Archiving the DataStore

Depending on the amount of disk space available for the continuously growing DataStore, administrators can set an archive policy that determines how many month's worth of data is retained. Old performance data is automatically archived and removed from the DataStore. This archiving procedure works with all databases that are compatible with Uptime Infrastructure Monitor.

The existing archive policy can be viewed and modified on the **Archive Policy** subpanel, which is accessed from the main **Config** panel. Here, the main archive categories are shown, along with the number of months for which collected data is retained in the DataStore.

Every month, Uptime Infrastructure Monitor checks the DataStore's entries; data that is older than the limit set in the archive policy are written to XML files. The XML archives use the following format:

```
<table_name>_<date>.xml.gz
```

Topics on this page

- Archive Categories
- Configuring an Archive Policy
- Restoring Archived Data
- Exporting and Importing the DataStore

The archives created reflect the database table structure used to store performance data, as well as the date that the stored data represents, as shown in the following example:

```
performance_cpu_2013-09-13.xml.gz
```

The DataStore is trimmed and the XML files are compressed and stored in the `/archives` directory.

For example, if you installed Uptime Infrastructure Monitor in the default location, the path to the archived data is:

- Linux: `/usr/local/uptime/archives`
- Windows: `C:\Program Files\uptime software\uptime\archives`

Once backed up, archives can be stored offline. If required, they can be temporarily imported into the DataStore.

Archive Categories

The following table lists the statistical categories whose archiving can be configured, along with the corresponding DataStore database table:

Archive Policy Category	Database Table
Overall CPU/Memory	`performance_cpu`
Multi-CPU	`performance_aggregate`
Detailed Process	`performance_psinfo`
Disk Performance	`performance_disk`
File System Capacity	`performance_fscap`
Network	`performance_network`
User Information	`performance_who`
Volume Manager	`performance_vxvol`

Retained Data	`erdc_int_data`
	`erdc_decimal_data`
	`erdc_string_data`

vSphere Performance Data	`vmware_perf_aggregate`
	`vmware_perf_cluster`
	`vmware_perf_datastore_usage`
	`vmware_perf_datastore_vm_usage`
	`vmware_perf_disk_rate`
	`vmware_perf_entitlement`
	`vmware_perf_host_cpu`
	`vmware_perf_host_disk_io`
	`vmware_perf_host_disk_io_adv`
	`vmware_perf_host_network`
	`vmware_perf_host_power_state`
	`vmware_perf_mem`
	`vmware_perf_mem_advanced`
	`vmware_perf_network_rate`
	`vmware_perf_vm_cpu`
	`vmware_perf_vm_disk_io`
	`vmware_perf_vm_network`
	`vmware_perf_vm_power_state`
	`vmware_perf_vm_storage_usage`
	`vmware_perf_vm_vcpu`
	`vmware_perf_watts`
	`vsync_update`

vSphere Inventory Updates	`virtual_inventory_update` `vmware_event table`
Network Device Performance Data	`net_device_perf_ping` `net_device_perf_port`

Configuring an Archive Policy

To set an archive policy, do the following:

1. On the Uptime Infrastructure Monitor tool bar, click **Config**.
2. In the tree panel, click **Archive Policy**.
3. For the following categories, specify the number of months worth of data that is retained in the DataStore before removal and archiving:
    - Overall CPU/Memory Statistics
    - Multi-CPU Statistics
    - Detailed Process Statistics
    - Disk Performance Statistics
    - File System Capacity Statistics
    - Network Statistics
    - User Information Statistics
    - Volume Manager Statistics
    - Retained Data
    - vSphere Performance Data
    - vSphere Inventory Data
    - Network Device Performance Data
4. Ensure the **Enable Archiving** checkbox is selected.
5. Click **Set Archive Policy**.
6. Optionally, you can click the **Archive Now** button to immediately create archives of the data in your DataStore.
   Uptime Infrastructure Monitor checks the DataStore entries and archiving anything that is older than the limits you have configured.

Restoring Archived Data

If you need to generate graphs or reports on older data that are is already archived and is no longer in the DataStore, you can import specific archives using the `restorearchive` command line utility. The command's parameters allow you to import archives in the following manner:

- a single archive that represents a specific archive category and date; the collected data for each archive category and 24-hour period is exported to individual XML files
- all archives for a specific date (that is, a 24-hour period)

Importing Archived Data into the DataStore

To import archived data into the DataStore, do the following:

1. Ensure the database hosting the DataStore is running.
2. At the command line, navigate to the Uptime Infrastructure Monitor `/scripts` folder.
   For example, if you installed the Monitoring Station in the default location on a Windows system, navigate to the following folder:
   `C:\Program Files\uptime software\uptime\scripts\`
3. Run the `restorearchive` command with one or more of the following options:

Option	Description
-f <filename>	Imports a single file (an archive category's data for a single date). You must specify the full path to the file name.
-d <date>	Imports all files with the specified date (in `YYYY-MM-DD` format).
-D <directory>	The directory containing the archived files. Note that you must specify this option when using the `-d` option.
-c <directory>	The full directory path to the `uptime.conf` file.

For example, the following command imports all of the data archived on September 18, 2013, which is located in the default directory for archived data:

```
restorearchive -d 2013-09-18 -D /usr/local/uptime/archives/ -c /usr/local/uptime
```

If you have deployed Uptime Infrastructure Monitor UI instances, ensure you always run command-line scripts such as `restorearchive` on the primary Monitoring Station that is actually performing data collection.

Exporting and Importing the DataStore

In cases where you need to perform a wholesale backup of the existing DataStore (e.g., migrating your DataStore to another database), Uptime Infrastructure Monitor includes two command-line utilities:

- `fulldatabasedump`: creates a compressed XML file of the contents of your DataStore
- `fulldatabaseimport`: imports the archived data back into your DataStore

Both utilities work with all of the databases supported by Uptime Infrastructure Monitor.

Archiving the DataStore

To archive your DataStore, do the following:

1. Ensure the database hosting the DataStore is running.
2. Stop the Uptime Infrastructure Monitor Data Collector service (i.e., the Uptime Core).
   See Stopping and Restarting Uptime Infrastructure Monitor Services for more information.
3. At the command line, navigate to the Uptime Infrastructure Monitor `/scripts` folder.
   For example, if you installed the Monitoring Station in the default location on a Windows system, navigate to the following folder:
   `C:\Program Files\uptime software\uptime\scripts\`
4. Run the following command:
   `fulldatabasedump`

   If you have deployed Uptime Infrastructure Monitor UI instances, ensure you always run command-line scripts such as `fulldatabasedump` or `fulldatabaseimport` on the primary Monitoring Station that is actually performing data collection.

   Depending on the size of your DataStore, this process can take anywhere from several minutes to several hours.
   The utility creates the file `uptimedump_YYYY-MM-DD.xml.gz` (for example, `uptimedump_2014-01-02.xml.gz`). This file is saved in Uptime Infrastructure Monitor's root installation directory.
5. Restart the Uptime Infrastructure Monitor Data Collector service.

Restoring the DataStore

To restore your DataStore, do the following:

1. Ensure the database hosting the DataStore is running.
2. Use the `resetdb` utility with the `really` and `nodata` options to delete, then recreate the database structure that is used by Uptime Infrastructure Monitor by running one of the following commands:
   - Linux: **`/usr/local/uptime/resetdb --nodata really`**
   - Windows: **`C:\Program Files\uptime software\uptime\resetdb --nodata really`**

   > If you have set up UI instances of Uptime Infrastructure Monitor, ensure you always run command-line scripts such as `resetdb` on the primary Monitoring Station that is actually performing data collection.

3. Run the following command:
   `fulldatabaseimport path/<fileToImport>.xml.gz`
   Where "`path/<fileToImport>.xml.gz`" is the path to, and file name of, the archived contents of your DataStore. For example, to import an archive that is located in Uptime Infrastructure Monitor's root installation directory, enter the following:
   `fulldatabaseimport uptimedump_2014-01-02.xml.gz`