



Bimodal IT: Bridge Traditional and Agile IT

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Bimodal IT – Challenges & Opportunities



Two Worlds of IT Need a Bridge

An illustration of a person in a dark suit and orange tie, standing on a narrow ledge on the left. They are holding two long, thin, dark blue beams that span across a deep, brown chasm. The beams are supported by the ground on the right side. The person has a determined expression with a slight smile and radiating lines above their head. The background is a light blue sky with white clouds and a brown ground level. The overall theme is bridging the gap between two different IT paradigms.

**Traditional IT
Mode 1**

**Agile IT
Mode 2**

45% of organizations claim to have some form of bimodal capability today.

By 2017, 75% of IT organizations will have a bimodal capability.

The two brains of IT

Mode 1

Reliability

Waterfall, ITIL

Conventional Projects

Long-cycle Times
(months)



Mode 2

Agility

Agile, DevOps

New & Uncertain
Projects

Short Cycle (days,
weeks)

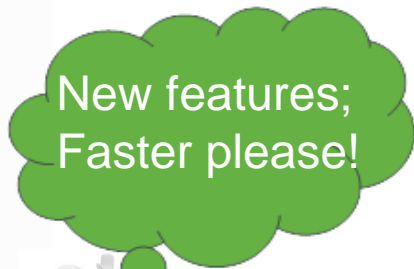
Challenges in Context of Docker



Developers

Frequent releases vs. staged production schedule.

“It works on my machine.”

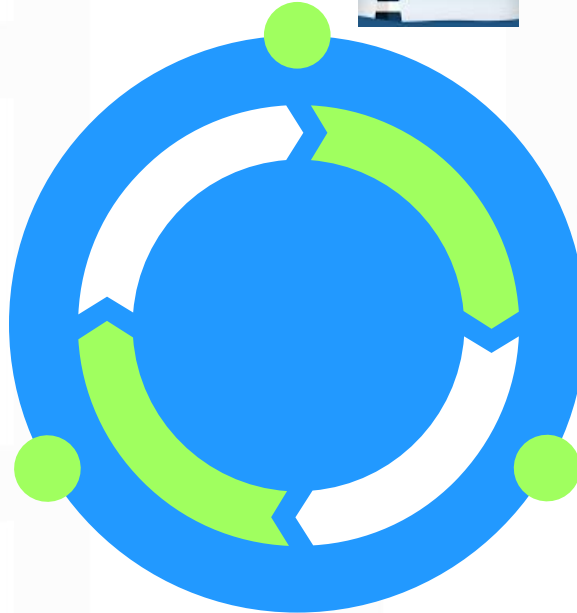


Operations

- Manage growing services
- Reliability and uptime of new applications
- Time to market
- Efficiency

Docker Lifecycle

Create



Maintain



Run



kubernetes
by Google



openstack™





**Collaboration
is Key**

Create and Deploy Applications



One Team Creates Apps



Another Team Deploys

Authorize

Audit

Authenticate

Collaborate Securely with Portus

The screenshot shows the Portus dashboard interface. At the top left is the Portus logo. The top right shows a search icon, a user profile for 'admin', and a plus icon. A dark sidebar on the left contains navigation links: Dashboard, Namespaces, Teams, and Admin. The main content area features four summary cards: Registry (1), Users (109), Teams (12), and Namespaces (123). Below these is a 'Recent activities' section with a 'View all activities' link. A recent activity entry shows 'flavio edited the description of the namespace openstack' 12 minutes ago.

Open Source

Created by
SUSE

Authenticate
Authorize

Control access
to your images

Easy to Use

Navigate Image
Catalog

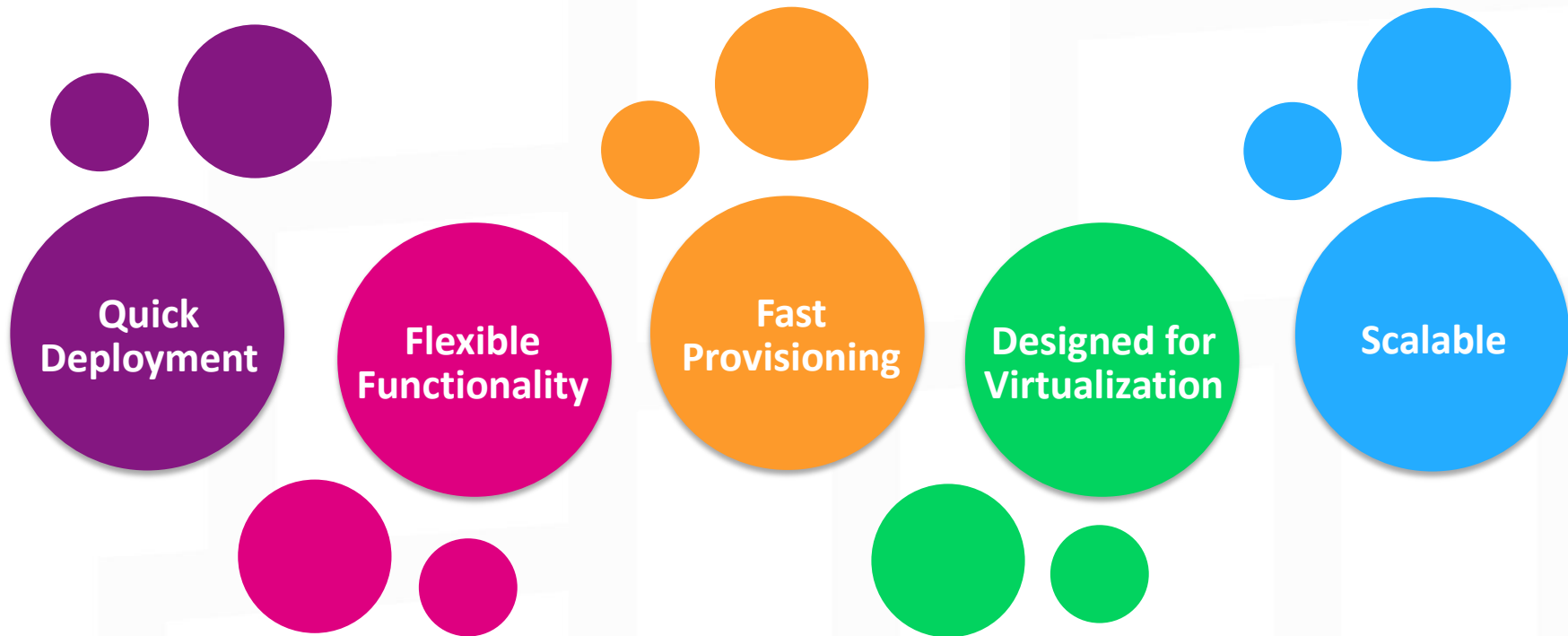
Audit

Keep everything
under control



**Run with
Agility**

Containers Need Fast Agile Platform





JeOS provides Agile Platform Ideal for Containers



small

fast

agile

Mini SUSE Linux
Enterprise Server



JeOS

Mode 1

Ideal for
Bimodal



JeOS

Mode 2

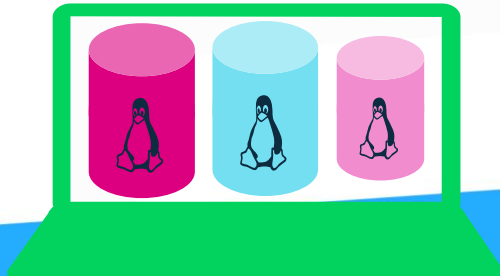
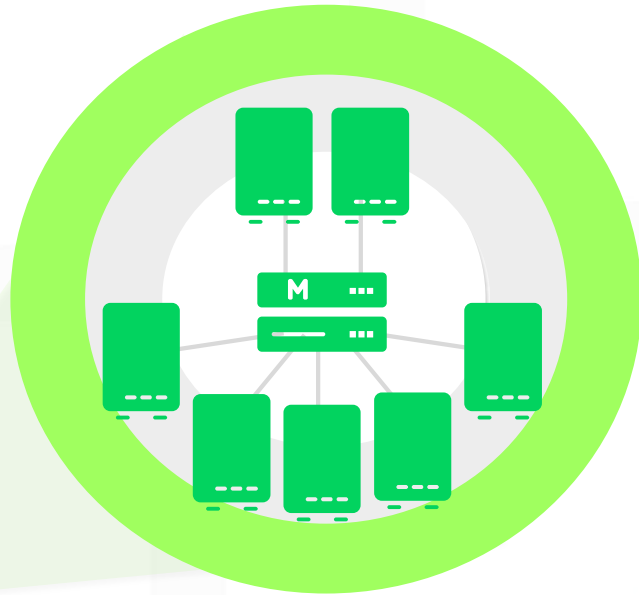
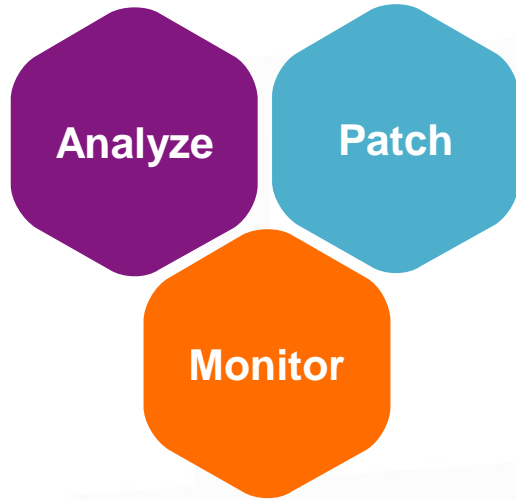
Designed for
the Future



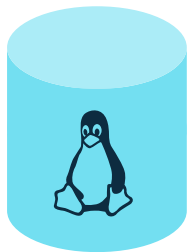


**Keep
Containerized
Apps Secure**

Manage Docker Images with YaST and Zypper-Docker



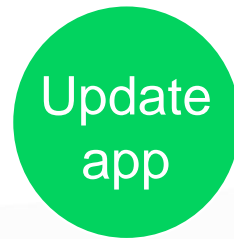
Surgically Patch Container Application



Check Containers & Images



Identify Vulnerable Apps



```
sles12sp1:~ # zypper docker list-patches --cve=CVE-2014-6271 stable_image:1
Issue | No.          | Patch                | Category | Status
-----+-----+-----+-----+-----
cve   | CVE-2014-6271 | slessp3-bash-9740    | security | needed
```

Shellshock vulnerability



Orchestrate Containers

Orchestration Enhances Business Value of Containers

Containerized Micro-server

Zero downtime,
Highly available,
Easy to migrate
across hosts

On-demand Self-services

Agile delivery,
Continuous
development

Continuous Integration

App Lifecycle Pipeline
Dev, Test, Prod

Deployment

Networking

High
Availability

Scaling

Monitoring

Bimodal Datacenter

Mode 1



Compute
Storage
Network

Mode 2

Magnum



Containers

Deployment

Networking

High
Availability

Scaling

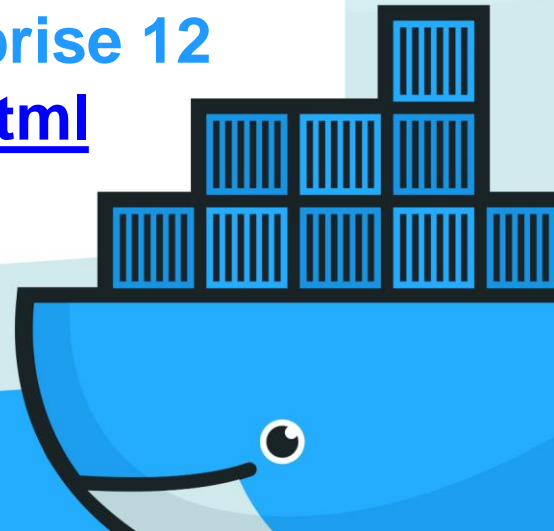
Monitoring

Checkout Docker mini-course videos

<https://www.suse.com/promo/sle/docker.html>

Learn more about SUSE Linux Enterprise 12

<https://www.suse.com/promo/sle12.html>



Thank you!



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