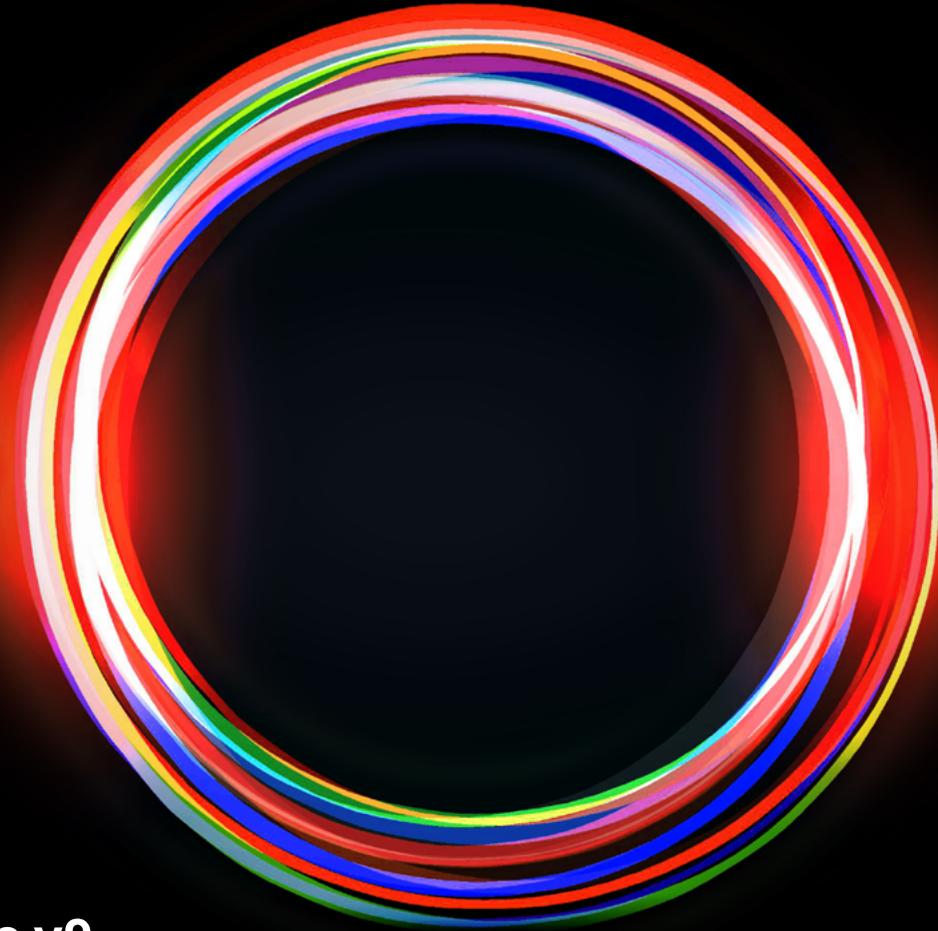


Deloitte.
Digital



**Enter the future with IBM®
WebSphere® Commerce Suite v9**

Gain more business value and
avoid migration challenges

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WebSphere
Commerce v9

Now's the time

In January 2018, IBM released WebSphere Commerce Suite (WCS) v9. This new version has features that can add more business value including improved customer experience, artificial intelligence (AI) capabilities for more personalized messages, and a modern cloud-ready architecture to accelerate delivery and lower total cost of ownership (TCO).

If your organization is using WebSphere Commerce v7 or v8, chances are you'll want to upgrade to v9. The migration journey is unique to each organization based on the customizations and version of the existing IBM Commerce solution. So, how can you optimize the upgrade path with minimal impact to your business—and realize value from the new cognitive platform?

Through our own experience migrating from v7 to v9—and by working in collaboration with IBM Labs—we have developed an efficient migration approach and framework based on what we learned along the way.

Tech tip

IBM will discontinue support for WebSphere Commerce v7 in April 2019.



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What's new in WCS v9

Version 9 is the next generation of WebSphere Commerce. WCS v9 combines a modern architecture and AI to help personalize your customers' experiences at deeper levels—at the key decision points in their awareness journey—while delivering the integrated omnichannel experiences they expect. It provides scale, security, performance, and rich capabilities combined with the speed and flexibility of a cloud-ready micro-services architecture. With v9 you can innovate more and deliver better business outcomes in less time.



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For business users



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Enhanced customer experience

WCS v9 allows you to create unique customer experiences online and in retail channels with meaningful offers, speed, and precision, while enabling your marketing and merchandising teams with AI insights.



Modernized architecture to power innovation

Shift time and money from managing and maintaining the platform to innovating and executing your business strategies.



Commerce capabilities to enable omnichannel experiences

Deliver connected experiences as customers transition across digital and physical channels to help increase conversion rates, average order values, and the number of engaged customers.



Artificial intelligence for faster, more informed decisions

Use the cognitive capabilities from IBM Watson™ to automate tasks and deliver insights—learning more over time—that help you create more effective engagement strategies.



Real-time inventory availability increases customer buying options

Up-to-date inventory across online and retail stores enables send-to-store, buy-online-reserve-in-store, and ship-from-store options.



Improved promotion management helps meet sales goals

Marketers can create and bulk upload new promotions easily. Offers can be delivered across multiple channels (mobile, web, email) and be presented to customer service representatives to help drive sales.

For technologists



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Modernized platform

WCS v9 incorporates a micro-services modular architecture that can provide greater platform flexibility and scalability.



Application is federated into multiple servers: transaction, utility, search, customization, and store

This allows for more flexibility in parallel development, as well as horizontal scaling by function.



Easier upgrades with externalized customization (xC) programming model

Separating core components and customizations enables greater control in managing custom extensions and simplifies future upgrades.



Streamline DevOps with Docker containers

Container technology can simplify integration, reduce overhead, automate deployment, accelerate delivery, and move applications easily.



Easier modification of APIs

Search, configuration, crawling, and indexing can be easier with RESTful APIs.



Headless architecture for storefront flexibility

Integrate front-end services with SaaS model.



Connect to Watson with out-of-the-box integration capabilities

Features include dynamic pricing, order management, content hub, configuration, customer analytics, campaign automation, and commerce insight.

Been there, done that

Before you undertake migration, it helps to talk to others who have already been down that road. Deloitte Digital is among the first few to successfully migrate one of our own technology solutions, SalesDirect, from WCS v7 to v9 in the cloud.



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Been there, done that

Our migration experience

Deloitte Digital's SalesDirect is a plug-and-play cloud solution that offers a new approach to sales, service, and order management, especially for large, complex product and service bundles. Integrating with IBM Watson on a cognitive platform, SalesDirect helps simplify and amplify sales enablement, customer experience, and sales lift by addressing information gaps and service barriers.

Here are some migration challenges we faced:



Cloud installation

There was limited documentation for installing the platform on the cloud. We developed an IBM WCS v9 cloud blueprint to help accelerate the base product install.



Database migration

The database migration tool has limited documentation for migrating EJBs to JPA. We manually migrated Logic and Finders.



Migrating CMC customizations to v9 platform

Manual migration was needed from OpenLaszlo to DHTML, especially for UI changes on CMC.



Moving our current search platform to predictive search

We manually migrated classical attributes to the attribute dictionary.



Customizing tools

The Organization Administration Console and associated changes were manually migrated.



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Been there, done that

Lessons learned

While every migration will be different based on the organization's current solution architecture and customizations, we learned that you can simplify and accelerate your migration journey by following three basic phases: plan, build, and migrate.

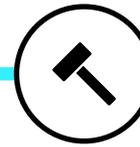
We can help you plan and execute your migration journey, starting with a four-week planning and assessment phase.

Three phases of the IBM WCS v9 switchover migration journey:



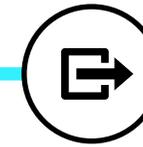
Plan

- Conduct migration workshop with stakeholders to understand your current WCS version, servers/ infrastructure, content, assets, UI framework, search, customizations, and integrations.
- Plan migration tasks.
- Review infrastructure goals.
- Create migration approach.



Build

- Build new low-level environments (Dev & Test) with the latest version in cloud or on-premise.
- Execute migration tasks in the development environment. (May need to upgrade to v7 FEP8 before v9.)
- Build scripts for DevOps automated processes.
- Deploy and test in lower level environments.
- Deploy and test in staging environment.
- Performance test.



Migrate

- Implement cutover strategy.
- Check rollback plan.
- Migrate production database to runtime environment.
- Deploy migrated code assets.
- Test and launch.



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Been there, done that

Pre-migration checklist

To get more value from your migration project, you should address these key questions during the planning or assessment phase:

- Should you migrate to cloud? If so, public, private, or hybrid?
- Which version of WCS is in production now?
- What database do you use to store persistent data? (IBM currently supports DB2 and is working to extend support to others in the future.)
- Which of these do you have in place:
 - Customizations to Management Center?
 - Customizations on the core platform?
 - Solution architecture and usage of the local store?
 - Usage of entity and session beans?
 - Customer data migration needs?
 - Search customizations?
- Do you use the Gift Center?
- Do you have Sales Center extensions?
- Do you have integrations with enterprise and legacy systems, such as your CRM, ERP, billing, or other platforms?
- Do you have scalability and high traffic spikes?
- Will there be training needs?
- Do you use content management solutions to power your customer experience?

Is now the time to shift to cloud?

While there are several ways to migrate without disrupting current customer traffic, our experience has shown that a switchover approach that incorporates cloud or managed hosting can be effective. This allows you to build the new environment with WCS v9 in the cloud while running the older WCS version on your current platform.

We can also implement WCS v9 on-prem.

Other advantages may include:

- Simpler technology platform generally means faster implementations
- Limited infrastructure overhead expense
- Easier access to innovations like AI and machine learning



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Been there, done that

Other considerations

WCS v9 doesn't support IBM Sales Center and IBM Gift Center

If you use IBM Sales Center, the best available alternative is IBM Customer Services. The IBM Gift Center feature will need to be re-implemented.

Express Edition is not available with v9

If you use Express Edition, you'll need to upgrade to Professional or Enterprise Edition.

Migration required for 32-bit infrastructure

Current platforms running on 32-bit infrastructures must be migrated to the new Docker containers.

WCS v9 supports traditional and xC customization approaches

Using the traditional approach will require rewriting the code in the new xC programming model. There is no migration tool provided to support migration from traditional customization to the xC programming model.

Plan for training

WCS v9 is a cognitive platform and your operational team will need formal hands-on training to support the new platform.

Tool customizations

During the discovery phase, analyze the customization to WCS framework and tools like Management Center, Commerce Accelerator, and Organization Administration. There may be manual effort involved to migrate these customizations.

Tech tip

- JPAs replace EJB entity bean at transaction server. The session EJBs will continue to exist in v9.
- WCS v9 starter store is written in JQuery store template.
- WebSphere Application Server (WAS) is replaced with a Liberty server, providing better performance and faster scaling at a lower cost.
- The latest IBM Management Center has been converted from OpenLaszlo to the Spring framework for easy customization.



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Been there, done that

Follow these leading practices

Based on our own experience migrating to v9, we developed a set of leading practices:

- Use **analytics to identify and migrate only high-value features**, rather than all custom code developed over the years. New platforms often have built-in features that can replace earlier customizations.
- Define an **enhanced customer experience** early in the process to guide your migration.
- Plan and implement **organizational change management** approaches to gain employee support and compliance.
- Create plans to **address deprecated and discontinued features**, APIs, and database tables.
- Verify that **data** meets migration eligibility criteria.
- Conduct **pre-migration testing** to find and document any existing system defects to avoid confusing pre-existing problems with real migration issues. After migration, perform a full regression test in every environment to uncover any new issues.
- Conduct **pre- and post-migration validation**, including other application-level components—such as bootstrap/ configuration files, server configuration, code complexity, etc.—to help avoid errors.
- Prepare a **backup and rollback plan**. Just in case, develop a discovery phase backup and rollback plan that's pre-approved by stakeholders.



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How we can help

Here are some of the capabilities we can bring to the table:



Leaders in B2B and B2C commerce transformations

We understand the intricacies of B2B, B2C, punch-out, EDI models, channel partner, supplier, distributor, and reseller implementations.



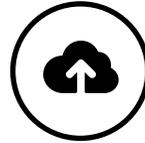
Cognitive capabilities

We have built real-time personalization with Watson predictive search, enabling automatic real-time recommendations.



Metrics on improvement with migration

We have benchmarked site performance on the v9 stack at about 30 percent faster than the v7 stack.



Cloud migration

This upgrade provides the opportunity to migrate to cloud and improve your DevOps processes. We can help you figure out effective cloud patterns and drive process improvement across the organization.



Digital diversity

Deloitte Digital is a creative digital agency, born out of emerging technologies, creative, advertising, marketing, commerce, web, mobile, and customer solutions.



IBM recognition

Deloitte is designated by IBM as a Platinum-level Business Partner. IBM sees Deloitte Digital as a partner of choice.



Let's talk

While every migration is different, we've successfully completed migrations in as little as eight weeks. If you're looking for deep technical migration experience combined with end-to-end capabilities from strategy through implementation, we should talk.

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