

CRIF Primary Check

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1. User story

As an Operations Team Member

I want the system to use CRIF as the primary automated credit check and only fall back to Intrum when needed

So that credit decisions are consistent, automated, and based on the available risk information for both private individuals (B2C) and companies (B2B).

1.1 Context

- Currently, Intrum is used as an automated credit check provider.
- CRIF must be added as the **primary** automated credit check provider.
- The system must:
 - Call CRIF first,
 - Decide whether to:
 - Automatically approve (no Intrum call),
 - Call Intrum as a fallback, or
 - Reject the contract if both providers are negative.
- CRIF is used to obtain a credit score and risk decision for:
 - B2C: natural persons (consumers).
 - B2B: companies (legal entities).

1.2 High-Level Flow

1. System reaches credit-check step.
2. System detects customer type (B2C / B2B).
3. System sends CRIF request to the correct endpoint.
4. CRIF response is evaluated using the rule table below.
5. If needed → Intrum is called.
6. The final outcome is determined by combining CRIF + Intrum results.
7. Both results are stored and displayed in CRM.

2. Decision Logic

CRIF decision	Score	HTTP Status	Outcome Classification	System Action	Result After CRIF
GREEN	Score ≥ 500	200	Strong positive	Skip Intrum	Automatic approval
YELLOW	$350 \leq \text{Score} < 500$	200	Medium risk	Call Intrum	Use current Intrum logic
YELLOW	Score < 350	200	High risk	Call Intrum	Use current Intrum logic
YELLOW	Any score	200	Medium/unclear	Call Intrum	Use current Intrum logic
RED	Any score	200	Negative	Call Intrum	Use current Intrum logic
Any	—	400 Malformed Request	CRIF Error	Call Intrum	Use current Intrum logic
Any	—	401 Validation Error	CRIF Error	Manual check	Pending
Any	—	500 Internal Error	CRIF Error	Call Intrum	Use current Intrum logic
Any	—	Timeout / Technical Error	CRIF Error	Manual check	Pending

2.1 Final Decision Table (CRIF + Intrum)

#	CRIF Outcome	Intrum Outcome	Final Contract Outcome
1	CRIF auto-approval (GREEN + Score ≥ 500)	Intrum not called	Approved
2	CRIF fallback	Intrum positive	Approved
3	CRIF fallback	Intrum negative	Auto-rejected
4	CRIF fallback	Intrum technical error	Follow existing Intrum error handling

3. Acceptance Criteria

3.1 CRIF Automatic Approval

Given CRIF returns GREEN and Score ≥ 500

When the system processes the result

Then Intrum is **not called**

And the contract is automatically approved.

3.2 CRIF Requires Intrum

Given CRIF returns any of the following:

- GREEN with Score < 500
- YELLOW (any score)
- RED
- CRIF error (400/500/timeout)

When CRIF result is processed

Then the system calls Intrum as a fallback.

3.3 Manual Check on CRIF 401

Given CRIF returns HTTP 401

When the result is processed

Then the system does **not** automatically proceed

And a manual check is required.

3.4 Final Rejection

Given CRIF did not auto-approve

And Intrum returns a negative result

Then the contract is automatically rejected.

3.5 Data Storage

Given CRIF and/or Intrum were called

When the results are received

Then the system stores:

- CRIF decision
- Score value
- Address identification decision/value
- Person status decision/value
- CRIF archivingId
- Intrum result
- Combined final decision

3.6 Store Credit Score value in:

- Rename the DB table from Credit Score to Intrum Credit Score.
- Store CRIF credit score value in a new field CRIF credit score
- Show on a contract UI Other information section

4. Store Crif Report

LD-1311: [CH][NextJs]Store CRIF Credit Report in SST DONE

LD-1312: [CH][CORE]Store CRIF Credit Report in SST DONE

4.1 Trigger to Retrieve CRIF Report

- After the system calls `GET /reports/companyAddress`, the response contains an `archivingId`.

- When an `archivingId` is present, the system must automatically trigger the **CRIF Report Download API**:

```

1 GET https://preprodservices.crif-
online.ch/CrifOnlineAPI/reports/archivingId/{archivingId}?
targetFormat=PDF
2 Headers:
3 Content-Type: application/json
4 Accept: application/pdf
5 api-version: 1
6 Authorization: Basic <token>
7

```

4.2 CRIF report retrieved after credit check

Given a credit check is executed

When CRIF returns an `archivingId`

Then the system must automatically call the CRIF PDF report endpoint.

4.3 PDF stored with the correct document type

Given the system successfully downloads the report

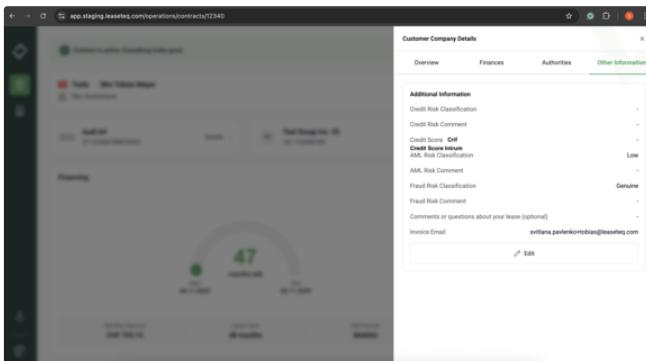
Then SST must store it as a document with type “**Credit info (CRIF)**”.

4.4 Document visible in UI

When users open the documents section for the contract

Then the CRIF report appears in the list with:

- Document type: Credit info (CRIF)
- File format: PDF



```

1 "decisionMatrix": {
2     "decision": "",
3     "decisionItems": [
4         {
5             "type": "SCORE",
6             "decision": "",
7             "value": ""
8         },
9         {
10            "type": "ADDRESS_IDENTIFICATION",
11            "decision": "",
12            "value": ""
13        },
14        {
15            "type": "PERSON_STATUS",
16            "decision": ""
17        }
18    ]
19 }

```

```
17           "value": ""  
18       }  
19   ]
```

4. CRIF API

Information on Postman environments, collections, and swagger doc can be found here:

<https://doc:dGhpcyBpc24nd@preprodservices.crif-online.ch/CrifOnlineAPI/swagger-ui/index.html#interface>

Credentials can be found here:



Endpoint for B2C credit score flow:

```
1 https://preprodservices.crif-  
online.ch/CrifOnlineAPI/reports/personAddress
```

Endpoint for B2B credit score flow:

```
1 https://preprodservices.crif-  
online.ch/CrifOnlineAPI/reports/companyAddress
```

Example request for B2C:

```
1 {  
2   "reportType": "CREDIT_CHECK_CONSUMER",  
3   "personIdentity": {  
4     "postalAddress": {  
5       "street": "Blumenstrasse",  
6       "houseNumber": "94c",  
7       "zip": "8008",  
8       "city": "Zürich",  
9       "country": "CHE"  
10      },  
11      "phones": [  
12        "055 257 33 22"  
13      ],  
14      "mobiles": [  
15        "+41762573322"  
16      ],  
17      "emails": [  
18        "anna@test.com"  
19      ],  
20      "firstName": "Anna",  
21      "lastName": "Test",  
22      "sex": "FEMALE",  
23      "birthDate": "1911-11-11"  
24    }  
25 }
```

Example response for B2C:

```
1 {  
2   "reportData": {  
3     "debts": [],  
4     "financialStatements": [],  
5     "financialStatementsGroup": [],  
6     "addressHistory": [],  
7     "industryLicenses": [],  
8     "controlPersons": []
```

```

9     },
10    "archivingId": 4680000568666442,
11    "decisionMatrix": {
12      "decision": "YELLOW",
13      "decisionDescription": "Die Farbe Gelb signalisiert, dass bei
14      gewissen Elementen eine genauere Prüfung empfohlen wird. Der Entscheid
15      impliziert nicht, dass eine verschlechterte Bonität vorliegt.",
16      "decisionItems": [
17        {
18          "type": "SCORE",
19          "decision": "YELLOW",
20          "value": "382",
21          "infoText": "Der Credit-Score Consumer ist ein
22          statistisches Mass, welches die Wahrscheinlichkeit einer
23          Zahlungsstörung in den nächsten 12 Monaten prognostiziert. Scores im
24          rot-Bereich weisen auf eine hohe Ausfallwahrscheinlichkeit hin. Scores
25          im gelb-Bereich weisen auf eine mittlere Ausfallwahrscheinlichkeit
26          hin. Scores im grün-Bereich weisen auf eine tiefe
27          Ausfallwahrscheinlichkeit hin. Je höher die Anzahl Punkte, desto
28          unwahrscheinlicher ist ein Zahlungsausfall. Der Score der Personen mit
29          negativen Zahlungserfahrungen (wie zum Beispiel Verlustscheine,
30          Betreibungen, Inkassofälle) wird im Wesentlichen von folgenden drei
31          Faktoren bestimmt: Anzahl, Status und Aktualitätsgrad der bekannten
32          Zahlungserfahrungen. Je grösser die Anzahl der einzelnen Ereignisse,
33          je schwerwiegender der Status des einzelnen Ereignisses und je jünger
34          die einzelnen Ereignisse sind, desto höher werden sie gewichtet. Bei
35          Personen mit ausschliesslich positiven Zahlungserfahrungen (bezahlte
36          Rechnungen) oder bei denen gar keine Zahlungserfahrungen bekannt sind,
37          liegt der Score im grünen Bereich. Der Score errechnet sich in diesem
38          Fall hauptsächlich auf Basis von amtlichen Registern und öffentlichen
39          Publikationen (Handelsregister, Betreibungsauszüge, Kantonale
40          Amtsblätter, Telefonbuch), von soziodemografischen Faktoren (wie zum
41          Beispiel Alter oder Beruf) und von positiven Zahlungserfahrungen.
42          Höheres Alter, längere Bekanntheit in der Auskunftsreihe und mehr positive
43          Information führen zu einem noch höheren Score. "
44        },
45        {
46          "type": "ADDRESS_IDENTIFICATION",
47          "decision": "GREEN",
48          "value": "IDENTITY_WITH_CONFLICTING_BIRTHDATE",
49          "infoText": "Falls die Person nicht gefunden wurde,
50          wird eine Identifikation über alternative Methoden (z.B.
51          Einwohnerkontrolle, Pass, oder Führerausweis) empfohlen."
52        },
53        {
54          "type": "PERSON_STATUS",
55          "decision": "GREEN",
56          "value": "ACTIVE",
57          "infoText": "Der Personenstatus dient dazu, eine
58          minderjährige, bevormundete oder verstorbene Person zu erkennen. Falls
59          das Geburtsdatum nicht bekannt ist, wird angenommen, dass die Person
60          volljährig ist. Beim Status verstorben ist eine Verwechslung nicht
61          ausgeschlossen."
62        }
63      ],
64      "ratingItems": []
65    },
66    "addressMatch": {
67      "matchResultType": "MATCH",
68      "addressIdentificationResultType":
69      "CITY_CONFIRMED_STREET_NOT_IDENTIFIED",
70      "normalizedRequestedPostalAddress": {
71        "street": "Blumenstrasse",
72        "houseNumber": "94c",
73        "zip": "8008",
74        "city": "Zürich",
75        "regionCode": "CH-ZH",
76        "country": "CHE"
77      },
78      "foundAddress": {
79        "contactInfo": {
80

```

```

49         "postalAddress": {
50             "street": "Blumenstrasse",
51             "houseNumber": "94c",
52             "zip": "8008",
53             "city": "Zürich",
54             "regionCode": "CH-ZH",
55             "country": "CHE"
56         },
57         "phones": [],
58         "mobiles": [],
59         "faxes": [],
60         "emails": [],
61         "webs": [],
62         "others": [],
63         "firstName": "Anna",
64         "lastName": "Test",
65         "sex": "FEMALE",
66         "birthDate": "1951-11-11",
67         "type": "NaturalPersonIdentity"
68     },
69     "identificationType": "IDENTITY_IN_HOUSE",
70     "ids": [
71         {
72             "type": "ADDRESS_ID",
73             "value": "1201000262580160"
74         }
75     ],
76 },
77     "candidateAddresses": []
78 },
79     "personMatch": {
80         "nameHint": "CONFIRMED",
81         "matchResultType": "IDENTITY_WITH_CONFLICTING_BIRTHDATE"
82     },
83     "additionalOutput": {
84         "hasDebts": "true",
85         "genericValues": {}
86     }
87 }
88 }
```

Example request for B2B:

```

1 {
2     "reportType": "CREDIT_CHECK_BUSINESS",
3     "companyIdentity": {
4         "companyName": "TEST Foundation",
5         "postalAddress": {
6             "street": "Aeulestrasse",
7             "houseNumber": "38",
8             "zip": "9490",
9             "city": "Vaduz",
10            "country": "LIE"
11        },
12        "phones": [
13            "055 257 33 22"
14        ],
15        "mobiles": [
16            "+41762573322"
17        ],
18        "emails": [
19            "info@phantasy-ag.li"
20        ]
21    }
22 }
```

Example response for B2B:

```

1  {
2      "reportData": {
3          "debts": [],
4          "financialStatements": [],
5          "financialStatementsGroup": [],
6          "addressHistory": [],
7          "industryLicenses": [],
8          "controlPersons": []
9      },
10     "archivingId": 4575000568940975,
11     "decisionMatrix": {
12         "decision": "GREEN",
13         "decisionDescription": "Die Farbe Grün signalisiert, dass
keines der aufgeführten Kriterien als möglicherweise risikobehaftet
kategorisiert wurde.",
14         "decisionItems": [
15             {
16                 "type": "SCORE",
17                 "decision": "GREEN",
18                 "value": "483",
19                 "infoText": "Der Score ist ein statistisches Mass,
welches die Wahrscheinlichkeit einer schwerwiegenden Zahlungsstörung
prognostiziert. Der Score hat einen Wert zwischen 250 und 700 Punkte.
Je höher die Anzahl Punkte, desto unwahrscheinlicher ist ein
Zahlungsausfall. Der Score wird im Wesentlichen von folgenden drei
Faktoren bestimmt: Anzahl, Status und Aktualitätsgrad der bekannten
Zahlungsstörungen. Je grösser die Anzahl der einzelnen Ereignisse, je
schwerwiegender der Status des einzelnen Ereignisses und je jünger
die einzelnen Ereignisse sind, desto höher werden sie gewichtet."
20             },
21             {
22                 "type": "HIT_TYPE_COMPANY",
23                 "decision": "GREEN",
24                 "value": "COMPANY",
25                 "infoText": "Der Firmenstatus dient dazu, eine
konkursite oder geschlossene Firma zu erkennen."
26             },
27             {
28                 "type": "ACTIVITY_STATUS",
29                 "decision": "GREEN",
30                 "value": "ACTIVE",
31                 "infoText": "Der Firmenstatus dient der Anzeige, ob
die angefragte Firma in Liquidation gesetzt ist, über sie der Konkurs
eröffnet wurde, der Konkurs mangels Aktiven eingestellt wurde oder
sie im Handelsregister gelöscht bzw. beendet worden ist."
32             },
33             {
34                 "type": "DECISION MAKER PAYMENT EXPERIENCE",
35                 "decision": "GREEN",
36                 "value": "false"
37             },
38             {
39                 "type": "MANAGEMENT_FLUCTUATION RATE",
40                 "decision": "GREEN",
41                 "value": "0 %"
42             },
43             {
44                 "type": "DAYS SINCE DOMICILE CHANGE",
45                 "decision": "GREEN",
46                 "value": ""
47             },
48             {
49                 "type": "DAYS SINCE NAME CHANGE",
50                 "decision": "GREEN",
51                 "value": ""
52             },
53             {
54                 "type": "DAYS SINCE REVISION CHANGED",
55                 "decision": "GREEN",
56                 "value": ""
57             }
}

```

```

58     {
59         "type": "DAYS_SINCE_CAPITAL_CHANGED",
60         "decision": "GREEN",
61         "value": "",
62         "infoText": "Bei diesem Entscheidungselement werden
63         Änderungen in der Kapitalisierung angezeigt. Bei Änderungen innerhalb
64         der konfigurierten Zeit ändert die Ampel die Farbe und Abklärungen
65         werden empfohlen. "
66     },
67     {
68         "type": "NON_CAPITAL_ASSETS",
69         "decision": "GREEN",
70         "value": "0"
71     },
72     {
73         "type": "CAPITAL_NOT_FULLY_PAID",
74         "decision": "GREEN",
75         "value": "false",
76         "infoText": "Dieses Entscheidungselement zeigt an, ob
77         das Kapital voll liberiert wurde. Bei nicht voll liberiertem Kapital
78         sind die Geschäftsrisiken höher."
79     },
80     {
81         "type": "PAYMENT_DELAY",
82         "decision": "GREEN",
83         "value": "NOT_AVAILABLE",
84         "infoText": "Anhand der uns bekannten Daten wird
85         berechnet ob eine relevante Zahlungsverspätung vorhanden ist."
86     },
87 ],
88 "ratingItems": [
89     {
90         "type": "CRIF_AUTO_RATING",
91         "rating": "L+"
92     },
93     "creditLimit": 0
94 },
95 "addressMatch": {
96     "matchResultType": "MATCH",
97     "addressIdentificationResultType": "HOUSE_CONFIRMED",
98     "normalizedRequestedPostalAddress": {
99         "street": "Aeulestrasse",
100        "houseNumber": "38",
101        "zip": "9490",
102        "city": "Vaduz",
103        "country": "LIE"
104    },
105    "houseType": "SCHOOL",
106    "foundAddress": {
107        "contactInfo": {
108            "postalAddress": {
109                "street": "Aeulestrasse",
110                "houseNumber": "38",
111                "zip": "9490",
112                "city": "Vaduz",
113                "country": "LIE"
114            },
115            "phones": [],
116            "mobiles": [],
117            "faxes": [],
118            "emails": [],
119            "webs": [],
120            "others": [],
121            "companyName": "TEST Foundation",
122            "type": "CompanyIdentity"
123        },
124        "identificationType": "IDENTITY_IN_HOUSE",
125        "ids": [
126            {
127                "type": "ADDRESS_ID",
128            }
129        ]
130    }
131 }

```

```

123                               "value": "1571000199842017"
124                           }
125                         ]
126                       },
127                     "candidateAddresses": []
128                   },
129                 "personMatch": {
130                   "nameHint": "NO_HINT",
131                   "matchResultType": "IDENTITY"
132                 },
133               "additionalOutput": {
134                 "hasDebts": "false",
135                 "genericValues": {}
136               }
137             }

```

4.1 Examples of responses

	Correct	Wrong birth date	Wrong street & house	Wrong city	Similar last name	Wrong first name	Wrong last name
Last name	Test	Test	Test	Test	Rest	Test	fedcba
First name	Patrick	Patrick	Patrick	Patrick	Patrick	Lukas	Patrick
Date of birth	1935-04-04	1936-04-04	1935-04-04	1935-04-04	1935-04-04	1935-04-04	1935-04-04
Street	Müllackerstrasse	Müllackerstrasse	Glatthofstrasse	Müllackerstrasse	Müllackerstrasse	Müllackerstrasse	Müllackerstrasse
House number	12	12	9	12	12	12	12
Postal code	8152	8152	8152	8001	8152	8152	8152
City	Glattbrugg	Glattbrugg	Glattbrugg	Zürich	Glattbrugg	Glattbrugg	Glattbrugg
Decision matrix decision	GREEN	GREEN	GREEN	YELLOW	GREEN	YELLOW	GREEN
Score decision	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN
Score value	545	545	545	511	545	530	545
Address decision	GREEN	GREEN	GREEN	YELLOW	GREEN	YELLOW	GREEN

Address value	IDENTITY	IDENTITY_WITH_CO	IDENTITY_WITH_CONF	CITY_CON	IDENTITY	LAST_NAME_IN_HOUSE	IDENTITY
Person status decision	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN
Person status value	ACTIVE	ACTIVE	ACTIVE	UNKNOWN	ACTIVE	UNKNOWN	ACTIVE
Flow outcome	Approve	Approve	Approve	Check Intrum	Approve	Check Intrum	Approve