up.time

up.time
Version 6.0

October 2011

Release Notes

The Release Notes for up.time 6.0 cover the following topics:

New Features

up.time 6.0 contains the following new features:

- VMware vSphere Monitoring
- VMware vCenter Import and vSync
- New Service Monitors
- VMware Performance Monitoring and Graphing
- New Reports

VMware vSphere Monitoring

up.time 6.0 introduces greatly expanded VMware monitoring capabilities. Organizations using VMware vSphere to manage their virtual infrastructure can take advantage of up.time's broad and smart VMware monitoring capabilities. Using the base VMware vSphere integration features, along with the new VMware vSphere service monitors and reports, you can streamline your virtualization operations, and take further advantage of the benefits they are already bringing you.

up.time 6.0's VMware monitoring features include the following:

- monitoring efficiently by being aware of VM and ESX host power states
- calculating datacenter power usage
- understanding resource capacity bottlenecks and usage trends across the entire virtual infrastructure
- acquiring control over VM sprawl
- managing virtual infrastructure capacity
- performing the aforementioned tasks in the same GUI where the monitoring and management of both your virtual and physical infrastructures is integrated

Integrating and maintaining your VMware vSphere assets in up.time is seamless.

VMware vCenter Import and vSync

As you would any physical host, you can add a VMware vCenter server as an up.time Element. Importing it as an Element initiates an auto-discovery process that not only imports all of the VMware vCenter server's child objects — datacenters, clusters, ESX hosts, vApps, resource pools, VMs — but imports their existing relationships intact.

Once imported, relationships are maintained through vSync, the core process that ensures changes on the VMware vCenter side are reflected nearly instantly in up.time.

vSync also provides up.time with agentless VMware vSphere monitoring, by migrating performance data to the up.time DataStore, making the data ready to be used for performance checks, diagnosis, and reporting.

New Service Monitors

You can use the new VMware vSphere performance monitors to alert on potential bottlenecks with your virtual resources. By monitoring performance thresholds for any datacenter, cluster, ESX server, resource pool, or vApp, you can choose from which perspective you want to monitor your virtual infrastructure.

The ESX host and VM power state monitors help you ensure power-state management initiatives are being successfully carried out, and can act as checks to ensure mission-critical virtual resources are not going down.

VMware Performance Monitoring and Graphing

up.time continuously stays abreast of ESX host and VM power states, and as such, its dashboards are always an accurate snapshot of the state of virtualized affairs.

Additionally, topology management ensures parent hosts that are powered down or experience an outage will not cause all child VMs to do the same, thus alleviating you from the pain of dealing with a bombardment of alerts.

Together, this smart monitoring allows you to focus on optimizing and forecasting virtual asset resource usage.

Each VMware vSphere object has updated Quick Snapshot pages that offer rich synopses that provide detailed, current resource usage information. Furthermore, historical usage can be shown as backdrops to help you identify growth trends.

There is a whole host of new graph types that can be generated for each imported VMware vSphere object, whether virtual instance, or ESX server. You can use these graphs to forecast virtual capacity and spot resource usage trends for key resources such as CPU, memory, and network throughput.

New Reports

The VM Sprawl report helps you gain control over sprawl, and when generated regularly, helps you ensure your efforts are effective. These reports help you identify abandoned or underused VMs, and map VM population trends.

The VMware vSphere Workload report provides a broad view of workloads across your entire virtual infrastructure. You can use it for virtual capacity bottleneck troubleshooting, as well as historical comparisons.

Upgrade Notices

Before upgrading to up.time 6.0, it is important you review, and if applicable, act on the following notices:

- VMware vSphere Licensing
- up.time MDC Upgrade Eligibility
- Reporting Instances and UI Instances
- WebLogic 8 EOL
- Pre-6.0 Log Entries (UT-13127)

VMware vSphere Licensing

VMware licensing has been updated in up.time 6.0 to improve accuracy and remove potential disruptions to monitoring in the event that license entitlements are exceeded.

Virtual Machines that are running on a currently monitored ESX or ESXi Element are considered “free.” Virtual machines that are *not* running on a monitored element are no longer free. Please verify that your license will accommodate all VMs that are running on non-monitored hosts.

Changes have been made to the handling of VMs that move from a monitored Element to an unmonitored, or unknown, Element. If a VM cannot be mapped to a monitored ESX server Element, it will have its monitoring disabled so that it does not unintentionally consume a license seat. When the VM returns to a monitored ESX element, its monitoring will automatically be enabled again.

On vSync, attached ESX elements this detection is completely automatic and instantaneous. For legacy ESX elements this license validation occurs when the Configuration Update Gatherer runs, so if a VM vMotions from one ESX server to another there is a potential that it will not be monitored for a few minutes until it is detected on the target ESX host. It is highly recommended that all ESX monitoring is done via vSync and vCenter attached ESX servers.

up.time MDC Upgrade Eligibility

Due to limitations with integrating VMware vSphere monitoring across multiple datacenters, this version of up.time is *not* compatible with up.time MDC installations.

The up.time installer prevents users from upgrading a v5.4–5.5 EMS installation, but you must be sure to not upgrade an LDC instance.

Reporting Instances and UI Instances

Customers who use reporting instances and/or UI instances as part of their up.time deployment should not upgrade to this release. These features are currently not supported.

WebLogic 8 EOL

Due to the EOL status of Oracle WebLogic 8, support for **WebLogic 8** has been removed from up.time. The standard **WebLogic** service monitor continues to support versions of WebLogic 11.

When upgrading to up.time 6.0, all instances of the WebLogic 8 service monitor will be removed, including the following cases:

- as a master service in a service group; the service monitor will be removed from the group and deleted
- as a host check service; the first found ping monitor on the host will replace the WebLogic service monitor; the absence of a replacement ping monitor will be noted in the upgrade log
- as part of a WebLogic report or Service Monitor Metrics report; it will be removed, but retained data will not be purged
- as part of an SLA or Application; retained data will not be purged

Pre-6.0 Log Entries (UT-13127)

Users who upgrade from 5.5 to 6.0 on Linux and Solaris Monitoring Stations may encounter an issue where all 5.5-related entries in `uptime.log` are removed, and only 6.0 entries exist. Users running the Monitoring Station on these platforms should perform a backup before upgrading.

Changes to Existing Features

- ESX Workload Monitor
- Maintenance on Demand
- Application Business Logic
- Parent Host Checks
- Interactive Quick Snapshot Graphs
- Graphing Options
- Configurable Landing Pages (UT-7224, UT-12390)
- Subnet Ranges in Auto Discovery (UT-10498)
- File System Capacity Monitor Enhancements (UT-4700, UT-7664, UT-10733)
- Performance Check Monitor Enhancements
- Improved Search Field (UT-10935)
- Element Selection
- UI Changes
- Other Changes to Existing Features

ESX Workload Monitor

With up.time 6.0's new VMware vSphere monitoring features, the ESX Workload service monitor has been deprecated. It is no longer available as an addable service monitor, as its capabilities have been superceded by the vSphere ESX Server Performance monitor.

On upgrade to v6, existing ESX Workload monitors will continue to be a part of upgraded Element groups and views, and can be cloned. However, as mentioned, it is recommended that you change your configuration to monitor ESX servers using vSync.

Maintenance on Demand

up.time now allows you to immediately put an Element into a MAINT state. This accommodates users who periodically need to perform this action outside of a pre-defined, scheduled maintenance period.

Both Elements and entire Element groups can be put into maintenance mode. If an Element group is set to MAINT, all of its Elements and subgroups will follow. Any Elements added to, or removed from, the Element group during the temporary maintenance period will inherit the appropriate state.

Putting an Element or group into a temporary maintenance state is performed on the **My Infrastructure** Element hierarchy by clicking an Element or Element group's Configure System icon (i.e., gear icon) to reveal the **Put into Temporary Maintenance** option.

Application Business Logic

Applications can now be configured with more complex alerting rules. You can now configure an application to reach warning-level or critical-level status when a specific number, percentage, or all master services enter those states.

This new functionality allows you to assign more or less "weight" to groups of master services to give a more accurate state of the application as a whole. For example, a web server cluster of 10 servers might only cause alerts when three of them are down. This added flexibility means fewer self-defined false positives, and a clearer outage history.

Parent Host Checks

When an Element that experiences an outage, up.time initiates a host check on its parent, whether its parent is implied (e.g., a service monitor and its host), or explicit (e.g., a Topological Dependency).

This behavior supports smarter alerting, where up.time looks "upward" to find the root of a problem.

Interactive Quick Snapshot Graphs

Some of the Quick Snapshot dashboards are now using a Flash-based graphing engine. This is the initial stage of a wider implementation, and most uses in this release are for the new VMware vSphere objects in up.time. The Flash-based charts visually accommodate more data, and allow interactively through mouse hovering.

Note that these new pages will not load correctly if your users' browsers are not capable of rendering Flash content.

Graphing Options

As part of a wider future implementation, some graphs now use a dynamic configuration page that presents users with next steps based on previous configuration choices. This more streamlined configuration interface makes graphing a simpler and faster process.

Additionally, some graph types also include quick-graphing links that instantly generate a graph based on pre-defined options. These quick-graph options provide users with one-click shortcuts to useful diagnostic information.

Configurable Landing Pages (UT-7224, UT-12390)

User profiles can now be configured to include which main up.time page is displayed on login. This allows you to set different post-login pages for different user types.

Subnet Ranges in Auto Discovery (UT-10498)

To provide easier setup, the auto-discovery configuration screen now accommodates multiple common-separated subnets (e.g., "`10.1.1, 10.1.4, 10.1.52`"), and IP ranges (e.g., "`10.1.4.25-176`").

File System Capacity Monitor Enhancements (UT-4700, UT-7664, UT-10733)

The File System Capacity service monitor's configuration options have been expanded to include more criteria with which to trigger alerts. In addition to the old percent usage check, you can now set thresholds using MB, GB, and TB used or free, as well as percent free. These additional configuration options offer more ways to measure file system capacity and usage.

Performance Check Monitor Enhancements

The Performance Check monitor's metrics have been expanded to include other common system metrics such as run queue length, memory used, and network error and I/O rates. Similar to the File System Capacity monitor's changes, these additional checks offer more ways to measure system performance.

Improved Search Field (UT-10935)

The search field is now dynamic and has been expanded to match more up.time actions. In addition to searching on Element attributes such as hostname or display name, it can search for configuration options.

Selecting an Element will take you to its main profile page, and selecting an action will in most cases open the appropriate pop-up window for the appropriate configuration page.

Element Selection

Some configuration screens (mainly those pertaining to VMware vSphere, as well as vSync configuration) are now using a new Element selection interface. This is the first phase in a wider implementation.

The selection tool allows for more immediate interaction with click-dragging. It also more readily facilitates selecting from very long lists with a search filter that dynamically lists matching entries as you type.

Matches can be with the list entry's name, or metadata (e.g., the name of the Element that is hosting a service).

UI Changes

The login page has been enhanced to provide more helpful login tips and more informative error messages. Additionally, tool bar and assistance links at the top of the up.time interface have been consolidated into a new main menu bar.

Other Changes to Existing Features

UT-2017	the **Windows Event Log Scanner** service monitor can be configured to check "Other" log types aside from Application, System, and Security
UT-4592	when the Core up.time service is restarted, the up.time log now indicates the database connection information
UT-6706	when configuring the **Oracle (Basic Checks)**, **MySQL (Basic Checks)**, and **Sybase** database monitors, selecting the **Port Check** option hides other configuration options
UT-7941	resetting the database with invalid parameters or the wrong case will display an error message, not a stack trace
UT-8397	the 255-character limit in custom message area for an Alert Profile has been removed
UT-8589	the Web Application Transaction service monitor now replaces the hostname during recording with `$HOSTNAME$`, allowing use with service groups
UT-8630	scheduled reports now log the date and time when emailed
UT-9328	added debug logging and error messages for users when adding a WMI-based Element fails

UT-10062	users whose profile allows “View” access to Services can now use the **Test Service Monitor** function when viewing a service
UT-10064	the **SysList** entries now include OS and host architecture
UT-10391	email and pager alerts from Alert Profiles are now sent in one message to all recipients in the Notification Group (instead of one message for each user)
UT-10530	to accommodate Windows users, the VM appliance is now shipped in `.zip` format instead of `.tar.gz`
UT-10710	the Server Core installation of Windows Server 2008 can be monitored via WMI

Platform Support and Integration Changes

Visit uptime software's Knowledge Base for the latest comprehensive listing of currently supported monitoring station, database, and agent platforms.

The following summarizes platform support changes for up.time since the previous release.

Monitoring Station	
no longer supported:	• Red Hat Enterprise Linux 4.7 • Red Hat Enterprise Linux 5.4 • SUSE Linux Enterprise Server 11.0 • Windows XP Professional
Monitoring Station DataStore	
has entered limited support status and may no longer be supported in a future release:	• Microsoft SQL Server 2008 • Oracle 11g
no longer supported:	Oracle 10g R2
Monitoring Station Browser	
Due to the rapid release cycle of Chrome and Firefox, the latest version of up.time is fully supported on the latest browser versions available at the time release testing began.	
new supported browser versions:	• Chrome 14 • Firefox 7
has entered limited support status and may no longer be supported in a future release:	• Chrome 10–13 • Firefox 4–6 • Internet Explorer 8
no longer supported:	Internet Explorer 7
Agent-Based Monitoring	
no changes this release	

Agentless Monitoring	
new supported agent platforms:	VMware ESX and ESXi 4.1, 4.1 Update 1
has entered limited support status and may no longer be supported in a future release:	• VMware ESX and ESXi 3.5, Updates 1–4 • VMware vCenter server 2.5
no longer supported:	• IBM pSeries HMC V6R1.2 • Windows XP Professional, SP1, SP2 (for Windows Management Instrumentation)
Service Monitors	
has entered limited support status and may no longer be supported in a future release:	• IIS 6 • Oracle 8i • WebSphere 6.1
no longer supported:	• WebLogic 8.x–10.3 • WebSphere 5.x
Platform Integration	
no changes this release	

Installing up.time

On the uptime software Support Portal, you will find various documents and articles that will guide you through a first-time installation or upgrade.

Installing for the First Time

A complete, first-time deployment of up.time and its agents is a straightforward process, but there are several steps you should consider to ensure you are up and running quickly:

- ensuring your network is ready to accommodate up.time-related communication
- identifying which system will act as the monitoring station, and which servers and network devices will be monitored
- ensuring the systems that will have up.time agents are on the supported platforms list for this release
- being aware of any platform-specific caveats for the installation process

Additionally, if you are deploying up.time in a multi-datacenter environment, there are additional preparations and post-installation steps that need to be performed. Refer to the *up.time User Guide* for complete instructions on performing a first-time installation

Upgrading from a Previous Version

You can upgrade directly to up.time 6.0 if your current installed version is up.time 5.4 or greater.

If your installed version is eligible, you can upgrade to this latest release using the installer for your Monitoring Station's operating system. The upgrade process installs new features, and does not modify or delete your existing data.

If your current version is older than the version required for a direct upgrade, refer to http://support.uptimesoftware.com/upgrade.php for information on supported upgrade paths. There, you will also find more detailed installation information.

If you are working with a version of up.time that has been customized in any manner beyond the standard installation available on the product CD or downloaded from the uptime software Web site, contact Client Services before performing an upgrade.

See the rest of this document to learn about the latest features and changes since the previous release.

Resolved Issues

UT-3113	can now remove an alert profile from a notification group
UT-3735	SNMP service monitor can now be deleted if being viewed from the attached Element's **Manage Services** page
UT-4070	the Administrator user can no longer be removed from the SysAdmin user group
UT-4093	can no longer remove a user from a group if that group is the only one the user is a member of
UT-4183	changing the port for a remote reporting instance is now validated
UT-4476	the **Resource Utilization** and **CPU Performance Graph** checkboxes in the Resource Usage report, when unselected, are no longer automatically reselected every time a graph is generated
UT-4480	fixed issue where Test Service Monitor output for a custom service monitor displayed newline characters; newline are now represented as ` ` tags in test output for custom scripts
UT-7199	VM instances with two NICs no longer have to be added twice, causing ESX Workload data stoppages
UT-8113	LDAP service monitor now supports LDAP over SSL
UT-8297	eliminated inaccurate license counts with ESX Elements
UT-8438	Action Profiles tied to Microsoft Exchange no longer write an error message to `uptime.log` when they run
UT-8806	empty Element groups can now be removed from Topological Dependencies, and no longer causes an error
UT-8939	the SNMP service monitor's MIB Browser Applet no longer fails

UT-9075	Problem Report configuration now includes data history caps that limit the amount of data imported from the `erdc_status_transition_log` and `entity_configuration*` tables; report generation speed for large or long-time customers has been improved
UT-9284	time-period definitions that include ordinals are now parsed correctly
UT-9317	upgrading no longer overwrites `httpd.conf`
UT-9417	Javascript is filtered from URLs entered in the UI
UT-9440	up.time no longer incorrectly counts a VM against the license if the VM is using an invalid port to contact the up.time Agent; instead, an appropriate error message will be displayed (i.e., unable to contact agent)
UT-9569	in reports where “Avg Wait (msec)” is reported (e.g., Disk Statistics), Windows systems are now charted showing the correct “Disk Bytes/Sec” metric
UT-9654	fixed issue where blocked threads were occurring
UT-9667 UT-9670	SysAdmin user group members can now always see all Element groups, regardless of permission settings
UT-9696	fixed licensing issue where VM instance whose monitoring was disabled could not be turned back on without violating the license
UT-9729	fixed issue where editing an Element View with more than 1,000 Elements caused database response problems when using Oracle as the DataStore
UT-9784	the Windows agent properties now reports identical build and file version numbers
UT-10698	fixed issue where VMs were able to be added without tied to legitimate ESX server or vCenter
UT-10753	expanding an ESX server Element in **Global Scan** no longer causes an exception

UT-10875	**Edit Host Check** button, and ability to assign a service as a host check, still exists even if former service was inadvertently removed
UT-11075	Virtual Appliance management console link now correctly uses `https` instead of `http`
UT-11084	increased performance when using the **Pass retained values...** option in the **Custom with Retained Data** service monitor
UT-11188	Fixed issue where absent `/data` directory prevent the creation of a problem report; if up.time cannot create the directory, the user is provided with an error instruction them to do so
UT-11470	up.time now shows correct VM instance counts after VMotioning
UT-11724	NullPointerException no longer appears in a reporting instance's `uptime.log`
UT-12172 UT-12207	changes to a monitored host's disk configuration (add, remove, volume change) are now correctly recognized
UT-12173	http link to plug-in monitors page in **Add Service Monitor** window has been updated to the latest location
UT-12182	all swap space on all disks, not just the first one, is now included in reporting when using WMI for performance monitoring
UT-12304 UT-12801	LPARs are now correctly detected and displayed on configuration rescan

UT-3557	help link for text boxes where users enter a regular expression leads to blank page
UT-12855	an HMC LPAR's IP address is not changed when performed on the AIX Element
UT-12917	generating an HMC LPAR **Workload - CPU** graph produces no result
UT-12994	`addsystem` script may result in an empty error
UT-13086	setting a user's default login page to the **Users** page will display this page to the user on login, even if their user role does not allow view access to this page

UT-11871: WMI-Compatible Service Monitors

In the *Using Service Monitors* section in the User Guide and online help, the breakdown of service monitors is not accurate. The following categorization reflects the current set of up.time service monitors:

- the up.time Agent service monitor requires the up.time Agent
- the following service monitors require either the up.time Agent or, for Windows systems, metrics collection via WMI:
  - Exchange
  - Exchange 2003
  - File System Capacity
  - IIS
  - Performance Check
  - Process Count Check
  - SQL Server (Advanced Metrics)
  - Windows Event Log Scanner

- Windows Service Check

- the following service monitors do not require an agent:

- Active Directory
- DNS
- Custom
- Custom with Retained Data
- Email Delivery
- ESX (Advanced Metrics)
- ESX Workload
- External Check
- FTP
- HTTP (Web Services)
- IMAP
- LDAP
- Live Splunk Listener
- MySQL (Advanced Metrics)
- MySQL (Basic Checks)
- NFS
- NIS/YP
- NNTP (Network News)
- Oracle (Advanced Metrics)
- Oracle (Basic Checks)
- Oracle Tablespace Check
- Ping
- POP (Email Retrieval)
- SMTP (Email Delivery)
- SNMP
- Splunk Query
- SQL Server (Basic Checks)
- SQL Server Tablespace Check
- SSH (Secure Shell)
- Sybase
- TCP
- Web Application Transaction
- WebLogic
- WebLogic 8
- WebSphere
- Windows File Shares (SMB)

Contacting Support

uptime software delivers responsive customer support that is available to both licensed and demonstration users. uptime software offers user support through the following:

- Documentation
- Knowledge Base articles
- Telephone
  +1-416-868-0152
- E-mail
  support@uptimesoftware.com
- Web site
  http://support.uptimesoftware.com

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Notes