SYN

debian.org migration to Ganeti

A user experience report

Martin Zobel-Helas, zobel@debian.org
Faidon Liambotis, paravoid@debian.org

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About Debian

What is Debian

- Linux Distribution
- Driven by approx. 1300 volunteers
- Infrastructure run by Debian System Administration Team
  - 186 machines hosted world wide
  - 70 of them are VMs

About us

Who is Martin Zobel-Helas

- Senior Consultant and Team Leader at **credativ**
- Debian Developer since 2005
- Member of the Debian System Administration Team

Who is Faidon Liambotis

- Operations Engineer at **Wikimedia Foundation**
- Debian Developer since 2006
- Member of the Debian System Administration Team

Why Debian needs Virtualization

Where we came from

- Single machines with many services
- Later: libvirt config in git

Where we are now

- One service per Ganeti instance
- Easier to maintain
- Easier to move serives around

Our hardware

Debian's Hardware

- 12 supported hardware architectures
- Hardware located in approx. 60 datacenters
- Five datacenters with larger amount of hardware
- Distinction between porter and service machines

Our hardware (cont.)

Debian's Hardware we use for Ganeti

- Hardware used by our Ganeti clusters
  - HP DL380
  - HP DL580
  - HP BL460c
  - HP BL465c
  - HP BL495c
- Storage backends we use
  - MSA60i
  - MSA2012sa
  - DRBD with local storage

Why Ganeti

Reasons why we choose Ganeti

- Massive amount of documentation
- Simple to setup
- Packaged, well-supported & part of Debian stable
- Easy migration from dsa-kvm.git
- Live Migrations (without config overhead)
- Easy integration into Debian's config management

What we run

Ganeti 2.5

- Debian Sysadmin Team always tries to run packages from stable. Means we currently run **Ganeti 2.5**.
  Ganeti 2.7 has been uploaded to debian-backports last week, we might try that.
- Debian runs KVM only for historical reasons
- Preferred setup is a shared SAN
- On locations without a shared SAN we run DRBD

What we miss

What we miss or would like improved

- Serial console during boot
- Integration with SANs (newer versions have that?)
- Live migration falls over on large/busy memory VMs, sometimes breaking the VM

What might help us

Things that might help us or others

- Clustering clusters over the the internet (one node to rule them all)
- Dynamic Power Management
- Deploying Instances Dynamically

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