# Case Study: A Major Medical Association - How Plone Replaced Commercial Tools

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## *Case Study: A Major Medical Association*

### Overview

This case study illustrates how open source tools, in this case Plone, can not only match the capabilities of commercial tools, but in many cases surpass them.

Many organizations take the supposedly 'safe' approach

'Magic Quadrant' – like the old quote 'You don't get fired for buying from IBM'

- ➢ *overpriced,*
- ➢ *over-engineered,*
- ➢ *overkill,*
- ➢ or *over-hyped.*

Plone in particular is just as capable, sometimes better (90/10 rule; not 80/20)

How can a 'free' tool, developed by volunteers outperform a leading commercial tool?

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## *Case Study: A Major Medical Association*
## *- The Challenge*

**Challenge**

➢ The Association needed to replace its Epicentric/WebLogic-based collaboration portal used by its 5,000+ physicians across numerous of committees, each with a workspace within the portal.

➢ The Epicentric (now Vignette Portal) application was expensive, lacked in functionality and usability design, and as a result was underutilized.

➢ The Association sought to replace Epicentric with a solution based upon either:
  ➢ BEA WebLogic Portal (the organization standard Java platform), or
  ➢ Plone/Zope (recommended by doctors who had used Plone/Zope)

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## Case Study: A Major Medical Association - Requirements

**Collaboration Portal Requirements (short list):**

➢ Cost-effectiveness
➢ File uploading/sharing with appropriate collaborators
➢ Committee-specific private threaded discussions
➢ Search/indexing of content stored in PDF or MS Office documents as well as web page content
➢ Custom roles and content approval workflows with email notifications
➢ Integration with:
  ▪ Main BEA WebLogic Portal application,
  ▪ MS SQL Server member directory database, and
  ▪ J2EE-based single sign-on (SSO) solution

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*Case Study: A Major Medical Association*
*- The Decision Process*

## Decision-making Process

- ➢ Already had a 'top-tier' commercial portal product that ran on standard, supported J2EE/BEA Environment

- ➢ Portal was not used due to lack of functionality

- ➢ New tool would be chosen based upon it being *best solution*, not necessarily based upon technological flavor

- ➢ Decided that a prototype would be the best way to see how the rubber meets the road.

- ➢ Integrator (SPR Inc.) already doing J2EE work for client and can implement Plone – no bias*

- ➢ Worked with Architecture Team to iron out integration issues, if Plone was chosen

- ➢ Demo to user community to gain feedback/preferences

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*Case Study: A Major Medical Association
- The Solution*

**Solution – Organization Selects Plone!**

➢ Parallel Prototypes:  *Plone* versus *BEA Portal/Compoze-based* solution

➢ BEA/Compoze developer had difficulty:
  ➢ Completing prototype on-time
  ➢ Fewer out-of-box modules; less functional
  ➢ Support from vendors lacking (even though they are paying)
  ➢ Even though built on the organization's standard J2EE platform

➢ When factors such as *out-of-box* functionality, developer productivity, *customization and integration costs*, maintenance costs, and *tool costs* were all considered, The Association decided that a Plone-based solution was the best choice.

➢ SPR further developed solution along with Association resources within 2 months.

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## *Case Study: A Major Medical Association*
## *- The Solution*

### Solution (continued...)

➢ The Association has leveraged a light support contract

➢ Cross-trained Association technical resources to handle more tasks

➢ This allows the more technical architects and developers to stay focused on J2EE development needs, thus providing a more optimal use of IT resources.

➢ This is contrary to what many state about Zope/Plone having steep 'high learning curve'. Perhaps when compared to PHP, but not when compared to J2EE.

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## Case Study: A Major Medical Association
## - The Solution

### Solution – What does it look like?

- ➢ Archetypes
- ➢ Custom AT-based product (types, templates, scripts, workflows, skins)
- ➢ MS SQL Server integration using Python ODBC driver from eGenix ($100/server)
- ➢ XML-RPC integration with BEA WebLogic Portal using Zope's built-in xmlrpclib
- ➢ ZEO clients and storage server (failover and redundancy)
- ➢ wvWare, xpdf utilities to convert binary Word/PDF docs to plain text for search
- ➢ Windows 2003 Server 2-CPU, 2GB RAM

- ➢ GRUF – Group User Folders – extensively used.
  - ➢ Customized spaces; different add-ons used.
  - ➢ *Customized portlets* (a.k.a. slots) such as portlet_recent, portlet_review, search that only return objects from portal_catalog that exist in current group folder

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*Case Study: A Major Medical Association*
*- Customer Perspective*

**No Bias? … Okay, no cheerleading, at least.**



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## Case Study: A Major Medical Association
## - Customer Perspective

### Observations / Lessons:

➢ **Plone saves money!** ROI is improved through:

  ➢ A collaboration portal (based upon Plone) allows employees/users to:
  
  - ➢ Find information faster and easier
  - ➢ More optimal use of resources (technical vs. business users)

  ➢ Plone makes development teams *more agile*
  
  - ➢ rapid prototyping capabilities
  - ➢ project timelines are more easily compressed

  ➢ Services are more affordable (versus Documentum, Vignette, etc.)

➢ Plone/Zope executes and is supported successfully **on Windows!**

➢ Non-hardcore developers can become very productive with Plone development very quickly

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## Case Study: A Major Medical Association
## - Customer Perspective

## Observations/Lessons (continued...)

➢ **The Plone support community is vastly superior** most commercial vendors.

  ➢ #plone channel of IRC

  ➢ Plone mailing lists (users, developers, announcements)

  ➢ Zope mailing lists (users, developers, announcements)

  ➢ Specific tool mailing lists and forums (Archetypes, CMFBoard, TextIndexNG, etc.)

  ➢ Bug/issue trackers for Plone, Zope, and related tools

  ➢ Documented version.txt, readme.txt, install.txt, and other documentation

  ➢ Easier to read source code

  ➢ Layoffs at vendors!

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## *Case Study: A Major Medical Association*
## *- Customer Perspective*

## Observations / Lessons (continued…)

➤ **Prototyping with Plone** - Plone dusts the competition!:
  - ➤ Built-in and easier MVC through controller page templates and controller scripts (validators, actions, etc. as decorations)
  - ➤ Archetypes – auto-generation of entry/view forms, value objects – Silver Bullet
  - ➤ Develop TTW and then use FSDump and/or refactor to make file system-based

➤ **Archetypes** – comparable to commercial content type definition and form generation framework (Silver Bullet)

➤ **Use ArchGenXML** (along with ArgoXML or Poseidon) – Graphically define content model (types) and generate custom AT types automatically.

➤ **Workflows:** Easy/easier to customize with Plone; no Dev Kit to learn as with Documentum, others.

➤ **MVC Implementation:** J2EE and .Net applications require much greater engineering and tinkering with XML configuration files

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## *Case Study: A Major Medical Association*
## *- Productivity Comparison*

### Example of Developer Productivity – MVC:

➢ **Java Struts:**

```
<web-app>
    <servlet>
      <servlet-name>OreillyActionServlet</servlet-name>
      <servlet-class>org.apache.struts.action.ActionServlet</servlet-class>
      <init-param>
        <param-name>config</param-name>
        <param-value>/WEB-INF/struts-config.xml</param-value>
      </init-param>
      <init-param>
        <param-name>debug</param-name>
        <param-value>2</param-value>
      </init-param>
      <init-param>
        <param-name>detail</param-name>
        <param-value>2</param-value>
      </init-param>
      <load-on-startup>2</load-on-startup>
    </servlet>
```

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## Case Study: A Major Medical Association
## - Productivity Comparison

### Example of Developer Productivity – MVC:

> **Java Struts:**

```
<servlet-mapping>
    <servlet-name> OreillyActionServlet </servlet-name>
    <url-pattern>*.action</url-pattern>
  </servlet-mapping>
  <welcome-file-list><welcome-file>login.jsp</welcome-file></welcome-file-list>
    <taglib>
      <taglib-uri>/WEB-INF/struts-bean.tld</taglib-uri>
      <taglib-location>/WEB-INF/struts-bean.tld</taglib-location>
    </taglib>
    <taglib>
      <taglib-uri>/WEB-INF/struts-html.tld</taglib-uri>
      <taglib-location>/WEB-INF/struts-html.tld</taglib-location>
    </taglib>
    <taglib>
      <taglib-uri>/WEB-INF/struts-logic.tld</taglib-uri>
      <taglib-location>/WEB-INF/struts-logic.tld</taglib-location>
    </taglib>
  </web-app>
```

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## Case Study: A Major Medical Association
## - Productivity Comparison

## Example of Developer Productivity – MVC:

➤ **Java Struts:**

```
<struts-config>
    <!-- ========= Action Mapping Definitions================== -->
    <action-mappings>
      <!-- Attributes of the <action> element -->
      <action path="/Login"
           type="com.oreilly.ui.authentication.actions.LoginAction">
        <forward name="success" path="/DisplayMainPage.action"/>
        <forward name="failure" path="/login.jsp"/>
      </action>
    </action-mappings>
</struts-config>
```

➤ **Demo of Plone Controller Page Template or Script**

➤ **Which do you think is more productive?**

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## *Case Study: A Major Medical Association*
## *- The Result*

### Proven Success – Additional Applications Built on Plone Platform:

➢ **Compliance Committee** – Meeting Minutes approval, archival, and finalization (replaced ColdFusion)

➢ **FAQ Management/Publishing** – Frequently Asked Questions related to procedure and billing codes (replaced email/Excel process)
  ➢ Custom workflows, entry/view templates, search, and reports
  ➢ Import from existing CSV file (export from Excel) and SQL Server

➢ The BEA WLS Portal application seems to not achieve as *high availability* as Plone *

### Hurdles Addressed:

➢ **Custom skin folders** – almost too flexible – use File System and CVS or SVN!

➢ **Use ZEO** and leverage **PloneQueueCatalog** or other type of planned architecture to isolate indexing (from binary to searchable plain text) on a separate Zope instance (ZEO client).

➢ **Integration** – easier than expected!

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## Case Study: A Major Medical Association
### - Demonstration

### Use Case:

➢ BEA WLS Portal Login

➢ Navigation to 'My Committees'
  ➢ Makes XML-RPC call to Zope to grab appropriate links for user

➢ Click link to Group Workspace on Plone site – opens new browser

➢ Demonstration of group workspaces…

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*Thank you!*

**For more info:**

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**Glad to talk to you after presentation** ☺

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