How Red Hat helps Vorwerk drive innovation with IoT

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Vorwerk Digital

THIS IS VORWERK

TRADITIONALLY A PIONEER

VORWERK GROUP

1883

FAMILY BUSINESS, WUPPERTAL

CONSTANTLY REINVENTING

EXCEPTIONAL
PRODUCTS & SERVICES

WORLDWIDE

649,000 PEOPLE

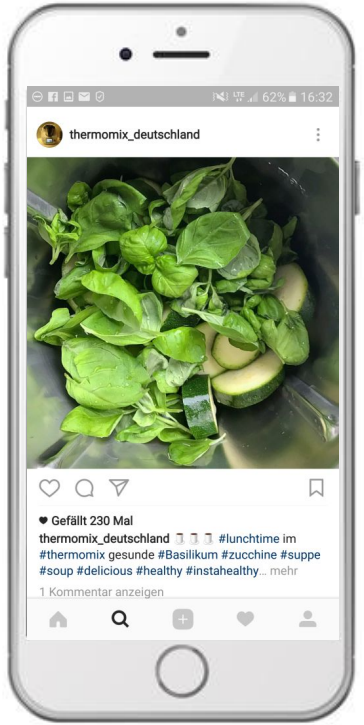
3,1 B EURO

50 YEARS
of
PRODUCT EXPERIENCE

1961

2017

VORWERK



COOKING IN THE DIGITAL AGE

PEOPLE WERE READY.

VORWERK

BUT THE KITCHEN WAS NOT.

UNTIL NOW.

THE ECOSYSTEM.

WEBSITE AND E-SHOP

COOK-KEY

COOKIDOO

CLASSES

COOKIDOO MEMBERSHIP

COOKBOOKS & RECIPE CHIPS

COMMUNITY

COLLECTIONS

UPDATES

MAGAZINES

SERVICES

PRODUCTS

PEOPLE

PERSONAL ADVISORS

VORWERK

Some numbers ...

> 1.500.000

Connected TM5

~1.000.000

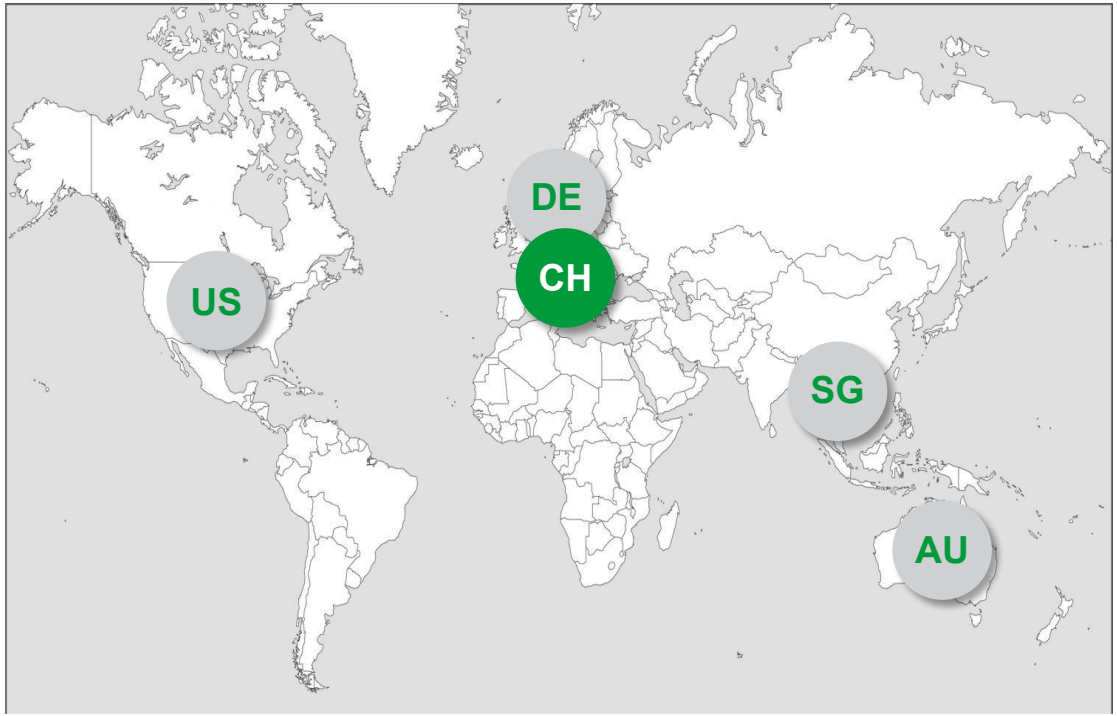
Syncs per day

> 3.000.000

User accounts

GLOBALLY CONNECTED…

…TO DISTRIBUTED DATACENTERS.



Current infrastructure does it’s job ...

- Based on AWS and VMWare
- Most components are based on docker
- Scaling of components to react on growing number of requests
- Serving contents in all regions to all customers in acceptable speed.
- Synchronizing recipes to TM5 works well

Yes& … we want to go beyond.

- Save costs
- Increase Time-To-Market for improvements and new features
- Reduce complexity
- Be more flexible on base infrastructures
- Increase standardization of components and tools
- Introduce the main concepts “Shift left” and “You built it, you run it”
- Continuous Quality and Security

Infrastructure vision

Openshift provides a vehicle to enforce our development partners into processes and quality gates defined, owned and managed by Vorwerk.

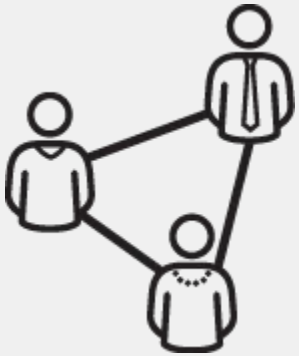
Red Hat & Adfinis join the winning team

Love at first sight

Forming the winning team - Red Hat - Partner - Customer

redhat.

- Account Manager
- Solution Architect
- Specialist Solution Architect
- Consultant



Adfinis SyGroup

- Snr Solution Architect
- Cloud Engineering Team
- Project Manager
- System Engineers

VORWERK

- Snr Manager Digital Architecture
- Operations Support
- Customer Architect
- Operations Partner

The Goal

I want it all!

RED HAT® CLOUDFORMS

RED HAT® OPENSHIFT

RED HAT® ENTERPRISE LINUX®

RED HAT® GLUSTER STORAGE

amazon web services

Microsoft Azure

The Vorwerk Cloud Approach

Main Approach: Quality by Design

Vorwerk Automation Framework

- Project: Vorwerk Automation Framework
  - Integrating a highly sophisticated Automation Framework
  - Split into multiple project stages

While…

- Using existing deployments to install the first OpenShift environments for quicker developer on-boarding

Automation Guideline

Automation without borders

- No manual operational activities (e.g. add new user, increase RAM, etc.)
- No manual deployment steps (e.g. Cloud Portal, CLI, etc.)
- Framework is the main building block
  - Used by every project and deployment
  - No snowflakes
- Multiple environments (Dev, Test, QA, Prod, etc.)
  - Large infrastructure
  - Hundreds of OSCP worker
- Reproducibility is a key factor

Supported Scenarios

Automation Scenarios

- Deploy to a new AWS or Azure region
- Allow different cluster sizes
- Scale-up and scale-down OpenShift nodes
- Use Gluster, AWS or Azure storage
- Deploy different AWS and Azure resources

Vorwerk Automation Framework

Multi Cloud - Flexibility at its best

- Vorwerk Automation Framework
  - Using Python, Terraform and Ansible playbooks
  - Terraform abstracts the infrastructure code for multiple cloud vendors
  - Using official OpenShift installer
  - Supports Gluster storage deployment
  - Support cloud native storage
  - Continuous configuration of all environments
  - Easy scaling of environments
  - Dev/Test environment automation

Infrastructure as Code

Terraform - Common nominator

- Terraform code for AWS, Azure & VMWare
- Compliance tests
- Verification of results
- Multiple regions and HA zones
- Scaling cloud resources

HashiCorp Terraform

Ansible Automation

Ansible - Continuous deployment and configuration

- Add automation capabilities on top of Terraform
- Prepare OS baseline and hardening
- Official Red Hat Ansible Installer for OpenShift
- OpenShift configuration and optimization
- Metrics and Monitoring
- Operational activities

Test Driven Deployment

Quality by Design

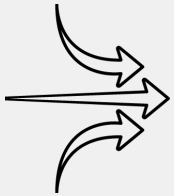
- Framework must provide a very high level of quality
- Ensure each platform layer is working as expected
  - Basic syntax and linting checks
  - Unit and Acceptance tests
- Provide detailed report for each step
  - Gather reports as part of the Application Lifecycle Management
  - Compliance and auditability

Fully Automated Test Pipeline

Layer Based Quality

Quality by Design

- Layer 0 - Framework tests
- Layer 1 - Infrastructure
- Layer 2 - OS Baseline
- Layer 3 - OpenShift Baseline
- Layer 4 - OpenShift Cluster
- Layer 5 - Apps



Fully Automated Test Pipeline

Key Takeaways

What you should remember

- Focus on the solution not on products
- Collaboration is key
- Open communication leads to trust
- Scale with partners

THANK YOU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