

Update on Tycoon

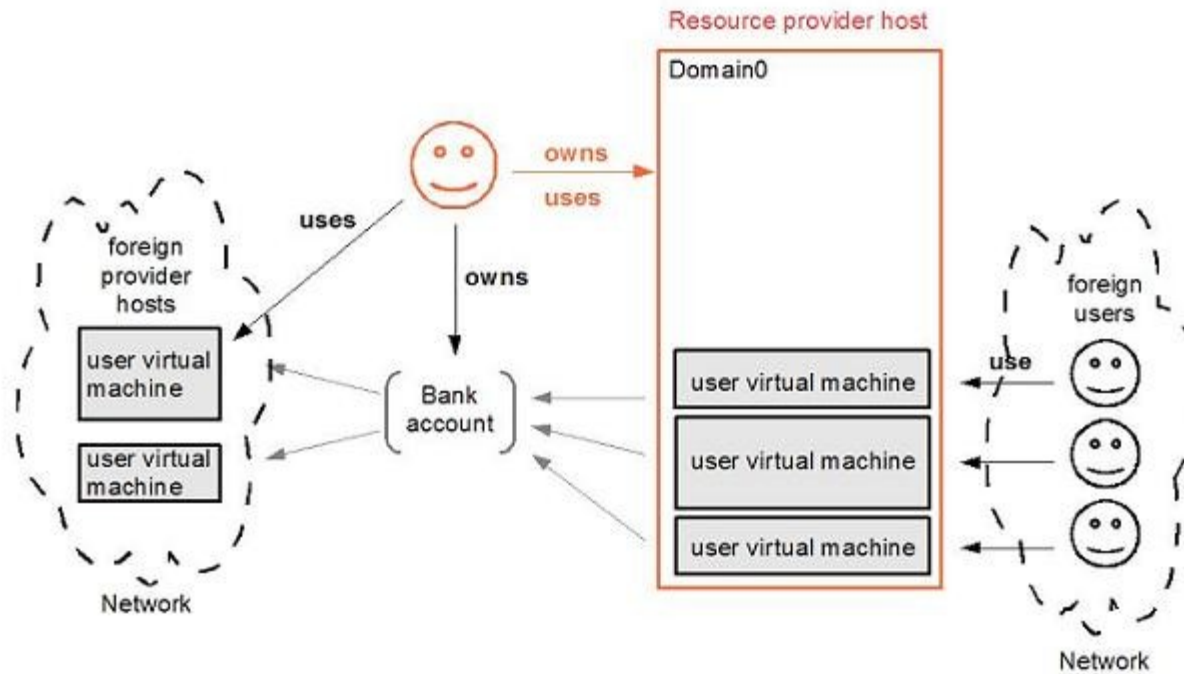
Monthly Technical Review
21st November 2006

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- Distributed market-based resource allocation system
- Pay-per-use
- Virtualization (Xen)
 - Flexibility
 - Security

- Four types of software components
 - Clients
 - Auctioneers
 - The Bank
 - Service Location Service (SLS)



- Tycoon is a “prototype” right now
- The core team is working hard and they use to update the Mercurial repository almost every day

- The ticket system is a dynamic reminder and a good feedback for developers

hp tycoon

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{1} Active Tickets (118 matches)

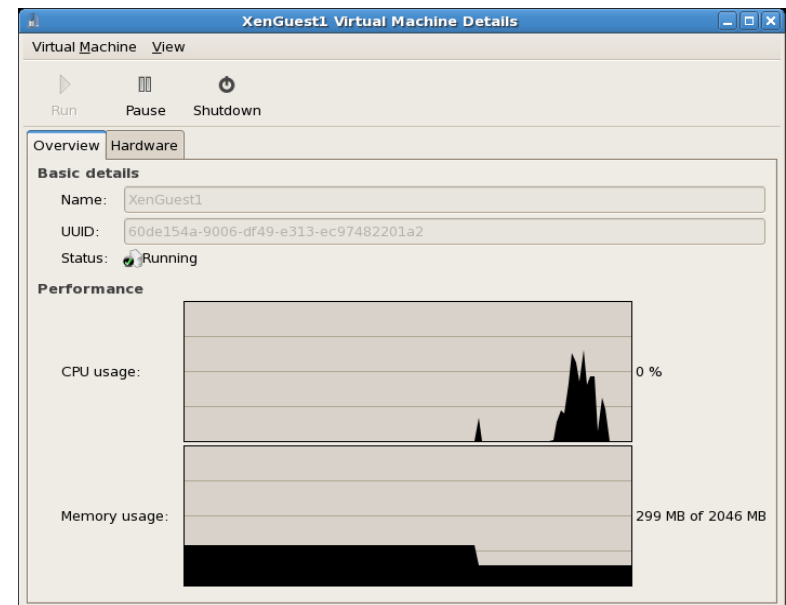
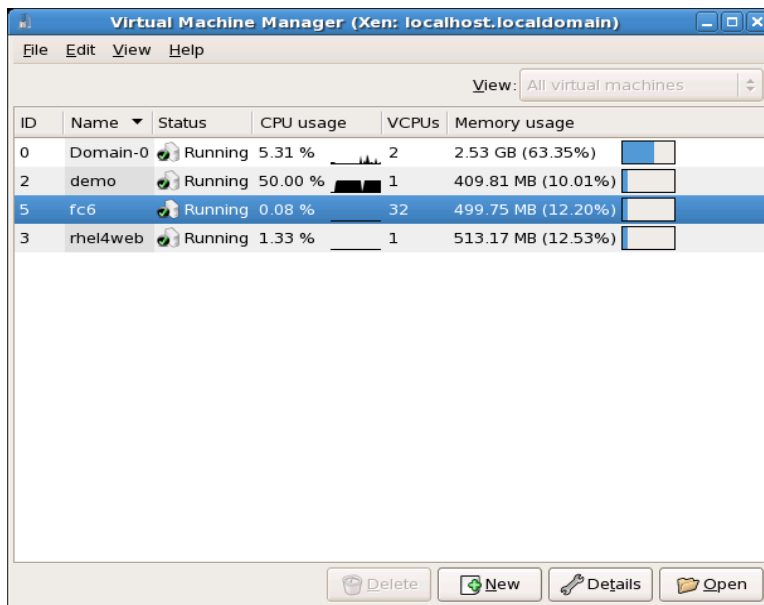
- List all active tickets by priority.
- Color each row based on priority.
- If a ticket has been accepted, a "*" is appended after the owner's name

Ticket	Summary	Component	Version	Milestone	Type	Severity	Owner	Created
#250	get_account_status key error on tycoon client	ClientCommandline		0.4.2 Usability and Reliability	defect	normal	KevinLai	08/23/06
#253	Allow getting a host list from a file	ClientCommandline		0.4.2 Usability and Reliability	defect	normal	KevinLai	08/25/06
#15	Memory allocation is not work conserving	Xen		1.0.0 Unscheduled	enhancement	normal	KevinLai	07/12/05
#280	Migrate SLS to new VM	ServiceLocationService		0.4.2 Usability and Reliability	task	normal	KevinLai	11/08/06
#281	Migrate bank	Bank		0.4.2 Usability and Reliability	task	normal	KevinLai	11/08/06
#85	Have SLS keep track of uptime information.	ServiceLocationService		0.4.4 SLS Enhancements	enhancement	normal	KevinLai	09/09/05
#147	SLS should restrict amount of data that can be registered to it	ServiceLocationService		0.4.4 SLS Enhancements	defect	normal	KevinLai	03/06/06
#148	SLS should have method to select fields returned.	ServiceLocationService		0.4.4 SLS Enhancements	enhancement	normal	KevinLai	03/06/06
#176	NAT-ed Auctioneers	ServiceLocationService		0.4.4 SLS Enhancements	enhancement	normal	KevinLai	05/09/06
#14	Advertise correct number of CPUs	Xen		0.4.8 Xen 3.0.3 Release	enhancement	normal	KevinLai	07/12/05
#124	Handle multiple CPUs	Auctioneer		0.4.8 Xen 3.0.3 Release	enhancement	normal	KevinLai	09/29/05
#55	Prevent communication between DHCP server and non-virtual hosts	Xen		1.0.0 Unscheduled	defect	normal	LarsRasmusson	07/26/05
#72	Tycoon_ssh should auto-boot shutdown machines.	ClientCommandline		1.0.0 Unscheduled	enhancement	normal	KevinLai	08/08/05
#78	Domains with routable IPs cannot access their own forwarded ports	Auctioneer		1.0.0 Unscheduled	defect	normal	KevinLai	08/26/05
#86	Allow setting of base price for Auctioneer	Auctioneer		1.0.0 Unscheduled	enhancement	normal	KevinLai	09/09/05
#143	Bank/SLS log rotation is not releasing old log blocks	Other		1.0.0 Unscheduled	defect	normal	KevinLai	02/23/06
#166	Verify accounting of spending	Auctioneer		1.0.0 Unscheduled	defect	normal	KevinLai	05/08/06
#168	How to expose contingency information	Auctioneer		1.0.0 Unscheduled	defect	normal	KevinLai	05/08/06
#171	Squatting	Auctioneer		1.0.0 Unscheduled	defect	normal	KevinLai	05/09/06
#241	No way to view port/IP address prices	Auctioneer		1.0.0 Unscheduled	enhancement	normal	KevinLai	08/04/06
#277	Check if virtual machine file system has been mounted during *tycoon host create_account*	Auctioneer		1.0.0 Unscheduled	defect	normal	KevinLai	11/03/06
#282	Prevent DHCP discovers from VMs from going out on physical network	Xen		1.0.0 Unscheduled	enhancement	normal	KevinLai	11/10/06
#181	What happens if an auctioneer owner has fewer funds than the sum of local balances?	Auctioneer		0.4.2 Usability and Reliability	defect	normal	KevinLai	05/12/06

- There is a big dependence between the Tycoon auctioneer and Xen
- Tycoon uses Xen API:
 - Xen 3.0.2 API (FC4) \neq Xen 3.0.3 API (FC6)
- We need compatibility with modern 64 bits platforms! (and we're working on it)

- Tycoon is currently used in ARC (Nordugrid)
- Tycoon could be used in gLite (EGEE)... after fixing some troubles
 - Portability
 - Integrability

- FC6 comes with “Virtual Machine Manager” that is able to monitor the Xen virtual machines that are running in a local or remote host.



Just in case you need more...

- <http://tycoon.hpl.hp.com>
- <http://groups.google.com/group/Tycoon-Users/>
- <http://groups.google.com/group/Tycoon-Developers/>
- <http://www.cl.cam.ac.uk/research/srg/netos/xen/>
- <http://virt-manager.et.redhat.com>
- Jose.Dana@cern.ch