Large, Fast and In Control: Condor Management Use Cases

Jason Stowe
jstowe@cyclecomputing.com
Condor Management
Combines Two Things
Condor (Technology)
Condor (Use Cases)
From Condor Community
I Got Started
Condor Management Stack for Movies
We’re Passionate About both of these things
At Cycle Computing
Started in 2005
Leading provider of Services, 24/7 Condor Support, Training, and Tools
Universities, Small and Fortune 100 Companies alike
Install/Manage
ten node to several thousand
node pools
2005 Started Developing

CycleServer
GUI to Make Management Easy
Built on top of J2EE Servlet Container Postgresql/Oracle
Leveraging our experience working with
Clients and
The Condor Team!
Back to Condor Management
Definition: manage
“to handle or direct with a degree of skill... to exercise executive, administrative, and supervisory direction of”
In Control
Implies
Knowledge of Current State
With Condor Pools
Everyone wants to be Large, Fast, and In Control
In Control of What?
Condor is many things:
(Not merely) A queue
Resource Allocator
Dependency Management
Configurable Policy Engine
SysAdmin Tool (Hawkeye)
Should Control Workflows And all Affecting Features
For example
Job Priority Management
How do I control a job’s priority based upon its project?
+AccountingGroup
Large, Fast, and Out of Control: Tuning Condor for Film Production

Jason A. Stowe
Software Engineer Lead - Condor
CORE Feature Animation
Collaboration with Wisconsin and the production of Disney’s TheWild
Worked with Todd, Derek, & Peter
Control Job Priorities, and later quota in any Context
But who sets it?
Users? Who guarantees policies around when various AccountingGroups are used?
Software Submission Pipelines = A form of management tool
What other use cases?
Configuration
PREEMPTION_REQUIREMENTS = RemoteUser != "ME"
Submission
Usage Tracking/Reporting
On Demand Machine Usage
Job Queue Management
Pool Monitoring
Search
Let’s take Configuration
How to manage Condor Configuration in a unified way?
Using Files only, we ran into several issues
Version Management (Subversion, CFEngine)
But then what about...
Testing and Verification of Subsections/policies
Could create many sub-files, or templates
LOCAL_CONFIG_FILE = Workstation.config,
RANK_dev.config,
START_10min.config,
JavaVersion1.5.config
But then what about...
Effect Tracking
(Knowing which machines are affected by changes)
Lastly, Audit Logging
Doing it easily is difficult
Could create/use another agent to sit alongside Condor
But
Want to use Reconfig/Restart
Without Shared File Systems
We need a hook
Configuration With Pipes

LOCAL_CONFIG_FILE = /my/config_getter
Worked with Bob Nordlund and Ian Chesal,
Talked with Miron
Cycle Contributed Code
Another Collaboration with Todd
Takes advantage of reconfig/restarts
What about managing On Demand hardware needs?
I need to get more hardware for project in a month, and it’ll take 2 months to get it approved.
What do I do while I wait?
Technology: Storm Botnet Subsides For Now

Posted by timothy on Thursday May 01, @10:01AM
from the wait until weather 2.8 dept.

Stacy Stevenson points out an iTnews Australia story about the decline of the biggest botnet of recent times, excepting.

“Storm botnet decreased to just five percent of its original size during April, but overall [web-based] malware looks increased by 23.3 percent, new monitoring data reveals. MessageLabs’ Intelligence Report for April 2008 said that new malicious software removal tools aimed at removing Storm infections were responsible for the sudden reduction in Storm-infected computers.”

According to their estimate, Storm-compromised computers are now down to about 100,000 rather than numbers closer to two million.

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IT: DARPA Sponsors a Hunt For Malware in Microchips

Posted by timothy on Thursday May 01, @09:23AM
from the double-barreled microscope-loaded for-rent dept.

Phrage links to an IEEE Spectrum story on an interesting DARPA project with some scary implications about just what it is we don't know about what chips are doing under the surface. It's a difficult problem to find invasive or otherwise malicious capabilities built into a CPU; this project's goal is to see whether vendors can find such hardware-level spyware in chips like those used in military hardware. Phrage excerpts.

“Recognizing this enormous vulnerability, the DOD recently launched its most ambitious program yet to verify the integrity of the electronics that will underpin future additions to its arsenal … In January, the Trust program started its prequalifying rounds by sending to three contractors four identical versions of a chip that contained unspecified malicious circuitry. The teams have until the end of this month to ferret out as many of the devious insertions as they can.”

security, hardware, military, technology, usa (tagging beta)

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Mobile: German Firms Patent Scented Text Messaging

Leaders in Condor Grid Solutions
http://www.cyclecomputing.com
- Or -
I need 1000 machines for only 1 week every 6 months.
Our data center is full...
In 2007

Worked with Amazon to create

First Zero-Configuration Condor Pool Service on Amazon EC2
CycleCloud Overview

CycleCloud: Condor on Demand

- User requests one of CycleCloud’s Condor Pool Types, adds 100 execute nodes
- User uploads data to the Condor pool, or uses previously stored data
- In a matter of minutes, User starts running Jobs on Zero-configuration Condor pool
- CycleCloud configures and starts Encrypted Condor Pool Nodes
- EC2
- In use since 2007
- Zero configuration Condor Pool w/Standard Condor features
  - Scheduling, Priority
  - Error handling, Logging
  - Shut down pool when done

Leaders in Condor Grid Solutions
http://www.cyclecomputing.com
Uses CycleServer
Manage cloud nodes easily, without login
What about...
Usage Tracking and Visualization
Job Queue Management
Pool Monitoring
Time for a Demo of Current Release (3.0) and May Release (3.1)
visit

http://cyclecomputing.com
Before we do,
These are tools based upon use cases we’ve encountered so far
So come talk with us...
Talk with others...
Help us build user-interfaces to benefit the whole Community
Thank you

For more information, please contact me at:

jstowe @ cyclecomputing.com