Intro

After Upgrading my mobile from SailfishOS 3.3.??? to 4.1.??? it figured out, that I've missed a backup with the OS tools. I've had only a backup of the filesystem. Restoring most of the relevant information was simple. So it was no problem to get my Phonecalls, Messages and also Notes back. Only two things didn't work. Contacts and Calendar. Allthough I can ignore my Calendar for the moment, also my contacts went away due to the fact, that there was a DB Schema change.

Luckily it was possible to start an emulator with OS 3.2.??? and restore the contacts within that emulator *but*, all tryes to restore the data with Backuptools on that emulator or CalDav syncing or vcardconverter on OS level failed. For whatever reason it was not possible to restore that data.

Solution

My Solution here is to restore the data with a python script, exporting it from the Sqlite database to .vcf (vCard File).

This only works for DB Structures of SailfishOS and was especially tested with DBs of OS version 3.2.X and 3.3.X

> ℹ️ **Version 0.2 is the latest one.**

Implementation

function	implemented
Full Name	✅
First Name	✅
Last Name	✅
voice number	✅
fax number	✅
sms number	✅
e-mail addresses	✅
Organization name	✅
Organization parameters	✅

function	implemented
picture / foto	❌
address	✅
birthday	❌
URL	❌

Database

Schema

Relationships [table]
firstId	INTEGER NOT NULL
secondId	INTEGER NOT NULL
type	TEXT

OOB [table]
name	TEXT
"value"	BLOB
compressed	INTEGER

Identities [table]
"Identity"	INTEGER
contactId	INTEGER KEY

DeletedContacts [table]
contactId	INTEGER
syncTarget	TEXT
deleted	DATETIME

DbSettings [table]
name	TEXT
"value"	TEXT

Addresses [table]
detailId	INTEGER
contactId	INTEGER KEY ASC
street	TEXT
postOfficeBox	TEXT
region	TEXT
locality	TEXT
postCode	TEXT
country	TEXT
subTypes	TEXT

Anniversaries [table]
detailId	INTEGER
contactId	INTEGER KEY
originalDateTime	DATETIME
calendarId	TEXT
subType	TEXT
event	TEXT

Avatars [table]
detailId	INTEGER
contactId	INTEGER KEY
imageUrl	TEXT
videoUrl	TEXT
avatarMetadata	TEXT

Birthdays [table]
detailId	INTEGER
contactId	INTEGER KEY
birthday	DATETIME
calendarId	TEXT

EmailAddresses [table]
detailId	INTEGER
contactId	INTEGER KEY
emailAddress	TEXT
lowerEmailAddress	TEXT

ExtendedDetails [table]
detailId	INTEGER
contactId	INTEGER KEY
name	TEXT
data	BLOB

Families [table]
detailId	INTEGER
contactId	INTEGER KEY
spouse	TEXT
children	TEXT

GeoLocations [table]
detailId	INTEGER
contactId	INTEGER KEY
label	TEXT
latitude	REAL
longitude	REAL
accuracy	REAL
altitude	REAL
altitudeAccuracy	REAL
heading	REAL
speed	REAL
"timestamp"	DATETIME

GlobalPresences [table]
detailId	INTEGER
contactId	INTEGER KEY
presenceState	INTEGER
"timestamp"	DATETIME
nickname	TEXT
customMessage	TEXT
presenceStateText	TEXT
presenceStateImageUrl	TEXT

Guids [table]
detailId	INTEGER
contactId	INTEGER KEY
guid	TEXT

Hobbies [table]
detailId	INTEGER
contactId	INTEGER KEY
hobby	TEXT

Nicknames [table]
detailId	INTEGER
contactId	INTEGER KEY
nickname	TEXT
lowerNickname	TEXT

Notes [table]
detailId	INTEGER
contactId	INTEGER KEY
note	TEXT

Contacts [table]
contactId	INTEGER
	auto-incremented
displayLabel	TEXT
displayLabelGroup	TEXT
displayLabelGroupSortOrder	INTEGER
firstName	TEXT
lowerFirstName	TEXT
lastName	TEXT
lowerLastName	TEXT
middleName	TEXT
prefix	TEXT
suffix	TEXT
customLabel	TEXT
syncTarget	TEXT NOT NULL
created	DATETIME
modified	DATETIME
gender	TEXT
isFavorite	BOOL
hasPhoneNumber	BOOL
hasEmailAddress	BOOL
hasOnlineAccount	BOOL
isOnline	BOOL
isDeactivated	BOOL
isIncidental	BOOL
type	INTEGER

Details [table]
detailId	INTEGER
	auto-incremented
contactId	INTEGER
detail	TEXT
detailUri	TEXT
linkedDetailUris	TEXT
contexts	TEXT
accessConstraints	INTEGER
provenance	TEXT
modifiable	BOOL
nonexportable	BOOL

OnlineAccounts [table]
detailId	INTEGER
contactId	INTEGER KEY
accountUri	TEXT
lowerAccountUri	TEXT
protocol	TEXT
serviceProvider	TEXT
capabilities	TEXT
subTypes	TEXT
accountPath	TEXT
accountIconPath	TEXT
enabled	BOOL
accountDisplayName	TEXT
serviceProviderDisplayName	TEXT

Organizations [table]
detailId	INTEGER
contactId	INTEGER KEY
name	TEXT
role	TEXT
title	TEXT
location	TEXT
department	TEXT
logoUrl	TEXT
assistantName	TEXT

OriginMetadata [table]
detailId	INTEGER
contactId	INTEGER KEY
id	TEXT
groupId	TEXT
enabled	BOOL

PhoneNumbers [table]
detailId	INTEGER
contactId	INTEGER KEY
phoneNumber	TEXT
subTypes	TEXT
normalizedNumber	TEXT

Presences [table]
detailId	INTEGER
contactId	INTEGER KEY
presenceState	INTEGER
"timestamp"	DATETIME
nickname	TEXT
customMessage	TEXT
presenceStateText	TEXT
presenceStateImageUrl	TEXT

Ringtones [table]
detailId	INTEGER
contactId	INTEGER KEY
audioRingtone	TEXT
videoRingtone	TEXT
vibrationRingtone	TEXT

Tags [table]
detailId	INTEGER
contactId	INTEGER KEY
tag	TEXT

Urls [table]
detailId	INTEGER
contactId	INTEGER KEY
url	TEXT
subTypes	TEXT

generated by SchemaCrawler 16.1.2
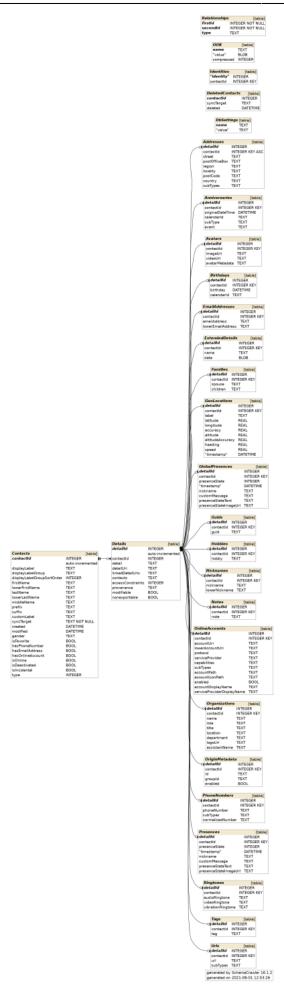generated on 2021-08-01 12:53:26

table descriptions

Addresses

subTypes

The database is missing a table with subTypes to identify entries in Addresses. To have a reference, here is a list of Types

subType	vCard/vobject parameter	SailfishOS Contact label
Null	personal	Personal Address
0		parcel
1	cell	Cell Phone
2	fax	Fax
3	pager	Pager
6	video	Video
10	??	Assistent

PhoneNumbers

The Phonenumbers are listed in table **PhoneNumbers** with details from table **Details**. Most interesting here is the type of number. Which is stored in table **PhoneNumbers** column **subTypes**.

Here is an example:

detailId	contactId	phoneNumber	subTypes	normalizedNumber	detailId	contactId	detail	detailUri	linkedDetailUris	contexts	accessConstraints	provenance	modifiable	nonexportable
10	3	01719994445	1	19994445	10	3	PhoneNumber	NULL	NULL	Home	0	NULL	NULL	NULL
11	3	040111222334	NULL	11222334	11	3	PhoneNumber	NULL	NULL	Home	0	NULL	NULL	NULL
12	3	01720004443	1	20004443	12	3	PhoneNumber	NULL	NULL	Work	0	NULL	NULL	NULL
13	3	040111222333	NULL	11222333	13	3	PhoneNumber	NULL	NULL	Work	0	NULL	NULL	NULL
14	3	040111222335	2	11222335	14	3	PhoneNumber	NULL	NULL	Work	0	NULL	NULL	NULL

subTypes

The database is missing a table with subTypes to identify entries in PhoneNumbers for example. To have a reference, here is a list of Types

subType	vCard/vobject parameter	SailfishOS Contact label
Null	voice	Voice Phone
1	cell	Cell Phone
2	fax	Fax
3	pager	Pager
6	video	Video
10	??	Assistent

Definition from RFC:

```
 +-----------+----------------------------
------------------------+
 | Value     | Description
|
 +-----------+----------------------------
------------------------+
 | text      | Indicates that the telephone
number supports text      |
 |           | messages (SMS).
|
 | voice     | Indicates a voice telephone
number.                     |
 | fax       | Indicates a facsimile
telephone number.                |
 | cell      | Indicates a cellular or mobile
telephone number.        |
 | video     | Indicates a video conferencing
telephone number.        |
 | pager     | Indicates a paging device
telephone number.            |
 | textphone | Indicates a telecommunication
device for people with  |
 |           | hearing or speech
difficulties.                         |
 +-----------+----------------------------
------------------------+

    The default type is "voice".
```

VCARD

Allthough it wasn't specified by python vobject lets assume we've to use VCard specification by RFC6350.

external Links

- FileFormatdescription: https://docs.fileformat.com/email/vcf/#vcf-30-example
- Python vobject: http://eventable.github.io/vobject/
- https://datatracker.ietf.org/doc/html/rfc6350

ToDo

1. fotos
2. birthday
3. missing parameters for names
4. URL with parameters

source

The sourcecode is located under svn://svn.siningsoft.de/Sailfish_Contacts_Restore. A free read access via svn will follow. If you're interested in submitting code as part of the development, a read/write access could be requested via sailfish@siningsoft.de

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Permanent link:
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