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LDoms Centralized Management

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Overview

This document describes a simplified solution for IT customers to identify, locate, manage, and provision Sun Microsystems' Solaris Logical Domains (LDoms) all in a consolidated web-based interface tool for UltraSPARC hardware.

Background

Sun Microsystems' Solaris Logical Domains (LDoms) is the latest technology that enables IT customers to create virtualized hosts saving datacenter space and power. The technology allows customers to create multiple virtual hosts from one or more physical servers. The number of LDoms running on a given host is only limited by the customer's preference and/or the physical resource limitations (memory, CPU, storage) of the server.

Because of this, identifying virtual hosts and the physical servers upon which they run is potentially very challenging, and once a physical server has finally been identified, gaining remote access to its console and/or any of its virtual hosts may be cumbersome as well.

As customers continue to build out more LDoms, the benefits of this solution will become clear, and it will prove to be an easy and comprehensive solution to assist these customers with the management of such LDoms.

Solution

The "LDoms Centralized Management" invention provides a simplified and comprehensive view of physical servers and their LDoms in a single, light-weight web-based interface. In addition, this invention allows customers to access the physical server's console and/or any of its virtual hosts with the ease of a single mouse click.

The solution includes a server and a terminal emulator and comprises the following steps:

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- A script, such as a Perl script, can be written to obtain the list of physical servers (added through the management interface) and then collect the LDom information (e.g. name, console port, current status, etc.) via SNMP by using any number of LDOM MIB tools available on the market today. This script can then be initiated and ran on a periodic basis.
- Once all the data has been collected, the script can generate a data-file with all the necessary information such as the physical server name and the associated LDom data.
- A server side scripting mechanism, such as PHP, can then be leveraged to dynamically generate an HTML document that displays the physical server / virtual hosts relationship, along with the necessary icons to easily connect the technician to the physical server's console and/or any of its virtual hosts via a SSH Client.

The following picture depicts a high-level overview of the solution:

