

---

# Installing Predicate in Yandex Cloud

---

## Creating and Configuring Managed Service for Kubernetes

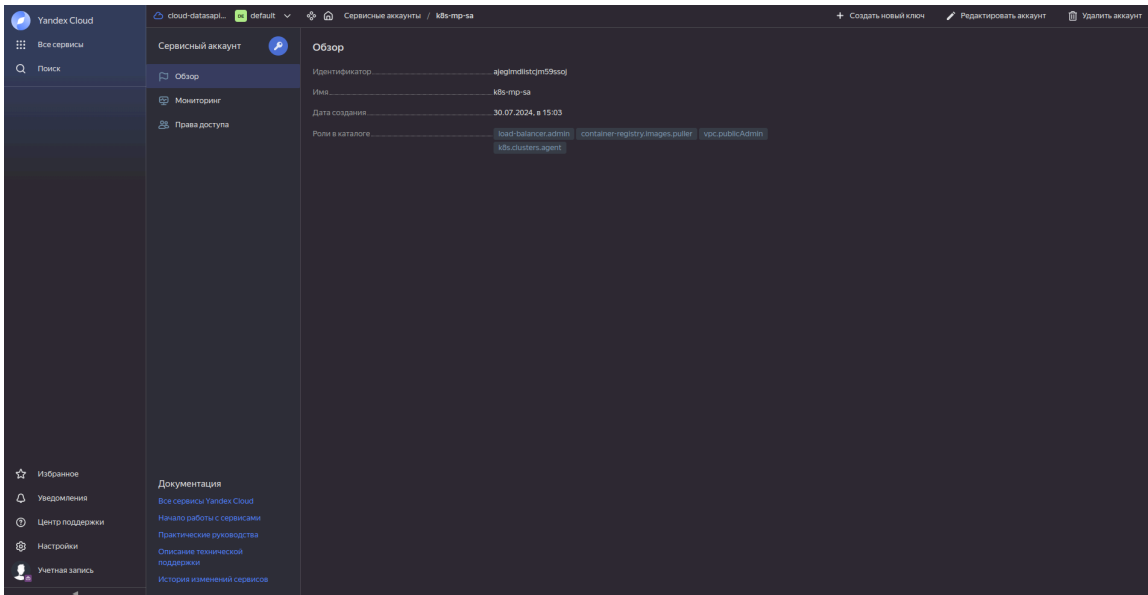
For further work with the cluster, install [Yandex CLI](#), [Helm](#), [kubectf](#)

Using the [instructions](#), create a Managed Service for Kubernetes cluster.

### Important

When creating a service account for the cluster (step 8), you must additionally add the role `load-balancer.admin`.

Service account page:

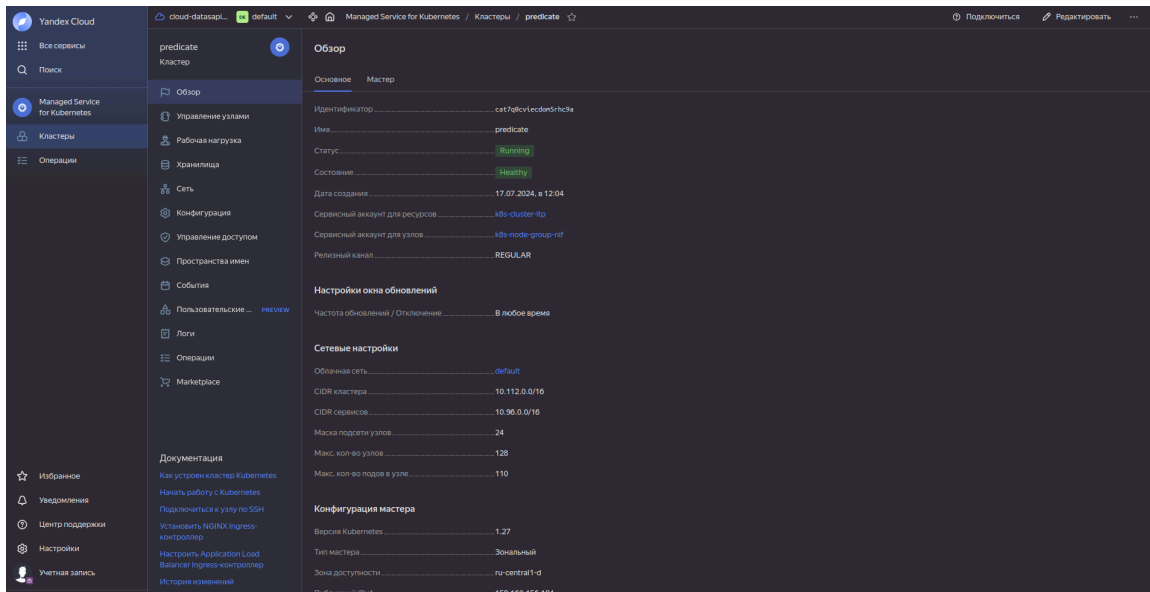


The screenshot shows the Yandex Cloud console interface for a Service Account. The page title is "Сервисные аккаунты / k8s-mp-sa". The main content area displays the following details:

- Идентификатор: `ajegmclliidcjm59soj`
- Имя: `k8s-mp-sa`
- Дата создания: `30.07.2024, в 15:03`
- Роли в каталоге: `load-balancer.admin`, `container-registry.images.puller`, `ycc-public-admin`, `k8s-clusters.agent`

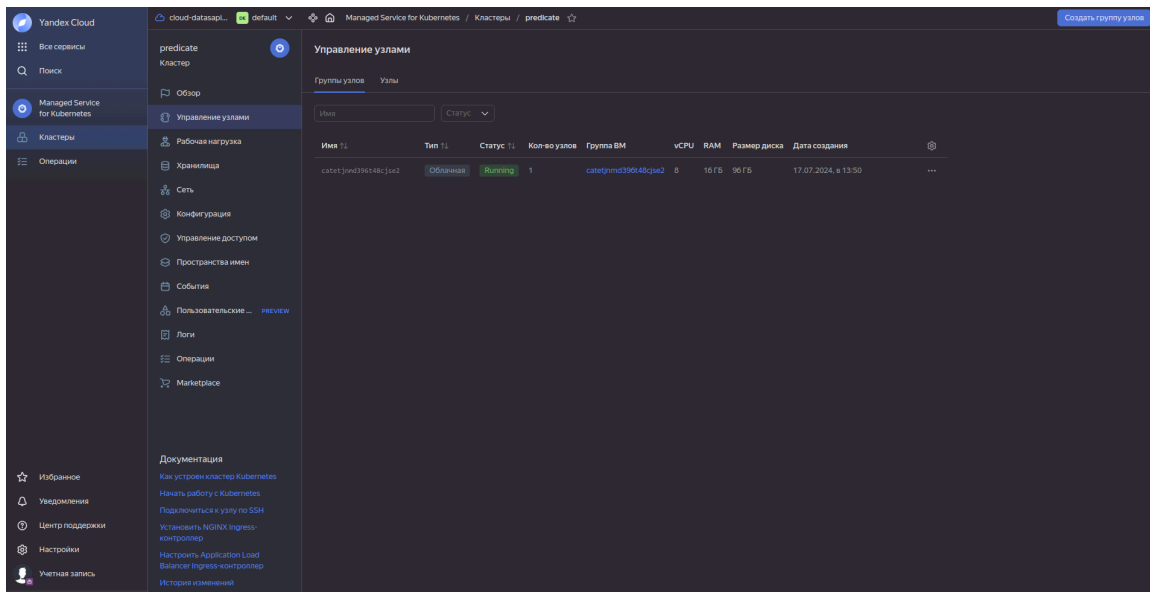
The left sidebar contains navigation options: "Сервисный аккаунт", "Обзор", "Мониторинг", "Права доступа", "Избранное", "Уведомления", "Центр поддержки", "Настройки", and "Учетная запись". The bottom section includes "Документация" with links to "Все сервисы Yandex Cloud", "Начало работы с сервисами", "Практические руководства", "Описание технической поддержки", and "История изменений сервисов".

Created cluster page:



After creating the cluster, using the same instructions, create one node with the recommended resources.

Created node page:



Next, run the command to obtain the cluster credentials, replacing `CLUSTER_NAME` with the name of the created cluster:

```
yc managed-kubernetes cluster get-credentials $CLUSTER_NAME --external
```

To find out the name of the cluster context, run the command. After that, remember the name of the previously created context, which will be used in the variable `CONTEXT_NAME` :

```
kubectl config get-contexts
```

## Installing NFS Server

### Important

If you already have an NFS server, skip this step.

The installation will be based on the [Ganesha provisioner](#). To install, follow these steps:

#### 1. Add the repository

```
helm repo add nfs-ganesha-server-and-external-provisioner  
https://kubernetes-sigs.github.io/nfs-ganesha-server-and-external-  
provisioner
```

#### 2. Install the NFS server, specifying the `CONTEXT_NAME` parameter - the name of the cluster context

```
helm upgrade --install nfs-ganesha \  
nfs-ganesha-server-and-external-provisioner/nfs-server-provisioner \  
--set persistence.enabled=true \  
--set persistence.storageClass="yc-network-hdd" \  
--set persistence.size=70Gi \  
--set service.nameOverride='nfs-ganesha-svc' \  
--set rbac.serviceAccount.name='nfs-ganesha-sa' \  
--set fullnameOverride='nfs-ganesha' \  
--namespace default \  
--kube-context $CONTEXT_NAME
```

#### 3. After installation, check that a StorageClass named `nfs` has been created. To do this, run the command:

```
kubectl config use-context $CONTEXT_NAME  
kubectl get sc
```

## Installing Ingress Controller

### Important

If you already have an Ingress Controller, skip this step.

Currently, the default delivery in YC does not include support for Cert Manager, as it requires access to a DNS server, and the delivery uses the [nip.io](#) service to provide access to services.

If you have your own domain name, you can use additional steps from the following instructions to install [Cert Manager](#). To install only the Ingress Controller, perform the following step:

```
helm repo add ingress-nginx https://kubernetes.github.io/ingress-nginx && \
helm repo update && \
helm install ingress-nginx ingress-nginx/ingress-nginx \
--set controller.allowSnippetAnnotations=true \
--namespace default \
--kube-context $CONTEXT_NAME
```

The created controller will be installed behind the Yandex Network Load Balancer, which will be created automatically.

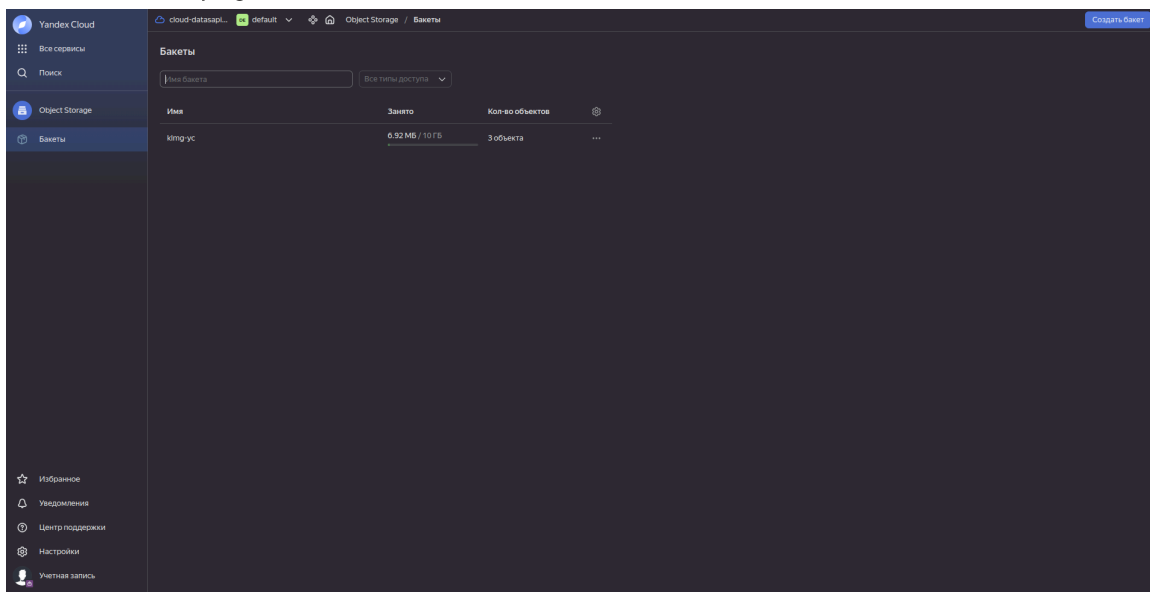
After installing the Ingress Controller, you need to find out the IP address of the load balancer, which will be used to access the services. To do this, run the command and remember the value in the EXTERNAL-IP field:

```
kubectl config use-context $CONTEXT_NAME
kubectl get svc ingress-nginx-controller
```

## Creating S3 Storage and Configuring Access

To create a bucket in Yandex Object Storage, use the [instructions](#). The recommended bucket size is 100Gb.

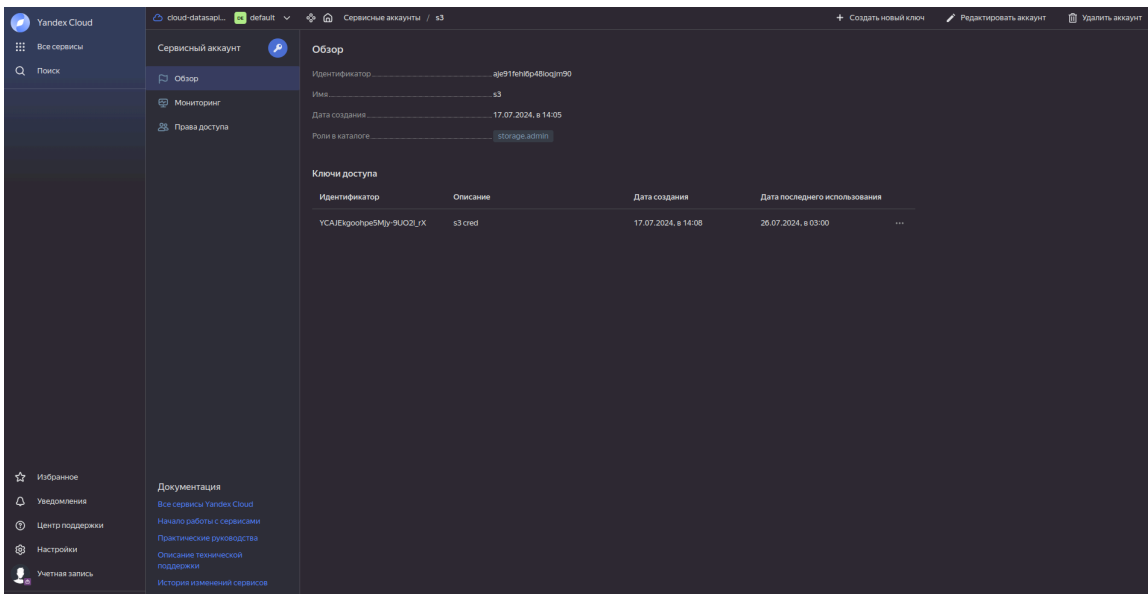
Created bucket page:



For further access to the bucket, create a service account with the role `storage.editor` or `storage.admin` (GET/UPDATE/DELETE objects). To do this, follow these steps:

1. In the management console, select the folder.
2. Go to the `Service Accounts` section and click `Create Service Account`.
3. Enter a name, add the `storage.editor` role, and click `Create`.
4. After creating the service account, click on it and click `Create New Key -> Create Static Access Key`.
5. Enter the necessary description (e.g., `s3-cred`) and click `Create`.
6. Save the obtained data (key ID and secret key) for future use.

Created access key page for the S3 service account:



## Installing Keycloak and Configuring Access

## Installing Predicate

### **i** Important

Before installation, ensure that all previous steps have been completed successfully.

Example of filling in the fields in the application installation form. Detailed descriptions of the fields can be found by hovering over the question mark next to the field name:

Yandex Cloud

cloud-dataspl... default Managed Service for Kubernetes / Кластеры / manager / Marketplace / Установка / Инструкция по развертыванию

manager Кластер

Обзор  
Управление узлами  
Рабочая нагрузка  
Хранилища  
Сеть  
Конфигурация  
Управление доступом  
Пространства имен  
События  
Пользовательские ... review  
Логи  
Операции  
Marketplace

Избранное  
Уведомления  
Центр поддержки  
Настройки  
Учетная запись

### Установка Kolmogorov.ai Predicate

#### Настройки приложения

Пространство имен	predicate или Создать новый
Название приложения	predicate
Хост	51.250.44.123
Базовый домен	np.io
Keycloak URL	https://51.250.44.123.np.io/auth
Keycloak Realm	master
Keycloak Client ID	king
Keycloak Admin User	writer
Keycloak Admin Password	—
S3 URL	https://storage.yandexcloud.net
S3 Access Key	s3-access-key
S3 Secret Key	—
S3 Bucket	king-yc
Sentry Enabled	<input type="checkbox"/>
Sentry DSN API	
Sentry DSN UI	

[Установить](#) [Отменить](#)

**Документация**  
Как устроен кластер Kubernetes  
Начать работу с Kubernetes  
Подключиться к узлу по SSH  
Установить NGINX Ingress-контроллер  
Настроить Application Load Balancer Ingress-контроллер  
История изменений