) will eventually time-out. The reason for these profiles timing out, results from the fact that the Master R3000 can no longer verify the user credentials. This means that the information can no longer be trusted. In most cases the failure of the Master should be able to be quickly repaired. However, it is possible that the Master will need to be replaced (hardware failure) or it is going to be down for a long period of time due to detailed troubleshooting that needs to be done.

It is important in cases such as this that the Master R3000 is replaced as-soon-as-possible so that any individual user authentication can be made as well as the ability to control the filtering cluster. In a case where the R3000 will take time to be replaced, it is possible to designate one of the slave R3000s as the new Master R3000.

In order to do this, it is important that regular backups are kept of the Master R3000 using the backup/restore feature located in the System section of the R3000 GUI. Once a backup is created, it can be downloaded to another machine for safekeeping. It is recommended that a backup be created and downloaded anytime a change is made to the filtering settings on the Master R3000.

When a failure occurs, the Administrator should determine which slave will be designated as the new master. Login to the GUI of the slave unit, create a backup of the current running configuration on the Slave R3000 and download that configuration to a safe storage place until it is needed.

Next, set the IP addresses so that they are that of the previous Master followed by rebooting the R3000. Once the R3000 is rebooted, reconnect to the GUI and access the backup/restore section. Upload the last good configuration from the failed Master to the new Master. Once the file is uploaded and available in the R3000 GUI, use that file to restore the configuration settings. Once the restoration of the configuration settings is applied and a quick reload takes place, this R3000 will now function as the Master in the R3000 cluster.

Once the original Master is replaced or repaired, it can then be configured to replace the empty spot created by the movement of the slave to the position of Master. Set this R3000 so that the IP addresses are that of the slave which was moved. Upload the running slave configuration, which was downloaded prior to converting the slave to a master. Use this configuration to create a duplicate of the slave that was moved. Once this step is complete the cluster is whole again and should operate normally.