



## Case Study

### **Irish Life and Permanent plc: Using CA's Next Generation Tools and Utilities to Simplify Mainframe Management**

#### *Introduction*

*Clabby Analytics* has been waiting for about two years for this opportunity. The first set of new, next generation, graphically-oriented mainframe management tools have arrived — and these tools have been deployed in about 140 mainframe sites around the world. Further users are now willing to talk about their experiences with these tools, and provide their thoughts and perspectives on the ease-of-use and automated workflow characteristics of these mainframe management tools.

*Clabby Analytics* (that's me) recently had the opportunity to go on-site and visit one of the early adopters of CA Mainframe Software Management (MSM) mainframe management toolset. I travelled to Dublin, Ireland, where I met with Jim Dalton of Irish Life and Permanent (Irish Life and Permanent is a provider of retail banking, insurance, and investment services). Mr. Dalton is a member of Irish Life and Permanent's Mainframe Technology Services organization and an early adopter of CA MSM. The remainder of this report describes how Irish Life and Permanent is using CA MSM — and the results that Irish Life and Permanent is achieving by doing so.

#### *Why CA MSM Is Important*

There is a commonly held belief that the mainframe world will face a serious skills shortage in a decade as the current generation of over-50 mainframe managers moves into retirement age. To attract next generation mainframe managers and administrators, it is widely believed that mainframe management tools and utilities need to be simplified — moved away from cryptic “green screen” command-line interfaces to more graphically-oriented environments. Further, these new graphically-oriented management tools must simplify complex mainframe processes (such as software downloads/ installation/-configuration processes) — making the management of mainframes as simple as managing a Windows or Linux environment.

To ensure that this gap does not develop, CA, IBM, and other vendors are spending millions of dollars simplifying their mainframe management software. CA MSM is one of the first “next generation”, simplified mainframe management products to come to market.

*These new tools provide a Windows-like interface to mainframe management. Further, they automate underlying procedures and workflows such that information technology (IT) managers and administrators do not have to constantly work through dozens of screens to achieve a particular result. As an example of automated workflow, consider “Install Shield”, a program that is commonly used to install programs in Windows environments. This product helps unpack software and deposit it in directories — making it easy to deploy and launch software. CA MSM has similar workflows that make it possible to easily and automatically do this same type of activity on a mainframe.*

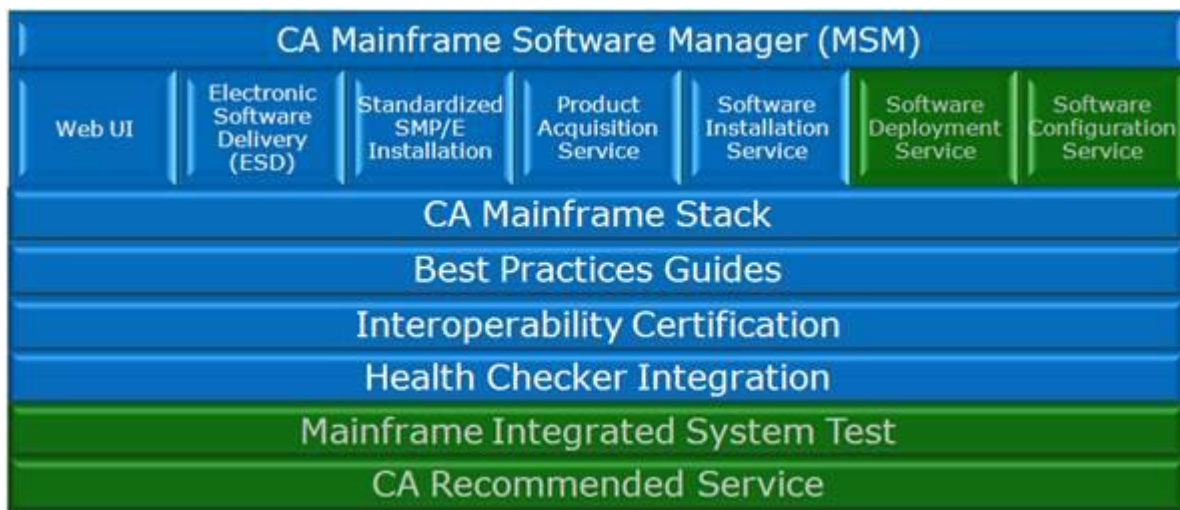
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*Because these tools feel “familiar” to IT personnel who have worked on Windows, Linux, and Unix systems, they are expected to make it easier for managers/administrators who have experience on other operating environments to easily make the transition to managing mainframes. And because these tools automate underlying workflows, they can save hours (or even days) of manual administrative management work — enabling enterprises to make better use of mainframe management/administrative labor.*

### *What is CA MSM?*

CA MSM is an IT management solution that provides a foundation of common (horizontal) services — and performs specific (vertical) activities (see Figure 1 —note: the blue items have been delivered; the green items will be released over the next 18 months).

***Figure 1 —CA Mainframe Software Manager***



*Source: CA – December 2009*

### *Vertical Activities*

Mainframe managers and administrators can spend a lot of time acquiring new software updates and patches — and then unpacking, installing, configuring and testing those updates and patches before deployment in a production environment. To date this update/patch process has been highly manual in mainframe environments, requiring managers and administrators to deal with:

- File size issues (some enterprises limit the size of files that can be imported from external sources);
- Access through firewalls;
- Dumping files into network folders;
- Unpacking of compressed files into the zFS (file system), requiring that IT managers/administrators have a working knowledge of mounting procedures; and then,
- Running the SMP/E (software maintenance program) series of panels and programs to manage a software installation.

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*Performing updates and patches can be quite time consuming — and potentially error-prone. MSM automates these functions, automating software downloads and simplifying installation and configuration procedures. As a result, IT managers/administrators can save hours of labor during the update/patch process — enabling them to update and patch their software more often and better maintain their software/applications environments.*

### *Horizontal Activities*

Any time changes are made to an existing environment there is an opportunity to break applications that have already been deployed. Application dependencies can create conflicts — and conflicts can cause applications to hang or even crash. To prevent these conflicts, CA MSM provides a suite of horizontal services that facilitate application integration and testing. These horizontal services include:

- Best practice guides;
- Interoperability Certification;
- Health Checker Integration;
- Mainframe Integrated System Test; and,
- CA Recommended Service.

The reason that *Clabby Analytics* refers to these services as “horizontal”, foundation services is that these services need to be run after vertical activities are performed. I expect that CA will add more and more vertical activities as CA MSM develops — and these same horizontal services will need to be run for any new vertical services introduced in order to ensure ongoing system integrity.

### *CA MSM in Action*

Irish Life and Permanent provided *Clabby Analytics* with a screen shot that shows how the company uses CA MSM (see Figure 2). (This is an older screen shot that was taken at the time the product was installed — so no private corporation information is divulged). This screen shot helps illustrate the functions that MSM can perform — and is useful for illustrating how Irish Life and Permanent uses CA MSM (see the interview with Jim Dalton in the following section).

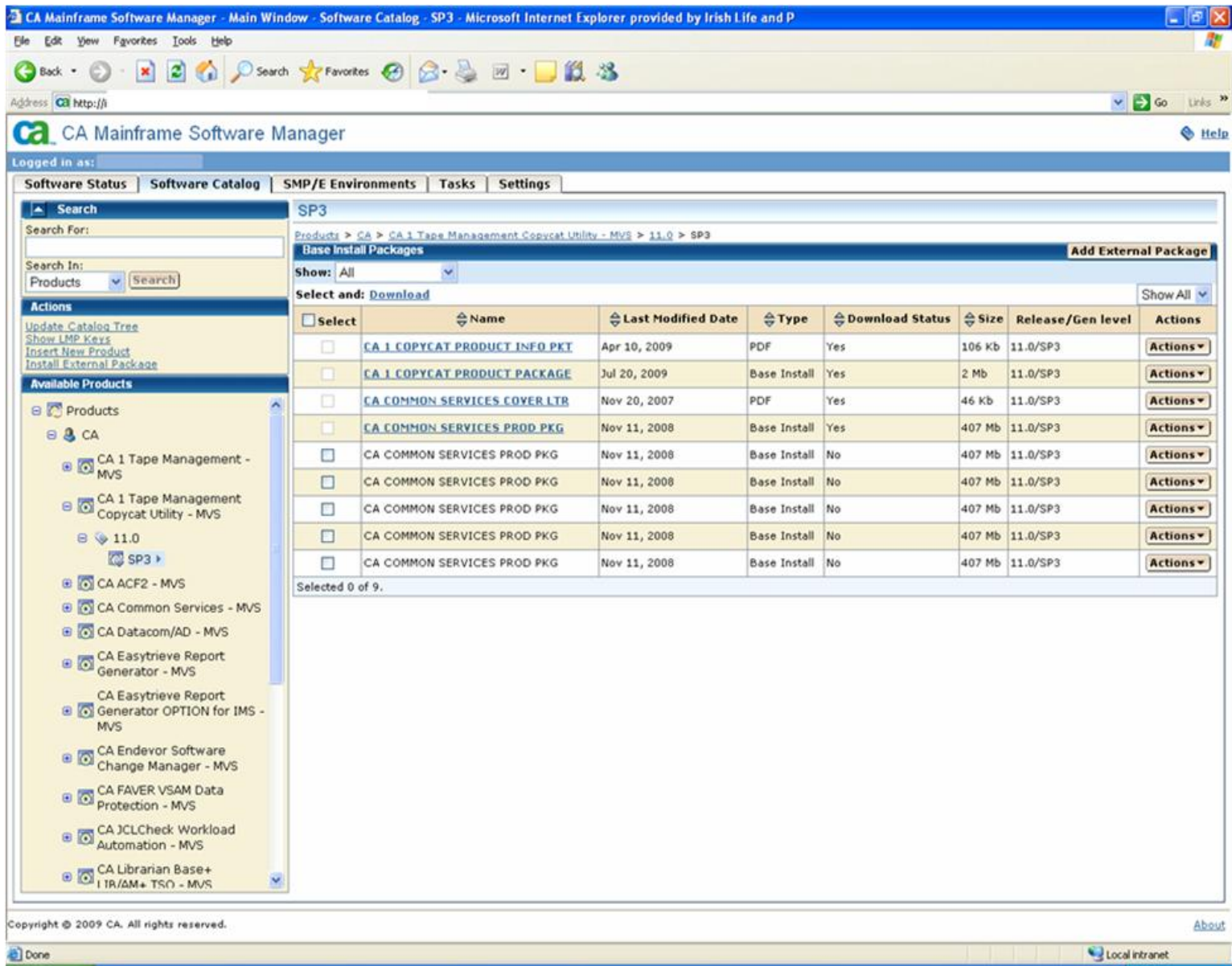
A closer look at the top of this screen shot shows software status, catalog, SMP/E, tasks, and settings tabs. On the left (under the “Search” entry) can be found a series of actions that can be launched, including “Update Catalog Tree”, “Insert New Product”, and “Install External Package”. The discussion with Jim Dalton of Irish Life and Permanent (next section) will primarily focus on the process involved in installing a new software package.

To the right of the “Actions” category is a list of various products that have been installed/updated. Important information such as the software name, date that the software was last modified, status, and release/gen level is provided in this view.

*As can be observed, this screen illustrated how easy it is to navigate around this given mainframe environment. Applications — and their rev levels — are easy to find. And activities are easy to launch.*

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**Figure 2 — CA MSM: A Screen Shot**



Source: Irish Life and Permanent — December, 2009

### *An Interview with Jim Dalton of Irish Life and Permanent*

Irish Life and Permanent is a provider of personal financial services to the Irish market — focusing specifically on retail banking, insurance and investment services.

Jim Dalton is a member of Irish Life and Permanent's mainframe technology services group — an organization charged with managing and administrating Irish Life and Permanent's two z890 mainframe servers (these are in the process of being consolidated onto a new z10 mainframe). Irish Life and Permanent's mainframe environment runs IBM's WebSphere, Tivoli, DB2, IMS and CICS applications, database, and infrastructure — and has just completed a proof of concept for running Linux on a mainframe.

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Mr. Dalton has been at Irish Life and Permanent for 18 years, starting in customer service, and then progressing into information technology. Eleven years ago, after he had returned to Dublin City University to learn programming, Jim started his career in IT as a PL1 programmer. In this role, he took part in Irish Life and Permanent's major transition from older mainframe languages to more modern application language environments. Mr. Dalton is in his mid-30s — part of the new generation of mainframe managers/administrators that CA is targeting with its MSM environment. Irish Life and Permanent's mainframe technology services group consists of 11 people who perform project work (implementing new projects, performing upgrades and patches, etc.), as well as performing service activities (such as call query support, and monitor and control functions).



*Jim Dalton, Irish Life and Permanent — December, 2009*

### *The Upgrade/Patching Process*

Before the arrival of CA MSM, the process of upgrading (up-revving) and patching software was a complicated, time consuming endeavor, typically involving:

- 1) the download of external software;
- 2) unpacking that software into the zFS file system; and,
- 3) running SMP (the software maintenance panels and programs needed to install the new software).

Each of these activities presented certain hurdles that had to be overcome by Irish Life and Permanent administrators in order to carry out an upgrade. For instance, when downloading software:

- 1) Irish Life and Permanent limits the size of files that can be downloaded (for security as well as space reasons). If a patch or upgrade is large, then obtaining the patch can be problematic.
- 2) Moving patches/upgrades through corporate firewalls was a challenge; and,
- 3) Dealing with network folders (where the files are placed) was logistically difficult.

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Further, when unpacking files in zFS (the z file system) using Unix System Services (USS) under z/OS, Irish Life and Permanent administrators had to:

1. have a knowledge of how to use zFS;
2. know how to allocate and mount file systems;
3. know how to manage space; and,
4. know how to update existing files.

According to Mr. Dalton: “any task relating to USS work can be difficult and time consuming to manage.” The reason: it is manual in nature and involves administrators wading through screens and manually inputting instructions. CA MSM helps simplify this process by automating workload.

### *How CA MSM Helps Irish Life and Permanent Streamline Software Download and Deployment*

CA MSM simplifies the download/file transfer process; the filing/unpacking process; and the installation/deployment process. And it performs these activities automatically. “It unpacks files. It then guides the administrator through the upgrade process in using a four-step dialog approach” says Mr. Dalton. “And the best part is that it does all of this in a click of a button!”

***“CA tape and activity management can take ¾ of a day to perform” he continued. “And its all manual update activity. Now I press a button and go home — it’s all done when I arrive the next day. You know it is going to do the job of downloading and unpacking — so you just press a button, walk away...”***

By comparison, the way that updates were installed was time-consuming and manually intensive. Says Dalton: “the manual process is fraught with problems — so you sit and watch the processes as they execute —it should be something that you can fire and forget!” CA MSM enables Mr. Dalton to do just that — fire up a number of processes and then move on to other useful work without having to manually attend to program execution.

### *Other Comments*

Mr. Dalton did mention that, when CA MSM was first installed that CA and Irish Life and Permanent had a deployment problem. “Because CA MSM is Java-based, it is going to look for as many resources as possible to execute. This initially caused us a problem because it bogged-down our CPU and became resource intensive” said Dalton. “CA fixed this problem and promptly shipped us a fix.”

Mr. Dalton then went on to observe that “we’re just in the early stages of CA MSM. CA will be delivering more benefits that will enable us to automate more stuff.” What Mr. Dalton was referring to was CA’s future plans for CA MSM that will include more automation of rote mainframe tasks (as illustrated in green in Figure 1). “We use it as a point product now — but may move into more everyday use for regular application of maintenance as a matter of policy over time.”

### *Acceptance Amongst the Management Group*

One of the concerns that *Clabby Analytics* has about this new class of graphically-driven mainframe management software is “will the older generation accept and use these tools?”

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This concern stems from observations about human nature. For older people (including myself), if you get used to performing a task in a certain way, you're not always keen to learn a new way to perform that task. So, for instance, mainframe managers who have been trained how to perform updates a certain way (using green-screen, command-line interfaces) may not necessarily be keen to use a newer, graphically driven approach.

*When Clabby Analytics explored this topic with Mr. Dalton, he pointed out that "no matter how much you like doing things the old way — if it's a nuisance you're going to switch to the new way. If there's a better way you're going to take it!"*

### ***Summary Observations***

At the outset of this interview, Mr. Dalton stated that many mainframe shops are not the greatest at keeping up to date its software inventories (revs, versions, new releases). And part of the reason for this is that the processes for doing these activities on a mainframe are complex and cumbersome. CA MSM simplifies these processes — and enables mainframe shops like Irish Life and Permanent to keep up-to-pace in updates, patches, and revision levels.

It is also interesting to note that Irish Life and Permanent's mainframe staff is very small (as compared to the number of managers that it takes to manage distributed computing environments). Irish Life and Permanent has eleven people managing its mainframe — installing and maintaining different products and keeping the mainframe operational. And one of the reasons that it takes so few people to manage the mainframe is the strength and maturity of advanced mainframe management tools. IT executives who are looking to control operational costs should pay close attention to this particular dynamic — mainframes require fewer people to manage operations than distributed systems environments. And fewer people means less pay-out in salary, benefits, sick leave, and holidays...

As stated at the outset of this *Case Study*, *Clabby Analytics* has been waiting for years for an opportunity to garner feedback on the evolving new generation of mainframe management tools and utilities. These new environments are not simply graphically-driven window dressing for existing mainframe management packages — they are instead products that offer a far simpler user interface as well as time-saving process improvements (because processes are automated and launched as background tasks). These new environments will go a long way toward preparing the next generation of mainframe managers and administrators to take up the reins from the current generation. And, as these environments are more broadly deployed and enriched with additional automated functionality, they will ultimately silence skeptics who allege that a mainframe skills shortage is imminent...

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January, 2010

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