kuraCloud Desktop Application for Windows

Overview

The kuraCloud Desktop Application is a small utility for Windows clients. Its purpose is to facilitate the integration of Lt, ADInstruments PowerLabs, and a client’s web browser to allow data sampling.

Diagram

Components

Data Service
- Contains the data engine, sampling code that is taken from LabChart
- Performs the primary functions of kuraCloud Desktop, sampling data & sending it to the cloud
- This is the part of kuraCloud Desktop Application that interfaces with the PowerLab

Controller Service
- Controls the state of the Data Service, stopping & starting it as needed
- Provides information on the state of the Data Service, e.g. ready for sampling, sampling, crashed. The tray app uses this info to display the Data Service state
- Ensures that software updates are able to happen
Installation

Standard Installation
Users are prompted to download and install the kuraCloud Desktop Application when first using a Data Sampling panel to record data with a PowerLab. Administrative rights are required only to perform this initial install.

Enterprise Installation
This installer requires an internet connection as data is downloaded during the install process.

The most current version of the kuraCloud Desktop Application installer may be downloaded from:
https://updates.kuracloud.com/live/kuraCloudDesktopInstaller.exe

An MSI installer is available from:
https://updates.kuracloud.com/live/kuraCloudDesktopInstaller.msi

Configuration

Outbound Network
Two-way communication, initiated on client computer:

<table>
<thead>
<tr>
<th>Service</th>
<th>Source</th>
<th>Source Port(s)</th>
<th>Protocol</th>
<th>Destination</th>
<th>Destination Port(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>kuraCloudDataService</td>
<td>Host IP</td>
<td>49152-65535</td>
<td>TCP</td>
<td>*.kuracloud.com</td>
<td>443</td>
</tr>
<tr>
<td>kuraCloudDesktopController</td>
<td>Host IP</td>
<td>49152-65535</td>
<td>TCP</td>
<td>*.kuracloud.com</td>
<td>443</td>
</tr>
<tr>
<td>ADI Updater</td>
<td>Host IP</td>
<td>49152-65535</td>
<td>TCP</td>
<td>updates.adistruments.com</td>
<td>443</td>
</tr>
</tbody>
</table>

Destination URLs will resolve to multiple IP addresses that will change over time.

Inbound Network
No communications are initiated from external sources.

Internal Communications

<table>
<thead>
<tr>
<th>Source</th>
<th>Source Port(s)</th>
<th>Protocol</th>
<th>Destination</th>
<th>Destination Port(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client Browser</td>
<td>443</td>
<td>TCP</td>
<td>local.kuracloud.com / 127.0.0.2</td>
<td>65492 / 65493</td>
</tr>
<tr>
<td>kuraCloudDesktopController</td>
<td>65493</td>
<td>TCP</td>
<td>localhost</td>
<td>65494</td>
</tr>
</tbody>
</table>

kuraCloud Desktop Application requires the ability to resolve local.kuracloud.com via public DNS.
Directories and Files

<table>
<thead>
<tr>
<th>Installation</th>
<th>%programfiles(x86)\kuraCloud\kuraCloud Desktop\</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logs</td>
<td>%programdata%\kuraCloud\</td>
</tr>
<tr>
<td>Temporary Files</td>
<td>%userprofile%\AppData\Local\kuraDesktopInstall\</td>
</tr>
<tr>
<td></td>
<td>%windir%\Temp\kuraDesktopInstall\</td>
</tr>
</tbody>
</table>

Registry

The following keys are added to Windows registry:

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\kuraCloudDataService
- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ADIUpdater
- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\kuraCloudControllerService

Updates

Every 30 minutes the Updater Service checks for an updated version of Lt. When detected this triggers a check of updates.adinstruments.com which will check for a new version of KCDA. In addition to this updates.adinstruments.com is checked every 24 hours at around midnight local time, and immediately following a restart of your PC. Updates to the kuraCloud Desktop Application are automatically installed using localsystem privileges.