

GroundWork Monitor 6.1.1 Release Notes for Enterprise Quickstart Centos 5 Powered Virtual Appliance

This document describes the contents of GroundWork Monitor Enterprise 6.1.1 Release. Please read this document completely before proceeding with installation or upgrade. Please check for technical bulletins related to release 6.1.1 at <http://kb.groundworkopensource.com>.

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SECTION 1 – CHANGES FROM THE PREVIOUS RELEASE

GroundWork Monitor Enterprise Release 6.1.1 is a minor release. It contains bug fixes and improvements but with no major new features. The improvements made since release 6.1 include:

- Added support for Centos 5 release 4 32bit Powered Virtual Appliance
- New tab handling in the Status Viewer to improve performance (especially in Internet Explorer.) A remove all open tabs button has also been added to remove recently viewed items from the menu.
- Overall response times of the Status Viewer application have been improved.
- Within the Configuration application Service Externals can now be merged and replaced.
- GroundWork Distributed Monitoring Agent (GDMA) profiles and server configuration are now included in the release. This enables partners and customers to more easily deploy GDMA's by minimizing the amount of server-side setup required.
- Over 75 additional bug fixes and minor improvements have been implemented.

When installing release 6.1.1, customers and partners are required to provide a valid license key. License keys are available from GWOS and are delivered via email. Customers upgrading their production systems to release 6.1.1 are advised to ensure they have received their license key prior to their upgrade maintenance window.

SECTION 2 – INSTALLATION

Downloading GroundWork Monitor Enterprise

Customers with an existing GWOS subscription may download this release from:

<https://support.groundworkopensource.com>

GWOS Quickstart customers may download the release from the GWOS Exchange (<http://www.gwos.com/exchange>) by logging in and navigating to the “My Account” then “Files” page, or by logging in to the customer resource center using the links provided at time of purchase.

Installation

The Centos Powered Virtual Appliance can be run on a number of virtualization platforms. It is supported on VMware, and the following release notes pertain to a typical setup of the appliance.

Getting started with a VMware ESX 3.5 example

Some features of the Virtual Appliance will not be enabled by default. This sequence is typical of configuring a Virtual Appliance to work on ESX 3.5 servers.

- 1) Decompress the Virtual Appliance
- 2) Use the VMware converter to load the appliance files into ESX.
- 3) Boot the Virtual appliance, and start the Console, so that you can interact with it from the command line.
- 4) Wait a few minutes for the initial boot process to finish.
- 5) Follow the instructions on the screen to log in and change the groundwork user password. Note: sometimes the VMware console can insert characters, making this process cumbersome. You might need to try several times. To work around this issue, ssh to the VM from another client. You will be able to login as user groundwork, password groundwork, and change the password from the ssh session. The rest of these steps can also be done from the ssh session.
- 7) To configure the timezone, execute the following from the command line: system-config-date. The default time zone is UTC. Optionally reconfigure NTP.
- 8) After NTP syncs the system to the new timezone, restart the groundwork services:

```
service groundwork stop
rm /usr/local/groundwork/nagios/var/nagiosstatus.sav
service groundwork start
```

This will make all the timestamps in the interface reflect your local time.

- 9) For this release of 6.1.1, VMware tools 3.50-153875.i386.rpm is installed once the user sets a new password. This is sufficient for validating GroundWork Monitor; however the VMware Tools package may be upgraded by following the instructions provided by VMware for your product. Note: You will need to set the version of Linux to Red Hat Linux 5 32-bit to automatically upgrade VMware tools in vSphere.

GroundWork Monitor includes all prerequisites and components within a single installation package. Since this virtual appliance is built using the 32-bit version of Centos Linux and GroundWork Monitor this image cannot make use of more than 4GB of RAM.

The software components of GroundWork Monitor are installed under /usr/local/groundwork with the exception of the log rotation configuration and the start/stop script named /etc/init.d/groundwork. It is used as follows:

```
/etc/init.d/groundwork {start|stop}
```

This script can also be used to restart individual services. For example:

```
/etc/init.d/groundwork restart nagios
```

Login Access to Portal

For the GW Monitor 6.1.1 release, there are three users and roles that are provided with a new installation. These users are: admin, operator and user. To login, use the same login name for the password. For example, to login as the user “operator”, the password is operator. Changing the default passwords upon installation is recommended.

The “admin” user is a specially privileged user. It is used in the creation of shared dashboards, and should never be deleted. It may be disabled if desired. The admin user, with the administrator role has access to all of the portlets. The other two users will have access to subset of the available portlets.

Feature	Administrator Role	Operator Role	User Role
Dashboards	Yes	Yes (read-only)	Yes (read-only)
My GroundWork	Yes	Yes	Yes
Event Console	Yes	Yes	
Status Viewer	Yes	Yes	Yes (no actions)
Reports	Yes		Yes
Configuration	Yes		
Auto-discovery	Yes		
Administration	Yes		
Nagios	Yes	Yes	
Resources	Yes	Yes	Yes

At first login, the admin user must copy-and-paste their license key into the portal application under Administration, GroundWork License. Each license is valid for the subscription duration purchased. Each GWOS installation has a single license file that controls access to the application user interface. The license file affects only user access to the GWOS portal; it does not affect the ability to start/stop application components or the data gathering, processing or notification features of the solution. License key validity is checked at user login and is affected by:

- The subscription start and end-date
- The number of monitored devices configured
- Enabling the Network Service

SECTION 3 – FIXED ISSUES SINCE RELEASE 6.1

This section summarizes the minor issues fixed since the last release 6.1

Key	Component/s	Summary
GWMON-8488	Status Viewer	Service status portlet on host view does not display the service links after disabling check for host
GWMON-8481	Status Viewer	If user name contains a dot (.), status viewer generates stack traces
GWMON-8478	Tools	Ggwdiags.pl does not detect Centos or allow you to skip missing utils
GWMON-8476	Configuration	Multiple scrollbars for iFramed portlets is annoying. System should automatically adjust the height of the page based on the iFrame window
GWMON-8466	Dashboards	Creating a Top level dashboard pages generates many stack traces
GWMON-8463	Configuration	Workflow for Service Externals apply to hosts should be the same as for regular services
GWMON-8462	My GroundWork	Adding service group health portlet to the dashboard shows the default service group name as?
GWMON-8459	Status Viewer	Clicking on the close icon does not close the pop-ups in Action portlet
GWMON-8458	Console	Event Console displays ALL open events instead of the open events of selected hostgroup/servicegroup when any action is performed from Action button
GWMON-8456	My GroundWork	Auto complete distorted in all portlets in MyGroundWork
GWMON-8453	Status Viewer	After clicking on approx. 20 services in SV and the tabs shift to the left.
GWMON-8452	Status Viewer	Gaps in Status Viewer at ServiceGroup level
GWMON-8451	Status Viewer	Missing SV tabs with IE7 browser
GWMON-8450	Status Viewer	Gaps in Status Viewer at HostGroup level
GWMON-8449	Status Viewer	Gaps in Status Viewer at service level
GWMON-8447	Status Viewer	Nagios Statistics Portlet: pagination controls should be displayed only when data is greater than 1 page.
GWMON-8430	Console	Clicking on cancel icon gives HTTP Status 500 on Event Console
GWMON-8429	My GroundWork	IE7: Error on Page when trying to access MyGroundWork portlets
GWMON-8428	Performance	Process_service_perfdata_file crashes after startup

GWMON-8422	Status Viewer	Event portlet should be able to configure number of events per page
GWMON-8412	BitRock	PATH var in crontab does not contain paths to system binaries
GWMON-8411	Status Viewer	Deleting host 'A' distorts host view of Host 'B'
GWMON-8403	Status Viewer	HostGroup View's Filter and Monitoring Statistics portlets are out of place
GWMON-8397	Status Viewer	Size of tabs in tree view portlet is now incorrect and also size of host/service trees seems to be variable.
GWMON-8379	Status Viewer	Tooltip for service name to display host associated with the service in tabs
GWMON-8376	Status Viewer	Tree view>Deleting hosts do not remove their corresponding services from service group
GWMON-8372	Status Viewer	When navigating in Status Viewer java.io.IOException is thrown
GWMON-8370	Dashboards	MyGroundWork and dashboard pages do not handle multiple instances of the Event portlet correctly
GWMON-8369	Status Viewer	Service Group>Nagios monitoring portlet displays wrong count in link
GWMON-8367	Status Viewer	IE-8-->Delete button not visible in Host/Service Comment portlet
GWMON-8365	Status Viewer	Mouseover on Close All button shows " tab Set Title"
GWMON-8363	Status Viewer	Service view does not display performance graphs for services
GWMON-8361	Status Viewer	Pie charts are behind in their updates
GWMON-8357	Status Viewer	Availability portlet displays the services of different host - intermittent
GWMON-8354	Status Viewer	Action portlet for host and service incorrectly display the actions for servicegroup
GWMON-8352	Status Viewer	Clicking on close all button shows--> Error Occurred. An error occurred. Please retry after some time on hosts statistics portlet
GWMON-8333	Status Viewer	Add last check time to service and host info portlets
GWMON-8331	BitRock	The installer should execute an unset LANG
GWMON-8328	JBoss Portal	Users with view permissions can still edit portlet preferences in Dashboards
GWMON-8327	BitRock	check_system_uptime plugin requires perl library Sys::Load
GWMON-8324	Configuration	Eliminate multiple nested vertical scrollbars
GWMON-8307	Installer	If License doesn't require network service to be enabled but user has network service activated License Validation will fail

GWMON-8304	BitRock	During an upgrade or clean install, the BitRock installer if it detects a /u//g/users/nagios directory to make sure .bashrc file includes the correct source file entry
GWMON-8283	Appliance	SuSE 11 VM - after changing passwd the first time, after power off and power on , the console message still appears.
GWMON-8279	Dashboards	Seurat View fails to display correct data on refresh
GWMON-8278	Dashboards	Dashboard security settings not honored
GWMON-8276	BitRock	License key checks for network service by looking in obvious text file with obvious key name
GWMON-8240	Build Process	extra copies of libexpat should be eliminated
GWMON-8239	Build Process	Need newer version of Apache httpd in GW Monitor
GWMON-8237	Dashboards	Host Summary Portlet does not have an Entire Network Selection.
GWMON-8236	My GroundWork	Host List Portlet does not have an Entire Network option
GWMON-8233	BitRock	send_nasca does not have the correct binary (the -od option is not present)
GWMON-8185	Status Viewer	Pop-up windows in status viewer should paginate data instead of loading entire result set
GWMON-8134	My GroundWork	Time filter applied on availability portlets are not retained when edit preference on any other portlet is clicked
GWMON-8048	JBoss Portal	Adding portal pages outside of Sub-pages to the Dashboards page do not allow inheritance of Admin preferences
GWMON-8007	Status Viewer	Add a facility to close all "open" Status Viewer sub-tabs except the current one
GWMON-7981	BitRock	need to include mod_security2 and core rule set builds into the GW Monitor distribution
GWMON-7980	Configuration	Double Scrollbars because of too long pages / frames
GWMON-7898	Console	Two messages show up as one in Console
GWMON-7883	Console	Event Console does not remove events from Hostgroup filter view when closed with Action
GWMON-7849	Reports	Host availability reports display wrong values
GWMON-6219	Reports	Host availability report->service availability percentage table shows percentage incorrectly for service in critical state
GWMON-6064	BitRock	snmptt.log file is created with incorrect permissions

SECTION 4 – KNOWN ISSUES AND LIMITATIONS

This section summarizes several common issues and limitations. If you are experiencing issues with GroundWork Monitor, you may want to read this section to see if your issue is a known limitation. Often there is a work-around for known issues. Contact support if you do not see your issue or an adequate work-around described.

32-bit Linux can address up to 4GB of RAM, however many modern computers have more. This can be addressed with 64-bit Linux, or with 32-bit Linux using a PAE kernel. Java has multiple problems starting and running under PAE kernels. GroundWork in particular will not run well at all in this configuration, and so is not supported. Customers requiring more than 4GB of RAM are recommended to use the 64-bit installation package on a 64-bit Linux OS in preference to this virtual appliance.

After completing the installation of the Centos VMware instance, the user must change the root password. We recommend the user to secure shell (ssh) in to the VMware image in order to change the root password. In some instances, the console of the VMware ESX server generated extra characters which made it difficult to enter a new password – GWMON-8514.

On initial login, in the Status Viewer application, using the action menu items such as “Disable Notifications” may not work. To work around this issue, simply click in another application and click back to Status- GWMON-8500.

In the 6.1.1 Status Viewer application, once the user clicks the tree view node, the node remains expanded and does not retract once a new node is clicked. The interface should follow the user focus, and currently does not- GWMON-8254.

In the Status Viewer application, the nodes visited by the user are tracked in a “breadcrumbs” portlet. If the user signs on from two different browsers at the same time, and visits the same node, the node will be displayed twice in the breadcrumb list. This is because the navigation tabs are stored by user session, not by user role - GWMON-8489.

Please be advised that GroundWork does not currently support number formats that use a comma "," to separate whole numbers from decimals instead of a period "." - GWMON-8088.

Using the Firefox browser, when a user opens up the Status Viewer portal page, then opens a new tab with the Event Console portal page, the Event Console portal page does not receive PUSH updates from the GroundWork server. This situation is not occurring with the IE browser. Here are some suggestions to work around this situation: Open up Event Console portal page first, then open up a new Status Viewer portal browser tab or open up the "Event Console" portal in a "New Window". In both cases, the events get pushed to both applications – GWMON-7990.

After deleting a HostGroup in Configuration, its corresponding tab is not deleted from Status viewer. Please be aware that selecting a deleted breadcrumb tab will temporarily generate a User Interface error. To work around this issue, delete breadcrumb the tab - GWMON-6968.

Upon startup Apache may emit the following message “Could not reliably determine the server's fully qualified domain name.” This is not normally a cause for concern, but can be corrected if desired. One possible work-around for this issue is to edit the /usr/local/groundwork/apache2/conf/httpd.conf file to explicitly specify the hostname value - GWMON-2149.

If an existing /etc/my.cnf file is found during installation, it is left in place. It is highly recommended that the contents of this file are manually merged with the /usr/local/groundwork/mysql/my.cnf file, and the /etc/my.cnf be removed.

The monitoring performance portlet may display zero values when first opened. After a short delay the correct information will be shown. – GWMON-7819

Rarely the “Error occurred when processing action command” is seen when using the status viewer actions. If you encounter this problem, use the retry button to resubmit the request. – GWMON-7518

Automatic update does not occur in event console in response to “acknowledge” actions – GWMON-7824.

When a user is given access to the native Nagios web pages their identity will be recorded as “nagiosadmin” This is a known limitation of the Single Sign-on mechanism used to wrap the Nagios pages - GWMON-5646

When using the IE8 browser in the configuration application some controls on the left-side panel may not display. This issue can be worked around by adding the GroundWork Monitor server to the Local Intranet Zone within IE8.

Following a commit operation it may take 60-90 seconds for the configuration change to propagate through to the other application components including the status viewer and event console applications.

Additional minor known issues

Key	Summary	Component/s
GWMON-2149	BitRock	5.1 core install gives httpd warning about determining server's fqdn
GWMON-2996	Configuration	Host group downtime cannot be deleted
GWMON-4815	Auto Discovery	Auto Discovery does not correctly parse multiple community strings from the snmp discovery method
GWMON-4977	BitRock	Installer shouldn't assume it can write to current working directory
GWMON-5265	Plugins	Check_cpu sar out input incorrect on RedHat
GWMON-5434	Foundation	Web Services API uses 'Device Identification' as primary key for all message types, nagios, syslog, etc, but some different devices can have same ip address
GWMON-5454	Configuration	Applying a host profile in the host interface does not apply services associated with host profile.
GWMON-5491	Console	Console All Events view does not differentiate between Nagios alerts and notification messages.
GWMON-5675	Reports	Top Five report gets top five only on maximum value saved over the period
GWMON-5716	Reports	HTTP ERROR: 404 on exporting data in Advanced Reports.
GWMON-5843	NMS	Admin role on NMS child interface should not have access to any configuration applications
GWMON-6044	BitRock	PHP script shebang invocation no longer works
GWMON-6182	Portal	Non-US language versions of groundwork cause INVALID DATE STRING exceptions when special chars in date string
GWMON-6216	Console	Event Console date selection is based off GMT but displays local time zone
GWMON-6485	Configuration	Can't use the Multiple Instances feature of a service check where the check command has no arguments
GWMON-6599	Dashboard	Mouse over displays scrambled text in Dashboard and is not visible properly
GWMON-7086	Foundation	renaming a host does not update hostnames of new events in event console
GWMON-7220	Portal	Repeated "Network Connection Interrupted" error
GWMON-7455	Configuration	Uploading Group resource macros fails and removes existing configuration

GWMON-7632	Dashboards	Event portlet cannot be configured for host, service, servicegroup
GWMON-7742	Reports	All host groups host groups status report contains incorrect information
GWMON-7755	Configuration	Monarch groups do not honor contact group assignments (host/host templates)
GWMON-7628	My GroundWork	With user's login, My Groundwork->Configure page should not have Event portlet
GWMON-7838	Nagios	Nagios views from 5.3 - scheduling queue, server status and view config views are not available in 6.0
GWMON-7889	JBoss Portal	Creating different roles with same display names gives HTTP Status 500 error
GWMON-7994	Configuration	Possible to define a service twice on a host
GWMON-8088	Status Viewer	German language setting in FF3 causes faces exceptions
GWMON-8111	BitRock	Setenv.sh breaks when PATH contains "groundwork" but env is not set properly
GWMON-8146	Configuration	The Check period field does not display in any Host details screen of Monarch
GWMON-8163	Performance	Wide character in print at perfchart.cgi line 1277
GWMON-8165	JBoss Portal	SetEnvIf Referrer does not provide adequate protection
GWMON-8200	Configuration	Extended Host Info Data Disappears
GWMON-8210	Plugins	check_jvm.pl calls to a hard-coded URI
GWMON-8218	JBoss Portal	Potential exposure to man in the middle attack when using https
GWMON-8219	Status Viewer	Actions pop-up does gets cut off in Event Console
GWMON-8220	Dashboard	Portlet popup displays outside of the viewable area
GWMON-8225	BitRock	Migration procedure does not account for network_service tables
GWMON-8235	Nagios	Nagios Notification Report does not properly access report history for all hosts.
GWMON-8241	Status Viewer	Status Viewer - host bar graph appears to show data not related to host state but from syslog messages
GWMON-8272	Bookshelf	Audit Monarch Commit is missing feeder modification in Bookshelf and portlet.xml definition requires update
GWMON-8280	Console	Event console displays events from the wrong filter if action taken while viewing custom filter
GWMON-8296	Foundation	HostStatusProperty.StringValue buffer is STILL too small to hold a large number of cacti graph URL's
GWMON-8311	Status Viewer	Scheduled Downtime author is set to admin regardless of user logged in.
GWMON-8313	Status Viewer	EventPortlet only shows Nagios events for hosts or

		hostgroups
GWMON-8425	Dashboard	my groundwork dashboard layout changes affect all my groundwork pages
GWMON-8444	Auto Discovery	cacti host profile sync failing to import host
GWMON-8471	JBoss Portal	When a Nagios page is left open for a long period of time, a permissions error is eventually displayed
GWMON-8472	Dashboard	Portlet arrangement issues
GWMON-8481	Status Viewer	If user name contains a dot (.), status viewer generates stack traces
GWMON-8494	Build Process	mysql memory usage increases continuously
GWMON-8495	JBoss Portal	Redirect users to the login page in the event of gwservices restart during a session

SECTION 5 – ANNOUNCEMENTS AS OF VERSION 6.1.1

As previously announced, GroundWork Monitor versions 5.0.x are now end-of-life. Customers using these versions are advised to contact GroundWork Support. As previously announced Firefox 2 and Internet Explorer 6 are no longer supported as of release 6.0.

SECTION 6 – ADDITIONAL INFORMATION

ABOUT THE NETWORK SERVICE

This version of GroundWork Monitor includes the Network Service component. This component provides the following capabilities:

- Provides GroundWork Monitor administrators with software update notifications in their home screen.
- Provides environment statistics to GroundWork about the GroundWork Monitor installation
- Provides the license key hash to GroundWork for each GroundWork Monitor installation

The Network Service communicates with servers in the checkforupdates.com domain every 12 hours via HTTPS (port 443.) All communication is initiated by the GroundWork Monitor Enterprise server.

The complete set of information sent to GWOS is:

- The type of GroundWork Monitor product installed (e.g. Community Edition and Enterprise Edition) and version.
- The Operating System vendor and version and basic hardware information (RAM, CPU)
- The size of the monitored environment: number of configured devices and hosts, host groups, service checks, users and service checks being used.
- The license key hash (checksum)

If you need to enable the Network Service on an existing GroundWork Monitor Enterprise installation execute the following binary as the root user:

```
/usr/local/groundwork/network-service/bin/network-service-manager.bin
```

Proxy Server Configuration

The Network Service will not be able to receive updates if a non-transparent proxy is used. To configure the proxy settings complete the following:

First install the product and enable the Network Service during installation.

Login using a secure shell on the GroundWork server; cd /usr/local/groundwork/network-service/scripts/ or from the command line: .

```
/network-service-ctl.sh stop
```

```
cd /usr/local/groundwork/network-service/bin/
```

edit agent.conf file and add the following:

```
proxy_host=xxx.yyy.zzz.www
```

```
proxy_port=pppp
```


Save your changes.

Now restart the network service:

```
./network-service-ctl.sh stop
```

```
./network-service-ctl.sh start
```

Obtaining Source Code

GroundWork Monitor includes Open Source software. The source for these packages is available for download from the following location: <ftp://archive.groundworkopensource.com/pub/groundwork-core/> 

Modifications to these software projects in source form, are available for download from the following location:

<http://archive.groundworkopensource.com/groundwork-opensource/> 

SECTION 7 – SYSTEM BACKUP INSTRUCTIONS

This section outlines the recommended back up procedures to be completed before upgrading to GroundWork Monitor 6.1.1

Custom Changes

It is recommended that a complete backup of /usr/local/groundwork be taken before upgrading. If this is not possible the following should be considered the bare minimum set of files to be preserved.

Plugins: /usr/local/groundwork/nagios/libexec

CGI graphs: /usr/local/groundwork/apache2/cgi-bin/graphs

Eventhandlers: /usr/local/groundwork/nagios/eventhandlers

SNMPTT configuration: snmptt.conf, snmptt.ini

Custom syslog filters: syslog.conf, syslog-ng.conf

Logrotate: logrotate.conf, any changes under /etc/logrotate.d

Foundation configuration: foundation.properties

NSCA configuration: nsca.cfg

Distributed deployment configuration: MonarchDeploy.pm

The contents of the 'nagios' user home directory

The contents of the 'nobody' user home directory

The last configuration file: /usr/local/groundwork/nagios/etc/config-last.log

All modified apache configuration files

The contents of /usr/local/groundwork/etc

The contents of /usr/local/groundwork/backup

The contents of /usr/local/groundwork/jobs

RRD Files and Current Nagios Configuration

Back up existing RRD files and your current Nagios configuration. This will create three TAR files in the current directory.

```
tar cfz GWMON-xxx-rrd.tar.gz /usr/local/groundwork/rrd
```

```
tar cfz GWMON-xxx-nagios.tar.gz /usr/local/groundwork/nagios/etc
```

```
tar cfz GWMON-xxx-users.tar.gz /usr/local/groundwork/users
```

MySQL Databases

GroundWork recommends that all MySQL databases be backed up before upgrading. Here are the upgrade procedures to migrate the databases to the latest version of GroundWork Monitor. Create a back up directory (e.g. /usr/local/backup-gwmon/) and enter the following commands to create the backups:

Monarch (Configuration)

```
mysqldump -uroot monarch > /usr/local/backup-gwmon/monarch-YYYYMMDD-HHMMSS.sql
```

Foundation

```
mysqldump -uroot GWCollageDB > /usr/local/backup-gwmon/GWCollageDB-YYYYMMDD-HHMMSS.sql
```

Log Reporting

```
mysqldump -uroot logreports > /usr/local/backup-gwmon/logreports-YYYYMMDD-HHMMSS.sql
```

GroundWork Configuration Files

Monarch

Back up the following files and folders before removing GroundWork Monitor and restore after the 6.1 installation.

```
tar cfz GWMON-xxx-monarchbackup.tar.gz /usr/local/groundwork/core/monarch/backup
```

```
tar cfz GWMON-xxx-performance_views.tar.gz  
/usr/local/groundwork/core/performance/performance_views
```

If you have done custom work to these files back up the following:

```
tar cfz GWMON-xxx-monarchcallout.tar.gz /usr/local/groundwork/core/monarch/lib/MonarchCallOut.pm
```

```
tar cfz GWMON-xxx-monarchexternals.tar.gz  
/usr/local/groundwork/core/monarch/lib/MonarchExternals.pm
```

If you have configured Apache for secure SSL authentication any HTTPS certificates need to be preserved (the

directory of the HTTPS certificates may differ from the example below):

```
tar cfz ssl-keys.tar.gz /usr/local/groundwork/apache2/conf/ssl.key
```

Backup data collected by syslog-ng

```
tar cfz GWMON-xxx-syslog-ng-data.tar.gz /usr/local/groundwork/var/log/syslog-ng
```