

# SCALEWAY QUICKSTART GUIDE 1.3

November 2021



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# **OVERVIEW**

# **Welcome to Scaleway!**

To help you get started we have prepared the Scaleway Quickstart Guide.

The goal of this document is to provide you with information about every resource in the Scaleway Ecosystem and the procedures you should follow to get the best experience from the Scaleway services.

We will guide you through our documentation and tutorials to help you:

- Navigate the Scaleway Console
- Create Resources
- Discover open source tools
- Protect your resources
- Set up monitoring tools
- Troubleshoot issues

**Note:** This guide is a curation of beginner-level Scaleway content. Once you have gone through the fundamentals, you can dive deeper into our ecosystem by checking out the rest of the <u>Scaleway Documentation pages</u>.

#### Let's begin!



# **RELEASE NOTES**

Version	Description
1.3	Added links to Kubernetes Kosmos and Serverless Functions and Containers documentation.
1.2	Replaced all links to the new documentation platform.
1.1	Added <u>Getting Started with Scaleway IoT Hub</u> and <u>Getting Started with</u> <u>Scaleway Object Storage</u>
1.0	First publication



# SCALEWAY CONSOLE

## How to create a Scaleway account

Follow our guide to create your Scaleway account to deploy your first project with ease.

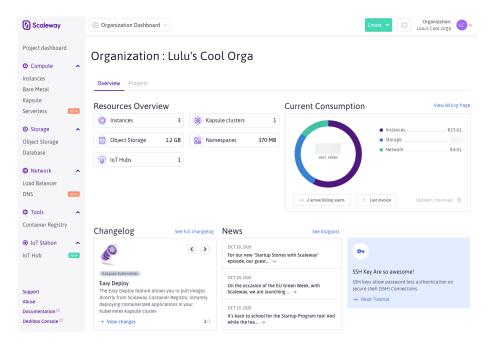
Watch your way through the first steps: <u>How to create a Scaleway account</u>

## **Magic Link Authentication**

Instead of using your password, you can use a Magic Link to authenticate yourself against the management console. It provides quick and secure access to your account without the hassle of remembering your password. Learn how to enable it with *this tutorial*!

# **Getting Started with the Scaleway Console**

The Scaleway Console allows you to view and manage your Scaleway Elements products, billing information, support tickets and more. Learn how to navigate the console for the first time with *this quickstart*!





# Managing Multi-User with Scaleway Organizations and Roles

Organizations is Scaleway's Multi-User feature. An Organization is a resource system, with hierarchically organized accesses and permissions. Learn how to navigate the feature to centrally manage and share resources across multiple accounts by following *the documentation*.

## How to create and enable SSH Keys

When creating a Compute Instance, you will not receive a root password. Authentication is based on secure SSH keys instead of using passwords. SSH keys allow password-less authentication on secure shell (SSH) Connections. *Follow our how-to* to find out how to configure and enable a SSH key on Windows, MacOS or Linux computers.

Watch your way through the first steps:

- How SSh Keys Work <sup>1/3</sup>
- How to create or recreate an SSH key 2/3
- How to create or recreate an SSH Key? 3/3

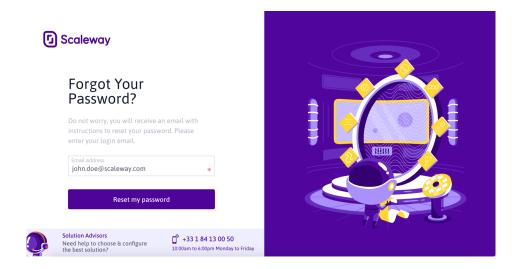
# How to generate an API Key

API Keys are unique identifiers associated with your Scaleway account and consist of an Access Key and a Secret Key. Follow <u>this guide</u> to learn how to generate a Security Key and how you can use it to authenticate against our API.

# **Recover your lost Password**

In case you have lost the password of your Scaleway console account, you can recover it using several methods. *Follow the how-to* to find out how!





# **Enable Billing Alerts**

The Scaleway console Billing Alerts feature allows you to manage and keep track of your expenses by setting up alerts to trigger when a budget threshold is reached. An alert can be sent to you by SMS, e-mail or API webhook. In *this how-to*, we teach you how to enable them.



# **TOOLS**

#### **APIs**

#### **Automate your workflows**

#### <u>Scaleway Developer Tools Documentation</u>

Scaleway API is the Scaleway public interface that allows you to manage your cloud ressources without the Scaleway console. API is the acronym for Application Programming Interface. You can get information about your infrastructure, create instances, perform backups and much more with just a few HTTP(S) requests.

# Command Line Interface (CLI)

#### Download and build the CLI

#### Scaleway Command Line Interface

Scaleway CLI (Command Line Interface) helps you manage your Scaleway cloud environment. The command line interface is an essential tool to operate in a cloud environment as it allows you to administer, execute and monitor your resources faster. Scaleway CLI is easy to use and offers many commands to interact with infrastructure such as login, creating servers, attaching volumes, moving IP addresses, fetching the logs and many others.

#### **Terraform**

#### **Automate infrastructure resources**

#### <u>Deploy Your First Infrastructure on Scaleway using Terraform</u>

HashiCorp Terraform is an open-source software tool to deploy laaC: Infrastructure as Code. It means that you can automate infrastructure resources such as Network, Instances, Bare Metal servers and more. It allows you to use declarative configuration files to manage the full lifecycle — create new resources, manage existing ones, and delete those no longer needed.



# **PRODUCTS**

#### **COMPUTE**

#### Instances

#### **Kick off Your Project**

#### How to Create and Connect to Your First Compute Instance

Follow these few simple steps and create a Scaleway instance and start developing your project today.

Watch your way through the first steps: <u>How to create an instance?</u>

#### Protect your instance

#### How to Configure a Firewall on Your Server

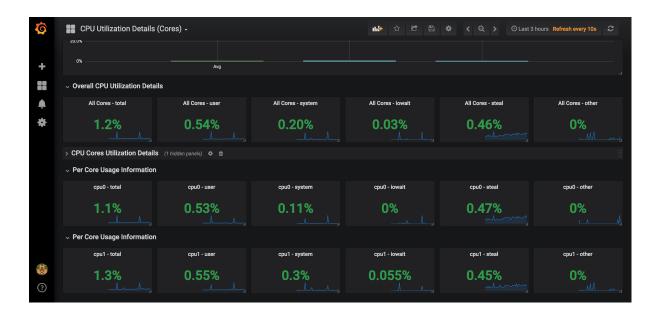
Learn how to configure a firewall. This step-by-step will teach you to simplify the control of incoming and outgoing network traffic based on predefined security rules with Uncomplicated Firewall (UFW).

#### **Monitor your instance**

#### Configure a Prometheus Monitoring Server with a Grafana Dashboard

Discover how to monitor your resources and ensure they are being properly allocated to your applications with Prometheus Monitoring. Make visualization easier by simultaneously installing a Grafana Dashboard.





## **Deploy Wordpress**

#### How to deploy a Wordpress blog backed by Scaleway Database for MySQL 8

WordPress is a popular, free and open-source blogging tool and a content management system (CMS). Through this tutorial, you will learn how to install WordPress on a freshly created Ubuntu instance, backed by a Scaleway Database for MySQL.

#### **GPU Instances**

#### **Kickoff your Project**

#### How to Create your first GPU Instance

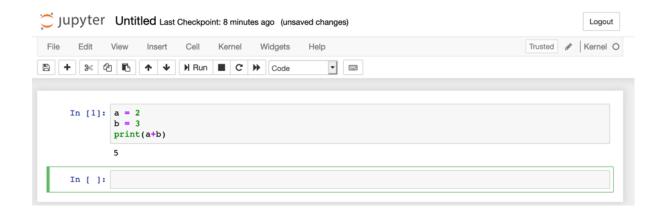
GPU servers are designed for artificial intelligence, machine learning and complex modeling. They are equipped with high-end GPUs and huge quantities of cores, memory and storage. In short, GPUs are optimized for taking huge batches of data and performing the same operation over and over very quickly. Start developing your project with GPU today.

#### Visualize your code

#### How to setup and configure Jupyter Notebook on a GPU instance

Jupyter Notebook is a client-server application that allows users to edit and run Notebook documents in a web browser. The application combines code, comments, multimedia contents, and visualizations in a single interactive document — called a notebook - which runs in a web browser. Follow the tutorial to set it up.





## **Enhance image quality**

# <u>Achieving Super Resolution with a Sub-Pixel Convolutional Neural Network on Scaleway</u> GPU

Super resolution is the process of enhancing the details of a low-resolution image to recover a high-resolution image. In the context of deep learning, the technique consists of taking a low-resolution image as input, passing it through a neural network and receiving an output which will be a higher resolution version of the input. In this tutorial, we will show you how to prepare your data, construct the Sub-pixel convolutional neural network, train it and test it using a Scaleway GPU instance.

#### **Bare Metal**

#### **Kickoff Your Project**

#### **Bare Metal Servers Quickstart**

Scaleway Elements Bare Metal allows you to order dedicated servers on-demand, like cloud

instances (Bare Metal as a Service, BMaaS). Bare Metal servers can be used for large workloads, big data and applications that require increased security and dedicated resources. Start developing your applications today!



Relying on Bare Metal to manage your workloads: Part 1 and Part 2.

#### Install your OS from the KVM

#### How to install a Bare Metal Server using the KVM-over-IP device

Each Bare Metal server provides a dedicated KVM over IP device, allowing you to access the keyboard, video, and mouse of the machine remotely. It can be used to install any OS or license version of your choice from a remote ISO file or to debug the system, if necessary. Learn how to use the feature with this tutorial!



#### Configure additional IP addresses

#### How to order a Flexible IP

Flexible IP addresses are additional IP addresses, available for Bare Metal Cloud Servers. They allow you to move an IP from one server to another without changing your whole configuration. Flexible IPs can also be used as additional IP addresses to create virtual machines on your Bare Metal Cloud Server.

#### Create VMs on your Bare Metal Cloud Server

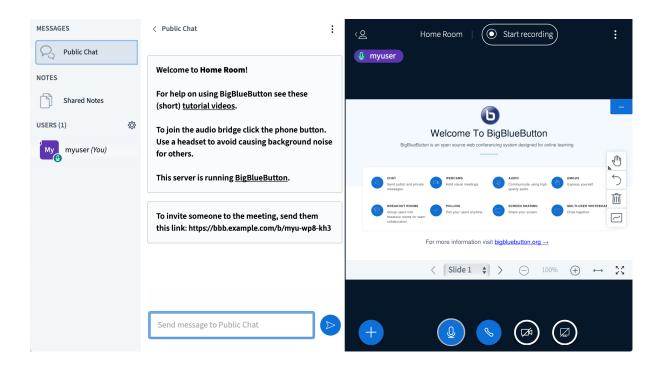
#### Setting up a KVM Hypervisor

If your Bare Metal Cloud Server is running on Ubuntu Bionic Beaver (18.04), you have the possibility of creating Virtual Machines on it using the KVM over IP. Follow this tutorial to get started.

#### Setup a Video Conferencing Solution

#### <u>Deploy BigBlueButton on your Bare Metal Cloud Server</u>

After having successfully deployed the application for the community during the initial stages of the COVID-19 crisis, we show you how to deploy a BigBlueButton platform on your servers.





#### **Kubernetes**

#### **An Introduction To Kubernetes**

Kubernetes (K8s) is an open-source platform for managing containerized workloads and services. Check out the blog post to learn more about the basic concepts behind the technology.



Introduction to Kubernetes - Webinar

#### Create a cluster

#### Kubernetes Kapsule Quickstart

Learn how to create Kubernetes clusters without the complexity of managing the infrastructure. We will show you how to scale the number of pods depending on your workload and how to manage your cluster via the Kubectl.

#### Create a Multi Provider cluster

#### How to create a Kubernetes Kosmos cluster

Kubernetes Kosmos is the first managed Kubernetes engine that allows you to attach an instance or dedicated server from any Cloud provider to a Scaleway Kubernetes control plane. Find out how to begin your multi-cloud project with our guide.

# Enter a Name for the Cluster

Give your cluster an identifying name and choose the Kubernetes version to use.



#### Scale up your cluster

#### <u>Understanding Kubernetes Autoscaling</u>

Kubernetes provides a series of features to ensure your clusters have the right size to handle any type of load. Have a look into the different auto-scaling tools provided by Kubernetes on this blog post.



#### **Monitor your cluster**

#### Monitor vour Kubernetes cluster with Grafana

When using a managed Kubernetes cluster, you may want to know what is going on inside it. Follow

this step by step to learn how you can monitor the resource usage of all your running pods and nodes,

and dozens of other metrics with Grafana and its custom dashboards.

#### **Create Containerized Applications**

#### <u>Creating Containerized Applications with the Easy Deploy Feature</u>

The Easy Deploy feature allows you to pull images directly from Scaleway Container Registry, instantly deploying containerized applications in your Kubernetes Kapsule cluster. With only the basic options to set, you can use Kubernetes Kapsule without managing your .yaml manifests. Find out how in this guide.

# **Container Registry**

#### Store, manage and deploy container images

#### **Container Registry Quickstart**

Scaleway Elements Container Registry is a fully-managed mutualized container registry, designed to facilitate storing, managing and deploying container images. The service simplifies the development to production workflow as there is no need to operate an own container registry or to worry about the underlying infrastructure. Find out more with the documentation.

#### **Deploy images on Kapsule**

# How to Deploy an Image from Scaleway Elements Container Registry to Kubernetes Kapsule

A container image consists of several bundled files, which encapsulate an application. This image can be built on a local machine, uploaded to the image registry, and then deployed on several Kubernetes pods with Kapsule. Kapsule is the managed Kubernetes service provided by Scaleway Elements. In this tutorial you learn how to create and push a container image to the Scaleway Elements Container Registry and how to use it on Kubernetes Kapsule.

#### **Serverless**

Manage your production environment

How to manage a Container

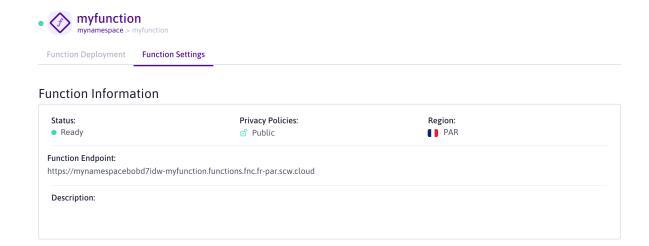


Containers allow you to focus on building and running your containers easily. We provide you custom Docker images that are entirely handled for you in the cloud.

#### Simplify development

#### How to manage a Function

With Serverless Functions, you can focus on writing and deploy your code easily. Find out how it works with the documentation.



#### **STORAGE**

# **Object Storage**

#### Learn how to store your objects

#### Scaleway Object Storage

Scaleway Object Storage is an Object Storage service based on the S3 protocol. It allows you to store any kind of objects (documents, images, videos, etc.) in the cloud, making them available from anywhere in the world. Get started with this guide!

#### Focus on the essential!

#### **Getting Started with Scaleway Object Storage**

Take the first steps with Object Storage: create your first bucket, learn how to upload and download objects, access objects via web browser, enable bucket versioning and change storage classes. We show you how in this beginner guide!

#### **Protect your data**

Setting up a Nginx reverse proxy with Object Storage

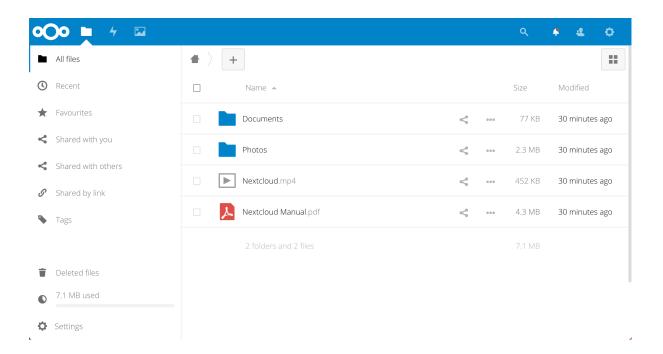


Learn how to set up a Nginx reverse proxy with Object Storage to provide **read-only** access to your buckets' contents.

#### Manage and share your files

#### <u>Deploy Nextcloud with Object Storage</u>

Nextcloud is an open source, self-hosted file share and communication platform. It allows you to manage and organize files by uploading and downloading them into a storage space of your choice manageable via web browser or phone and desktop applications. Combine Nextcloud with Object Storage to benefit from infinite storage space!



#### Benefit from s3 features

#### How to use Object Storage with AWS-CLI

The AWS-CLI is an open source tool that provides commands for interacting with AWS services. With minimal configuration, you can start using all of the functionalities provided by the AWS Management with Object Storage.

#### Dive deeper with this series of articles:

# Object Storage - What Is It? 1/3

A look into the Object Storage technology currently in production at Scaleway.

#### Object Storage - How does it work?<sup>2/3</sup>

How Object Storage's internal management works.

## <u>Object Storage - How Is It Built?<sup>3/3</sup></u>

Find out what is under the hood of our Object Storage.

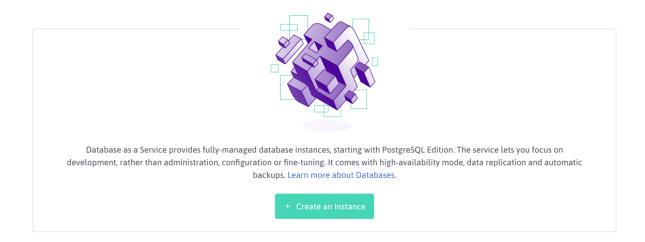


#### **Database**

#### Focus on development

#### Scaleway Elements Database for PostgreSQL and MySQL

Scaleway Elements Database provides fully-managed relational database instances, providing MySQL and PostgreSQL as database engines. The product lets you focus on development, rather than administration or configuration. It comes with high-availability mode, data replication, and automatic backups. In this documentation, we show you how to set-up a managed database.



#### Make time for your core projects

#### Migrating existing Databases to a Managed Database Instance

The Managed Database product provides reliable high-performance managed SQL database engines, both for PostgreSQL and MySQL. Using the service allows you to stay focussed on the development of your applications and to benefit from Scaleway's expertise in the management of your database engines. Learn how to migrate your existing databases on your Managed Database instances using an intermediate host with this guide.

#### Create a Database for your Wordpress

## <u>How to deploy a Wordpress blog backed by Scaleway Database for MySQL 8</u>

WordPress is a popular, free and open-source blogging tool and a content management system (CMS). Through this tutorial, you will learn how to install WordPress on a freshly created Ubuntu instance, backed by a Scaleway Database for MySQL.



#### Monitor time-series data

#### How to visualize Time-Series data with TimescaleDB and Grafana

Time-series data is everywhere around us and an important point of our everyday life. Whether it is a factory that measures the production output of a specific machine, a farmer observing the humidity of the soil or a city measuring the regularity between trains. Learn how to use the TimescaleDB, a time series database built on top of PostgreSQL, with a Scaleway managed Database.

#### **NETWORK**

#### **Load Balancer**

#### **Distribute workload**

#### <u>Scaleway Load Balancer</u>

Load Balancers are highly available and fully-managed instances which allow you to distribute the workload among your various services. They ensure the scaling of all your applications while securing their continuous availability, even in the event of heavy traffic.

#### Increase trust level

#### How to import your own SSL cert to a Load Balancer

The managed Load Balancer service supports Let's Encrypt SSL/TLS certificates by default. It is possible to import your own SSL certificate in case you want either to use a self-signed certificate or to increase the trust level issued by another certificate authority (CA). Follow this tutorial to find out how!

#### Handle encrypted HTTPS traffic

#### <u>Setup SSL Offloading on Load Balancer</u>

Learn how to handle encrypted HTTPS traffic on the Scaleway Managed Load Balancer by setting up SSL offloading.

#### **DNS**

#### Manage external domain names

Scaleway DNS



Scaleway DNS is a managed DNS service that allows you to easily configure the DNS zones of your domains. It provides support for queries via both IPv4 and IPv6 and supports all common types of DNS records.

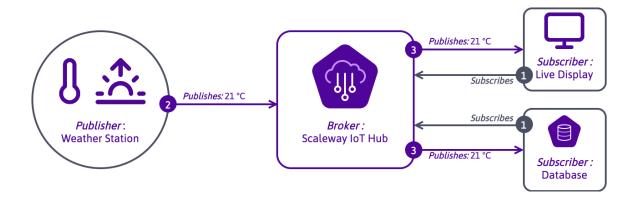
#### IOT

#### **IoT Hub**

#### **Connect devices**

#### **Getting Started with Scaleway IoT Hub**

The Internet of Things, or IoT, is about creating a wide ecosystem of services for connected objects to turn them into smart devices. Follow the tutorial and learn how to create your first IoT Hub to connect to objects, Scaleway services and applications, and send messages.



#### Learn more about the world of IoT:

- <u>Scaleway Elements IoT Hub</u>
   Learn more about how IoT Hub works.
- <u>Scaleway Elements IoT Hub Metrics</u>
   Metrics report usage of your Hub and Devices.
- <u>IoT Hub Events</u>

Hub Events represent devices and routes events or errors.

Scaleway Elements IoT Kickstarts

An IoT Kickstart is a Scaleway instance providing an application for a typical IoT use case. Scaleway will spawn, install and configure the instance for you with the required software so messages flowing through your IoT Hub end up in the application.



#### Set-up real-time message alerts

## <u>How to Configure Real-time Alerting with IoT Hub and Slack</u>

Set up "Slack applications" to send messages to team members and notify them about ongoing problems. In this tutorial, we show you how to enable device-to-Slack messaging through IoT Hub.

#### Dig deeper with our blog posts:

The IoT Hub, a simple platform for your connected objects based on a market standard.

Scaleway IoT Hub - Introduction to MQTT Topics

IoT Hub: A Quick Introduction to the MQTT Protocol

# Join the community

Want to talk about the project you are developing, have any questions or just love talking about the Cloud? Our team is at your disposal on our <u>Slack community</u> channel.



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