

----- 10167.txt -----

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1  From: João Henrique Freitas <joahf <at> gmail.com>
2  Subject: catalog_backend_to_IBM_DB2
3  Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4  Date: 2007-09-05 14:27:45 GMT (29 weeks, 3 days, 12 hours and 40 minutes ago)
5  Hello,
6
7  I like to open a discussion about Bacula project and some questions.
8
9  For now, I am a postgraduation in development software and need to do a work to
10 finish my course.
11 The central motivation is study the contribution process on open source and
12 free software. How the enthusiastic user can became a developer in some
13 project.
14
15 To prove my ideas and way I choice Bacula project to research and write my
16 work.
17
18 Basically, I want to implement a catalog backend to IBM DB2. In the same time I
19 want to write my work based on this experiences.
20
21 The motivation for the choice of IBM DB2 is not very especial. I need learning
22 DB2 and currently work with it.
23
24 So, before I spend more energy, what ours opinions about this?
25
26 Thanks a lot.
27
28 PS: Please, I am not requesting you to develop this backend. It's Just a
29 technical opinion
30
31 --
32 -----
33 João Henrique Freitas - joahf_at_gmail.com
34 Americana-SP-Brasil
35 BSD051283
36 LPI 1
37 http://paginas.terra.com.br/informatica/joahf
38 http://www.livejournal.com/users/joahf/

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----- 10176.txt -----

```

1  From: Arno Lehmann <al <at> its-lehmann.de>
2  Subject: Re:_catalog_backend_to_IBM_DB2
3  Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4  Date: 2007-09-05 19:51:53 GMT (29 weeks, 3 days, 7 hours and 16 minutes ago)
5  Hi,
6
7  05.09.2007 16:27,, João Henrique Freitas wrote::
8  > Hello,
9  >
10 > I like to open a discussion about Bacula project and some questions.
11 >
12 > For now, I am a postgraduation in development software and need to do a
13 > work to finish my course.
14 > The central motivation is study the contribution process on open source
15 > and free software. How the enthusiastic user can became a developer in
16 > some project.
17 >
18 > To prove my ideas and way I choice Bacula project to research and write
19 > my work.
20 >
21 > Basically, I want to implement a catalog backend to IBM DB2. In the same
22 > time I want to write my work based on this experiences.
23
24 Can we get that work, once it's written? [:-)]
25
26 > The motivation for the choice of IBM DB2 is not very especial. I need
27 > learning DB2 and currently work with it.
28 >
29 > So, before I spend more energy, what ours opinions about this?
30
31 I'd do the following:
32 - make sure you understand how Bacula works, at least to the extent
33 that you know what the catalog is needed for.
34 - read some of Baculas code to make sure you understand the way it's
35 written; this starts with coding style, and probably does not end when
36 it comes to understanding how the different parts of Bacula are

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37 organized into classes or are represented by all the *cr structures.
38 - use the trace feature to see what Bacula does with the catalog.
39 - read the developers manual; there is some documentation of the
40 catalog schema there.
41 - read and understand the code of the different catalog backends.
42 - start with one of the existing catalog backends - SQLite, MySQL,
43 PostgreSQL - and start migrating it to DB2 SQL.
44 - don't hesitate to ask questions, but make sure you ask clever
45 questions. The developers who know the existing code best are really
46 helpful people, but they probably prefer coding, testing, writing
47 documentation over explaining things... personally, even if I were
48 totally stuck somewhere, I'd make sure that whenever I have things to
49 ask I can show some progress.
50
51 Actually, I think you've got a nice project there. Not really being a
52 developer, I thing getting another database to work as the catalog is
53 rather simple, i.e. the thing itself is defined and you don't have to
54 spend time thinking how to layout the database etc. The catalog
55 database schema is really not very sophisticated, it's mainly rather
56 simple SQL queries and data insertions. As a result, you can do some
57 valuable work, but still concentrate on the main points of your
58 project - understanding how open source projects work and learning
59 about DB2.
60
61 Good luck!
62
63 Arno
64
65 > Thanks a lot.
66 >
67 > PS: Please, I am not requesting you to develop this backend. It's Just a
68 > technical opinion
69
70 Also PS:
71 I don't think your intentions can be misunderstood this way. In fact I
72 think your post was a good example of a clever question [:-)]
73
74 Arno
75
76 >
77 > --
78 > -----
79 > João Henrique Freitas - joahf_at_gmail.com
80 > Americana-SP-Brasil
81 > BSD051283
82 > LPI 1
83 > http://paginas.terra.com.br/informatica/joahf
84 > http://www.livejournal.com/users/joahf/
85 >
86 >
87 > -----
88 >
89 > -----

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10178.txt

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1 From: Kern Sibbald <kern <at> sibbald.com>
2 Subject: Re:_catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-09-05 20:53:34 GMT (29 weeks, 3 days, 6 hours and 15 minutes ago)
5 Hello,
6
7 I second Arno's comments, but add one note of caution. If I am not mistaken,
8 DB2 is a commercial product, so there may be licensing restrictions (both
9 with the GPL used by Bacula and with IBM) on using or referencing any DB2
10 client libraries that are needed in Bacula to interface to DB2. This is
11 something that is important to understand from the beginning. If you are
12 thinking of including your code in the Bacula project, you will need to read
13 the Developer's Guide, which is online on the web site and then fill out and
14 send in the FSFE FLA (fiduciary license agreement). Please see the
15 Developer's guide for more details.
16
17 Best regards,
18
19 Kern
20
21 PS: A related project is to turn the current db drivers into shared objects so
22 that we can support all databases with the same binary but with different

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23 shared objects, and if one is really clever, we could support multiple
24 different SQL engines at the same time.
25
26 On Wednesday 05 September 2007 16:27, João Henrique Freitas wrote:
27 > Hello,
28 >
29 > I like to open a discussion about Bacula project and some questions.
30 >
31 > For now, I am a postgraduation in development software and need to do a
32 > work to finish my course.
33 > The central motivation is study the contribution process on open source and
34 > free software. How the enthusiastic user can became a developer in some
35 > project.
36 >
37 > To prove my ideas and way I choice Bacula project to research and write my
38 > work.
39 >
40 > Basically, I want to implement a catalog backend to IBM DB2. In the same
41 > time I want to write my work based on this experiences.
42 >
43 > The motivation for the choice of IBM DB2 is not very especial. I need
44 > learning DB2 and currently work with it.
45 >
46 > So, before I spend more energy, what ours opinions about this?
47 >
48 > Thanks a lot.
49 >
50 > PS: Please, I am not requesting you to develop this backend. It's Just a
51 > technical opinion
52

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10189.txt
1 From: David Boyes <dboyes <at> sinenomine.net>
2 Subject: Re:_catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-09-06 12:59:19 GMT (29 weeks, 2 days, 14 hours and 9 minutes ago)
5 > > The motivation for the choice of IBM DB2 is not very especial. I
6 need
7 > > learning DB2 and currently work with it.
8 > >
9 > > So, before I spend more energy, what ours opinions about this?
10
11 Great idea. There is a lot of interest in DB/2 in the commercial world,
12 especially if you assume and test with z/OS DB/2 as the backend
13 database. The combination of Bacula on Linux for Z and the DB/2 on z/OS
14 is a very compelling argument for enterprise deployment.
15
16 If you don't have a z/OS system handy, talk to me offlist and I can put
17 you in touch with some people at IBM who can make development resources
18 available. Failing that, UDB on Linux for Z would be a good choice, and
19 there is a UDB Community Edition release for that platform (as well as
20 Intel and POWER).
21
22 > - read and understand the code of the different catalog backends.
23 > - start with one of the existing catalog backends - SQLite, MySQL,
24 > PostgreSQL - and start migrating it to DB2 SQL.
25
26 I did a little bit of looking at this a while back. Pay very close
27 attention to the Postgres back end; Postgres is very similar in behavior
28 and manner to DB/2 (both are picky about standards compliance, and have
29 a lot of the same quirks).
30
31 I have a lot of DB/2 types around here; I can probably help you with
32 queries.
33

```

```

10911.txt
1 From: João Henrique Freitas <joaohf <at> gmail.com>
2 Subject: Re:_catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-11-30 18:19:17 GMT (17 weeks, 1 day, 8 hours and 49 minutes ago)
5 Hello,
6
7 First, sorry for the long time without reply.
8
9 I don't forgot this ideas. But now I have time to spend it and learn more about

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10 | Bacula devel.
11 |
12 | About one week back, I started some experiences about DB2 API and C/C++. Read
13 | the src/cats/cats.h, src/cats/postgresql.c and various related files. I
14 | understood what I need to do and how to do it.
15 |
16 | Ah, I convert the SQL script to DB2 too.
17 |
18 | About license GPL and DB2:
19 |
20 | IBM DB2 is a proprietary product and Bacula is free software how they can stay
21 | together? I will use API DB2 (CLI ODBC). In DB2 license, there not have any
22 | limit about developer and distributed the work.
23 |
24 | For example, if I compiling bacula with DB2, I will has DB2 client and
25 | developers files installed. Or, if I distribute a rpm package of Bacula
26 | (previous compiling with DB2 support) the server need have a DB2 client
27 | installed.
28 |
29 |
30 | What I want say is: I can developing with DB2 API and distribute my work with
31 | GPL license and this work use a proprietary API to connect a DB2 database
32 | server. Somebody has experience about this situation between interaction GPL
33 | and proprietary APIs ?
34 |
35 | My intend is to only develop the backend to DB2 on Bacula and source code (GPL)
36 | necessary to it.
37 |
38 | Follow a text found in DB2 License IBM Data Server Driver for ODBC and CLI
39 |
40 | Redistribution Information
41 |
42 | If You have developed an application that is dependent upon the files or
43 | modules listed below or located in the directory named below, You may
44 | distribute these files or modules, subject to the following terms:
45 | 1) The files or modules must be in object code.
46 | 2) You will indemnify IBM or third parties that provide IBM products ("Third
47 | Parties") from and against any third party claim arising out of the use or
48 | distribution of Your application.
49 | 3) You may not use the same path name as the original files/modules.
50 | 4) You may not use IBM's or Third Parties' names or trademarks in connection
51 | with the marketing of Your applications without IBM's or Third Parties' prior
52 | written consent.
53 | 5) IBM or Third Parties provide copies of these files or modules "AS IS," i.e.,
54 | You are responsible for all technical assistance for Your application.
55 | 6) In Your license agreement with the recipient, You will notify the recipient
56 | that these files or modules may not be 1) used for any purpose other than to
57 | enable the application, 2) copied (except for backup purposes), 3) further
58 | distributed, or 4) reverse assembled, reverse compiled, or otherwise
59 | translated.
60 |
61 | Unix/Linux:
62 | db2trc
63 | db2ldcfg
64 | db2lddrgr
65 | db2level
66 | db2cli.ini
67 | 08501252.cnv
68 | 12520850.cnv
69 | IBM00850.ucb
70 | IBM01252.ucb
71 | ReadMe.txt
72 | libicclib.so
73 | libcrypto.so.0.9.7
74 | db2admn.mo
75 | db2adm.mo
76 | db2clia1.lst
77 | db2clias.lst
78 | db2clih.mo
79 | db2cli.mo
80 | db2clit.mo
81 | db2clp.mo
82 | db2diag.mo
83 | db2sqlh.mo
84 | db2sql.mo
85 | libdb2.a
86 | libdb2.sl

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87 libdb2.so
88 libdb2.so.1
89 IBMOSauthclient.a
90 IBMOSauthclient.sl
91 IBMOSauthclient.so
92 IBMOSauthclient.so.1
93
94
95
96 On Sep 6, 2007 10:59 AM, David Boyes <dboyes_<at>_sinomine.net> wrote:
97 > > The motivation for the choice of IBM DB2 is not very especial. I
98 need
99 > > learning DB2 and currently work with it.
100 > >
101 > > So, before I spend more energy, what ours opinions about this?
102
103 Great idea. There is a lot of interest in DB/2 in the commercial
104 world,
105 especially if you assume and test with z/OS DB/2 as the backend
106 database. The combination of Bacula on Linux for Z and the DB/2 on z/
107 OS
108 is a very compelling argument for enterprise deployment.
109
110 If you don't have a z/OS system handy, talk to me offlist and I can
111 put
112 you in touch with some people at IBM who can make development
113 resources
114 available. Failing that, UDB on Linux for Z would be a good choice,
115 and
116 there is a UDB Community Edition release for that platform (as well
117 as
118 Intel and POWER).
119
120 > - read and understand the code of the different catalog backends.
121 > - start with one of the existing catalog backends - SQLite, MySQL,
122 > PostgreSQL - and start migrating it to DB2 SQL.
123
124 I did a little bit of looking at this a while back. Pay very close
125 attention to the Postgres back end; Postgres is very similar in
126 behavior
127 and manner to DB/2 (both are picky about standards compliance, and
128 have
129 a lot of the same quirks).
130
131 I have a lot of DB/2 types around here; I can probably help you with
132 queries.
133
134 -----
135 ----
136

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10913.txt

```

1 From: Kern Sibbald <kern <at> sibbald.com>
2 Subject: Re: catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-11-30 20:39:41 GMT (17 weeks, 1 day, 6 hours and 28 minutes ago)
5 On Friday 30 November 2007 19:19, João Henrique Freitas wrote:
6 > Hello,
7 >
8 > First, sorry for the long time without reply.
9 >
10 > I don't forgot this ideas. But now I have time to spend it and learn more
11 > about Bacula devel.
12
13 Nice.
14
15 >
16 > About one week back, I started some experiences about DB2 API and C/C++.
17 > Read the src/cats/cats.h, src/cats/postgresql.c and various related files.
18 > I understood what I need to do and how to do it.
19
20 Nice.
21
22 >
23 > Ah, I convert the SQL script to DB2 too.
24 >
25 > About license GPL and DB2:

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26 >
27 > IBM DB2 is a proprietary product and Bacula is free software how they can
28 > stay together? I will use API DB2 (CLI ODBC). In DB2 license, there not
29 > have any limit about developer and distributed the work.
30 >
31 > For example, if I compiling bacula with DB2, I will has DB2 client and
32 > developers files installed. Or, if I distribute a rpm package of Bacula
33 > (previous compiling with DB2 support) the server need have a DB2 client
34 > installed.
35 >
36 >
37 > What I want say is: I can developing with DB2 API and distribute my work
38 > with GPL license and this work use a proprietary API to connect a DB2
39 > database server. Somebody has experience about this situation between
40 > interaction GPL and proprietary APIs ?
41 >
42 > My intend is to only develop the backend to DB2 on Bacula and source code
43 > (GPL) necessary to it.
44
45 Yes, as you have noted, there *are* license problems with Bacula (GPLv2)
46 interfacing to proprietary software. There are a few solutions though, but
47 I'll need to discuss this a bit with you offlist to get a good idea of what
48 you are planning to do so in order to know if it is possible and to decide
49 exactly how to do it.
50
51 (By the way, I just last night, not having seen your email, discussed these
52 kinds of problems with someone in the Free Software Foundation ...).
53
54 >
55 > Follow a text found in DB2 License IBM Data Server Driver for ODBC and CLI
56 >
57 > Redistribution Information
58 >
59 > If You have developed an application that is dependent upon the files or
60 > modules listed below or located in the directory named below, You may
61 > distribute these files or modules, subject to the following terms:
62 > 1) The files or modules must be in object code.
63
64 The above is very poor English coming from IBM. I have no idea what it really
65 means. It either means that you may distribute the source files providing
66 they are also in the object code, or it may mean that you may distribute the
67 results of using those files in object form only. I think you will need to
68 get this point clarified. Some of the files are obviously already in binary
69 form, but there are other ones which are obviously not.
70
71 > 2) You will indemnify IBM or third parties that provide IBM products
72 > ("Third Parties") from and against any third party claim arising out of the
73 > use or distribution of Your application.
74 > 3) You may not use the same path name as the original files/modules.
75
76 What does the above mean -- I cannot understand why such a restriction would
77 be needed.
78
79 > 4) You may not use IBM's or Third Parties' names or trademarks in
80 > connection with the marketing of Your applications without IBM's or Third
81 > Parties' prior written consent.
82
83 Well, the above is a bit absurd. It apparently says that you cannot use the
84 name DB2 in "marketing" Bacula, which means that it is useless to develop a
85 DB2 interface since we cannot say that we have a DB2 interface.
86
87 > 5) IBM or Third Parties provide copies of these files or modules "AS IS,"
88 > i.e., You are responsible for all technical assistance for Your
89 > application. 6) In Your license agreement with the recipient, You will
90 > notify the recipient that these files or modules may not be 1) used for any
91 > purpose other than to enable the application, 2) copied (except for backup
92 > purposes), 3) further distributed, or 4) reverse assembled, reverse
93 > compiled, or otherwise translated.
94 >
95 > Unix/Linux:
96 > db2trc
97 > db2ldcfg
98 > db2lddrg
99 > db2level
100 > db2cli.ini
101 > 08501252.cnv
102 > 12520850.cnv

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103 > IBM00850.ucs
104 > IBM01252.ucs
105 > ReadMe.txt
106 > libccclib.so
107 > libcrypto.so.0.9.7
108 > db2admh.mo
109 > db2adm.mo
110 > db2clia1.lst
111 > db2clias.lst
112 > db2clih.mo
113 > db2cli.mo
114 > db2clit.mo
115 > db2clp.mo
116 > db2diag.mo
117 > db2sqlh.mo
118 > db2sql.mo
119 > libdb2.a
120 > libdb2.sl
121 > libdb2.so
122 > libdb2.so.1
123 > IBMOSauthclient.a
124 > IBMOSauthclient.sl
125 > IBMOSauthclient.so
126 > IBMOSauthclient.so.1
127
128 I think we need to understand the above a bit better before continuing. If
129 you are writing something that work *only* on an IBM mainframe, then it is
130 not very interesting to the Bacula community and you might not get approval
131 from us to use Bacula with the above proprietary code. On the other hand, if
132 you are writing a Generic DB2 Bacula driver that would work on any platform
133 that has DB2, then it would be quite interesting.
134
135 Best regards,
136
137 Kern
138
139 >
140 > On Sep 6, 2007 10:59 AM, David Boyes <dboyes <at> sinenomine.net> wrote:
141 > > > The motivation for the choice of IBM DB2 is not very especial. I
142 > >
143 > > need
144 > >
145 > > > learning DB2 and currently work with it.
146 > > >
147 > > > So, before I spend more energy, what ours opinions about this?
148 > >
149 > > Great idea. There is a lot of interest in DB/2 in the commercial world,
150 > > especially if you assume and test with z/OS DB/2 as the backend
151 > > database. The combination of Bacula on Linux for Z and the DB/2 on z/OS
152 > > is a very compelling argument for enterprise deployment.
153 > >
154 > > If you don't have a z/OS system handy, talk to me offlist and I can put
155 > > you in touch with some people at IBM who can make development resources
156 > > available. Failing that, UDB on Linux for Z would be a good choice, and
157 > > there is a UDB Community Edition release for that platform (as well as
158 > > Intel and POWER).
159 > >
160 > > > - read and understand the code of the different catalog backends.
161 > > > - start with one of the existing catalog backends - SQLite, MySQL,
162 > > > PostgreSQL - and start migrating it to DB2 SQL.
163 > >
164 > > I did a little bit of looking at this a while back. Pay very close
165 > > attention to the Postgres back end; Postgres is very similar in behavior
166 > > and manner to DB/2 (both are picky about standards compliance, and have
167 > > a lot of the same quirks).
168 > >
169 > > I have a lot of DB/2 types around here; I can probably help you with
170 > > queries.
171 > >
172 > >
173 > > -----

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```

1 From: David Boyes <dboyes <at> sinenomine.net>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-11-30 21:16:32 GMT (17 weeks, 1 day, 5 hours and 52 minutes ago)

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5
6 > > Redistribution Information
7 > >
8 > > If You have developed an application that is dependent upon the files or
9 > > modules listed below or located in the directory named below, You may
10 > > distribute these files or modules, subject to the following terms:
11 > > 1) The files or modules must be in object code.
12 >
13 > The above is very poor English coming from IBM. I have no idea what it
14 > really
15 > means.
16
17 IANAL, however what this usually means when talking to IBM is that you can
18 compile and distribute modules
19 based on these source files, but you cannot distribute any source of the IBM-
20 supplied bits itself. If the
21 modules are distributed from IBM in binary form only, you cannot include them
22 in your package other than by
23 reference via dynamic linking.
24
25 > > 2) You will indemnify IBM or third parties that provide IBM products
26 > > ("Third Parties") from and against any third party claim arising out of
27 > the
28 > > use or distribution of Your application.
29
30 Usual "we didn't make it, not our fault" clause.
31
32 > > 3) You may not use the same path name as the original files/modules.
33 >
34 > What does the above mean -- I cannot understand why such a restriction
35 > would
36 > be needed.
37
38 It means you can't create something that replaces the IBM distributed files and
39 call it DB/2 UDB Client.
40 Also, on AIX, you're expected to register the pathname where your stuff goes
41 with IBM if you expect it to go
42 into /usr/lpp with all the other IBM-supplied stuff. They do this to minimize
43 conflicts between file
44 locations, and incidentally, to force their own developers to keep the files
45 for a single product in one
46 place (rather than scattering them around the filesystem like Microsoft or CA
47 is wont to do).
48
49 > > 4) You may not use IBM's or Third Parties' names or trademarks in
50 > > connection with the marketing of Your applications without IBM's or
51 > Third
52 > > Parties' prior written consent.
53 >
54 > Well, the above is a bit absurd. It apparently says that you cannot use
55 > the
56 > name DB2 in "marketing" Bacula, which means that it is useless to develop
57 > a
58 > DB2 interface since we cannot say that we have a DB2 interface.
59
60 They have to have this in the agreement or THEY lose the ability to prosecute
61 if someone *does* hijack the
62 trademark. They have to enforce the trademark or lose the right to it entirely.
63 See Kleenex/Jello/Xerox
64 machine/etc.
65
66 There are a set of rules for using the DB/2 trademark published on the IBM WWW
67 site, and if you register as a one
68 of their developers, in exchange you get limited rights to reference the
69 trademarks according to the
70 rules. They're not onerous; it comes down to you just have to spell it
71 correctly and not cause them grief
72 about what you do with it.
73
74 > > 5) IBM or Third Parties provide copies of these files or modules "AS
75 > IS,"
76 > > i.e., You are responsible for all technical assistance for Your
77 > > application. 6) In Your license agreement with the recipient, You will
78 > > notify the recipient that these files or modules may not be 1) used for
79 > any
80 > > purpose other than to enable the application, 2) copied (except for
81 > backup

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82 > > purposes), 3) further distributed, or 4) reverse assembled, reverse
83 > > compiled, or otherwise translated.
84
85 Not our fault, not our fault, not our fault, and if somebody misuses your
86 product to do something illegal,
87 then it's still your fault. Welcome to American IP law.
88
89 *gag*
90
91 > I think we need to understand the above a bit better before continuing.
92 > If
93 > you are writing something that work *only* on an IBM mainframe, then it is
94 > not very interesting to the Bacula community and you might not get
95 > approval
96 > from us to use Bacula with the above proprietary code. On the other hand,
97 > if
98 > you are writing a Generic DB2 Bacula driver that would work on any
99 > platform
100 > that has DB2, then it would be quite interesting.
101
102 The DB/2 client code he's working with uses an IP socket connection to talk to
103 a DB/2 server. It doesn't care
104 what platform DB/2 actually runs on (albeit the client is supported on a subset
105 of the platforms that
106 Bacula runs on).
107

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```

10920.txt
1 From: Kern Sibbald <kern <at> sibbald.com>
2 Subject: Re:_catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-01 11:28:17 GMT (17 weeks, 15 hours and 40 minutes ago)
5 On Friday 30 November 2007 22:16, David Boyes wrote:
6 > > > Redistribution Information
7 > > >
8 > > > If You have developed an application that is dependent upon the files
9 > > > or modules listed below or located in the directory named below, You
10 > > > may distribute these files or modules, subject to the following terms:
11 > > > 1) The files or modules must be in object code.
12 > >
13 > > The above is very poor English coming from IBM. I have no idea what it
14 > > really
15 > > means.
16 >
17 > IANAL, however what this usually means when talking to IBM is that you can
18 > compile and distribute modules based on these source files, but you cannot
19 > distribute any source of the IBM-supplied bits itself. If the modules are
20 > distributed from IBM in binary form only, you cannot include them in your
21 > package other than by reference via dynamic linking.
22 >
23 > > > 2) You will indemnify IBM or third parties that provide IBM products
24 > > > ("Third Parties") from and against any third party claim arising out of
25 > >
26 > > the
27 > >
28 > > > use or distribution of Your application.
29 >
30 > Usual "we didn't make it, not our fault" clause.
31 >
32 > > > 3) You may not use the same path name as the original files/modules.
33 > >
34 > > What does the above mean -- I cannot understand why such a restriction
35 > > would
36 > > be needed.
37 >
38 > It means you can't create something that replaces the IBM distributed files
39 > and call it DB/2 UDB Client. Also, on AIX, you're expected to register the
40 > pathname where your stuff goes with IBM if you expect it to go into
41 > /usr/lpp with all the other IBM-supplied stuff. They do this to minimize
42 > conflicts between file locations, and incidentally, to force their own
43 > developers to keep the files for a single product in one place (rather than
44 > scattering them around the filesystem like Microsoft or CA is wont to do).
45 >
46 > > > 4) You may not use IBM's or Third Parties' names or trademarks in
47 > > > connection with the marketing of Your applications without IBM's or
48 > >
49 > > Third

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50 > >
51 > > > Parties' prior written consent.
52 > >
53 > > Well, the above is a bit absurd. It apparently says that you cannot use
54 > > the
55 > > name DB2 in "marketing" Bacula, which means that it is useless to develop
56 > > a
57 > > DB2 interface since we cannot say that we have a DB2 interface.
58 > >
59 > > They have to have this in the agreement or THEY lose the ability to
60 > > prosecute if someone *does* hijack the trademark. They have to enforce the
61 > > trademark or lose the right to it entirely. See Kleenex/Jello/Xerox
62 > > machine/etc.
63 > >
64 > > There are a set of rules for using the DB/2 trademark published on the IBM
65 > > WWW site, and if you register as a one of their developers, in exchange you
66 > > get limited rights to reference the trademarks according to the rules.
67 > > They're not onerous; it comes down to you just have to spell it correctly
68 > > and not cause them grief about what you do with it.
69 > >
70 > > > 5) IBM or Third Parties provide copies of these files or modules "AS
71 > >
72 > > IS,"
73 > >
74 > > > i.e., You are responsible for all technical assistance for Your
75 > > > application. 6) In Your license agreement with the recipient, You will
76 > > > notify the recipient that these files or modules may not be 1) used for
77 > >
78 > > any
79 > >
80 > > > purpose other than to enable the application, 2) copied (except for
81 > >
82 > > backup
83 > >
84 > > > purposes), 3) further distributed, or 4) reverse assembled, reverse
85 > > > compiled, or otherwise translated.
86 > >
87 > > Not our fault, not our fault, not our fault, and if somebody misuses your
88 > > product to do something illegal, then it's still your fault. Welcome to
89 > > American IP law.
90 > >
91 > > *gag*
92
93 Well, all the above seem to have some solution or workaround, but it will take
94 a bit of organization.
95
96 >
97 > > I think we need to understand the above a bit better before continuing.
98 > > If
99 > > > you are writing something that work *only* on an IBM mainframe, then it
100 > > > is not very interesting to the Bacula community and you might not get
101 > > > approval
102 > > > from us to use Bacula with the above proprietary code. On the other
103 > > > hand, if
104 > > > you are writing a Generic DB2 Bacula driver that would work on any
105 > > > platform
106 > > > that has DB2, then it would be quite interesting.
107 > >
108 > > The DB/2 client code he's working with uses an IP socket connection to talk
109 > > to a DB/2 server. It doesn't care what platform DB/2 actually runs on
110 > > (albeit the client is supported on a subset of the platforms that Bacula
111 > > runs on).
112 > >
113
114 Well, linking Bacula to a shared object that is proprietary, or using header
115 files in Bacula which are proprietary would be clearly a violation of the
116 GPL, so be careful what you are getting yourselves into. License violations
117 are not much fun for the person(s) violating the license -- especially
118 because by properly working with the project up front, you can avoid
119 problems.
120
121 Using all GPLed code inside of Bacula and in any shared objects that Bacula
122 references, then using a socket to talk to a proprietary DB2 engine, may be
123 permitted under the GPL (I am not 100% sure as there seem to be some
124 differences of opinion).
125

```

10944.txt

```

1  From: João Henrique Freitas <joaohf <at> gmail.com>
2  Subject: Re:_catalog_backend_to_IBM_DB2
3  Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4  Date: 2007-12-03 12:06:44 GMT (16 weeks, 5 days, 15 hours and 1 minute ago)
5
6  Ok,
7
8  Discussion about license is much serious and do not can have any mistakes.
9
10 I will search about license between DB2 and Bacula. When take some result, I
11 post here.
12
13 Kern, my intentions is to do this work to run in any platform not only for
14 mainframe.
15
16 Thanks
17
18 On Dec 1, 2007 9:28 AM, Kern Sibbald <kern_<at>_sibbald.com> wrote:
19   On Friday 30 November 2007 22:16, David Boyes wrote:
20     > > Redistribution Information
21     > >
22     > > If You have developed an application that is dependent upon the
23     > > files
24     > > or modules listed below or located in the directory named
25     > > below, You
26     > > may distribute these files or modules, subject to the following
27     > > terms:
28     > > > 1) The files or modules must be in object code.
29     > >
30     > > The above is very poor English coming from IBM. I have no idea
31     > > what it
32     > > really
33     > > means.
34     >
35     > IANAL, however what this usually means when talking to IBM is that
36     > you can
37     > compile and distribute modules based on these source files, but you
38     > cannot
39     > distribute any source of the IBM-supplied bits itself. If the
40     > modules are
41     > distributed from IBM in binary form only, you cannot include them
42     > in your
43     > package other than by reference via dynamic linking.
44     >
45     > > > 2) You will indemnify IBM or third parties that provide IBM
46     > > > products
47     > > > ("Third Parties") from and against any third party claim
48     > > > arising out of
49     > > >
50     > > > the
51     > > >
52     > > > use or distribution of Your application.
53     > >
54     > Usual "we didn't make it, not our fault" clause.
55     >
56     > > > 3) You may not use the same path name as the original files/
57     > > > modules.
58     > >
59     > > What does the above mean -- I cannot understand why such a
60     > > restriction
61     > > would
62     > > be needed.
63     >
64     > It means you can't create something that replaces the IBM
65     > distributed files
66     > and call it DB/2 UDB Client. Also, on AIX, you're expected to
67     > register the
68     > pathname where your stuff goes with IBM if you expect it to go into
69     > /usr/lpp with all the other IBM-supplied stuff. They do this to
70     > minimize
71     > conflicts between file locations, and incidentally, to force their
72     > own
73     > developers to keep the files for a single product in one place
74     > (rather than
75     > scattering them around the filesystem like Microsoft or CA is wont
76     > to do).
```

```

77 >
78 > > > 4) You may not use IBM's or Third Parties' names or trademarks
79 in
80 > > > connection with the marketing of Your applications without
81 IBM's or
82 > >
83 > > Third
84 > >
85 > > > Parties' prior written consent.
86 > >
87 > > Well, the above is a bit absurd. It apparently says that you
88 cannot use
89 > > the
90 > > name DB2 in "marketing" Bacula, which means that it is useless to
91 develop
92 > > a
93 > > DB2 interface since we cannot say that we have a DB2 interface.
94 >
95 > They have to have this in the agreement or THEY lose the ability to
96 > prosecute if someone *does* hijack the trademark. They have to
97 enforce the
98 > trademark or lose the right to it entirely. See Kleenex/Jello/Xerox
99 > machine/etc.
100 >
101 > There are a set of rules for using the DB/2 trademark published on
102 the IBM
103 > WWW site, and if you register as a one of their developers, in
104 exchange you
105 > get limited rights to reference the trademarks according to the
106 rules.
107 > They're not onerous; it comes down to you just have to spell it
108 correctly
109 > and not cause them grief about what you do with it.
110 >
111 > > > 5) IBM or Third Parties provide copies of these files or
112 modules "AS
113 > >
114 > > IS,"
115 > >
116 > > > i.e., You are responsible for all technical assistance for Your
117
118 > > > application. 6) In Your license agreement with the recipient,
119 You will
120 > > > notify the recipient that these files or modules may not be 1)
121 used for
122 > >
123 > > any
124 > >
125 > > > purpose other than to enable the application, 2) copied (except
126 for
127 > >
128 > > backup
129 > >
130 > > > purposes), 3) further distributed, or 4) reverse assembled,
131 reverse
132 > > > compiled, or otherwise translated.
133 >
134 > Not our fault, not our fault, not our fault, and if somebody
135 misuses your
136 > product to do something illegal, then it's still your fault.
137 Welcome to
138 > American IP law.
139 >
140 > *gag*
141
142 Well, all the above seem to have some solution or workaround, but it
143 will take
144 a bit of organization.
145
146 >
147 > > I think we need to understand the above a bit better before
148 continuing.
149 > > If
150 > > you are writing something that work *only* on an IBM mainframe,
151 then it
152 > > is not very interesting to the Bacula community and you might not
153 get

```

```

154 > > approval
155 > > from us to use Bacula with the above proprietary code. On the
156 other
157 > > hand, if
158 > > you are writing a Generic DB2 Bacula driver that would work on
159 any
160 > > platform
161 > > that has DB2, then it would be quite interesting.
162 >
163 > The DB/2 client code he's working with uses an IP socket connection
164 to talk
165 > to a DB/2 server. It doesn't care what platform DB/2 actually runs
166 on
167 > (albeit the client is supported on a subset of the platforms that
168 Bacula
169 > runs on).
170 >
171
172 Well, linking Bacula to a shared object that is proprietary, or using
173 header
174 files in Bacula which are proprietary would be clearly a violation of
175 the
176 GPL, so be careful what you are getting yourselves into. License
177 violations
178 are not much fun for the person(s) violating the license -
179 - especially
180 because by properly working with the project up front, you can avoid
181 problems.
182
183 Using all GPLed code inside of Bacula and in any shared objects that
184 Bacula
185 references, then using a socket to talk to a proprietary DB2 engine,
186 may be

```

10947.txt

```

1 From: Kern Sibbald <kern <at> sibbald.com>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-03 14:19:58 GMT (16 weeks, 5 days, 12 hours and 48 minutes ago)
5 On Monday 03 December 2007 13:06, João Henrique Freitas wrote:
6 > OK,
7 >
8 > Discussion about license is much serious and do not can have any mistakes.
9
10 Yes, I agree that it is better not to make any mistakes, but what is more
11 important is your intention, which seems to me from what you wrote below to
12 be perfectly OK.
13
14 >
15 > I will search about license between DB2 and Bacula. When take some result,
16 > I post here.
17 >
18 > Kern, my intentions is to do this work to run in any platform not only for
19 > mainframe.
20
21 OK, that is good. After that the most important thing is to understand
22 *exactly* what files Bacula will need to be able to build the Bacula DB2
23 driver and what their license is.
24
25 The other critical issue is the availability of those files: that is can
26 anyone get them, or are they available only to certain people and under what
27 conditions. At an absolute minimum, the Bacula project must be able to
28 possess all files needed to build Bacula. If that is not the case, then it
29 would be pretty much impossible to include the DB2 driver. The project also
30 needs to be able to distribute at least the binaries, which from the license
31 you listed seems to be OK.
32
33 The next thing that is not a requirement but is important is that any user who
34 wants to get those files to build the DB2 driver should have access to them.
35 This would permit anyone to build the driver and not just the project. This
36 is not an absolute requirement, but without it, there is a serious conflict
37 with the spirit of the GPL.
38
39 Best regards,
40
41 Kern
42

```

```

43 >
44 > Thanks
45 >
46 > On Dec 1, 2007 9:28 AM, Kern Sibbald <kern <at> sibbald.com> wrote:
47 > > On Friday 30 November 2007 22:16, David Boyes wrote:
48 > > > > Redistribution Information
49 > > > >
50 > > > > If You have developed an application that is dependent upon the
51 > >
52 > > files
53 > >
54 > > > > or modules listed below or located in the directory named below,
55 > > > > You may distribute these files or modules, subject to the following
56 > >
57 > > terms:
58 > > > > 1) The files or modules must be in object code.
59 > > >
60 > > > > The above is very poor English coming from IBM. I have no idea what
61 > >
62 > > it
63 > >
64 > > > really
65 > > > means.
66 > >
67 > > IANAL, however what this usually means when talking to IBM is that you
68 > >
69 > > can
70 > >
71 > > > compile and distribute modules based on these source files, but you
72 > >
73 > > cannot
74 > >
75 > > > distribute any source of the IBM-supplied bits itself. If the modules
76 > >
77 > > are
78 > >
79 > > > distributed from IBM in binary form only, you cannot include them in
80 > >
81 > > your
82 > >
83 > > > package other than by reference via dynamic linking.
84 > >
85 > > > > 2) You will indemnify IBM or third parties that provide IBM
86 > > > > products ("Third Parties") from and against any third party claim
87 > > > > arising out
88 > >
89 > > of
90 > >
91 > > > the
92 > > >
93 > > > > use or distribution of Your application.
94 > >
95 > > > Usual "we didn't make it, not our fault" clause.
96 > >
97 > > > > 3) You may not use the same path name as the original
98 > > > > files/modules.
99 > > >
100 > > > > What does the above mean -- I cannot understand why such a
101 > > > > restriction would
102 > > > > be needed.
103 > >
104 > > > It means you can't create something that replaces the IBM distributed
105 > >
106 > > files
107 > >
108 > > > and call it DB/2 UDB Client. Also, on AIX, you're expected to register
109 > >
110 > > the
111 > >
112 > > > pathname where your stuff goes with IBM if you expect it to go into
113 > > > /usr/lpp with all the other IBM-supplied stuff. They do this to
114 > > > minimize conflicts between file locations, and incidentally, to force
115 > > > their own developers to keep the files for a single product in one
116 > > > place (rather
117 > >
118 > > than
119 > >

```

```

120 >>> scattering them around the filesystem like Microsoft or CA is wont to
121 >>
122 >> do).
123 >>
124 >>>> 4) You may not use IBM's or Third Parties' names or trademarks in
125 >>>> connection with the marketing of Your applications without IBM's or
126 >>>>
127 >>>> Third
128 >>>>
129 >>>> Parties' prior written consent.
130 >>>>
131 >>>> Well, the above is a bit absurd. It apparently says that you cannot
132 >>
133 >> use
134 >>
135 >>>> the
136 >>>> name DB2 in "marketing" Bacula, which means that it is useless to
137 >>
138 >> develop
139 >>
140 >>>> a
141 >>>> DB2 interface since we cannot say that we have a DB2 interface.
142 >>>>
143 >>>> They have to have this in the agreement or THEY lose the ability to
144 >>>> prosecute if someone *does* hijack the trademark. They have to enforce
145 >>
146 >> the
147 >>
148 >>>> trademark or lose the right to it entirely. See Kleenex/Jello/Xerox
149 >>>> machine/etc.
150 >>>>
151 >>>> There are a set of rules for using the DB/2 trademark published on the
152 >>
153 >> IBM
154 >>
155 >>>> WWW site, and if you register as a one of their developers, in exchange
156 >>
157 >> you
158 >>
159 >>>> get limited rights to reference the trademarks according to the rules.
160 >>>> They're not onerous; it comes down to you just have to spell it
161 >>
162 >> correctly
163 >>
164 >>>> and not cause them grief about what you do with it.
165 >>>>
166 >>>>> 5) IBM or Third Parties provide copies of these files or modules
167 >>>>> "AS
168 >>>>>
169 >>>>> IS,"
170 >>>>>
171 >>>>> i.e., You are responsible for all technical assistance for Your
172 >>>>> application. 6) In Your license agreement with the recipient, You
173 >>
174 >> will
175 >>
176 >>>>> notify the recipient that these files or modules may not be 1) used
177 >>
178 >> for
179 >>
180 >>>>> any
181 >>>>>
182 >>>>> purpose other than to enable the application, 2) copied (except for
183 >>>>>
184 >>>>> backup
185 >>>>>
186 >>>>> purposes), 3) further distributed, or 4) reverse assembled, reverse
187 >>>>> compiled, or otherwise translated.
188 >>>>>
189 >>>>> Not our fault, not our fault, not our fault, and if somebody misuses
190 >>
191 >> your
192 >>
193 >>>>> product to do something illegal, then it's still your fault. Welcome to
194 >>>>> American IP law.
195 >>>>>
196 >>>>> *gag*

```

```

197 > >
198 > > Well, all the above seem to have some solution or workaround, but it will
199 > > take
200 > > a bit of organization.
201 > >
202 > > > I think we need to understand the above a bit better before
203 > >
204 > > continuing.
205 > >
206 > > > If
207 > > > you are writing something that work *only* on an IBM mainframe, then
208 > >
209 > > it
210 > >
211 > > > is not very interesting to the Bacula community and you might not get
212 > > > approval
213 > > > from us to use Bacula with the above proprietary code. On the other
214 > > > hand, if
215 > > > you are writing a Generic DB2 Bacula driver that would work on any
216 > > > platform
217 > > > that has DB2, then it would be quite interesting.
218 > >
219 > > The DB/2 client code he's working with uses an IP socket connection to
220 > >
221 > > talk
222 > >
223 > > > to a DB/2 server. It doesn't care what platform DB/2 actually runs on
224 > > > (albeit the client is supported on a subset of the platforms that
225 > > > Bacula runs on).
226 > >
227 > > Well, linking Bacula to a shared object that is proprietary, or using
228 > > header
229 > > files in Bacula which are proprietary would be clearly a violation of the
230 > > GPL, so be careful what you are getting yourselves into. License
231 > > violations
232 > > are not much fun for the person(s) violating the license -- especially
233 > > because by properly working with the project up front, you can avoid
234 > > problems.
235 > >
236 > > Using all GPLed code inside of Bacula and in any shared objects that
237 > > Bacula
238 > > references, then using a socket to talk to a proprietary DB2 engine, may
239 > > be
240 > > permitted under the GPL (I am not 100% sure as there seem to be some
241 > > differences of opinion).
242 > >
243 > > -----

```

10948.txt

```

1 From: David Boyes <dboyes<at>sinenomine.net>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-03 19:19:12 GMT (16 weeks, 5 days, 7 hours and 49 minutes ago)
5
6 > OK, that is good. After that the most important thing is to
7 understand
8 > *exactly* what files Bacula will need to be able to build the Bacula
9 DB2
10 > driver and what their license is.
11 > <snip>
12 > The other critical issue is the availability of those files: that is
13 can
14 > anyone get them, or are they available only to certain people and
15 under
16 > what
17 > conditions.
18
19 The files he needs are part of the DB/2 Client Development kit, which
20 are part of DB/2. If you legitimately have DB/2 UDB or DB/2 for z/OS,
21 you have them. If you don't, then you don't, and you can't get them any
22 other way. You'd also have to take into consideration what platforms
23 support DB/2 -- DB/2 isn't on all the platforms Bacula runs on, which
24 will cause problems.
25
26 Sounds like it might be smarter to implement a Bacula interface to the
27 Perl DBI:: package interface, and then the problem is permanently
28 solved, and not just for DB/2, but for just about any useful database

```



```

29 that currently exists. That would give us Oracle, Ingres, DB/2, Sybase,
30 etc w/o imposing other restrictions. There would be some restrictions on
31 what SQL statements can be fed to the DBI interface, but Bacula doesn't
32 do anything that fancy, so the restrictions would be fairly minor, IMHO.
33
34 > The next thing that is not a requirement but is important is that any
35 user
36 > who
37 > wants to get those files to build the DB2 driver should have access to
38 > them.
39
40 See above.
41

```

```

1 From: Kern Sibbald <kern <at> sibbald.com>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-03 21:00:21 GMT (16 weeks, 5 days, 6 hours and 8 minutes ago)
5 On Monday 03 December 2007 20:19, David Boyes wrote:
6 > > OK, that is good. After that the most important thing is to
7 >
8 > understand
9 >
10 > > *exactly* what files Bacula will need to be able to build the Bacula
11 >
12 > DB2
13 >
14 > > driver and what their license is.
15 > > <snip>
16 > > The other critical issue is the availability of those files: that is
17 >
18 > can
19 >
20 > > anyone get them, or are they available only to certain people and
21 >
22 > under
23 >
24 > > what
25 > > conditions.
26 >
27 > The files he needs are part of the DB/2 Client Development kit, which
28 > are part of DB/2. If you legitimately have DB/2 UDB or DB/2 for z/OS,
29 > you have them. If you don't, then you don't, and you can't get them any
30 > other way. You'd also have to take into consideration what platforms
31 > support DB/2 -- DB/2 isn't on all the platforms Bacula runs on, which
32 > will cause problems.
33
34 As long as the project could get a copy of the necessary code, I don't see any
35 problem. The fact that DB2 isn't on all the platforms that Bacula runs on is
36 not a problem -- what counts is that users have a choice and that the source
37 is open and that users are not restrained from building it on their systems.
38
39 >
40 > Sounds like it might be smarter to implement a Bacula interface to the
41 > Perl DBI:: package interface, and then the problem is permanently
42 > solved, and not just for DB/2, but for just about any useful database
43 > that currently exists. That would give us Oracle, Ingres, DB/2, Sybase,
44 > etc w/o imposing other restrictions. There would be some restrictions on
45 > what SQL statements can be fed to the DBI interface, but Bacula doesn't
46 > do anything that fancy, so the restrictions would be fairly minor, IMHO.
47
48 I am a bit skeptical about ODBC since all the good DBAs that I know tell me
49 that it doesn't really work as it should. Judging from the problems we have
50 interfacing to SQLite, MySQL and PostgreSQL, I can understand what they are
51 saying. Also Bacula is now considerably more sophisticated in its use of SQL
52 now that we have Batch Insert and bat.
53
54 >
55 > > The next thing that is not a requirement but is important is that any
56 >
57 > user
58 >
59 > > who
60 > > wants to get those files to build the DB2 driver should have access to
61 > > them.
62 >

```

```

63 > See above.
64 >
65
66 After thinking about it a bit, it seems to me that both Oracle and DB2 rather
67 freely provide developer's kits to pretty much any one who wants one -- that
68 would resolve the problem of availability of the interface code. The only
69 other issue is the problem of incompatible licenses, which is much less of a
70 problem now that Bacula's code is "clean": i.e. written by me; code with BSD
71 3 clause license; or written by contributors that have signed the FSFE FLA.
72
73 Best regards,
74
75 Kern
76

```

```

10951.txt
1 From: David Boyes <dboyes<at>sinenomine.net>
2 Subject: Re:_catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-03 21:19:33 GMT (16 weeks, 5 days, 5 hours and 49 minutes ago)
5 > > Sounds like it might be smarter to implement a Bacula interface to
6 the
7 > > Perl DBI:: package interface, and then the problem is permanently
8 > > solved, and not just for DB/2, but for just about any useful
9 database
10 > > that currently exists. That would give us Oracle, Ingres, DB/2,
11 Sybase,
12 > > etc w/o imposing other restrictions. There would be some
13 restrictions on
14 > > what SQL statements can be fed to the DBI interface, but Bacula
15 doesn't
16 > > do anything that fancy, so the restrictions would be fairly minor,
17 IMHO.
18 >
19 > I am a bit skeptical about ODBC since all the good DBAs that I know
20 tell
21 > me
22 > that it doesn't really work as it should.
23
24 Perl DBI is not ODBC. It's a set of wrapper functions that allow
25 database-independent code to be written, with the actual database used
26 being selected at runtime by configuring the DBI interface code.
27 Database vendors supply drop-in back-ends (some open, some not), but no
28 code linkage occurs that is not open.
29

```

```

10953.txt
1 From: Kern Sibbald <kern<at>sibbald.com>
2 Subject: Re:_catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-03 21:29:07 GMT (16 weeks, 5 days, 5 hours and 39 minutes ago)
5 On Monday 03 December 2007 22:19, David Boyes wrote:
6 > > > Sounds like it might be smarter to implement a Bacula interface to
7 >
8 > the
9 >
10 > > > Perl DBI:: package interface, and then the problem is permanently
11 > > > solved, and not just for DB/2, but for just about any useful
12 >
13 > database
14 >
15 > > > that currently exists. That would give us Oracle, Ingres, DB/2,
16 >
17 > Sybase,
18 >
19 > > > etc w/o imposing other restrictions. There would be some
20 >
21 > restrictions on
22 >
23 > > > what SQL statements can be fed to the DBI interface, but Bacula
24 >
25 > doesn't
26 >
27 > > > do anything that fancy, so the restrictions would be fairly minor,
28 >
29 > IMHO.

```

```

30 >
31 > > I am a bit skeptical about ODBC since all the good DBAs that I know
32 >
33 > tell
34 >
35 > > me
36 > > that it doesn't really work as it should.
37 >
38 > Perl DBI is not ODBC. It's a set of wrapper functions that allow
39 > database-independent code to be written, with the actual database used
40 > being selected at runtime by configuring the DBI interface code.
41 > Database vendors supply drop-in back-ends (some open, some not), but no
42 > code linkage occurs that is not open.
43
44 Very interesting. It sounds like something that would be well worth looking
45 at providing we can interface to it from C (or C++) as I imagine is the case.
46

```

10972.txt

```

1 From: João Henrique Freitas <joaohf<at>gmail.com>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-10 13:33:55 GMT (15 weeks, 5 days, 13 hours and 34 minutes ago)
5 Hello
6
7 I forgot the DB2, I agree that is not a good idea implement the driver direct
8 on Bacula code (license problems).
9
10 But we have a way (already proposed initially by Kern and now by David). We can
11 use the libdbi ( http://libdbi.sourceforge.net/) to do the work and perhaps the
12 project "Item 34: Commercial database support Origin: Russell Howe Date: 26
13 July 2006" listed on http://www.bacula.org/?page=projects, will be done.
14
15 I started some experiments with libdbi, following:
16
17 1. Test the framework libdbi. Understand how they work and limitations
18 2. Code in Bacula the drivers for libdbi interfacing with the databases
19 supported by libdbi
20 3. Create the a libdbi driver for DB2 (and others databases too)
21
22 The motivations to use libdbi, are:
23
24 LGPL license
25 Database-independent abstraction layer in C
26 Multiple databases
27
28 If anybody has any questions, please do it.
29
30 Important: this idea not discard the already interfacing drivers already coded
31 in Bacula, but one way to use proprietary databases and connectivity API in
32 Bacula.
33
34 Thanks
35
36
37 >
38 > Perl DBI is not ODBC. It's a set of wrapper functions that allow
39 > database-independent code to be written, with the actual database
40 > used
41 > being selected at runtime by configuring the DBI interface code.
42 > Database vendors supply drop-in back-ends (some open, some not),
43 > but no
44 > code linkage occurs that is not open.
45
46 Very interesting. It sounds like something that would be well worth
47 looking
48 at providing we can interface to it from C (or C++) as I imagine is
49 the case.
50
51

```

10975.txt

```

1 From: Kern Sibbald <kern<at>sibbald.com>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2007-12-10 14:45:00 GMT (15 weeks, 5 days, 12 hours and 23 minutes ago)

```

```

5 | Hello João,
6 |
7 | This is a very good way to do it. Thanks.
8 |
9 | Good luck.
10 |
11 | Kern
12 |
13 | On Monday 10 December 2007 14:33, João Henrique Freitas wrote:
14 | > Hello
15 | >
16 | > I forgot the DE2, I agree that is not a good idea implement the driver
17 | > direct on Bacula code (license problems).
18 | >
19 | > But we have a way (already proposed initially by Kern and now by David). We
20 | > can use the libdbi (http://libdbi.sourceforge.net/) to do the work and
21 | > perhaps the project "Item 34: Commercial database support Origin: Russell
22 | > Howe Date: 26 July 2006" listed on http://www.bacula.org/?page=projects,
23 | > will be done.
24 | >
25 | > I started some experiments with libdbi, following:
26 | >
27 | > 1. Test the framework libdbi. Understand how they work and limitations
28 | > 2. Code in Bacula the drivers for libdbi interfacing with the databases
29 | > supported by libdbi
30 | > 3. Create the a libdbi driver for DE2 (and others databases too)
31 | >
32 | > The motivations to use libdbi, are:
33 | >
34 | > LGPL license
35 | > Database-independent abstraction layer in C
36 | > Multiple databases
37 | >
38 | > If anybody has any questions, please do it.
39 | >
40 | > Important: this idea not discard the already interfacing drivers already
41 | > coded in Bacula, but one way to use proprietary databases and connectivity
42 | > API in Bacula.
43 | >
44 | > Thanks
45 | >
46 | > > Perl DBI is not ODBC. It's a set of wrapper functions that allow
47 | > > database-independent code to be written, with the actual database used
48 | > > being selected at runtime by configuring the DBI interface code.
49 | > > Database vendors supply drop-in back-ends (some open, some not), but no
50 | > > code linkage occurs that is not open.
51 | > >
52 | > > Very interesting. It sounds like something that would be well worth
53 | > > looking
54 | > > at providing we can interface to it from C (or C++) as I imagine is the
55 | > > case.
56 | > >
57 | > >
58 | > >
59 | > >
60 | > >
61 | > >
62 | > > -----

```

```

1 | From: David Boyes <dboyes@sinomine.net>
2 | Subject: Re: _catalog_backend_to_IBM_DB2
3 | Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 | Date: 2007-12-10 15:41:18 GMT (15 weeks, 5 days, 11 hours and 27 minutes ago)
5 |
6 | > But we have a way (already proposed initially by Kern and now by David). We
7 | > can use the libdbi
8 | > ( http://libdbi.sourceforge.net/) to do the work
9 | > Even better -- someone else already did the hard part..[8-)] Gluing this into
10 | > Bacula will be fairly simple, as the database interaction is already fairly
11 | > well abstracted into a C++ class.
12 | > 1. Test the framework libdbi. Understand how they work and limitations
13 | > The major limitation is that if you want the SQL to work on multiple databases,
14 | > then you have to use the lowest common denominator language level and features.
15 | > There are places in Bacula where various things exploit "features" of the
16 | > currently supported databases. The Postgres code is the most rabidly standards-
17 | > compliant, so I'd start with that SQL and see if it just works out of the box

```

```

18 (ie, if you deliver the stuff written for Postgres to DB/2, I suspect it will
19 be more likely to work correctly than the MySQL code, which has a few local
20 features).
21
22 > 2. Code in Bacula the drivers for libdbi interfacing with the databases
23 supported by libdbi
24 See above. All the nasty parts are in the C++ class that abstracts the database
25 access.
26
27 > 3. Create the a libdbi driver for DB2 (and others databases too)
28 DB/2, Sybase and Oracle already have one, and they're officially supported by
29 the vendor. [8-]] Once you get the DBI layer in place, you can follow the
30 directions provided with the database to enable the DBI driver they provide.
31
32 > Important: this idea not discard the already interfacing drivers already
33 coded in Bacula, but one way to use
34 > proprietary databases and connectivity API in Bacula.
35
36 On the other hand, there are MySQL and Postgres DBI drivers, too. I don't know
37 about sqllite, but I wouldn't be heartbroken to see sqllite use fall off. It's
38 not like MySQL or Postgres are *that* big of a PITA to implement and manage. Or
39 someone could write a DBI driver for sqllite.

```

```

11126.txt
1 From: João Henrique Freitas <joaohf <at> gmail.com>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-01-11 12:39:09 GMT (11 weeks, 1 day, 14 hours and 29 minutes ago)
5 Hello,
6
7 I am like to report my status in libdbi interface to Bacula.
8
9 The libdbi drivers works in Bacula (configure, make, run).
10 Not regression tests had pass yet, because I need to do a job backup worked.
11
12 But I ran every comand in bconsole like "status dir", "list volumes"....
13
14 Basicly I create and code in src/cats/dbi.c, change the definitions
15 in src/cats/cats.h and add a new option in dird_conf.h dbitype.
16
17 If someone want to see the code, please tell me. When the job backup
18 work. I report a new status here.
19
20 Thanks
21
22 On Dec 10, 2007 1:41 PM, David Boyes <dboyes <at> sinenomine.net> wrote:
23 >
24 >
25 >
26 >
27 > > But we have a way (already proposed initially by Kern and now by David).
28 > We can use the libdbi
29 > > ( http://libdbi.sourceforge.net/) to do the work
30 >
31 > Even better -- someone else already did the hard part..[8-]] Gluing this into
32 > Bacula will be fairly simple, as the database interaction is already fairly
33 > well abstracted into a C++ class.
34 >
35 >
36 > > 1. Test the framework libdbi. Understand how they work and limitations
37 >
38 > The major limitation is that if you want the SQL to work on multiple
39 > databases, then you have to use the lowest common denominator language level
40 > and features. There are places in Bacula where various things exploit
41 > "features" of the currently supported databases. The Postgres code is the
42 > most rabidly standards-compliant, so I'd start with that SQL and see if it
43 > just works out of the box (ie, if you deliver the stuff written for
44 > Postgres to DB/2, I suspect it will be more likely to work correctly than
45 > the MySQL code, which has a few local features).
46 >
47 >
48 > > 2. Code in Bacula the drivers for libdbi interfacing with the databases
49 > supported by libdbi
50 >
51 > See above. All the nasty parts are in the C++ class that abstracts the
52 > database access.
53 >

```

```

54 >
55 > > 3. Create the a libdbi driver for DB2 (and others databases too)
56 >
57 > DB/2, Sybase and Oracle already have one, and they're officially supported
58 > by the vendor. [8-]) Once you get the DBI layer in place, you can follow the
59 > directions provided with the database to enable the DBI driver they provide.
60 >
61 >
62 > > Important: this idea not discard the already interfacing drivers already
63 > coded in Bacula, but one way to use
64 > > proprietary databases and connectivity API in Bacula.
65 >
66 > On the other hand, there are MySQL and Postgres DBI drivers, too. I don't
67 > know about sqllite, but I wouldn't be heartbroken to see sqllite use fall
68 > off. It's not like MySQL or Postgres are *that* big of a PITA to implement
69 > and manage. Or someone could write a DBI driver for sqllite.
70
71 --
72 -----
73 João Henrique Freitas - joahf_at_gmail.com
74 Campinas-SP-Brasil
75 BSD051283
76 LPI 1
77 http://joahf.pbwiki.com
78 http://www.livejournal.com/users/joahf/

```

```

11127.txt
1 From: Dan Langille <dan<at>langille.org>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-01-11 12:42:19 GMT (11 weeks, 1 day, 14 hours and 26 minutes ago)
5 João Henrique Freitas wrote:
6 > Hello,
7 >
8 > I am like to report my status in libdbi interface to Bacula.
9 >
10 > The libdbi drivers works in Bacula (configure, make, run).
11 > Not regression tests had pass yet, because I need to do a job backup worked.
12 >
13 > But I ran every comand in bconsole like "status dir", "list volumes"....
14 >
15 > Basicaly I create and code in src/cats/dbi.c, change the definitions
16 > in src/cats/cats.h and add a new option in dird_conf.h dbitype.
17 >
18 > If someone want to see the code, please tell me. When the job backup
19 > work. I report a new status here.
20
21 Congratulations. :)
22
23 When you get the backup and restore working, run the regression tests
24 from the regress directory in the repository.
25
26 --
27 Dan Langille - http://www.langille.org/
28 BSDCan - The Technical BSD Conference: http://www.bsdcn.org/
29 PGCon - The PostgreSQL Conference: http://www.pgcon.org/
30

```

```

11128.txt
1 From: Kern Sibbald <kern<at>sibbald.com>
2 Subject: Re: _catalog_backend_to_IBM_DB2
3 Newsgroups: gmmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-01-11 12:51:14 GMT (11 weeks, 1 day, 14 hours and 17 minutes ago)
5 Hello João,
6
7 On Friday 11 January 2008 13:39, João Henrique Freitas wrote:
8 > Hello,
9 >
10 > I am like to report my status in libdbi interface to Bacula.
11 >
12 > The libdbi drivers works in Bacula (configure, make, run).
13 > Not regression tests had pass yet, because I need to do a job backup
14 > worked.
15 >
16 > But I ran every comand in bconsole like "status dir", "list volumes"....
17

```

```

18 Great.
19
20 >
21 > Basically I create and code in src/cats/dbi.c, change the definitions
22 > in src/cats/cats.h and add a new option in dird_conf.h dbitype.
23
24 OK.
25
26 >
27 > If someone want to see the code, please tell me. When the job backup
28 > work. I report a new status here.
29
30 Yes, please do send me the code. It is important to see it early so that I
31 can avoid you running into problems later (programming style, Bacula specific
32 coding conventions, ...)
33
34 Best regards,
35
36 Kern
37
38 >
39 > Thanks
40 >
41 > On Dec 10, 2007 1:41 PM, David Boyes <dboyes <at> sinenomine.net> wrote:
42 > > But we have a way (already proposed initially by Kern and now by
43 > > David).
44 > >
45 > > We can use the libdbi
46 > >
47 > > ( http://libdbi.sourceforge.net/) to do the work
48 > >
49 > > Even better -- someone else already did the hard part..[8-)] Gluing this
50 > > into Bacula will be fairly simple, as the database interaction is already
51 > > fairly well abstracted into a C++ class.
52 > >
53 > > > 1. Test the framework libdbi. Understand how they work and limitations
54 > >
55 > > The major limitation is that if you want the SQL to work on multiple
56 > > databases, then you have to use the lowest common denominator language
57 > > level and features. There are places in Bacula where various things
58 > > exploit "features" of the currently supported databases. The Postgres
59 > > code is the most rably standards-compliant, so I'd start with that SQL
60 > > and see if it just works out of the box (ie, if you deliver the stuff
61 > > written for Postgres to DB/2, I suspect it will be more likely to work
62 > > correctly than the MySQL code, which has a few local features).
63 > >
64 > > > 2. Code in Bacula the drivers for libdbi interfacing with the databases
65 > >
66 > > supported by libdbi
67 > >
68 > > See above. All the nasty parts are in the C++ class that abstracts the
69 > > database access.
70 > >
71 > > > 3. Create the a libdbi driver for DB2 (and others databases too)
72 > >
73 > > DB/2, Sybase and Oracle already have one, and they're officially
74 > > supported by the vendor. [8-)] Once you get the DBI layer in place, you can
75 > > follow the directions provided with the database to enable the DBI driver
76 > > they provide.
77 > >
78 > > > Important: this idea not discard the already interfacing drivers
79 > > > already
80 > >
81 > > coded in Bacula, but one way to use
82 > >
83 > > > proprietary databases and connectivity API in Bacula.
84 > >
85 > > On the other hand, there are MySQL and Postgres DBI drivers, too. I don't
86 > > know about sqllite, but I wouldn't be heartbroken to see sqllite use fall
87 > > off. It's not like MySQL or Postgres are *that* big of a PITA to
88 > > implement and manage. Or someone could write a DBI driver for sqllite.
89

```

11241.txt

```

1 From: João Henrique Freitas <joaohf <at> gmail.com>
2 Subject: libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel

```

```

4 Date: 2008-02-01 01:03:31 GMT (8 weeks, 2 days, 2 hours and 5 minutes ago)
5 Hello,
6
7 This is a status report of the work to implement libdbi in Bacula.
8
9 In my tests *All regression tests running*. Now I fix some things
10 after post the code here.
11
12 I have a design problem:
13
14 The libdbi API need know what dbms we want to use and load the correct
15 driver. For exemple mysql, pgsql, sqlite3, etc...
16
17 Actually, in mysql.c, postgresql.c and dbi.c the scope of funcion
18 db_init_database is:
19
20     B_DB *
21     db_init_database(JCR *jcr, const char *db_name, const char *db_user,
22     const char *db_password,
23                     const char *db_address, int db_port, const char *db_socket,
24                     int mult_db_connections)
25
26 Is possible to add one more argument like char *db_type, this indicate
27 what driver libdbi will use?. So Bacula uses db_init_database in
28 various places... and need to change them too.
29
30 OR
31
32 The argument char *db_name would be: mysql:bacula where mysql indicate
33 a driver to libdbi and bacula is the name of database.
34
35 Like this in bacula-dir.conf:
36
37 Catalog {
38     Name = MyCatalog
39     dbaddress = 127.0.0.1; dbport = 5432; dbname = "mysql:bacula"; user
40     = bacula; password = "bacula"
41 }
42
43 On db_init_database, we split db_name and everything will be done
44 right without change in others places of the code.
45
46 I don't want to change others places of Bacula. What is the best solution?
47
48 Thanks
49
50 --
51 -----
52 João Henrique Freitas - joahf_at_gmail.com
53 Campinas-SP-Brasil
54 BSD051283
55 LPI 1
56 http://joahf.pbwiki.com
57 http://www.livejournal.com/users/joahf/

```

```

11242.txt
1 From: Kern Sibbald <kern <at> sibbald.com>
2 Subject: Re: _libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-02-01 08:09:25 GMT (8 weeks, 1 day, 18 hours and 59 minutes ago)
5 Hello,
6
7 I am really pleased to see that you are making progress. Please don't forget
8 to email me a copy of the code, in its current state. Doing so, can avoid
9 doing more work later as I will be able to give you early comments.
10
11 Concerning the design problem where you need to know the driver type: I have
12 been planning to turn the drivers into shared objects at some point and so
13 what you are asking for is what will also be needed at that point.
14
15 I would be interested to hear comments from other people on this list, but
16 rather than overload an existing directive my inclination would be to create
17 a new directive named:
18
19     DB Driver = "mysql" ...
20
21 or in your case it can be:

```



```

22      DB Driver = "libdbi:mysql" or "libdbi:postgres", ...
23
24
25 Note, once we have shared objects, in your case, two pieces of information are
26 needed by Bacula: 1. your driver name (libdbi or whatever you want), and 2.
27 the driver you are going to load. Obviously, in the current situation where
28 the Bacula driver is compiled in, the "libdbi" is not currently needed, but
29 that won't hurt anything.
30
31 Then make a new db_ call which would be:
32
33     db_load_driver(JCR *jcr, const char *db_driver);
34
35 At the moment, this would do nothing except save the name passed in the jcr
36 structure. Then in your libdbi db_init_database() code, you will be able to
37 parse the name to find what driver to call. Later, the db_load_driver() code
38 will be enhanced to actually load the appropriate shared object library ...
39
40 If everyone agrees on this, I'll be happy to add the necessary "core" code for
41 you.
42
43 Best regards,
44
45 Kern
46
47 On Friday 01 February 2008 02:03:31 João Henrique Freitas wrote:
48 > Hello,
49 >
50 > This is a status report of the work to implement libdbi in Bacula.
51 >
52 > In my tests *All regression tests running*. Now I fix some things
53 > after post the code here.
54 >
55 > I have a design problem:
56 >
57 > The libdbi API need know what dbms we want to use and load the correct
58 > driver. For exemple mysql, pgsql, sqlite3, etc...
59 >
60 > Actually, in mysql.c, postgresql.c and dbi.c the scope of funcion
61 > db_init_database is:
62 >
63 > B_DB *
64 > db_init_database(JCR *jcr, const char *db_name, const char *db_user,
65 > const char *db_password,
66 > const char *db_address, int db_port, const char
67 > *db_socket, int mult_db_connections)
68 >
69 > Is possible to add one more argument like char *db_type, this indicate
70 > what driver libdbi will use?. So Bacula uses db_init_database in
71 > various places... and need to change them too.
72 >
73 > OR
74 >
75 > The argument char *db_name would be: mysql:bacula where mysql indicate
76 > a driver to libdbi and bacula is the name of database.
77 >
78 > Like this in bacula-dir.conf:
79 >
80 > Catalog {
81 >   Name = MyCatalog
82 >   dbaddress = 127.0.0.1; dbport = 5432; dbname = "mysql:bacula"; user
83 > = bacula; password = "bacula"
84 > }
85 >
86 > On db_init_database, we split db_name and everything will be done
87 > right without change in others places of the code.
88 >
89 >
90 > I don't want to change others places of Bacula. What is the best solution?
91 >
92 > Thanks
93

```

11246.txt

```

1 From: David Boyes <dboyes<at>sinenomine.net>
2 Subject: Re:_libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel

```

```

4 Date: 2008-02-01 15:44:48 GMT (8 weeks, 1 day, 11 hours and 23 minutes ago)
5
6 > Is possible to add one more argument like char *db_type, this indicate
7 > what driver libdbi will use?. So Bacula uses db_init_database in
8 > various places... and need to change them too.
9
10 Why not add a /etc/bacula/dbms.conf file that the admin can edit to indicate
11 the installed database type
12 and read your database type information from there? I think it's unlikely that
13 there will be more than one
14 database type in an individual Bacula install. Then you can do the db_name_init
15 once and not have to touch
16 the rest of the code.
17

```

11247.txt

```

1 From: Kern Sibbald <kern<at>sibbald.com>
2 Subject: Re: libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-02-01 15:52:37 GMT (8 weeks, 1 day, 11 hours and 16 minutes ago)
5 On Friday 01 February 2008 16:44:48 David Boyes wrote:
6 >> Is possible to add one more argument like char *db_type, this indicate
7 >> what driver libdbi will use?. So Bacula uses db_init_database in
8 >> various places... and need to change them too.
9 >
10 > Why not add a /etc/bacula/dbms.conf file that the admin can edit to
11 > indicate the installed database type and read your database type
12 > information from there? I think it's unlikely that there will be more than
13 > one database type in an individual Bacula install. Then you can do the
14 > db_name_init once and not have to touch the rest of the code.
15
16 I have fewer problems with the idea of touching the code than with adding
17 another configuration file with possibly a different syntax. In fact, it
18 would probably take more code than what I am proposing to read the database
19 type from a separate file.
20
21 When the Bacula drivers become shared objects, Bacula will be capable of
22 working with multiple different database types simultaneously so any new
23 implementation should include that possibility.
24
25 Kern
26

```

11250.txt

```

1 From: John Stoffel <john<at>stoffel.org>
2 Subject: Re: libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-02-01 21:26:03 GMT (8 weeks, 1 day, 5 hours and 42 minutes ago)
5 >>>> "Kern" == Kern Sibbald <kern<at>sibbald.com> writes:
6
7 Kern> On Friday 01 February 2008 16:44:48 David Boyes wrote:
8 >> > Is possible to add one more argument like char *db_type, this indicate
9 >> > what driver libdbi will use?. So Bacula uses db_init_database in
10 >> > various places... and need to change them too.
11 >>
12 >> Why not add a /etc/bacula/dbms.conf file that the admin can edit to
13 >> indicate the installed database type and read your database type
14 >> information from there? I think it's unlikely that there will be more than
15 >> one database type in an individual Bacula install. Then you can do the
16 >> db_name_init once and not have to touch the rest of the code.
17
18 Kern> I have fewer problems with the idea of touching the code than
19 Kern> with adding another configuration file with possibly a different
20 Kern> syntax. In fact, it would probably take more code than what I am
21 Kern> proposing to read the database type from a separate file.
22
23 I agree that making another separate config file is a bad idea.
24
25 Kern> When the Bacula drivers become shared objects, Bacula will be
26 Kern> capable of working with multiple different database types
27 Kern> simultaneously so any new implementation should include that
28 Kern> possibility.
29
30 So why is this a good thing? I've never understood the idea to have
31 different catalogs either, or what the design goal is.
32

```

33 Should I be using different catalogs for each client? Should I be
34 using different Pools for each client?

35
36 John
37

11251.txt

1 From: David Boyes <dboyes <at> sinenomine.net>
2 Subject: Re: libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-02-01 23:03:13 GMT (8 weeks, 1 day, 4 hours and 5 minutes ago)
5 > Kern> When the Bacula drivers become shared objects, Bacula will be
6 > Kern> capable of working with multiple different database types
7 > Kern> simultaneously so any new implementation should include that
8 > Kern> possibility.
9
10 I wish you luck in supporting it -- you're going to need it.
11
12 I think the problems of using multiple databases for Bacula internals
13 and supporting multiple types of database clients are substantially
14 different, and if you want to support multiple types of databases for
15 the internals you'll either need to federate the disparate databases
16 into one view, or pick one for Bacula's internal use and stick with it.
17 I think there are serious integrity problems that you'll need to solve
18 if you want to use federated databases for Bacula internals (eg,
19 holographic table storage, and you'll need to deal with some really hard
20 failure scenarios that Just Aren't Worth It).
21
22 Reading a simple sequential file on daemon startup and storing the value
23 in a global variable for use by the various database routines passes the
24 KISS test in my book, but YMMV. Putting it a current config file is OK
25 too. In either case, get the value at startup, stuff it somewhere and
26 pass it behind the scenes.
27
28 > So why is this a good thing? I've never understood the idea to have
29 > different catalogs either, or what the design goal is.
30
31 The original purpose of using the libdbi interface is to remove the
32 details of the database implementation from the core Bacula code, which
33 allows support of a much wider range of database engines without
34 recoding for each one. Libdbi supports postgres, mysql, DB/2, Oracle,
35 Sybase, kdb, etc, etc via vendor-supplied (and supported) plugins.
36
37 As far as different catalogs go, I've never seen a point in it. Others
38 may vary.
39
40 > Should I be using different catalogs for each client?
41
42 Not unless you have lots of free time to reconcile them in case of a
43 disaster.
44
45 > Should I be
46 > using different Pools for each client?
47
48 You can, but I wouldn't recommend it unless you have very odd retention
49 or audit requirements for different clients AND lots of spare time to
50 debug things.
51

11252.txt

1 From: Dan Langille <dan <at> langille.org>
2 Subject: Re: libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-02-01 23:55:35 GMT (8 weeks, 1 day, 3 hours and 13 minutes ago)
5 David Boyes wrote:
6 >> Kern> When the Bacula drivers become shared objects, Bacula will be
7 >> Kern> capable of working with multiple different database types
8 >> Kern> simultaneously so any new implementation should include that
9 >> Kern> possibility.
10 >
11 > I wish you luck in supporting it -- you're going to need it.
12 >
13 > I think the problems of using multiple databases for Bacula internals
14 > and supporting multiple types of database clients are substantially
15 > different, and if you want to support multiple types of databases for
16 > the internals you'll either need to federate the disparate databases

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17 > into one view, or pick one for Bacula's internal use and stick with it.
18 > I think there are serious integrity problems that you'll need to solve
19 > if you want to use federated databases for Bacula internals (eg,
20 > holographic table storage, and you'll need to deal with some really hard
21 > failure scenarios that Just Aren't Worth It).
22
23 I have no idea what you are talking about. :)
24
25 Bacula now has the ability to use multiple Catalogs. At present, all of
26 the Catalogs must be of the same type (e.g. PostgreSQL). I read what Kern
27 said as allowing each Catalog to be a different database type (e.g. one of
28 PostgreSQL, another of MySQL).
29
30 A Catalog is a totally self-contained entity. Data is not shared across
31 Catalogs.
32
33 --
34 Dan Langille - http://www.langille.org/
35 BSDCan - The Technical BSD Conference: http://www.bsdcn.org/
36 PGCon - The PostgreSQL Conference: http://www.pgcon.org/
37

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11253.txt

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1 From: Kern Sibbald <kern<at>sibbald.com>
2 Subject: Re: libdbi_backend_to_catalog_database
3 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
4 Date: 2008-02-02 09:32:42 GMT (8 weeks, 17 hours and 36 minutes ago)
5 On Saturday 02 February 2008 00:03:13 David Boyes wrote:
6 > > Kern> When the Bacula drivers become shared objects, Bacula will be
7 > > Kern> capable of working with multiple different database types
8 > > Kern> simultaneously so any new implementation should include that
9 > > Kern> possibility.
10 >
11 > I wish you luck in supporting it -- you're going to need it.
12 >
13 > I think the problems of using multiple databases for Bacula internals
14 > and supporting multiple types of database clients are substantially
15 > different, and if you want to support multiple types of databases for
16 > the internals you'll either need to federate the disparate databases
17 > into one view, or pick one for Bacula's internal use and stick with it.
18 > I think there are serious integrity problems that you'll need to solve
19 > if you want to use federated databases for Bacula internals (eg,
20 > holographic table storage, and you'll need to deal with some really hard
21 > failure scenarios that Just Aren't Worth It).
22
23 Well, Bacula already supports multiple types of databases. It has a single
24 view of such databases, and *very* little code varies from database to
25 database (unfortunately SQL is not standardized like C). What Bacula
26 currently supports is multiple databases but of a single type per Bacula
27 binary. In the future, it will evolve to multiple databases but of multiple
28 types that are supported. The details support for the SQL servers is not in
29 Bacula's domain but rather what the SQL provider must support, so I don't see
30 any additional support requirements here other than to ensure that it is
31 clear in the job reports what database engine is being used ...
32
33 >
34 > Reading a simple sequential file on daemon startup and storing the value
35 > in a global variable for use by the various database routines passes the
36 > KISS test in my book, but YMMV. Putting it a current config file is OK
37 > too. In either case, get the value at startup, stuff it somewhere and
38 > pass it behind the scenes.
39
40 OK, for me it is much easier to put it in the current conf file. It is one
41 define in a header table, one entry in a look up table and one entry to
42 release the allocated memory -- rather trivial. Reading a new file requires
43 lots of extra stuff ...
44
45 >
46 > > So why is this a good thing? I've never understood the idea to have
47 > > different catalogs either, or what the design goal is.
48 >
49 > The original purpose of using the libdbi interface is to remove the
50 > details of the database implementation from the core Bacula code, which
51 > allows support of a much wider range of database engines without
52 > recoding for each one. Libdbi supports postgres, mysql, DB/2, Oracle,
53 > Sybase, kdb, etc, etc via vendor-supplied (and supported) plugins.
54 >

```

```

55 > As far as different catalogs go, I've never seen a point in it. Others
56 > may vary.
57
58 They are very useful for improving performance and for scaling while keeping a
59 single point of control (Director).
60
61 >
62 > > Should I be using different catalogs for each client?
63 >
64 > Not unless you have lots of free time to reconcile them in case of a
65 > disaster.
66 >
67 > > Should I be
68 > > using different Pools for each client?
69 >
70 > You can, but I wouldn't recommend it unless you have very odd retention
71 > or audit requirements for different clients AND lots of spare time to
72 > debug things.
73
74 Good advice.
75
76 Kern
77

```

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1
2 From: João Henrique Freitas <joaohf <at> gmail.com>
3 Subject: Re: libdbi_backend_to_catalog_database
4 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
5 Date: 2008-02-22 00:00:07 GMT (5 weeks, 2 days, 3 hours and 8 minutes ago)
6 Hello
7
8 Attached is the dbi patch for Bacula.
9
10 To use, are necessary libdbi-0.8.3 and libdbi-drivers-0.8.3 and Bacula
11 trunk code with ./configure --with-dbi
12
13 Last, configuring bacula-dir.conf with:
14
15 Catalog {
16     Name = MyCatalog
17     dbdriver = "dbi:postgresql"; dbport = 5432; dbaddress = 127.0.0.1
18     dbname = regress; user = regress; password = ""
19 }
20
21 dbdriver can be: dbi:mysql and dbi:postgresql. In the future can be
22 all drivers supported by libdbi.
23
24 The following itens need some work or review:
25
26 1- Implement bath insert with dbi
27 2- Review the options ./configure --with-dbi
28 3- To solve/review the make install when ./configure --with-dbi.
29 Currently, the database scripts don't is installed on system by make
30 install command.
31 4- Review in bscan patches
32 5- Documentation to install, configure and compiling bacula and libdbi
33
34 Any question I am available.
35
36 Thanks
37 Attachment_(dbi.c): text/x-csrc, 27 KiB
38 Attachment_(trunk-dbi.patch): text/x-diff, 38 KiB

```

```

1
2 From: João Henrique Freitas <joaohf <at> gmail.com>
3 Subject: Re: libdbi_backend_to_catalog_database
4 Newsgroups: gmane.comp.sysutils.backup.bacula.devel
5 Date: 2008-02-22 13:53:30 GMT (5 weeks, 1 day, 13 hours and 15 minutes ago)
6 Hello
7
8 Attached is the dbi patch for Bacula.
9
10 To use, are necessary libdbi-0.8.3 and libdbi-drivers-0.8.3 and Bacula
11 trunk code with ./configure --with-dbi
12
13 Last, configuring bacula-dir.conf with:

```