



**Transaction Capital**  
Payment Solutions

**REALTIME  
ACCOUNT HOLDER VERIFICATION (AVS)  
EXTENDED**

**V2.0**

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## 1 Account Holder Verification System (AVS)

AVS is a non-financial solution to verify account information across all participating SA Banks prior to making payments or collecting funds. This technology enables the matching and confirming of banking details for both companies and individuals against companies' registration numbers and individuals' ID or passport numbers, reducing the risk of erroneous debits and credits whilst securing companies from fraud and identity theft. This service also allows clients to avoid unnecessary charges for attempting to process debit or credit payments into invalid bank accounts.

AVS is available in Batch via our Automated Payment System (APS) or Secure File Transfer Protocol (SFTP) and in Real-time via Automated Programming Interface (API), our Client Front End (CFE) as well as our Online Payment System (OPS).

## 2 AVS Participating Banks

Bank	Batch AVS	Real-time AVS
ABSA	Yes	Yes
AFRICAN BANK	Yes	Yes
BIDVEST BANK	Yes	No
CAPITEC BANK	Yes	Yes
DISCOVERY BANK	Yes	Yes
FIRSTRAND BANK	Yes	Yes
GRINDROD BANK	No	Yes
GROBANK	Yes	No
INVESTEC BANK	Yes	Yes
NEDBANK	Yes	Yes
SASFIN	No	Yes
STANDARD BANK	Yes	Yes

## 3 Real Time submission (AVS-R)

The AVS-R transactions are submitted as single items and responses is received within 60 seconds. This service is particularly favorable for quick responses such as online credit applications. There are two functions available on the RT-AVS Extended Web Service:

- VerifyAccount
- CheckResponse

### 3.1 VerifyAccount function

The **VerifyAccount** function takes in one input parameter of type [RtAvsRequest](#). The [RtAvsRequest](#) object contains all the fields required for an AVS request. The **VerifyAccount** method returns an [AVSResponse](#) object that contains the results of the request.

**All parameters marked with a \* are required**



### 3.1.1 RtAvsRequest Object

Parameter	Description	Format
ServiceInfo *	The service information parameter contains all service specific information to validate the request.	<a href="#">RtAvsServiceInfo</a> Object
AccountInfo *	The account information parameter contains all information about the account that needs to be validated.	<a href="#">RtAvsAccountInfo</a> Object

### 3.1.2 RtAvsServiceInfo Object

Parameter	Description	Format
ServiceKey *	This is the service key that will be provided to you by your administrator. The service key is unique for your usercode.	String(50)
Usercode *	Your user code will be given to you by your administrator and this identified your company to the service. The service key is linked to the usercode.	String(6)
Username *	This is the username that will be used to login to the API system. The username will be linked to the usercode.	String(50)
Password *	This is a password that the user has chosen, during the user creation process.	String(50)
GroupId *	This is the organizational group that the usercode is assigned to. All users of the service will be assigned a group.	Integer

### 3.1.3 RtAvsAccountInfo Object

Parameter	Description	Format
UniqueIdentifier *	This is an identifier for the user, it can be any value that identifies the request in the user's system.	String(50)
IDNumber *	The id number or company registration number linked to the account that needs to be validated.	String(25)
Initials	The initials of the person that needs to be validated, for companies this can be left blank.	String(5)
Fullname *	The surname of person or the name of the company linked to the account being validated	String(30)
BranchCode *	Branch code of the bank account being validated	String(10)
AccountNumber *	Account number that needs to be validated	String(20)
AccountType *	This is an enumeration of the possible account types that can be selected: <ul style="list-style-type: none"><li>Unknown (-1)</li><li>Current (1)</li><li>Savings (2)</li><li>Transmission (3)</li><li>Bond (4)</li><li>Subscription_Share (6)</li></ul>	<b>AccountType</b> Enumeration
Email	Email address linked to the account being validated.	String(100)
CellNo	Cellphone number linked to the account being	String(12)



validated.

### 3.2 CheckResponse function

The **CheckResponse** function is used to enquire about responses for requests that were returned with a DELAYED status. This indicates that the request could not be process as real time but went to the bank as a batch request. Batch requests have a longer turnaround time and could take up to an hour before a response is available. The Check Repsone function takes one input parameter which has a [RtAvsCheckRequest](#) object and returns an [AVSResponse](#) object.

#### 3.2.1 RtAvsCheckRequest Object

Parameter	Description	Format
ServiceInfo *	The service information parameter contains all service specific information to validate the request.	<a href="#">RtAvsServiceInfo</a> Object
UniquelIdentifier *	This is an identifier for the user, it can be any value that identifies the request in the user's system.	String(50)

### 3.3 Function Responses

#### 3.3.1 AVSResponse Object

Name	Description	Format
Response	The Response parameter will contain all the actual AVS results for the request	<a href="#">ValidateAccountResponse</a> Object
Message	A summary of the AVS Response or failure message	String
RequestID		LongInteger
ID	ID to identify the account being validated in the user's system. This is the same value as the UniquelIdentifier passed in on the request.	String(50)
SBSA_ID	If the request was processed by SBSA this will contain the bank reference for the request.	String(36) or NULL
StatusCode	Status Code returned by the bank service.	String(10)
StatusDesc	Status Description returned by the bank service.	String(255)
AdditionalStatusCode	Additional Status Code returned by the bank service.	String(10)
AdditionalStatusDesc	Additional Status Description returned by the bank service.	String(255)
Status	This gives the overall status of the request as a <b>TransactionStatus</b> enumeration. <ul style="list-style-type: none"><li>• NONE = 0</li><li>• SENT = 1</li><li>• DELAYED = 2</li><li>• NONPARTICIPATINGBANK = 3</li><li>• RESPONSETIMEOUT = 4</li><li>• COMMISSUEWITHBANK = 5</li><li>• VERIFIEDNOERRORS = 6</li><li>• VERIFIEDWITHERRORS = 7</li><li>• INVALIDREQUEST = 8</li><li>• CDVFAILED = 9</li><li>• INTERNALERROR = 10</li></ul>	<b>TransactionStatus</b> enumeration
IsFinal	This is a Boolean flag to indicate if this is the final response or not. This will always be true once the response has reached the user. This flag is used internally when polling for results from the bank service.	Boolean

### 3.3.2 ValidateAccountResponse Object

All parameters in this object are Boolean flags indicating true or false matches.

Name	Description
AccountFound	When True the bank account is valid and found at the bank
AccountOpen	When True the bank account is open
AccountTypeMatch	When True the account type is valid, note that not all banks validate the account type thus a False might be returned in such a case.
IssuelIdentityMatch	When True the Identity number / passport / company registration is the same as on the bank record for the specified account number
NameInitialsMatch	When True the initials are the same as on the bank record for the specified account number.
FullNameMatch	When True the surname or company name is the same as on the bank records for the specified account number.
AcceptsCredits	When True the account number accepts credit transactions.
AcceptsDebits	When True the account number accepts debit transactions.
LengthOpenMatch	When True this indicates that the account is open for longer than 3 months.
EmailMatch	When True the e-mail provided matches the e-mail on the bank record for the specified account number.
CellNoMatch	When True the phone number provided matches the phone number on the bank record for the specified account number.

## 4 Managing Errors

The response that is returned will contain a Status property which is an enumeration. Below are a short description of the different statuses.

- **VERIFIEDNOERRORS**  
When all the ValidateAccountResponse flag values returns true.
- **VERIFIEDWITHERRORS**  
When one or more of the ValidateAccountResponse flag values are false.
- **CDVFAILED**  
When the account details failed the basic modulus checks based on the branch code and account number that was passed in.
- **INVALIDREQUEST**  
When validation failures occur on any of the fields passed in on the request or validation failures at the bank
- **INTERNALERROR**  
When there was an error at the bank, or database errors occur, or any errors are raised during processing of the request.
- **NONPARTICIPATINGBANK**  
When the branch code that was sent is for a bank that does not support any form of AVS.
- **COMMISSUEWITHBANK**  
Unable to contact the bank, timeout at the bank. If the user is not setup to allow for fall back to BATCH this error will be returned.

- DELAYED

When request was sent for Batch verification and could take between 10 minutes and up to an hour. To get the result of the batch verification use the [CheckResponse](#) function of the AVS service.

Also pay attention to the **Message** parameter in the [AVSResponse](#) object, this could give additional validation information.

#### 4.1 Technical Errors

The response does have additional status codes that are returned from the bank. The following combination or errors are technical and a retry could be initiated, however if the error persists contact support.

StatusCode	StatusDesc	AdditionalStatusCode	AdditionalStatusDesc
99	TIMEOUT	NULL	NULL
33	ISSUER NOT AVAILABLE	NULL	NULL
33	ISSUER NOT AVAILABLE	91	Issuer not available
33	TECHNICAL ERROR	NULL	NULL
0	Request could not be validated.	NULL	NULL
0	Request could not be validated.	100	System error while calling Mainframe
NULL	NULL	68	Time Out - response receive too late
NULL	NULL	91	Issuer not available

#### 4.2 Validation Errors

The following errors are validation errors and a retry on the same info should be avoided.

StatusCode	StatusDesc	AdditionalStatusCode	AdditionalStatusDesc
33	CDV ERROR - INVALID-ACCOUNT-TYPE	NULL	NULL
33	INVALID IDNUMBER	NULL	NULL
0	Account Number is invalid.	NULL	NULL
0	Request could not be validated.	NULL	Non AVS-R Participant
0	Request could not be validated.	100	User not linked to AVS system

## 5 Endpoints

UAT Endpoint: <https://www.bdbdata.co.za/RtAvsExtended> [UAT/RtAvsExtended.svc](#)

Note: UAT service points to bank test services so results received back could be unpredictable.

Live Endpoint: <https://www.bdbdata.co.za/RtAvsExtended/RtAvsExtended.svc>



## 6 WSDL

Below is the WSDL for the RTAVSExtended web service.



RtAvsExtended.wsd  
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