SUSE Manager in Large Scale
17220

Don Vosburg
Sales Engineer
dvosburg@suse.com

Alejandro Bonilla
Sales Engineer
abonilla@suse.com

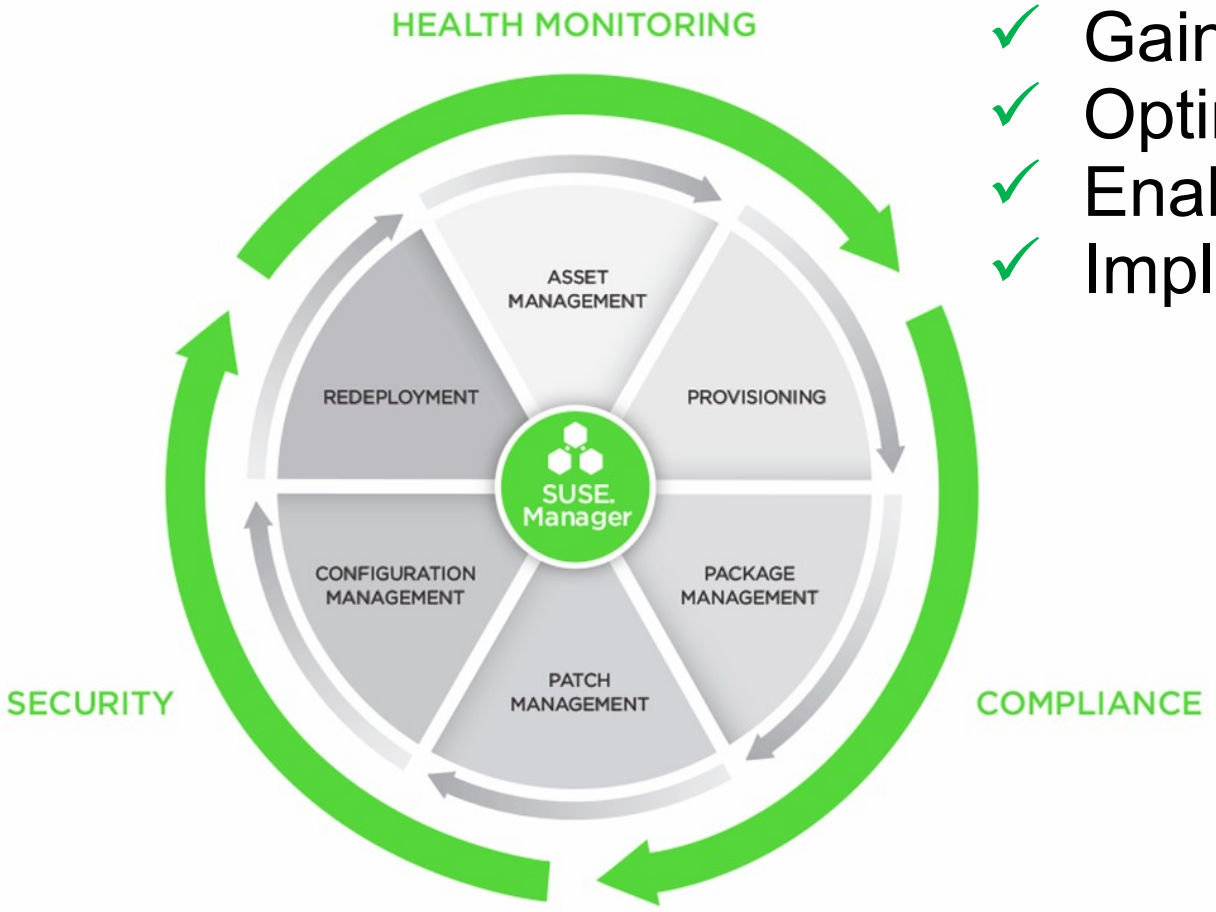
Geeko comes to SHARE

Agenda

- What is SUSE Manager?
- What can I do with it for Linux on System z?
- How do I design it to scale?
- Best practices
- Demonstration
- Q&A

SUSE Manager

SUSE Manager:
Operating System Lifecycle Management



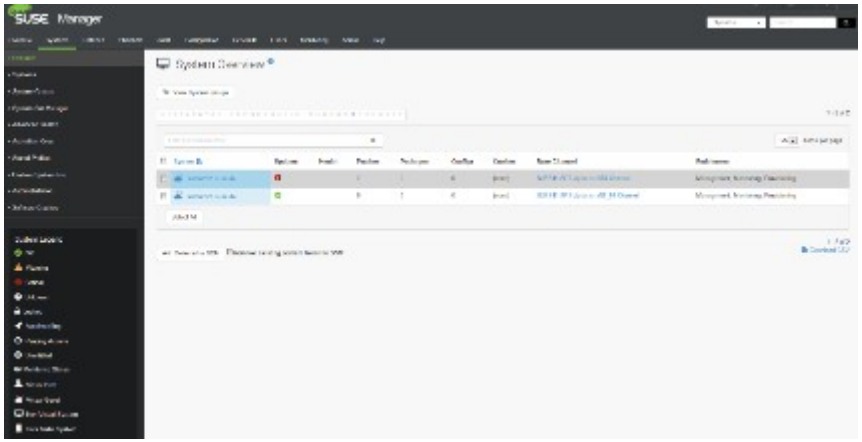
- ✓ Gain control
- ✓ Optimize operations
- ✓ Enable innovation
- ✓ Implement quickly

SUSE Manager is Open Source

What is the Spacewalk Project?	What is the role of SUSE in the Spacewalk Project?
• Upstream version of SUSE Manager and Red Hat Network (RHN) Satellite Server 5.X • Red Hat open sourced RHN Satellite (GPL v2) in June 2008	• SUSE Manager is based on Spacewalk, but SUSE has adapted it for SUSE Linux Enterprise • SUSE is an active contributor to Spacewalk • SUSE embraces the open source development model and Spacewalk is just one of the many open source projects we support

What can I do with SUSE Manager?

- Manage SUSE Linux Enterprise Server and Red Hat Enterprise Linux with SUSE's **Expanded Support**
- Deploy and manage your systems in **physical**, **virtual** and **cloud** environments – across architectures
- SUSE Manager server can run as a z/VM (new)



SUSE Manager – run on z/VM

- Announced 8/4/2015

  SUSE Manager Server 2.1 for z Systems has reached GOLD MASTER status and is ready for immediate release.

- Image for SUSE Manager Server for System z is available to download/eval here:

  https://download.suse.com/Download?buildid=BGjVf-pTgjQ~

- Documentation is now updated to include z/VM installation instructions
- Z/VM specific memory recommendations:
  - 5GB Memory minimum (3GB RAM + 2GB VDISK swap) for a small number of clients
  - For a larger production system the ratio of physical memory to vdisk will need to be re-evaluated based on the number of clients being supported

SUSE Manager 2.1





Usability

- Setup wizard
- Improved web UI
- Action chaining

Provisioning

- Unattended bare-metal system provisioning
- First time installation support

Patch Management

- Package lock

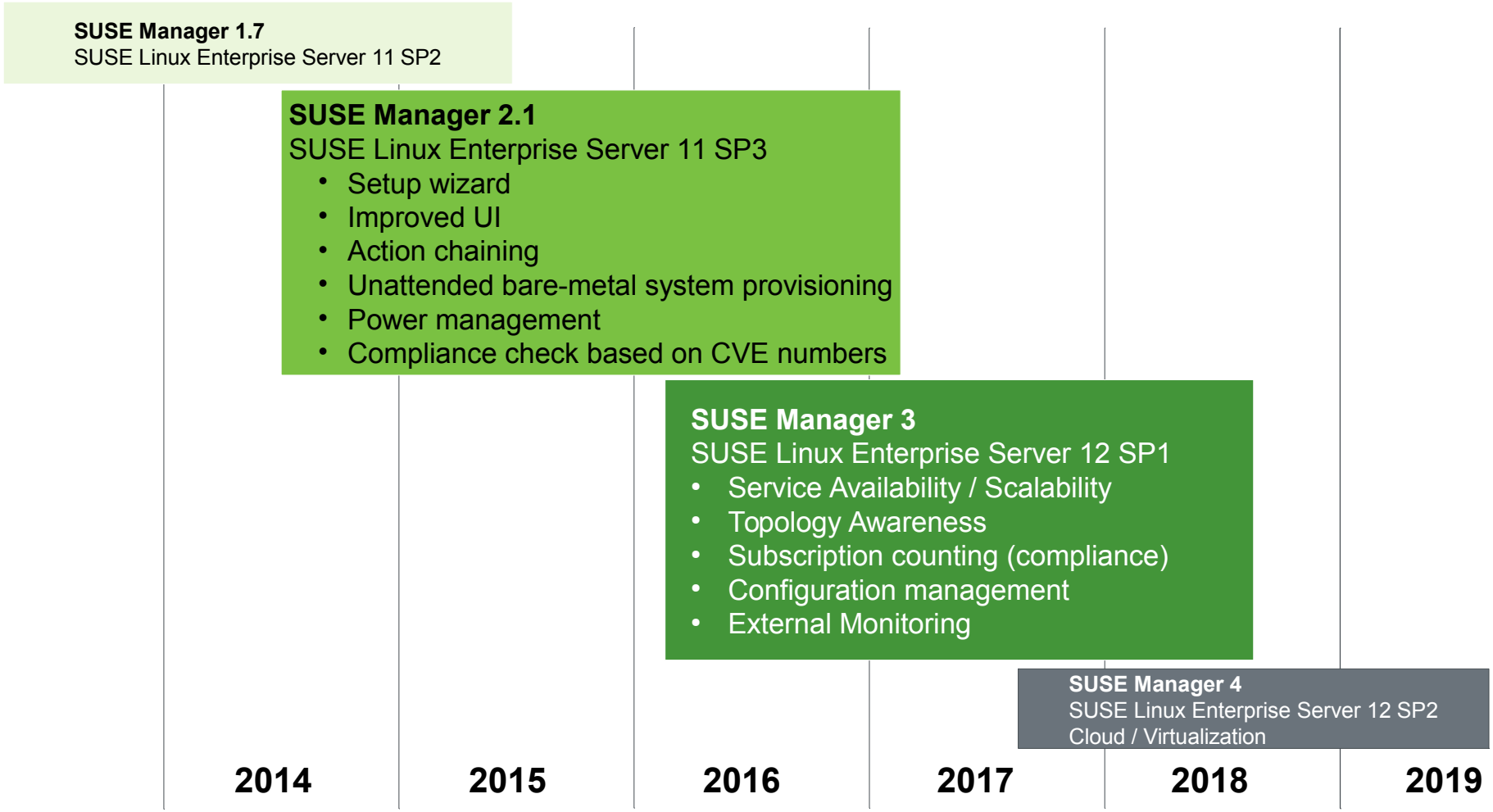
Compliance and security

- Compliance check based on CVE numbers
- OpenSCAP

Power management

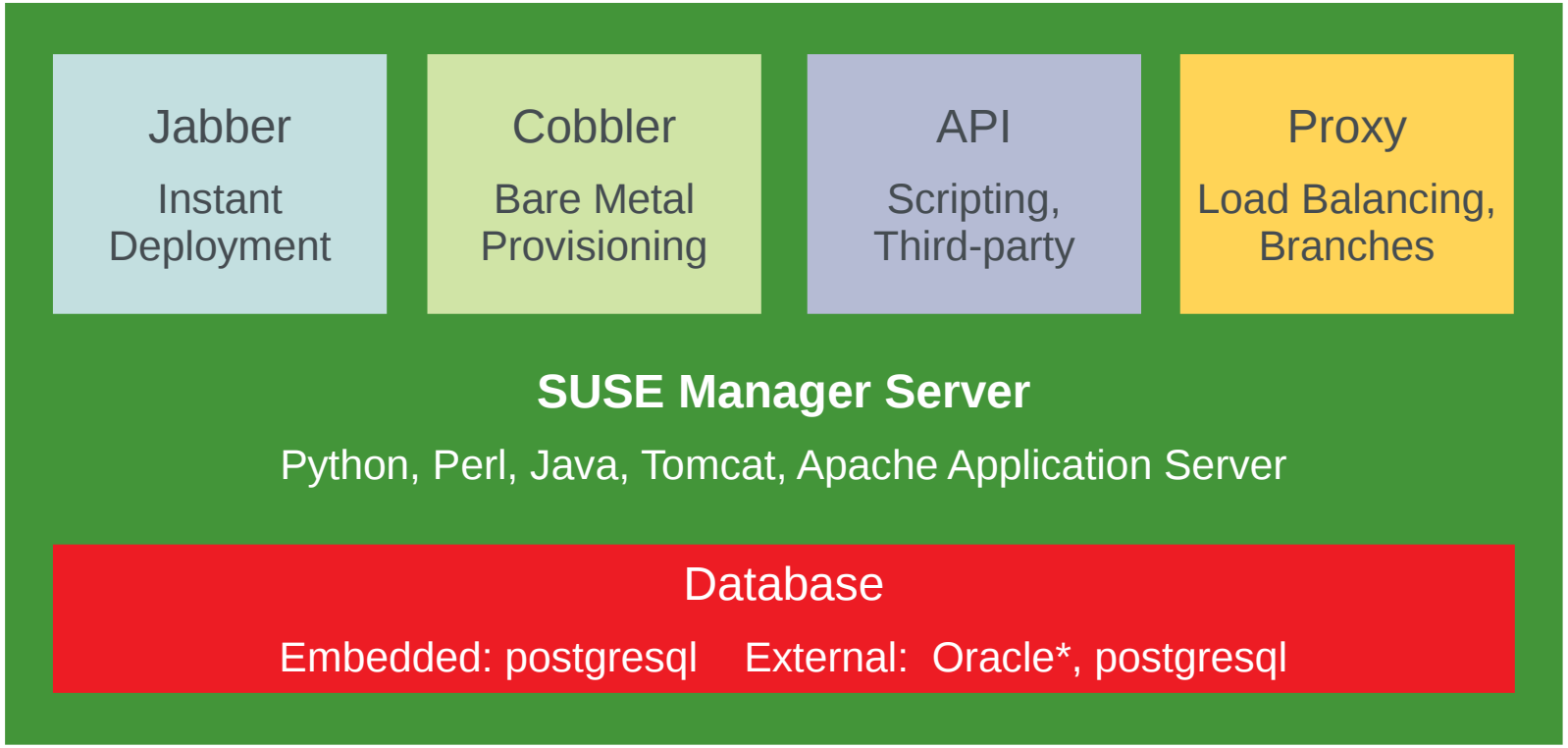
- Power on, off and reboot bare-metal systems via the IPMI (Intelligent Platform Management Interface) protocol

SUSE Manager Roadmap



Designing SUSE Manager implementation

SUSE® Manager
System Components



**Oracle database support will end with SUSE Manager 2.1*

SUSE Manager services

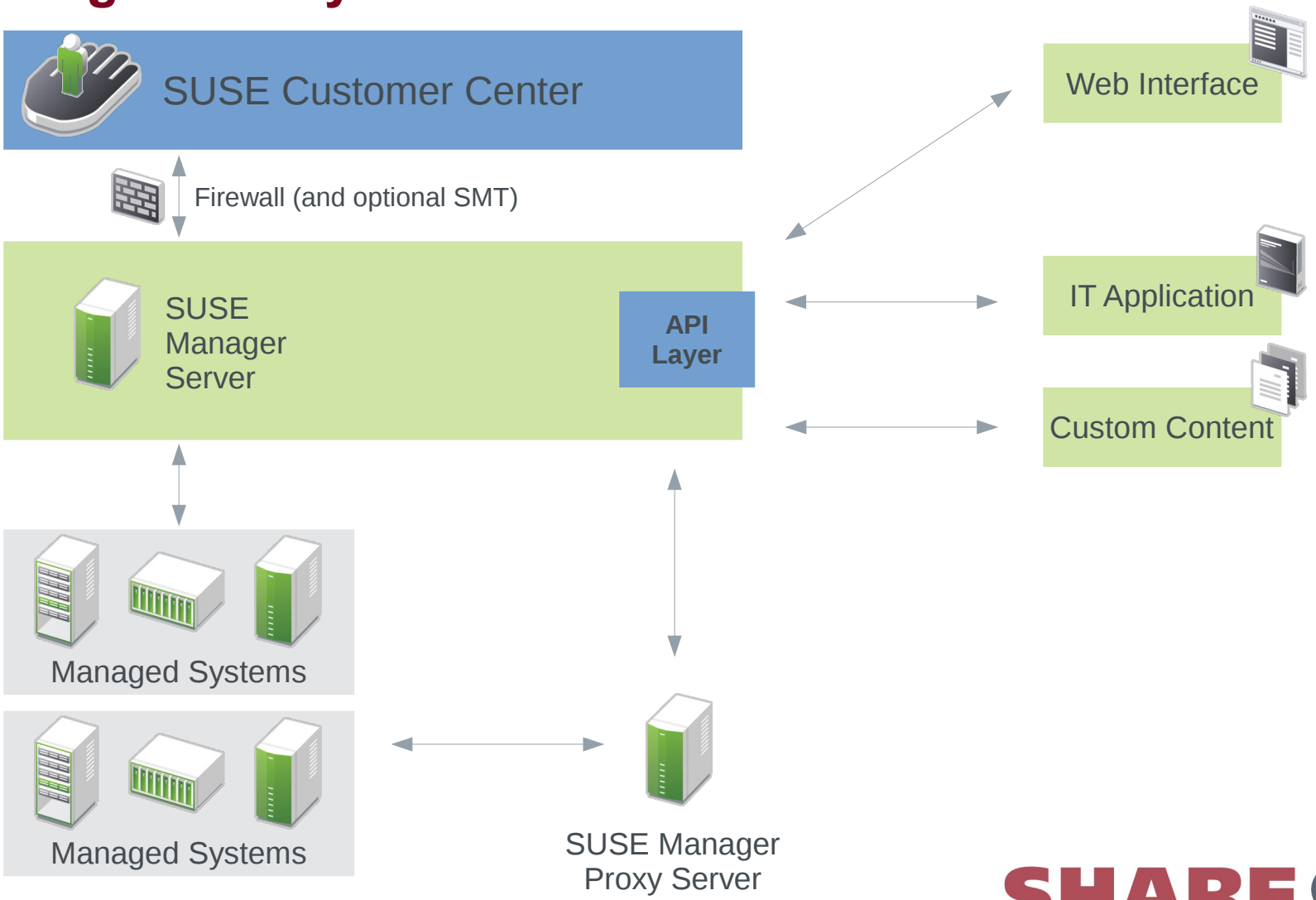
`spacewalk-service`

- {start|stop|status|reload|restart|enable|disable}
- list

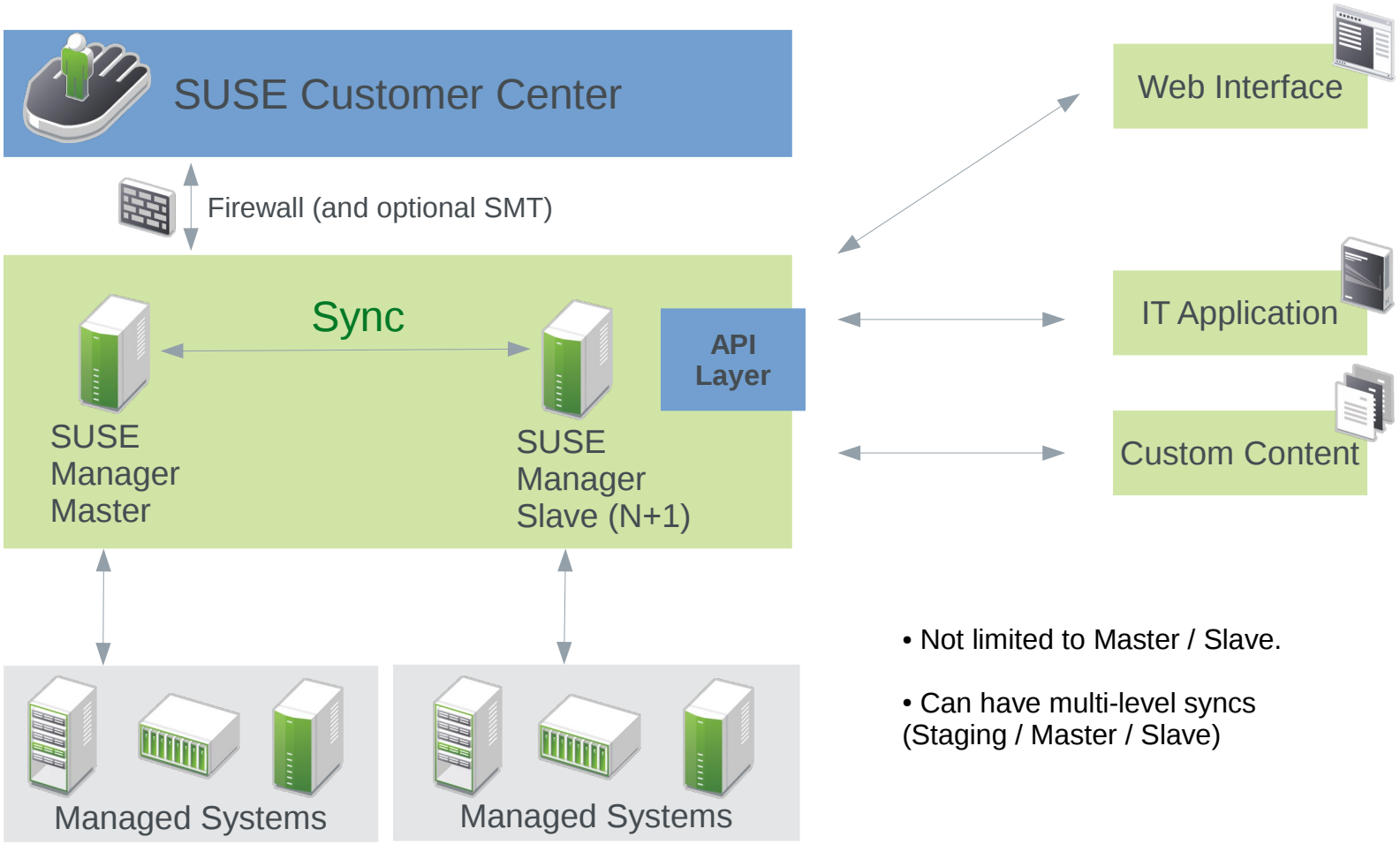
```
Listing spacewalk services...
jabberd                 0:off  1:off  2:off  3:on   4:on   5:on   6:off
tomcat6                 0:off  1:off  2:off  3:on   4:on   5:on   6:off
apache2                 0:off  1:off  2:off  3:on   4:on   5:on   6:off
osa-dispatcher          0:off  1:off  2:off  3:on   4:on   5:on   6:off
Monitoring              0:off  1:off  2:off  3:on   4:on   5:on   6:off
MonitoringScout         0:off  1:off  2:off  3:on   4:on   5:on   6:off
rhn-search              0:off  1:off  2:off  3:on   4:on   5:on   6:off
cobblerd                0:off  1:off  2:off  3:on   4:on   5:on   6:off
taskomatic              0:off  1:off  2:off  3:on   4:on   5:on   6:off
```

- Individual components may be separately stopped/started as needed
- Database has its own separate startup and is assumed

How Does SUSE Manager Work?
Single / Proxy



How Does SUSE Manager Work?
Inter Server Sync



- Not limited to Master / Slave.
- Can have multi-level syncs (Staging / Master / Slave)

General best practices - part1

- Update your SUMA server(s) regularly
- Do not cheat on memory allocation
- Use embedded postgresql as database
  - Switch to external can be done later as need arises
- Add memory for taskomatic process
  - /etc/rhn/rhn.conf

```
# Set max taskomatic mem
taskomatic.maxmemory=3072
```

- Attach disk space via LVM to /var/spacewalk
- Leave lots of time for channel sync
  - Only sync the ones that matter

General best practices - part2

- Choose your client contact method carefully:
  - Pull: rhnsd or osad
  - Push via ssh – preferred for large environment, single key exchange
- Stagger scheduled events that may overload taskomatic
  - Action chains that are long
  - Remote commands – minimize length
- Schedule your channel syncs and system actions with minimum overlap

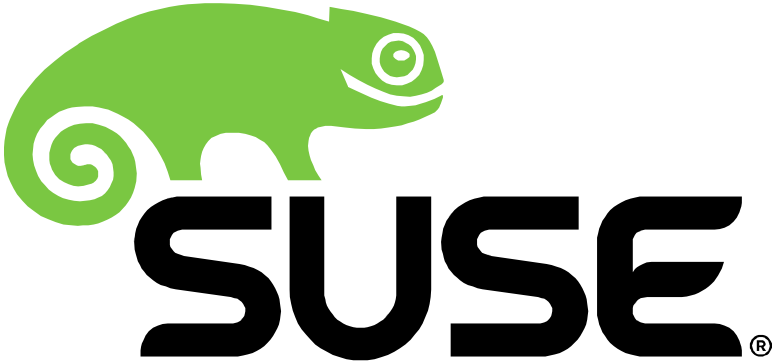
Best Practices – Large Systems

- Use proxies to mitigate load
- Limit scope of ISS to needed subsets
- Create system groups by location, and use role-based administration
- Consider using HA for service availability
- Avoid using osad if using pull client method
- Consider using content staging – especially for distributed environment
  - Settings on both server and client to enable
    - Server: Admin -> Organizations -> Enable Staging Contents
    - Client: /etc/sysconfig/rhn/up2date:

      stagingContent=1

      stagingContentWindow=24

SUSE Manager Demo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