ByEntity/ByStar Libre Engine
Design and Implementation Notes

Draft Document – Reflects Work in Progress

Document Nu: PLPC-110502

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Version 1.5
January 4, 2008

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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                  |
|                                                     |
+----------+------------+-------------+---------------+
```

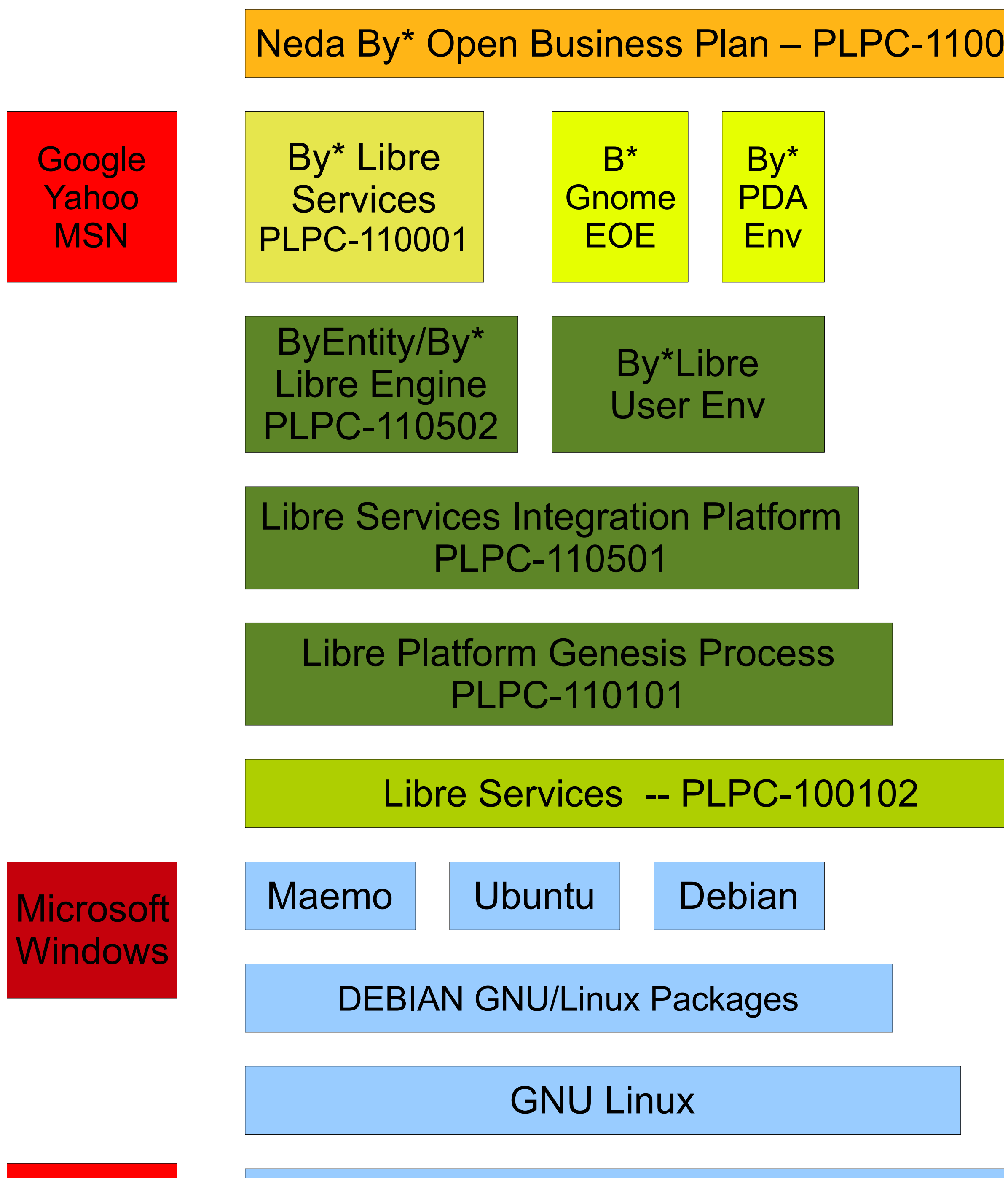

Figure 1: By* Libre Services Layers

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=pub1  -p HostId=AUTO -i HostRegisterProcess


 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/bacs0002 -i HostIdentitySet
```

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

       [ 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/bacs0001" -i HostStepByStepNewId

        If any problems take it from:

    - bystarHostAdmin.sh -h -c fast -v -n showRun -p HostBaseDir="/libre/ByStar/InfoBase/HOST/nedaPlus/bacs0001" -i HostStepByStepIdentitySet

    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
```

2.4 Extracted by bystarRoadmap.sh -i bystarFullPicture

```
Description of bystarRoadmap.sh -- bystarFullPicture


  --------------        --------------            ---------------
  |  Web/Plone |        | BBDB       |            | Names Source |
  --------------        --------------            ---------------



 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
 ^     BystarBarcProc.sh                                             ^
 ^   (BARC: Bystar Account Request Container)                        ^
 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^


 - Given Parameters from the Web or BBDB or ...
   create BARCs

       -p acctType=ByName -p acctSupport=charge -p firstName=xxx -i create

       Creates unique handle. /tmp/dateTag-2806.BARC

              ===================================================
               BARC: Bystar Account Request Container
              /libre/ByStar/InfoBase/BARC/first.last-dateTag.BARC
                            bystarBarc.libSh
              ===================================================

 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
 ^     BystarInfoBaseAdmin.sh                                        ^
 ^   Register a BAP from (BARC: Bystar Account Request Container)   ^
 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^


 - Given  (BARC: Bystar Account Request Container)
   - Select BAP base file info in /libre/ByStar/InfoBase/BAP/
      - Decide on ByStar Entity Type ByName/BySMB/ByMemory/ByAlias/ByFamily
      - Decide on Account Support Type (.com vs .net)
   - make necessary assignments (account, domain)
      - Assign an account

      - Capture BAP info
   - confirm Registration

              ==============================================
                   RBAE: Registerd Bystar Account Entry
               /libre/ByStar/InfoBase/BAP/ByName/sa/20000
                           bystarInfoBase.libSh
              ==============================================


 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
```

```
 ^     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
                      Account Global Params       Account Component Params
   ~sa-20000         ~sa-20000                    ~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 acctCreate

      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 fullUpdate

      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                        Activated
   Numbered Subscriber Profile              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      bbdbInfo

+-----------------------+-----------------------------+
|                  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 galllery 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.
```