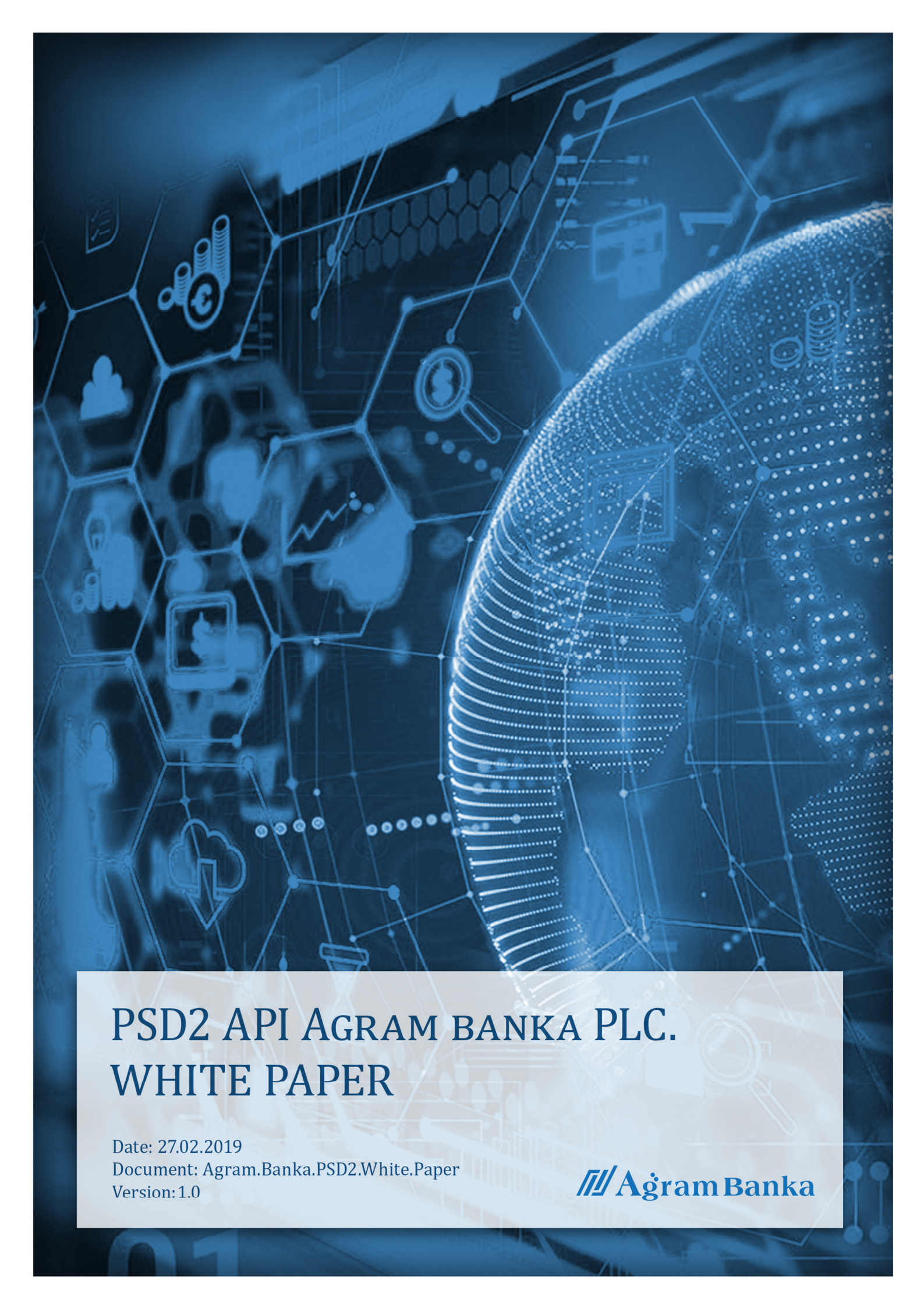




PSD2 API AGRAM BANKA PLC. WHITE PAPER

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 **Agram Banka**

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VERSIONS AND CHANGES

Date	Authors	Version	Description
27.02.2019	Agram banka	0.1	Working version
07.03.2019	Agram banka	0.2	Working version
14.03.2019	Agram banka	1.0	Initial version - published

INTRODUCTION

In November 2015, the European Banking Authority issued the revised Payment Services Directive (EU 2015/2366, also known as PSD2).

PSD2 mandates banks, upon customer consent, to allow Third Party Providers (TPPs) access to online accessible bank accounts (XS2A) for initiating payments and accessing account information.

More precisely, PSD2 and EBA RTS require banks to offer at least one interface to TPPs, and contain a number of requirements in relation to this interface. Banks have the option of allowing TPPs to use the bank's existing online customer interface which would then need to be upgraded in order to integrate identification of TPPs or providing a dedicated interface for TPPs. EBA RTS Art. 32 sets out the requirements for such a dedicated interface.

Therefore, Agram banka has decided to provide the dedicated API interface to TPPs.

The PSD 2 was implemented into the Croatian legislation by local transposition law: "Zakon o platnom prometu" (ZPP), published in the official gazette 66/2018 on the 20th of July 2018.

As a member of the Croatian Banking Association (CBA), Agram banka has joined the initiative to develop standardized API (Application Programming Interface) in relation to Third Party Providers (TPPs).

In 2017, all members of the CBA have recognized the Berlin Group as an initiative that could bring missing common API standard among European credit institutions.

The Croatian Banking Association joined the Berlin Group in September 2017 and continued to contribute in defining some specific requirements for the Croatian market.

ABBREVIATIONS

Abbreviation	Description
AIS	Account Information Service according to article 4 (16) of (PSD2) and as regulated by article 67 of (PSD2).
AISP	Account Information Service Provider offering an AIS to its customer. See article 4 (19) of (PSD2).
API	Application Programming Interface.
ASPSP	Account Servicing Payment Service Provider providing and maintain a payment account for a payer. See article 4 (17) of (PSD2).
CBA	Croatian Banking Association
EBA	European Banking Authority
eIDAS	Electronic Identification, Authentication and Trust Services
OAuth2	This protocol, which allows third-party applications to grant limited access to an HTTP service.
PIISP	Payment Instrument Issuer Service Provider according to article 4 (14) and 45) of (PSD2). A PIISP can use the service "Confirmation on the availability of funds" as regulated by article 65 of (PSD2).
PIS	Payment Initiation Service according to article 4 (15) of (PSD2) and as regulated by article 66 of (PSD2).
PISP	Payment Service Provider offering a PIS to its customer. See article 4 (18) of (PSD2).
PSP	Payment Service Provider according to article 4 (11) of (PSD2).
PSU	Payment Service User according to article 4 (10) of (PSD2).
RTS	EBA Regulatory Technical Standards on strong customer authentication and common and secure communication.
SCA	Strong Customer Authentication – authentication procedure based on two factors compliant with the requirements of (PSD2) and (EBA-RTS).
SCT	SEPA Credit Transfer.
SDD	SEPA Direct Debit.
TPP	Third Party Provider – generic term for AISP/PIISP/PISP.
X2A	Access to Account interface – interface provided by an ASPSP to TPP for accessing accounts. (= API / interface)

DOCUMENTATION STRUCTURE

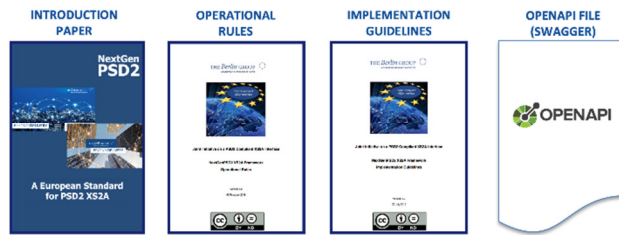
As a member of the Croatian Banking Association which is a member of Berlin Group, fundamental documentation related to PSD2 API in Agram banka is NextGenPSD2 documentation. CBA PSD2 documentation arises from NextGenPSD2 API documentation and Agram banka documentation follows the standards of NextGenPSD2 and CBA PSD2.

Agram banka PSD2 API documentation can be divided into three hierarchical sections:

1. NextGenPSD2 API documentation
2. CBA PSD2 API documentation
3. Agram banka documentation

NEXTGENPSD2 API DOCUMENTATION

The NextGenPSD2 Framework itself is built of 4 artefacts, which are all published for free under Creative Commons (CC-BY-ND):



1. An Introductions Paper
2. An Operational Rules document that covers the service description, abstract (logical) data model and detailed process flow descriptions in a B2B interface
3. Implementation Guidelines that specify the XS2A interface in technical detail, including XML/JSON schemas
4. An OpenAPI file that helps implementers during development

The documents are used by banks and TPPs for implementing PSD2-required bank account access.

The most recent release of the NextGenPSD2 Framework can be downloaded [here](https://www.berlin-group.org/nextgenpsd2-downloads) (<https://www.berlin-group.org/nextgenpsd2-downloads>).

CBA PSD2 API DOCUMENTATION

The latest version of CBA PSD2 API documentation is 1.3.2 and can be found here <https://www.hub.hr/hr/PSD2-Open-API>. Version 1.3.2 is referenced to NextGenPSD2 Implementation Guidelines 1.3

AGRAM BANKA PSD2 API DOCUMENTATION

The Agram banka PSD2 is based on CBA PSD2 API 1.3.2 and can be found here <http://www.agrambanka.hr/agram-psd2/> and here <https://www.finapay.hr/psd2/portal/>.

COMPATIBILITY TABLE

Agram banka current versions	NextGenPSD2	CBA PSD2	Agram banka PSD2	Release date	Effective as of date	End of support
\v1	1.3.2	1.3.2	1.x	14.03.2019	14.03.2019	

OVERVIEW OF AGRAM BANKA PSD2

The Berlin Group NextGenPSD2 is the chosen standard utilized by all of the HUB members to support the TPP APIs as mandated by the PSD2. This section further clarifies and specifies which methods are supported and the specific changes or additions of the CBA and Agram banka for the Croatian market in the implementation of the NextGenPSD2.

SUPPORTED USE CASES IN AGRAM BANKA PSD2

Table of supported NextGenPSD2 Use Cases in Agram banka

ID	Use Case	Agram banka supported
NGP1	Initiation of a single payment	Yes
NGP2	Initiation of a future dated single payment	Yes
NGP3	Initiation of a multiple/bulk payment	Yes
NGP4	Initiation of a recurring payment	No
NGP5	Cancellation of Payments	Yes
NGP6	Establish account information consent	Yes
NGP7	Get list of reachable accounts	Yes
NGP8	Get account details of a list of accessible accounts	Yes
NGP9	Get balances for a given account	Yes
NGP10	Get transaction information for a given account	Yes
NGP11	Use cases related to card information access	No
NGP12	Group signing baskets	Yes
NGP13	Get confirmation on the availability of funds	Yes

AUTHENTICATION METHOD

Agram banka PSD2 currently supports **redirect method** only.

SUPPORTED ENDPOINTS

Here is a table of all mandatory and optional endpoints according to NextGenPSD2 and CBA PSD2 with a designation which of them are supported by Agram banka.

PAYMENT INITIATION SERVICE ENDPOINTS - PIS

Method	Url	Short Description	Agram banka supported
POST	/v1/{payment-service}/{payment-product}	Payment initiation request	Yes
GET	/v1/{payment-service}/{payment-product}/{paymentId}	Get Payment Information	Yes
DELETE	/v1/{payment-service}/{payment-product}/{paymentId}	Payment Cancellation Request	Yes
GET	/v1/{payment-service}/{payment-product}/{paymentId}/status	Payment initiation status request	Yes
POST	/v1/{payment-service}/{payment-product}/{paymentId}/authorisations	Start the authorisation process for a payment initiation	Yes
GET	/v1/{payment-service}/{payment-product}/{paymentId}/authorisations	Get Payment Initiation Authorisation Sub-Resources Request	Yes
GET	/v1/{payment-service}/{payment-product}/{paymentId}/authorisations/{authorisationId}	Read the SCA Status of the payment authorisation	Yes
PUT	/v1/{payment-service}/{payment-product}/{paymentId}/authorisations/{authorisationId}	Update PSU data for payment initiation	Yes
POST	/v1/{payment-service}/{payment-product}/{paymentId}/cancellation-authorisations	Start the authorisation process for the cancellation of the addressed payment	Yes
GET	/v1/{payment-service}/{payment-product}/{paymentId}/cancellation-authorisations	Will deliver an array of resource identifications to all generated cancellation authorisation sub-resources.	Yes
GET	/v1/{payment-service}/{payment-product}/{paymentId}/cancellation-authorisations/{cancellationId}	Read the SCA status of the payment cancellation's authorisation.	Yes
PUT	/v1/{payment-service}/{payment-product}/{paymentId}/cancellation-authorisations/{cancellationId}	Update PSU Data for payment initiation cancellation	Yes
GET	/v1/consents/{consentId}/authorisations	Get Consent Authorisation Sub-Resources Request	Yes

ACCOUNT INFORMATION SERVICE ENDPOINTS - AIS

Method	Url	Short Description	Agram banka supported
GET	/v1/accounts	Read Account List	Yes
GET	/v1/accounts/{account-id}	Read Account Details	Yes
GET	/v1/accounts/{account-id}/balances	Read Balance	Yes
GET	/v1/accounts/{account-id}/transactions/	Read Transaction List	Yes
GET	/v1/accounts/{account-id}/transactions/{resourceId}	Read Transaction Details	Yes
GET	/v1/card-accounts	Read Card Account List	Yes
GET	/v1/card-accounts/{account-id}	Read Card Account Details	Yes
GET	/v1/card-accounts/{account-id}/balances	Read Card Account Balance	Yes
GET	/v1/card-accounts/{account-id}/transactions/	Read Card Account Transaction List	Yes
GET	/v1/card-accounts/{account-id}/transactions/{resourceId}	Read Card Account Transaction Details	Yes
GET	/v1/consents/{consentId}/authorisations/{authorisationId}	Read the SCA status of the consent authorisation.	Yes
PUT	/v1/consents/{consentId}/authorisations/{authorisationId}	Update PSU Data for consents	Yes

CONFIRMATION OF AVAILABILITY OF FUNDS

Method	Url	Short Description	Agram banka supported
POST	/v1/funds-confirmations	Confirmation of Funds Request	Yes

SIGNING BASKET SERVICE ENDPOINTS

Method	Url	Short Description	Agram banka supported
POST	/v1/signing-baskets	Create a signing basket resource	Yes
GET	/v1/signing-baskets/{basketId}	Returns the content of an signing basket object.	Yes
DELETE	/v1/signing-baskets/{basketId}	Delete the signing basket	Yes
GET	/v1/signing-baskets/{basketId}/status	Read the status of the signing basket	Yes
POST	/v1/signing-baskets/{basketId}/authorisations	Start the authorisation process for a signing basket	Yes
GET	/v1/signing-baskets/{basketId}/authorisations	Get Signing Basket Authorisation Sub-Resources Request	Yes
PUT	/v1/signing-baskets/{basketId}/authorisations/{authorisationId}	Update PSU Data for signing basket	Yes
GET	/v1/signing-baskets/{basketId}/authorisations/{authorisationId}	Read the SCA status of the signing basket authorisation	Yes

SUPPORTED PAYMENT PRODUCTS

Here is a table of payment products with a designation which of them are supported by Agram banka.

Payment product is a subject of the following PIS service:

POST /v1/{payment-service}/{payment-product}.

Agram bank payment services and products	Single payment product (JSON)	Single payment product (XML)	Bulk payment products	Periodic payment products
	{payment-service}			
{payment-product}	payments	payments	bulk-payments	periodic-payments
sepa-credit-transfers	YES	NO	NO	NO
instant-sepa-credit-transfers	NO	NO	NO	NO
target-2-payments	YES	NO	NO	NO
cross-border-credit-transfers	YES	NO	NO	NO
pain.001-sepa-credit-transfers	NO	NO	NO	NO
pain.001-instant-sepa-credit-transfers	NO	NO	NO	NO
pain.001-target-2-payments	NO	NO	NO	NO
pain.001-cross-border-credit-transfers	NO	NO	NO	NO
domestic-credit-transfers-hr	YES	NO	NO	NO
instant-domestic-credit-transfers-hr	NO	NO	NO	NO
hr-rtgs-payments	YES	NO	NO	NO
pain.001-credit-transfers	NO	NO	YES	NO

Payment product *pain.001-credit-transfers* is for all bulk payments.

MESSAGE FLOWS

There are no specific message flows or message flow changes specific to the Agram banka PSD2 standard. The Berlin Group NextGenPSD2 implementation guidelines should be consulted as the normative reference for descriptions of the message flows in the Agram banka standard.

MANDATORY, OPTIONAL AND CONDITIONAL FIELDS

Please refer to CBA PSD2 specification because there are some changes that are specific to the Croatian market.