

# bnkapi - Построение multicloud CloudNative приложений на платформе OpenShift. Интеграция с IBM Cloud. API-GateWay

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## API Gateway - для чего он нужен

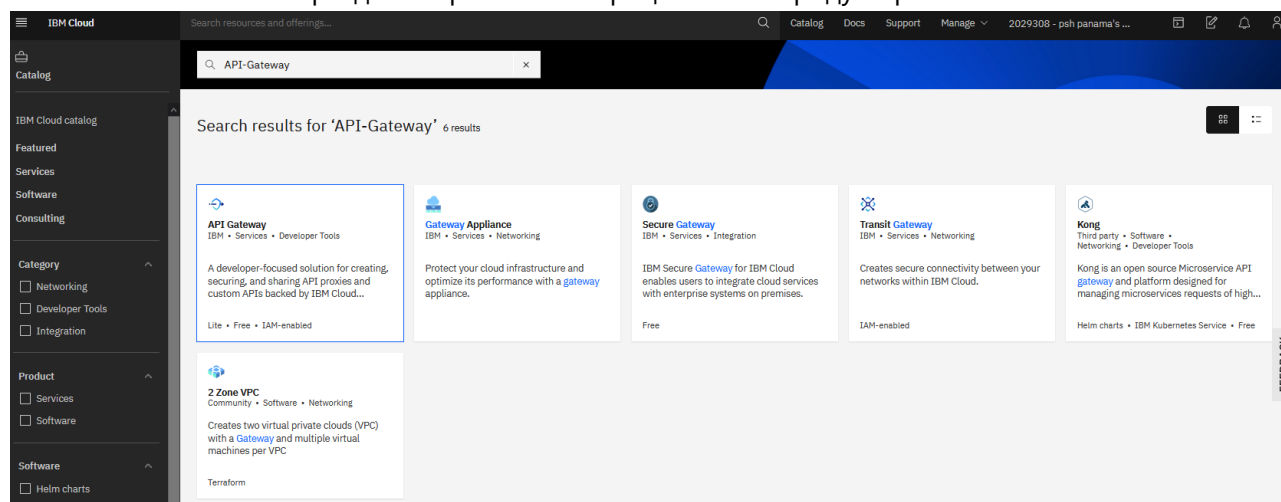
IBM® Cloud API Gateway - это бесплатная служба, которую вы можете использовать для создания, защиты, совместного использования и управления API-интерфейсами, которые обращаются к ресурсам IBM Cloud.

API Gateway работает, вставляя быстрый и легкий шлюз перед существующими end-points IBM Cloud. Шлюз перехватывает входящий вызов API и выполняет политики безопасности, а затем направляет вызов во внутреннее приложение. После обработки запроса фоновое приложение отправляет ответ шлюзу, который затем направляет его обратно вызывающей стороне.

## Шаги по развертыванию Secure Gateway

Для развертывания необходимо выполнить ряд шагов.

- В каталоге IBM Cloud в разделе сервисы-интеграция найти продукт: pic-1



pic-1

- Выполнить инсталляцию сервиса в своем облачном account: pic-2.

wa-auth	panama / shdev	London	SDK for Node.js™	Stoppec
Cloud Foundry services (7)				
API-Connect-z4	panama / shdev	London	API Connect	Provisioner
App Connect-xx	panama / shdev	London	App Connect	Provisioner
Cloud Object Storage-9k	panama / shdev	London	Cloud Object Storage	Provisioner
Secure Gateway-8s	panama / shdev	London	Secure Gateway	Provisioner
Twilio Programmable SMS-o4	panama / shdev	London	Twilio Programmable SMS	Provisioner
availability-monitoring-auto	panama / shdev	London	Availability Monitoring	Provisioner
node-red-app-cloudantNoSQLDB	panama / shdev	London	Cloudant	Provisioner
Services (0)				
API-Gateway-bnkdemo	default	Global	API Gateway	Active
App ID-0j	default	London	App ID	Active
Cloudant-gn	default	London	Cloudant	Active
Continuous Delivery	default	London	Continuous Delivery	Active
Db2-bv	default	London	Db2	Active
Watson Assistant-zy	default	London	Watson Assistant	Active

pic-2

В реальности API-GateWay объединяет в себе несколько продуктов. На pic-3 кратко отмечены самые интересные.

Connect digital applications and spur innovation

Leverage the API Gateway, a lightweight API management solution for developers, or API Connect, an enterprise-grade API management platform

Important news for users of the previous Lite API Management offering

Это простой PROXY API GW

API Gateway for developers

Easily create and secure API proxies and APIs backed by IBM Cloud resources. Your APIs will be secured by a free, automatically-provisioned API Gateway.

Create an API Proxy

Author a new managed API that proxies an existing REST API.

Это API GW для работы с server less платформой IBM Cloud Functions

Create an API using Cloud Functions

Go to Cloud Functions and create an API that calls one or more serverless actions.

Manage an API exposed by a CF app

Go to Cloud Foundry and manage an existing API exposed by a CF application. To get started, display the API Management view of the CF application.

Create an API using App Connect

Go to the Integrate area of IBM Cloud and use App Connect to create an API that manages objects exposed by SaaS applications like Salesforce and Amazon.

Это Enterprise продукт для управления API

API Connect for enterprises

Like (free) or Pay-as-you-go

API Connect is IBM's enterprise-grade platform for creating, securing, managing, sharing, monetizing, and analyzing custom APIs. Choose a full-featured Lite (Free) plan or an affordable pay-as-you-go plan.

Create service

Schedule a consultation with an IBM sales representative to learn about our reserved instance, private cloud, and on-premise editions of API Connect

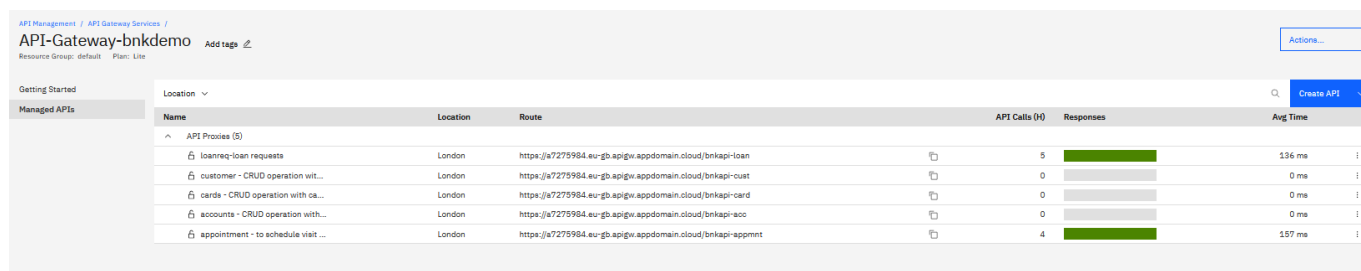
pic-3

- Создадим API Proxy

API Gateway Services						
API Gateway services secure APIs in IBM Cloud resource groups, and single Legacy API Gateway secures all APIs in Cloud Foundry spaces.						
Services						
Создали сервис для API						
Name	Location	Resource Group	Plan	Service Offering	Status	
API-Gateway-bnkdemo	Global	default	Lite	API Gateway	Active	
Legacy API Gateways						
Name	Location	Organization	Space			
Legacy API Gateway	All	All	All			

pic-4

На pic-5 показано уже создано 5 API.



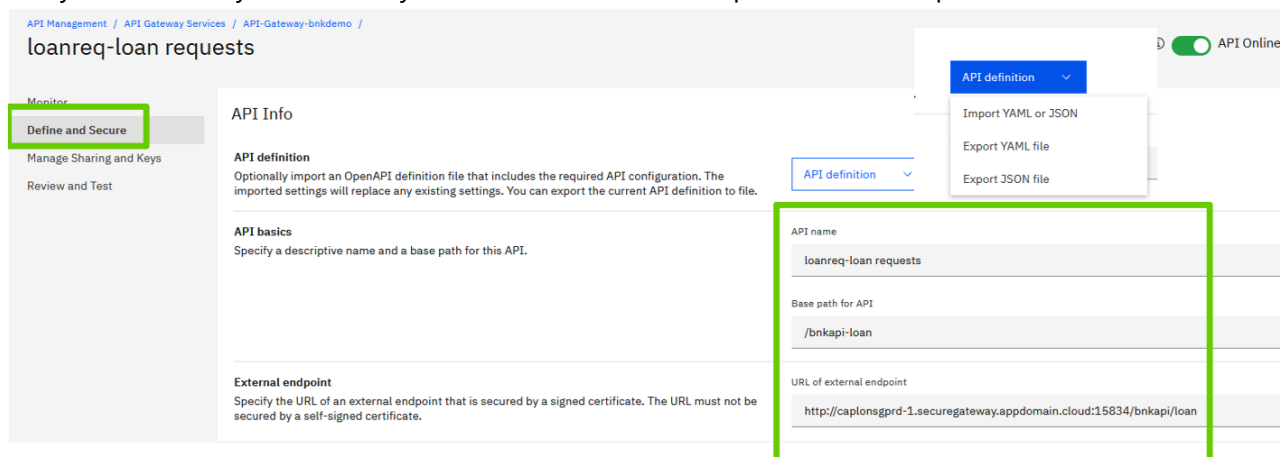
The screenshot shows the 'API Gateway-bnkdemo' console. On the left, there's a sidebar with 'Managed APIs' selected. The main area displays a table of 5 APIs. The table has columns for Name, Location, Route, API Calls (0), Responses, and Avg Time. The APIs listed are: 'loanreq-loan requests', 'customer - CRUD operation wit...', 'cards - CRUD operation with ca...', 'accounts - CRUD operation with...', and 'appointment - to schedule visit ...'.

Name	Location	Route	API Calls (0)	Responses	Avg Time
loanreq-loan requests	London	https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapl-loan	5		136 ms
customer - CRUD operation wit...	London	https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapl-cust	0		0 ms
cards - CRUD operation with ca...	London	https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapl-card	0		0 ms
accounts - CRUD operation with...	London	https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapl-acc	0		0 ms
appointment - to schedule visit ...	London	https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapl-appoint	4		157 ms

pic-5

Для создания API нужно загрузить swagger.json (swagger.yaml) с формальным описанием API. Указать base path и указать url endpoint

- Получить GateWay ID и Security Token и внести их в настройки клиента: pic-6



The screenshot shows the 'Define and Secure' tab for a new API named 'loanreq-loan requests'. The 'API definition' section is highlighted with a green box. It contains fields for 'API name' (loanreq-loan requests), 'Base path for API' (/bnkapl-loan), and 'URL of external endpoint' (http://caplonggrd-1.securegateway.appdomain.cloud:15834/bnkapl/loan). A dropdown menu for 'API definition' is also visible, showing options like 'Import YAML or JSON', 'Export YAML file', and 'Export JSON file'.

pic-6

Сразу же после создания API его можно протестировать: pic-7. А потом установить желаемые настройки безопасности.

API Management / API Gateway Services / API-Gateway-bnkdemo /

loanreq-loan requests

Monitor

Define and Secure

Manage Sharing and Keys

Review and Test

Filter

Filter

Overview

GET /loan

POST /loan

DELETE /loan

OPTIONS /loan

Definitions

getLoan

Details Try it

GET

https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapi-loan/loan

Retrieve loan

Parameters

Header

Accept optional application/json

Query

id optional string

Example

7522843910733824

Example request

curl

curl --request GET \ --url 'https://a7275984.eu-gb.apigw.appdomain.cloud/bnkapi-loan/loan?id=REPLACE\_THIS\_VALUE' \ --header 'accept: application/json'

Responses

200 The operation was successful.

pic-7