IBM® Platform Symphony

Best practices

Introduction to Host Harvesting

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Introduction to Host Harvesting

In an organization, there can be hosts that are only used sometimes. User desktops, for example, mostly sit idle at night time; an application server may only be busy a few hours in a day, and so on.

Host harvesting is nothing new. SETI@home, for example, uses volunteer computing power to analyze radio signals from space. IBM Platform Symphony supports host harvesting for enterprise users to either supplement dedicated resources or as resources for interruptable computing.

Sharing plan of harvested hosts

Resources harvested are managed by Platform Symphony resource sharing policies. Administrators can control who can use resources and how much they can use, just as they do with dedicated resources. With this level of control, high priority workload will get more resources than low priority workload. High priority workload can also reclaim resources being used by low priority workload if required.

Preference of resources

Harvested resources can be lost if the owner of the resources needs them. From Platform Symphony workload point of view, harvested resources are less preferred resources. With proper configuration, Platform Symphony can start workload on dedicated resources first and only use harvested resources if no dedicated resources are available.

Minimum impact to the resource owner

Platform Symphony assures resource owners that their own tasks will not be affected by resources harvesting.

- For desktop harvesting, user keystrokes will terminate all running Platform Symphony workload normally within 2 seconds (5 seconds maximum).
- For server harvesting, Platform Symphony not only monitors hosts load to stop harvesting, it also can be configured to monitor specific processes so that when any critical processes start, Platform Symphony workload is terminated immediately.
- For servers with sensitive workload, Platform Symphony is able to harvest with processes starting as low priority OS processes to further minimize the impact to the resource owner

Virtual Server Harvesting

Platform Symphony is able to harvest virtual servers when the hosting physical server is idle.

Tips for quick setup

1. Add a desktop host as a harvested host:

- Install the host as computing host
- Join the cluster as harvesting host (run following command at the new host)
    - egoconfig join master_host_name
    - egoconfig addresourceattr "[resource scvg]"
    - egosh ego elimrestart SA fastrelease host_name
    - egosh ego start
- Join the host to a computing resource group

Now when the host is idle, it will automatically start to run Platform Symphony workload until the owner starts using it.

2. Organize harvested hosts in a Resource Group and configure resource group preferences to use the resource only as backup.

- Set up a separate resource group for harvested hosts.
- Configure the new resource group as low preference for the consumer.

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