# LudovicRivallain

Senior Virtualization engineer @Group SII

# **Experience**

July 2016 - now

#### SII Group, Rennes, France

Cloud Computing and VMware Senior Consultant

Attached to the *Infrastructure Experts* entity, I guide our customers in the *think and build* operations related to cloud computing solutions. I especially contribute to the realization of *Cloud Providers* platforms and I am in charge of the automation for final customers-facing solutions.

#### · Automation engineer

- Kubernetes deployments: Rancher, K3S, Tanzu Kubernetes Grid
- Function-as-a-service (FaaS) solutions: OpenFaaS, Argo, AWS Lambda
- VMware vRealize Orchestrator
- Ansible, Terraform
- CI/CD: GitHub Actions, GitLab CI, Travis, VMware code Stream

#### · Engineering and level 3 support

- vRA: vRealize Automation + XaaS
- vRO: Realize Orchestrator
- vCPP: VMware Cloud Provider Program & vCloud Usage Meter
- vCSA: vCenter Appliance
- NSX-V/NSX-T: Network Virtualization and Security
- vCD: vCloud Director
  - \* UI/API Extensions building
  - \* Container Service Extension (CSE)

#### · Cloud Computing Consultant

- Technical solutions engineer
- Working closely with sales, customers, development teams
- Support for "On Premise Cloud" migration
- Providing best practices for Cloud usage
- Systems architect
- Trainer (for both internal and external public):
  - Cloud Computing generic training sessions
  - Junior VMware training sessions
  - Public Cloud approach sessions
  - OpenStack user and administrator sessions

#### Example of projects:

#### Think and build of multiple automation solutions for a Cloud Provider company

- Design and development of complex automation solutions to provide:
  - \* additional customer self-service solutions (quota management, security services...)
  - \* backend systems automation (automated backup policies, observability...)
- Design of a new automation stack (K8s, OpenFaaS, Argo workflows)

## • Think/Build/Run of a Storage-as-a-service extension for VMware vCloud Director

- Backend: vCD API extension: Multi-threaded Python service for automation orchestration
- Frontend: vCD UI extension: Angular-based UI published to tenant for self-service storage management.
- Continuous-Integration pipeplines based on *Gitlab CI*, *Swagger* documentation of the REST API. Some vRO-based automation for network provisioning.

#### · UI for Container Service Extension for VMware vCloud Director

- Frontend: vCD UI extension: Angular-based UI published to tenants for self-service Kubernetes cluster management.
- Continuous-Integration pipelines based on Gitlab CI, Reverse engineering of CSE API backend and CLI client.
  - **♀** Bordeaux, France ★ Iudovic.rivallain.fr
  - **L** + 33 6 64 24 04 13 ■ ludovic.rivallain@gmail.com

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#### Hybridation of vRealize Automation with a new public cloud provider

- Integration of a non-natively supported public cloud provider within vRA UI
- vRealize Orchestrator Dynamic Types, API integration, OpenStack Heat helpers.

#### · XaaS development for vCloud Director and vRealize Automation

- Multiple kind of automation services provided to end-users through vCD or vRA UI or API: storage, network, backup, migration, quota management...
- vRealize Orchestrator, API or AMQP integrations, NSX, multiple NAS and backup solutions...

#### Nov 2014 – July 2016 OVH, Rennes, France

Tech-leader private-cloud operations

Creation and managing of operations teams for OVH cloud offers.

- 12 peoples between Rennes, Tunis, Montreal, Roubaix
- 3 products: (3000) Dedicated Cloud, (80 000) Virtual Private Server, Desk as a Service
- 24/7 service with planning management
- Virtualization tech-leader role

#### · Dedicated Cloud:

- 3000 VMware vCenter / 10 000 Hosts ESXi
- Home made monitoring (redis & scripting)
- Automation (delivery, failure reactions): Perl, Powershell, Bash

#### · Virtual Private Server.

- 80 000 VPS (VMware, Openstack, OpenVZ)
- Shinken-based monitoring
- Massive migrations, capacity planning
- Desk as a Service:

#### · Desk as a Service:

- Launch of the commercial offer based on VMware Horizon View
- Shinken-based monitoring (NRPE) + OpenTSDB Timeseries

#### Jan 2011 – Nov 2014 SII Group, Rennes, France

VMware junior consultant

VMware trainer for internal employees and customers. Think & build & support to run, of Orange Business France Cloud Computing offers.

#### Think:

- Data recovery plans (VMware SRM, Zerto)
- International cloud computing offers design

#### Build:

- Orchestrations tools (VMware Orchestrator, VMware vCloud director)
- Best practices definition

#### Support to run

- Level 3 support: analysis, editor's cases management
- Incident management
- Massive migrations and functional changes studies

#### Jan 2007 – Dec 2010 SII Group, Rennes, France

Web qualification engineer

Technical and functional validations of several web-based products

## Apr 2006 – Dec 2006 One Access Network, Paris, France

Protocol qualification engineer

Network protocol validation of multi-protocols routers. Pre-sales consulting and documentation of automated platforms for validation.

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# **Education & Recognition**

Since 2018 VExpert program VMware community

4 years recognition in VMware vExpert community program + vExpert for Cloud Provider in

2020/2021 + vExpert Application Modernization in 2021. vExpert profile 1741.

2005 – 2006 Bachelor degree, Voice over IP and systems administration IUT Lannic

2003 – 2005 Undergraduate degree, Telecom and networks IUT Lannion

2 years university degree



# **Trainings & Exams**

2012

2021 VMware vRealize Automation: Install, Configure, Manage [V8.0] 2020 VMware vSphere: Optimize & Scale [V7] VMware Certified Advanced Professional - Data Center Virtualization Deploy 2021 VMware Certified Professional - Data Center Virtualization 2020 2020 Amazon Web Services Architecture 2019 VMware NSX-T: Install Configure, Manage VMware vSphere: Optimize & Scale [V6.7] 2019 2017 OpenStack administrator VMware vCloud Director. Install, Configure, Manage [V8.20] (Custom) 2017 2017 VMware vRealize Automation: Install, Configure, Manage [v7.2] 2016 VMware vCloud Director: Install, Configure, Manage [V8.10] (Custom)

VMware Certified Professional 5 - Data Center Virtualization



VMware vSphere: Install, Configure, Manage



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# **Skills**

## Modern applications

- Kubernetes
  - Rancher, K3S, Tanzu Kubernetes Grid
  - Kubectl, Helm, Cluster API
  - Service Mesh: Istio, Linkerd
- Middlewares
  - OpenFaaS, AWS Lambda
  - Prometheus, Grafana
  - Argo Workflows
  - Traefik, HAProxy
- Observability and event-driven infrastructures

#### Virtualization

- VMware
  - vSphere ESXi, vCenter, vCSA & Operations management
  - NSX-v, NSX-T
  - vCloud Director + Extensions of both API and UI
  - vRealize Automation
  - vRealize Orchestrator
  - vRealize Lifecycle Manage
  - VCPP licensings vCloud Usage Meter
  - VMware Site Recovery Manager
- Openstack (Nova, Neutron, Keystone, Cinder, Swift, Glance, Horizon...)
- OpenVZ
- Docker & Linux LXC
- Linux KVM and XEN

## Programming

- · Bash & Python addict
- Powershell enthusiast
- Perl, TCL/Expect, Web (HTML, JS, CSS)
- Git

## **Systems**

- Windows Server (SQL server, Active Directory, KMS, WSUS)
- Linux (Apache, Nginx, MySQL, PostgreSQL...)
- MacOS X

## Networking

- TCP/IP
- Routing
- Firewalling
- · Load-balancing

#### Hardware

- HPE blades
- Dell
- Cisco
- Supermicro

## Methodology

- · Scrum / Agile
- DevOps:
  - Ansible, Puppet, Terraform
  - Shinken
  - REST API programming

# **Self** interests

Owner and main author of vuptime.io blog: focused on virtualization & IT automation.

Speaker and active member of French VMUG (VMware User Group).

Other interests:

- Rock climbing
- · Canoe-kayak
- Music festivals
- · Open-source: Ansible, Kubernetes and K8S related projects