

# Ludovic Rivallain

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 pipelines 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.

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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.

## Education & Recognition

Since 2018	<b>vExpert program</b> 4 years recognition in VMware vExpert community program + vExpert for Cloud Provider in 2020/2021 + vExpert Application Modernization in 2021. vExpert profile 1741.	VMware community
2005 – 2006	<b>Bachelor degree, Voice over IP and systems administration</b>	IUT Lannion
2003 – 2005	<b>Undergraduate degree, Telecom and networks</b> 2 years university degree	IUT Lannion



## Trainings & Exams

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
2019	VMware vSphere: Optimize & Scale [V6.7]
2017	OpenStack administrator
2017	VMware vCloud Director: Install, Configure, Manage [V8.20] (Custom)
2017	VMware vRealize Automation: Install, Configure, Manage [v7.2]
2016	VMware vCloud Director: Install, Configure, Manage [V8.10] (Custom)
2012	VMware vSphere: Install, Configure, Manage VMware Certified Professional 5 - Data Center Virtualization



## 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 Manager
  - 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

## 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

### 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