

Guide for the automation of payments

OP Corporate Banking APIs



Future payments are in real time

We are facing a time when changes in payments will also change corporate practices. Different development activities in Finland, the Nordic countries, Europe and around the world are creating new opportunities. Already, payments transfer within seconds in the euro zone, and global payments with different currencies are faster and more transparent than ever before.

We at OP have invested in providing our customers with world-class payment services. We want the current changes to benefit our customers' businesses comprehensively. One of the main manifestations of these investments is the product family of API solutions for payments. These new kinds of services can be added exactly where they are needed.

Rest assured that we will continue providing great payment services in our online and mobile services as well. When using them, I encourage you to think outside the box: what if this function was automated and in real time, directly in the business' own processes?

Hanna Äijälä, Business Lead, Payment Services



How can I set up APIs?



01 Set target

Find out what opportunities and benefits the API products offer for your business.

p. 4-9



02 Build

Ask your development team to join and make your vision come true. We provide the sandbox environment and developer support.

p. 10-15



03 Conclude an agreement

Make the agreement and start using your implementation in production.

p. 15-19



04 Enjoy the benefits

Enjoy the benefits of the new implementation.

p. 20

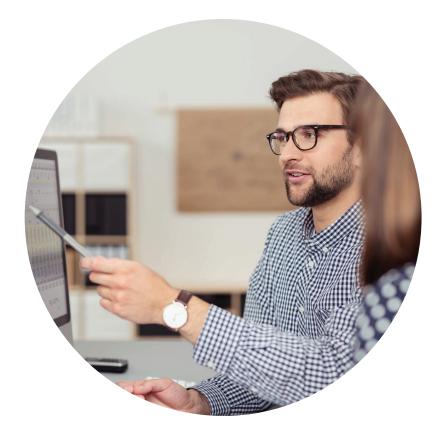


01 Set target

APIs are for automation

The main purpose behind using application programming interfaces, or APIs, is to automate your business. With API solutions, you can introduce the bank's payment and account reporting services to the systems you already use in your daily work.

With our API products, you can improve your current systems and develop new ones. In the best scenario, you can automate functions so that you don't need a user interface at all.





From business days to real time

With APIs, information transfers between systems in real time, which reduces lag in different processes and functions.

Would your customers benefit from seeing account transactions in seconds in the system? Or does your operation include situations in which you are expected to pay quickly? The times when you had to wait until the next morning for a transfer between banks are long gone.





Find your ways to use our solutions

Our APIs strength lies in their versatile applicability. Your task is to find an application that suits your business. Think of what kind of processes your business includes and how the automation of payments or account details might help with them.

You should take advantage of the competences and perspectives from different sides of your organisation. Involve practical workers, process owners, management and IT architects or developers. By bringing different perspectives together, you are sure to find a suitable approach.

We also encourage you to think of innovative solutions. Could you send transaction details directly to the storehouse or the operative management of the production line? Transaction information no longer needs to be held hostage by financial management – you can connect our API products to any system.

You can first support and speed up a manual process with our API solutions. After that, you can continue to further automation. The handling logic required by the automation as well as the rules are always defined by you.



01 Set target

Get started with these tools

We have listed some questions to help you with development. This page contains an example, and the next pages have a template for you. Please note the additional questions on page 13.

Application or process

Production: Get a customer's order to production more quickly

What kind of a change do we need?

Production needs information on the customer's payment as soon as possible, so that they can start production and tell the customer when the product should be finished as accurately as possible.

The customer receives their product quicker.

The customer does not need to contact customer service.

What are we actually doing?

Information on the received payment is retrieved directly from OP's interface to production's enterprise resource planning system.

The information is retrieved based on the reference code

Information is automatically retrieved five times per working day, to make the situation more real time.

What is the target schedule for the change?

one month

Whom and what skills do we need?

Production (production processes), finances, customer service



01 Set target

Application or process	What kind of a change do we need?	What are we actually doing?	What is the target schedule for the change?	Whom and what skills do we need?



Case: custom-made product from payment to production

The company receives the order, but waits for the payment before A customer orders a starting production. custom-made product **OP Corporate Account** Data API The customer's order and payment are allocated, and production can begin. The company uses OP Corporate The customer pays Account Data API regularly to retrieve for the product information on the latest transactions



Modern and secure banking connections with REST API interfaces

The former banking connection channels were quite esoteric, and required special skills from their developers. Now, you can set up a modern banking connection with OP Corporate Banking API solutions. **Developers are familiar** with our JSON-format HTTP REST API interface products. You can thus easily find IT talents to help with your development.

The data security of our API solutions also comes from this decade.

The user of an interface is authenticated in the API call with OAuth 2.0 credentials, and with the mTLS authentication, we can ensure that both OP and the interface user authenticate each other.

Thanks to the modern high-level data security and encryption, third parties cannot access your company's data and services. The necessary technical credentials and keys can be exchanged electronically, so you can use them without visiting a branch or waiting for a letter.



Acknowledge user management in your solution

In our API solutions, user management is the company's responsibility, as they are directly integrated into the company's own system without using an interface provided by the bank. You should acknowledge this when deciding where to connect the interfaces.

User management is usually in order in systems that are already in use, so you don't need to arrange it separately. The company defines and implements the user access themselves, as well as any approval chains in their system.





Develop and test in the sandbox environment

You can access the technical documentation for all our API products openly in the OP Developer site. The documentation shows an example code string to make development easier.

We provide a free sandbox environment for testing and developing our API solutions. The sandbox contains the contract management channel OPI API Admin and all of our API products. You can use sandbox APIs by making an agreement similar to production in OP API Admin and by adding the technical keys required for the sandbox environment's agreement. So, you can also test how to make an agreement.

curl -X GET https://sandbox-api.
apiauth.aws.op-palvelut.net/
corporate-account-data/v2/accounts/
{surrogateId}/transactions \

-H 'authorization: string' \

-H 'X-Request-ID: 1afb1874-5bd5-

4c5a-9dbb-21a66ab23a85'\

-H 'Accept: application/json' \

-H 'Content-Type: application/json'



We support developers all the way

The path that technical questions have to travel to get to the right address can be long. Your developers can reach the developers of our product development team directly by email. This way, matters can be dealt with immediately by the right experts.





02 Build

We have listed questions to help you with development:

Which system will make the API calls?	Which APIs should we use?	What is the basic logic behind using the interface?	How often or when do we want to use the interface?	How is user management organised?



Case: pay an invoice, switch on the lights



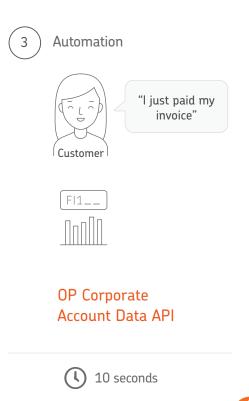


"Just a moment,
I will check"

Customer service

- a) Calls the financial management OR
- b) Asks the customer for a copy of the receipt
- (I) Hours
- ✓ Electricity connected





✓ Electricity connected

Conclude an agreement, even on holidays

You agree on the API solutions for payments with your OP cooperative bank, but you don't need to visit the branch. You can sign an agreement in a digital self-service in the OP API Admin site. The company's representative with the right to sign can log into the site with their bank user ID or Mobile ID.

If the company has more than one signatories, you can authorise one person to sign an agreement on API solutions for payments in the Suomi.fi e-Authorizations service. You can find instructions from the OP API Admin site.

After logging in, choose the company you represent and start making an agreement. Select the products you need for the agreement. After concluding the agreement, add the technical certificates used in production. With this task, you might need your IT expert to help.

You should only conclude an agreement when you are ready to move to production. The agreement will enter into force immediately and you can start using the APIs.



Only pay for the services you have selected

With the pricing of our API products, we encourage you to use our services actively and take advantage of the real-time features.

- Most of our API products are charged monthly. Choose
 a service package that suits you and pay a fixed monthly
 charge. The service is charged once the agreement is valid.
- Some of our services are charged on a transaction basis, in which case the service charges are based on use.

You can make changes to an existing agreement, change the size of a service package and add or remove services in the OP API Admin site the same way as you would make an agreement.





Is someone else handling the payments of your

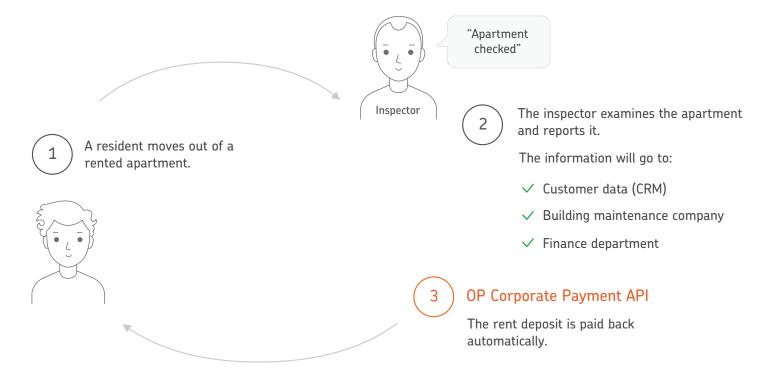
You can also authorise the partners handling your business payments to use API solutions. The conclusion of an agreement is as easy for you as described above, and your partner will deal with the technical implementation.

When you authorise your service provider to use API solutions, choose the "For use by a service provider" agreement in OP API Admin. Then, your service provider can use API services to the extent you have defined.





Case: paying a rent deposit





O4 Enjoy the benefits

Done? Go ahead!

You can only reap the benefits of API solutions by using them. Something to improve? Do you have a new development target in mind? After the first implementation, you must have learnt a lot already. The door to a smoother daily life and automated solutions is open.

Our development team will support you during production as well. If the API product does not work as you hoped, please tell us. We are happy to hear feedback on our API products, so that we can make them as good as possible for our customers.



