

WHITEPAPER

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The Intelligent Approach for the E-Commerce Transition

Migrating to the new IBM  
WebSphere Commerce Suite Platform

AN ELLUMINIS CONSULTING GROUP WHITEPAPER

# Migrating to the new IBM WebSphere Commerce Suite Platform

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## Executive Summary

*Elluminis Consulting Group (ECG) offers services to facilitate a company's migration over to the next IBM E-Commerce Platform. The extra array of support, training, and knowledge sharing makes ECG the convincing solution when it comes to WebSphere e-commerce integration.*

**M**igrating e-business software to a different architecture can pose different challenges. Some of those challenges can range from the proper planning and resource allocation of an e-commerce site to the unexpected obstacles that can occur during a migration effort.

**For those planning to migrate from IBM WebSphere Commerce Suite (WCS) 4.x,** that challenge can be met by using an approach that can work best by evaluating both the size and need of a company's e-commerce infrastructure.



Making a transition into the new WebSphere Commerce Suite (Java) platform may seem like a lateral upgrade from one version to the next, but actually, it is a giant leap into a J2EE compliant architecture that is becoming more widely adopted within the enterprise world.

Since the migration depicts a major overhaul of a *soon to be legacy* system, the methods for accomplishing tasks within WCS has also changed. Not only has the underlying programming language been changed, but also the tools to administer the system, tools to edit the display layer, and utilities to import/export product catalog data has been changed to reflect the new architecture that now uses WebSphere Application Server 3.x and up.

Furthermore, the database structure between versions has been dramatically changed and normalized. Another important aspect that was affected is the development process that carried out default and customized tasks. For those who are making a transition from WCS4.x (which is C++ based and uses a proprietary Net.Macro technology), it forces any company to update skills and acquire the programming knowledge in a J2EE and EJB environment to fully utilize the capabilities of IBM's new WebSphere Commerce Suite platform.



**As an IBM solutions partner, ECG has the capability to leverage resources** to guide companies through the phases of migration with ongoing support and training. ECG's streamlined approach for migrating to WCS5.x starts with analyzing the overall WCS4.1 system and concludes with the training and support of the new system.

In this whitepaper, you will see the approach used by ECG and how it can shorten the migration time span and dramatically cut costs by a significant fraction compared to industry rates for WebSphere Commerce Suite migration.

# WebSphere Commerce Suite Migration Plan

## Migrating to WCS5.1 and Up

Why bother migrating when WCS4.1 works? WebSphere Commerce Suite 5.1 may have the same base features as 4.1, but the underlying architecture that WCS5.1 is built from relies on the WebSphere Application Server (WAS). WAS acts as the central transactional and messaging component that delegates messages and tasks from the application to the database layer. Upgrading to WCS5.1 would also mean upgrading the engine component that drives the e-commerce system.

Upgrading to a more flexible and robust application server has its benefits. Those benefits include improved security, a standard programming model, XML and Java based toolsets, and an architecture that conforms to a standards-based EJB specification for application development.

Another reason to migrate to WCS5.1 is to maintain support for the e-commerce engine component since **IBM will retire its support for the proprietary 4.1 C++ engine in favor for WAS.**

Making the move to a standards-based architecture is a right step in the right direction. More and more companies are making a shift to using application servers to harness the flexibility and resources of enterprise components and libraries. Having only a few leaders in the application server area, IBM has already matched the user base of the next leading competitor BEA WebLogic; and its growth continues to climb at a much faster rate.

## The 4 Phases of a Successful Migration

An important aspect to perform a successful migration is to have well defined strategy to carry out specific tasks during the migration phases. Since a typical migration process is not an out-of-the-box migration kit, ECG formulated a 4-step approach with specific steps to take along each phase to ensure a successful deployment.

### Phase 1 -- Migration Analysis

#### Phase

1

The first step is to analyze the system to be converted to the WCS5.x system. A study of all features that has been utilized (or not) within the WCS4.1 system will determine the *list of features to be implemented or excluded* on WCS5.1. This study can optionally take part within a smaller preliminary analysis before continuing the main steps within Phase 1. This will allow a company to see the scale and complexity of the migration effort before it starts.

Other options and requirements will also be taken into account to create an estimated schedule. Those options can range from the architecture of system components to the optimizations or new features that a company would like added on top of the base migration.

After a preliminary analysis has been performed, a data migration of all catalog and store assets within the WCS4.1 system will be converted over to WCS5.1. A conversion and testing phase is performed since the database structure and tools for importing data are significantly different in WCS4.1.

## Phase 2 – Development

Phase

2

The development phase is the longest phase in the migration process. In the previous phase we collected a list of features to be implemented or developed. That list of features would correspond to macros, overridable functions or tasks that can be converted to Java Server Pages (JSP) or be converted into overridden commands in Java. Most of the development in this phase consists of converting default business logic defined in Net.data macro pages into JSP pages. All other functionality outside this default conversion task would be classified as external or customized development.

**If a company has put a great amount into customizations and external processes within a WCS4.1 system, it can ultimately prolong the migration schedule.** For example, customizations or additions appended to the 4.1 database structure may call for the extra development of entity beans to access customized database fields in version 5.1.

Even while IBM recommends a certain number of days to migrate certain e-commerce components, ECG condenses the time to convert and implement them by having experienced and skilled resources that have already performed the process.

Having a specialized team that handles many aspects of the migration such as N-tier installations, importing database configurations, to implementing different payment methods can cut communication and implementation time down by a significant factor.

## Phase 3 – Testing

Phase

3

Trying our best to simulate a company's production environment ensures greater success when it comes to delivering the product. Although the development phase consists of smaller unit testing for each component developed, a staging environment is created to mirror most of the processes that occurs within a production environment.

One of the notable qualities of a migration performed by ECG is the way the system is tested and delivered. **A simulation of the migration as it would be performed at the client site is performed at the ECG labs to reduce any mishaps that may occur.**

An automated installation and configuration process created by ECG minimizes installation time in half to free more resources for training. The

installation image is then used during integration time to install the customized store components of WebSphere Commerce Suite 5.1.

## Phase 4 – Integration, Training and Support

Phase

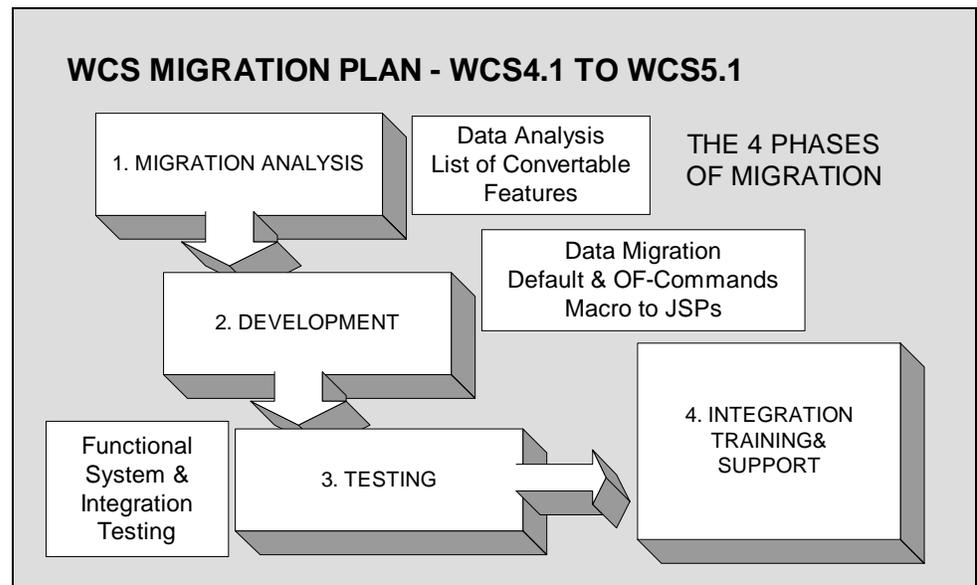
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When it comes time to deliver, ECG is well prepared to integrate the system within a production environment. The integration plan is another set of carefully devised tasks to allow a smooth transition to the new WCS5.1 system.

The integration process contains smaller procedures that consist of database backups during certain phases of migration and functional tests to make sure every installed component is properly interacting with the system.

Even during integration a knowledge transfer of the system can be conducted to explain the differences between WCS4.1 and WCS5.1. More documents are enclosed within the installation package, which explain methods to maintain the WCS5.1 system and also show the detailed procedures that were involved within the migration process.

ECG's level of support for WebSphere Commerce Suite customers can optionally extend beyond the migration period to have an experienced team of WebSphere experts available whenever help is needed.



## Conclusion

The complexity of making the switch from WCS4.1 to WCS5.1 does not come close to a typical version update. Instead, the new underlying architecture of WCS5.1 is replaced with a new backend layer that conforms to new standards within the Java community.

Making a migration from a C++ proprietary system to a J2EE and EJB compliant system can be a worthwhile challenge. ECG can take that challenge and help guide companies through a technology change without the painstaking struggle of learning new APIs and system differences. That challenge is also backed by a partnership with IBM.

ECG has the ability to cut several months from a typical migration schedule depending upon the complexity of the WCS4.1 system. This reduction can be made possible by having an experienced team who are well versed in WebSphere Commerce Suite development. Also, by streamlining the methods of analysis, integration and testing, it helps expedite the overall migration process.

The extra training and support that ECG offers can benefit a company who chooses the WebSphere Commerce Suite. Having experienced resources readily available can make your experience with WebSphere a more productive one.

Whether in need of a migration strategy or even a new IBM e-commerce solution, ECG can provide services to help companies make that big leap to WebSphere.