

**ByEntity/ByStar Libre Engine
Design and Implementation Notes**

Draft Document – Reflects Work in Progress

Document Nu: PLPC-110502

Mohsen Banan

<http://mohsen.banan.1.byname.net/ContactMe>

Version 1.5
January 4, 2008

Contents

1 Overview	1
2 ByEntity Roadmap	1
2.1 Extracted by bystarRoadmap.sh -i platformLayers	1
2.2 Extracted by bystarRoadmap.sh -i HostsHowTo	3
2.3 Extracted by bystarRoadmap.sh -i libreByStarInfoBase	5
2.4 Extracted by bystarRoadmap.sh -i bystarFullPicture	7
2.5 Extracted by bystarRoadmap.sh -i AcctsHowTo	10
2.6 Extracted by bystarRoadmap.sh -i actualOldCode	11
2.7 Extracted by bystarRoadmap.sh -i byentityLegacyDesign	13
2.8 Extracted by bystarRoadmap.sh -i byEntityLegacyCallFlow	15
2.9 Extracted by bystarRoadmap.sh -i modelAndTerminology	17
2.10 Extracted by bystarRoadmap.sh -i pointersAndReferences	18
2.11 Extracted by bystarRoadmap.sh -i howTos	19
2.12 Extracted by bystarRoadmap.sh -i help	19

List of Figures

1 By* Libre Services Layers	2
---------------------------------------	---

List of Tables

1 Overview

See figure for details.

2 ByEntity Roadmap

2.1 Extracted by bystarRoadmap.sh -i platformLayers

Description of bystarRoadmap.sh -- platformLayers

```
+-----+-----+
|         lpGenesis.sh + lpSysMgmtSteps.sh         |
|             intra / genesis1                     |
|         lpSysDevelopers.sh                       |
|-----+-----+-----+-----+

```

```
=====
ByStar Account Container Server Configuration
/libre/ByStar/InfoBase/HOST
=====

```

```
+-----+-----+
|         bystarHostAdmin.sh                       |
|         lpSysMgmtSteps.sh                       |
|             bystar / bacsNNNN                   |
|-----+-----+-----+-----+

```

```
=====
ByStar Account Container Server
=====

```

```
+-----+-----+
|         Ready For ByStarFactory                   |
|             Layer, see below                     |
|         bystarAcctsHosts.sh                     |
|-----+-----+-----+-----+

```

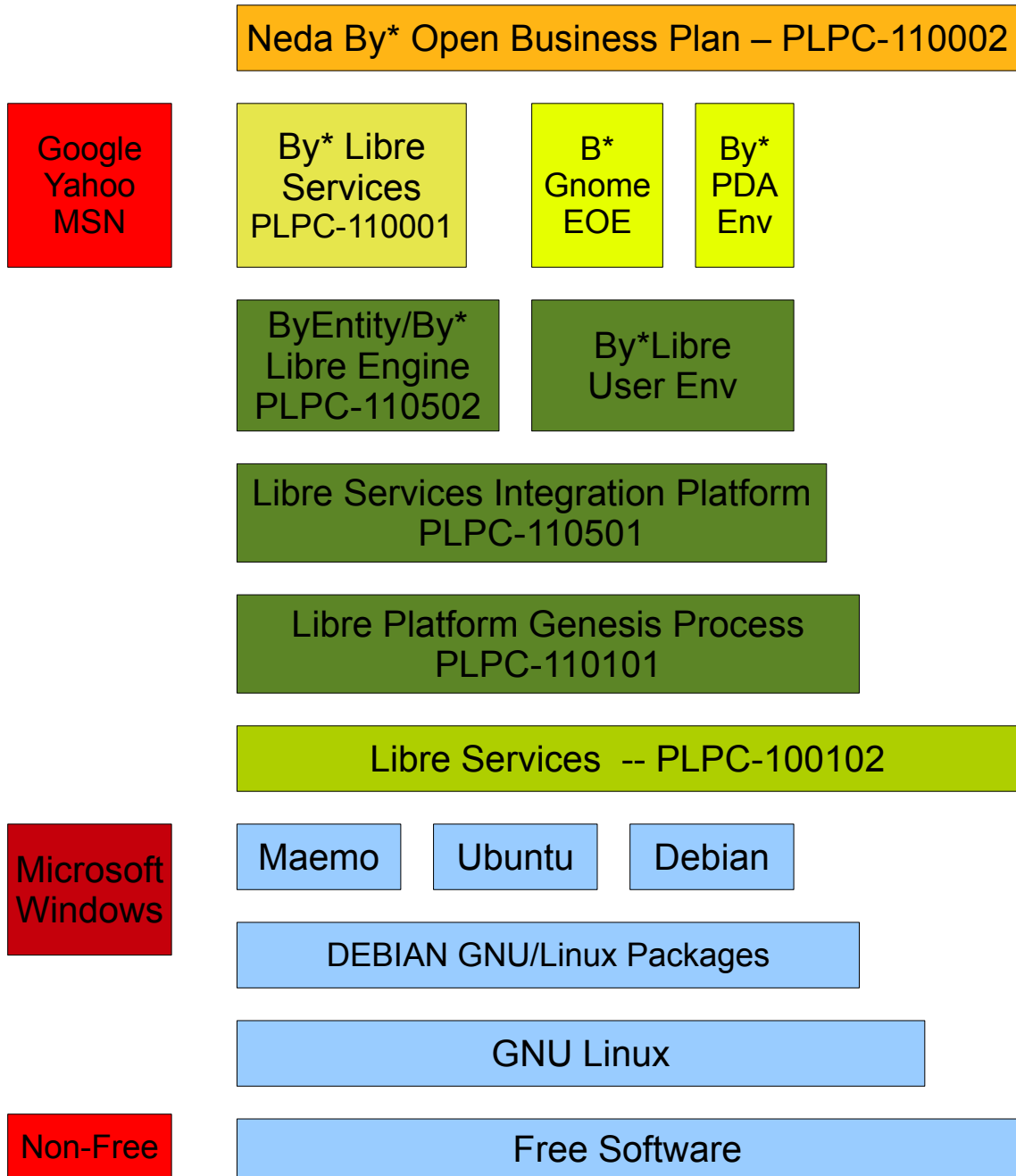


Figure 1: By* Libre Services Layers

2.2 Extracted by bystarRoadmap.sh -i HostsHowTo

Description of bystarRoadmap.sh -- HostsHowTo
See bystarRoadmap.sh for context.

SEE HOST REGISTRATION PROCESS BELOW

Rename HostBaseDirAdmin.sh to BystarPlatformAdmin.sh

Bystar Platforms (Server or User Environment)

- Bystar Intra Server Platform (BISP)
(bisp0001.intra)
- ByStar User Environment [INTRA] (BUE)
bue.intra
- ByStar Mobile User Environment [INTRA] (BMUE)
bmue.intra
- ByStar Server Platform [INTERNET] (BACS)
(ByStar Account Container Server bacs0001.by-star.net)

bystarHostAdmin.sh -p BoxName=AUTO -p siteName=nedaPlus -p IpAddrNet=publ -p HostId=AUTO -i HostRegister

HOST (BACS/BISP/BUE/BMU) REGISTRATION PROCESS (And Host Creation/Update)
=====

- 1) Input Parameters Verification
 - A- Verify BoxName is Valid

If BoxName=auto
Go into /opt/public/osmt/siteControl/nedaPlus/opMachineItems.site Create new
boxnu0001, ..., boxnu00NN

First Check to see if it is assigned
opMachines.sh -i myBoxName

if not assigned,
BoxName=UnAssigned

Then

opMachines.sh -s all -a summaryID | grep -i box0
to figure the next box number

opMachines.sh -i itemBoxGen 00NN

Then add that to /opt/public/osmt/siteControl/nedaPlus/opMachineItems.site
in other words

opMachines.sh -i itemBoxGen 00NN >> /opt/public/osmt/siteControl/nedaPlus/opMachineItems.site

Verify correctness
opMachines.sh -i myBoxName

Put a label on the Box that says BoxName=boxxxx

B- Verify SiteName is Valid

C- If specified verify HostId is valid
or Assign HostId
If you are using bacs000N, then don't need to do anything

2) Register/Obtain IP Address

Go in /opt/public/osmt/siteControl/L3Addrs/nedaPlus/nedaIPAddrHostItems.pub1
or /opt/public/osmt/siteControl/L3Addrs/nedaPlus/nedaIPAddrHostItems.pub2
or /opt/public/osmt/siteControl/L3Addrs/nedaPlus/nedaIPAddrHostItems.priv0
assign an IP Address for
bacs0001,, bacsNNNN

OR use the generic address based on HOST TYPE -- DHCP

3) Go in opHostItems.site, create entry for bacsNNNN
/opt/public/osmt/siteControl/nedaPlus/opHostItems.site

4) In

/libre/ByStar/InfoBase/HOST/nedaPlus/bisp0001/
or
/libre/ByStar/InfoBase/HOST/nedaPlus/bacs0001/
Create

HostId=0001
HostName=bacs0001
HostFamily=BACS
BoxName=
HostIpAddr1=xxxx

bystarHostAdmin.sh -p boxName=boxNN -p family=bacs -p id=nu -p name=bacsxx -p ip=xxx -i genHostInfo
bystarHostAdmin.sh -p family=bacs -i autoGenHostInfo

Then pass it through CVS

5) Run

vis_HostVerify
opDoq opHosts.sh -p opSiteName=nedaPlus -s bacs0003 -a summary_host
Verify it is all correct.

/opt/public/osmt/siteControl/nedaPlus/opHostItems.site

6) Run

- bystarHostAdmin.sh -h -c fast -v -n showRun -p HostBaseDir=/libre/ByStar/InfoBase/HOST/nedaPlus/b

```
IF A GENERIC LSIP HOST -- NOT USING BYSTAR
- opSysIdentities.sh -p opSiteName=nedaPlus -p opParamStandalone=strict -i osmtIdentitySet HostN
```

```
[ You may have to run this twice ]
```

```
If
PROBLEM: Host -- bisp0002 -- FAMILY NAME BISP not found
You may have to re-run
```

```
ENDIF
```

```
- Verify Correctness by reviewing
/etc/osmtInfo
```

7) If a New Family, or Family is over written make sure that item files are setup properly.

```
/opt/public/osmt/siteControl/nedaPlus/mmaQmailHostItems.site
```

8) Run

```
- UnSeal if needed
```

```
- bystarHostAdmin.sh -h -c fast -v -n showRun -p HostBaseDir="/libre/ByStar/InfoBase/HOST/nedaPlus/ba
```

```
If any problems take it from:
```

```
- bystarHostAdmin.sh -h -c fast -v -n showRun -p HostBaseDir="/libre/ByStar/InfoBase/HOST/nedaPlus/ba
```

```
IF A GENERIC LSIP HOST -- NOT USING BYSTAR
```

```
- lpSysMgmtSteps.sh -h -v -n showRun -p developer=noedit -i restartFromNewId
```

```
If any problems take it from:
```

```
- lpSysMgmtSteps.sh -h -v -n showRun -p developer=noedit -i restartFromIdentitySet
```

```
ENDIF
```

2.3 Extracted by bystarRoadmap.sh -i libreByStarInfoBase

Description of bystarRoadmap.sh -- libreByStarInfoBase

```
/libre/ByStar
```

```
/libre/ByStar/BACS
```

```
ByStar Account Container Server
```

```
# /libre/ByStar/NUMBER
```

```
bystarIbNumberRoot="/libre/ByStar/NUMBER"
```

```
# Registered
/libre/ByStar/BAP/ByName/sa/20000

/libre/ByStar/DOMAINS/net/byname/banan/1/mohsen

/libre/ByStar/DnsZone/net/byname/contentServers

# /acct -- Not CVSed
/libre/ByStar/acct/current/bacs0001/sa-20000/
/libre/ByStar/acct/mirror
/libre/ByStar/acct/backup

# ./server -- Not CVSed
bystarIbServerRoot=/libre/ByStar/server
bystarIbServerMirrorRoot=/libre/ByStar/server/mirror
bystarIbServerBackupRoot=/libre/ByStar/server/backup

/libre/ByStar/BUE
    ByStar User Environment
```



```

^      bystarAcctAdmin.sh      ^
^  Create an Account and initial NSPs      ^
^ -p RBAE=/libre/ByStar/InfoBase/BAP/ByName/sa/20000      ^
^-----^

```

- Given a Registered BAP,
 - A registered BAP takes the form of an assigned account directory such as:
 - /libre/ByStar/InfoBase/BAP/ByName/sa/20000/
 - Create the Account
 - Create the BAGP and BACPs

ACCT	BAGP	BACP
~sa-20000	Account Global Params ~sa-20000	Account Component Params ~sa-20000

```

^-----^
^      BystarServiceAdmin.sh      ^
^  Creates Services for Account      ^
^      -p uid=      ^
^-----^

```

- Given an account
 - Create Domains
 - Create Mail Accounts
 - Create Web Site
 - Create Plone Site
 - Create Gallery
 - Create Geneweb

- Do backups ...

```

+-----+
|      Bystar Capability Layer      |
|      (bystarPloneAdmin.sh, bystarQmailAdmin.sh      |
|      -p uid=      |
+-----+

```

```

+-----+
|      lcaCapabilityLayer -- LSIP      |
+-----+

```

```

+-----+

```

```
|          opAcctUsers.sh          |
+-----+
+-----+
|          opUIdAssignments.sh    |
+-----+
```

2.5 Extracted by bystarRoadmap.sh -i AcctsHowTo

Description of bystarRoadmap.sh -- AcctsHowTo

Bystar Acct

See Also

```
bystarCtldAcctAdmin.sh -i help
```

HOW TO ADD A NEW ACCOUNT CONTROLLER/MASTER

=====

0) Verify that BACS is good

See bystarHostAdmin.sh -i help

1) Created info dir

```
cd /libre/ByStar/InfoBase/RBAE/BYSMB/ea
ls
Take one as sample -- Determine next number (newAcct)
cp -r -p ea-59040 newAcct
Get rid of CVS dirs
```

Edit as needed for now.

Create old compatibility in
/opt/public/osmt/siteControl/nedaPlus/BAP/BySMB

2) Create Acct and Full Update

```
bystarAcctAdmin.sh -h -v -n showRun -p RBAE="/libre/ByStar/InfoBase/RBAE/BYSMB/ea/nextNumber" -i acct
```

Verify Account Creation went well, then

```
bystarAcctAdmin.sh -h -v -n showRun -p bystarUid="ca-nextNumber" -i fullUpdate
```

or do all in one shot:

```
bystarAcctAdmin.sh -h -v -n showRun -p RBAE="/libre/ByStar/InfoBase/RBAE/BYSMB/ea/nextNumber" -i full
```

Note that in turn bystarServiceAdmin.sh -i fullUpdate is called.

===== CONTROLLED ACCOUNTS =====

Bystar Controlled Acct (BCA)

This is just a layer over bystarAcctAdmin.sh

HOW TO ADD A NEW CONTROLLED/SLAVE ACCOUNT

=====

- Determine the Master Account ie ea-59040
- Created info dir for ~ea-59040/BAGP/BCA/ca-16001/RBAE
 - cd ~ea-59040/BAGP/BCA/
 - ls
 - Take one as sample
 - cp ca-16001 newAcct
 - Get rid of CVS dirs
- Run
 - bystarAcctAdmin.sh -h -v -n showRun -p RBAE=~ea-59040/BAGP/BCA/ca-16001/RBAE" -i acctCreate
 - Verify Account Creation went well, then
 - bystarAcctAdmin.sh -h -v -n showRun -p bystarUid="ca-16005" -i fullUpdate
 - or do all in one shot:
 - bystarAcctAdmin.sh -h -v -n showRun -p RBAE=~ea-59040/BAGP/BCA/ca-16001/RBAE" -i fullUpdate
 - Note that in turn bystarServiceAdmin.sh -i fullUpdate is called.

2.6 Extracted by bystarRoadmap.sh -i actualOldCode

Description of bystarRoadmap.sh -- actualOldCode

```
=====
BAPs -- ByEntity Account Profile
=====
```

/opt/public/osmt/siteControl/nedaPlus/BAP/BySMB/ea-59040.wojtunik.org.BAP

/opt/public/osmt/siteControl/nedaPlus/BAP/BySMB/RunBAPs.sh

/opt/public/osmt/bin/bystarBAPs.sh

PloneExternalCall

```
+-----+-----+
|      ByStarFactory.sh      |
|                             |
+-----+-----+-----+-----+

+-----+-----+-----+-----+
|      bystarBatchBasic.sh   |
+-----+-----+-----+-----+
```


2.7 Extracted by bystarRoadmap.sh -i byentityLegacyDesign

Description of bystarRoadmap.sh -- byentityLegacyDesign

```

PloneWebAccess      bbdbInfo

+-----+-----+
|           BAP Generator/Processor Layer           |
|           ByStarFactory.sh -p first=xxx           |
|-----+-----+
|
|=====
|           Unregistered      BAPs
|           ByEntity Account Profile
|=====
|
+-----+-----+
|           bystarInfoBaseAdmin                     |
|           (bystarBAP2NSP.sh, bystarBAPreport.sh, ...) |
|           -p bapContainer=xx.Unreg                 |
|-----+-----+
|
|=====
|           Registered      BAPs
|           ByEntity Account Profile
|=====
|
+-----+-----+
|           bystarBAP2NSPLayer                      |
|           (bystarBAP2NSP.sh, bystarBAPreport.sh, ...) |
|           -p bapContainer=xx.Reg                   |
|-----+-----+
|
|=====
|           NSPs                                     |
|           Numbered Subscriber Profile              |
|=====
|
|=====
|           Activated
|           Accounts
|=====
|
+-----+-----+
|           Bystar Account Layer                    |
|           Administers the entire acct/service    |
|           (bystarAcctAdmin.sh, bystarBackup.sh, ...) |
|           -p uid=                                  |
|-----+-----+
|
+-----+-----+
|           Bystar Capability Layer                  |
|           (bystarPloneAdmin.sh, bystarQmail       |

```

```
|      -p uid=      |
+-----+-----+-----+-----+
+-----+-----+-----+-----+
|      lcaCapabilityLayer -- LSIP      |
+-----+-----+-----+-----+
```


2.8 Extracted by bystarRoadmap.sh -i byEntityLegacyCallFlow

Description of bystarRoadmap.sh -- byEntityLegacyCallFlow

```

PloneWebAccess      bddbInfo

+-----+-----+
|                BAP Generator /Processors Layer          |
|                ByStarFactory.sh                          |
+-----+-----+

=====
      BAPs  -- ByEntity Account Profile
=====

+-----+-----+
|                bysmbBatchBasic.sh                        |
|                LATER          | IMMEDIATE              |
| fullUpdateBackground | vis_acctUpdate          |
+-----+-----+

|
|
|
|
|
|
v

=====
      NSPs  -- Numbered Subscriber Profile
=====

      /|      /|      /|      /|
+-----+ +-----+ +-----+
| LEAP | | WEB | | MAIL | .....BystarCapabilityLayer
+-----+ +-----+ +-----+

+-----+-----+
|                lcaCapabilityLayer                        |
+-----+-----+

+-----+-----+
|                opAcctUsers.sh                          |
+-----+-----+

```

```
+-----+
+-----+
|                opUIdAssignments.sh                |
+-----+
```

2.9 Extracted by bystarRoadmap.sh -i modelAndTerminology

Description of bystarRoadmap.sh -- modelAndTerminology

bystar is a common script for creating bystar site,
e.g. byname, bysmb/forsmb/, bymemory, bywhere, byalias, etc.

```
bystarRoadmap.sh      -- This file.
```

```
bystarBAPs.sh        -- Given a BAP file with assigned id number  
                      rather than automatically generating id  
                      number based on the acct type.
```

```
Sample BAP file is in  
/opt/public/osmt/siteControl/nedaPlus/BAP/  
ByName/sa.1.rashid.eyas.20123.BAP
```

This method is to create bystar acct
in a batch mode without having to go
to website form.

Root has to run this script.

```
bystarFactory.sh     -- This script is called from the web (create  
                      new account form) with the parameters passed  
                      from it and generate a new UNIX account  
                      based on the acct type. After the account  
                      is generated, it also generate all of the  
                      features nsp files and put them in user's  
                      home directory. Currently it generates  
                      ploneFeatures.nsp, galleryFeatures.nsp,  
                      and generalFeatures.nsp.
```

We can also deactivate the acct by calling
the function fullDelete. The process of
deactivate an account is as follows:

- Lock a user password
(usermod -L)
- Backup user plone site to his/her
backup directory.
- Remove user plone account
- Remove user plone site
- Remove virtual domain entry in apache
httpd.conf file for both
name and number form.
(i.e. web.57000.byalias.net and
aliasname.byalias.net)

```
bystarBatchBasic.sh  -- This script generate all the necessary features
```

based on the user's nsp files. The account is assumed exist for this to work. Currently it generate plone site and gallery as well as delete an account process.

bystarLib.sh -- Contains all the common functions.

2.10 Extracted by bystarRoadmap.sh -i pointersAndReferences

Description of bystarRoadmap.sh -- pointersAndReferences

Additionally See:

<http://www.neda.com/PLPC/110501>

<http://www.neda.com/PLPC/110502>

<http://www.neda.com/PLPC/110101>

2.11 Extracted by bystarRoadmap.sh -i howTos

Description of bystarRoadmap.sh -- howTos

How To Create a new ByEntity Service

OLD LEGACY PROCESS

=====

- 1) Go to
 /opt/public/osmt/siteControl/nedaPlus/BAP/BySMB
- 2) Create a new bap file and bynumber
- 3) Run Script

NEW DESIGN

=====

- 0) Verify that BACS is good
 See bystarHostAdmin.sh -i help
- 1) Go to
 /libre/ByStar/InfoBase/RBAE/BYSMB/ea

 get the nest number and create the directory
 say 59041
 cp -r -p 59040 59041

 Edit as needed for now.

 Create old compatibility in
 /opt/public/osmt/siteControl/nedaPlus/BAP/BySMB
- 2)

2.12 Extracted by bystarRoadmap.sh -i help

Description of bystarRoadmap.sh -- help

bystarRoadmap.sh provides an overview of the bystar layer.