Reference Manual

HA-Cron

A High Availability Agent for Cron on Open HA Cluster

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1.Introduction

1.1. What is a high availability cluster?

High-Availability (HA) clusters are a group of tightly coupled-distributed systems that provide high availability of services through continuous hardware and software monitoring and hardware redundancy. HA Clusters are often closely associated with the underlying operating system and are mostly an extension of the same.

1.2. What is Open HA Cluster?

Open HA Cluster is the open source code base of Solaris Cluster, an HA clustering solution from Sun Microsystems Inc.

1.3. What is HA-Cron?

One problem faced by Open HA Cluster was that when a failover occured, the cron jobs of the failed node remained there itself and did not carry over to the new node. This naturally implied that cron based applications needed a lot of manual intervention from the system administrators so as to have them run on a cluster. HA-Cron addresses this drawback by keeping resource group specific cron jobs highly available across a cluster and is hence an agent for cron for Open HA Cluster.

1.4. License

HA-Cron is free and open source software so please feel free to download, view and modify the source. The ownership of this software is protected by the CDDL license which can be viewed here http://www.sun.com/cddl/cddl.html

1.5. Feedback

Any form of feedback for HA-Cron is mostly welcome. Do send your suggestions for improvement, bugs that you encounter and anything else about HA-Cron to suresh.lalith@gmail.com.

2. Prerequisites

1) HA-Cron being an agent for Open HA Cluster, requires that a cluster be installed and configured. Instructions for downloading and installing a cluster are provided at the following link: http://www.opensolaris.org/os/community/ha-clusters/ohac/downloads/

2) HA-Cron is based on the Generic Data Services Template. So before using HA-Cron, make sure you have the SUNW.gds installed as well.

3. Architecture

The cron jobs to be kept highly available are specified by the user (RGCRONTAB parameter in the cron_config file) which are specific to the resource group in question. Developed using the GDS template, HA-Cron adds these entries to the root crontab when the start function is called, that is, when the RG is brought online. When a failover happens or the RG is to be turned offline, the corresponding entries are removed from the root crontab and hence, the cron jobs are kept highly available.

4. Installation

4.1. Installing using pkgadd

If you download the .pkg file from <link>, you may install HA-Cron using the following command:

```
#: pkgadd -d <path-to-pkg-file>
```

4.2. Installing using the source

You may download the latest source form haron.dev.java.net. Once you've done so, simply copy the SUNCsccron folder to /opt :

```
#: cd <path-to-SUNCsccron-folder>
#: cp -r SUNCsccron /opt
```

5. Usage

5.1. Create a file and add the RG specific cron entries to it.

5.2. To add the Cron resource to a resource group, just edit the file in /opt/SUNCsccron/utils/cron_config, and modify the following parameters accordingly:

a) RS : This is the name of your HA-Cron resource when you add it to the RG.
b) RG : This is the name of the resource group into which you're going to add HA-Cron to.
c) RGCRONTAB : This is the path to the RG specific crontab file where the user specifies all the jobs specific to the resource group that is to be kept highly available.

5.3. If you don't wish to view any debug details, you can set the DEBUG option in /opt/SUNCsccron/etc/config to blank. For debug info, set DEBUG to ALL.

5.4. The next step would be to register the resource. You can do that by running the cron_register script present in the util directory:

```
#: /opt/SUNCsccron/util/cron_register
```