

Vendor Landscape: Digital Experience Portals

Legacy Portal Technologies Have Emotional Baggage, While Digital Experience Portal Scenarios Are Red-Hot And Demand Investment

by Mark Grannan

January 4, 2016 | Updated: January 6, 2016

Why Read This Report

Portal technologies may seem passé, but in reality they are critical to delivering secure web and mobile experiences on top of back-end and transaction systems of record. They must be part of your modern digital experience (DX) platform strategy. The landscape of portal vendors is rapidly evolving as pure plays like Backbase and Liferay join stalwarts like IBM and Oracle. This report helps application development and delivery (AD&D) professionals understand the new market for digital experience portal solutions.

Key Takeaways

Legacy Portal Technology Feels Stuck In 2005

Portal software made big promises to unify organizational processes and the customer experience in a single product. However, many see portal as a big, slow dinosaur compared with mobile and other open-web technologies.

But Digital Experience Portal Scenarios Are Thriving

Large organizations struggle with back-end systems integration to support digital experiences, especially those that demand complex access to multiple systems such as enterprise resource planning (ERP), customer relationship management (CRM), and many proprietary business applications. Portal technologies are still relevant given the demand for customer self-service and onboarding via heavy back-end integration and user-customizable interfaces.

Consider How Digital Experience Portal Complements Your DX Portfolio

DX portal solutions split into two camps: traditional, heavyweight solutions and pure-play, lightweight solutions. The former are a good fit for existing customers with complex needs. Pure plays offer a faster time-to-market. But also consider extending your web content management or commerce solution to handle portal needs. Each organization must determine its needs to pick the right portal solution.

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Forrester interviewed 17 vendor and user companies, including Acquia, Adobe, Backbase, CrownPeak, Episerver, IBM, Insite Software, Intershop, Jahia, Liferay, Mvine, OpenText, Oracle, QAD, Red Hat, SAP, and Sitecore.

Related Research Documents

[The Forrester Wave™: Web Content Management Systems, Q1 2015](#)

[The Integration Imperative Of Digital Experiences](#)

[The State Of Digital Experience Delivery, 2015](#)

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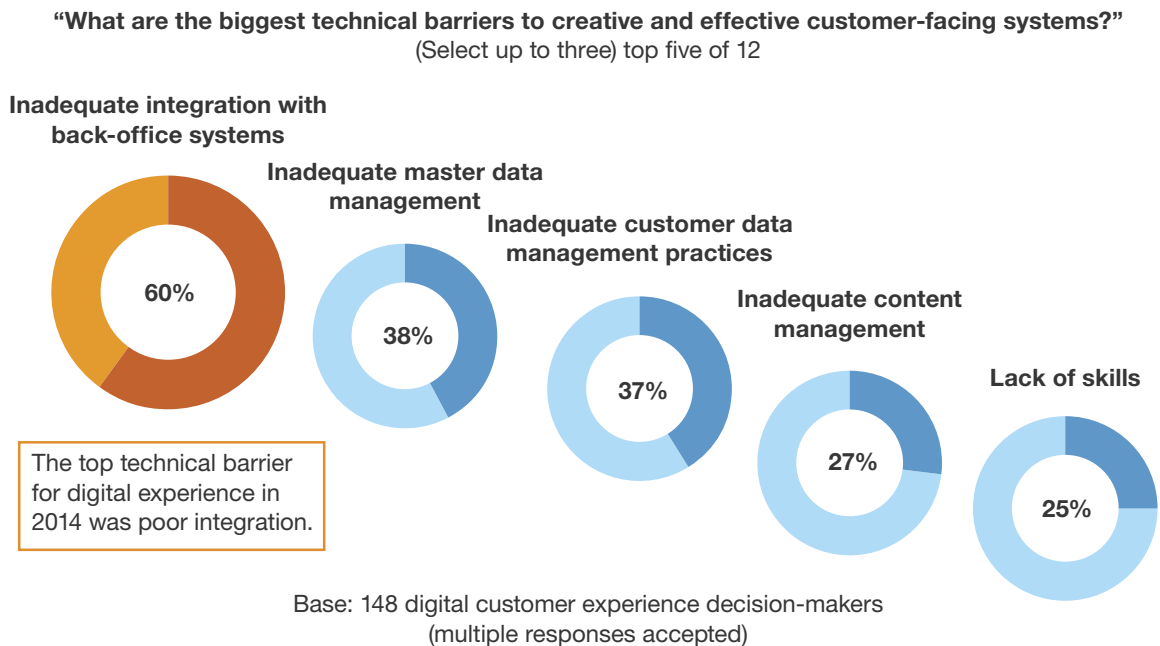
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Portal Scenario Versus Portal Technology: Which Is Right For You?

Nearly two-thirds of 152 digital experience leaders we surveyed told us that the No. 1 technical barrier they faced for digital customer experience initiatives was inadequate integration with back-end systems (see Figure 1).¹ But customers — including business-to-business (B2B) customers — today demand full access to their products, order status, subscription details, and more.² This level of self-service requires extensive integration with the back-end repositories and applications that run these processes.

Self-service scenarios supported by heavy application integration fit the original value proposition for portal servers like a glove; unfortunately, portal servers were often not up to the task of meeting digital experience needs in areas beyond integration. AD&D professionals must distinguish between portal scenarios and portal technologies and recognize the capabilities that bridge the two. This distinction will drive understanding of what technology suits the scenario.

FIGURE 1 Companies Face Digital Customer Experience Challenges With Back-End Integration



Source: Forrester’s Q1 2015 Digital Experience Delivery Online Survey

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A Variety Of Technologies Support Digital Experience Portal Scenarios

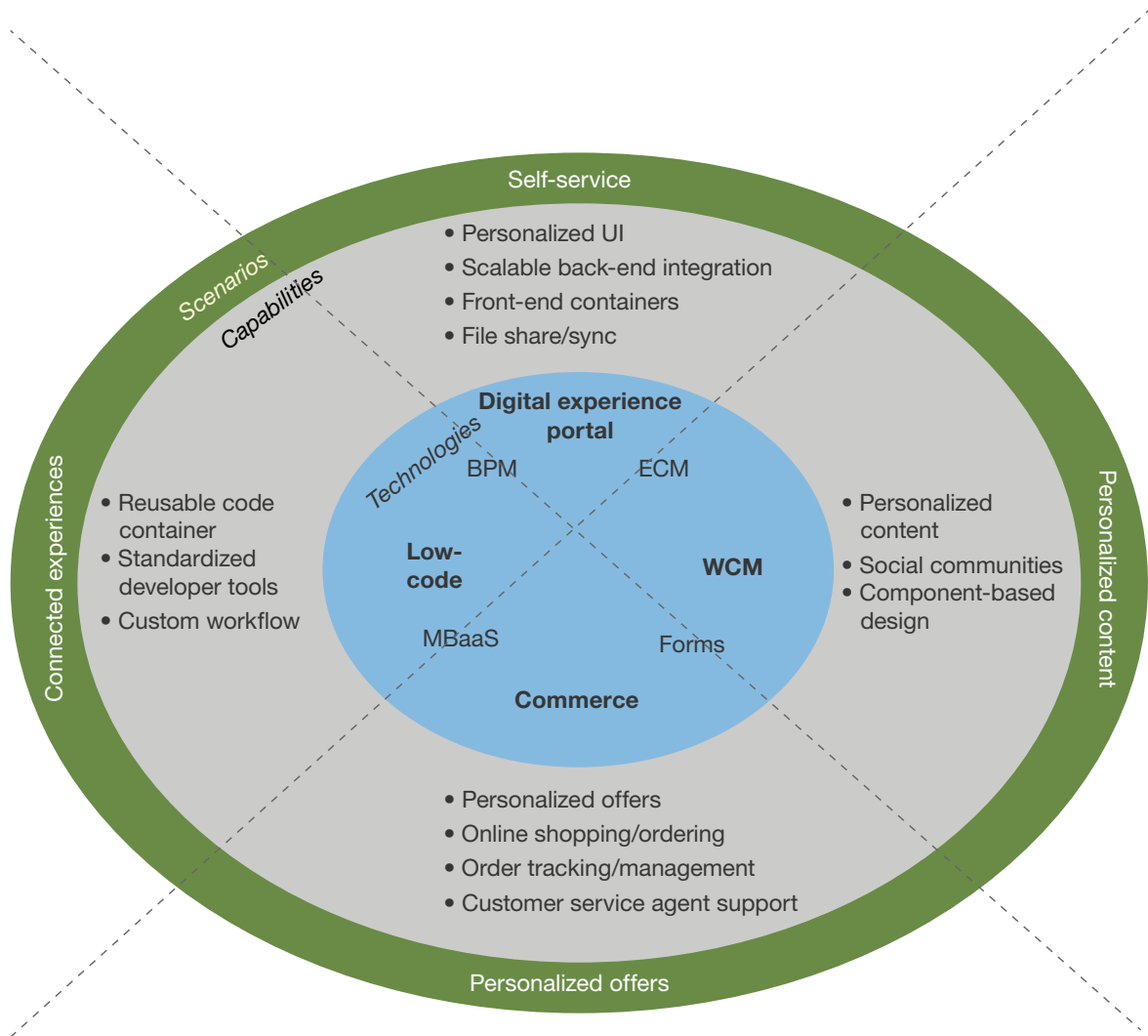
While portal technologies command consideration with three core capabilities — integration, component-based front end, and personalization — there are many adjacent packaged software tools to consider (see Figure 2). While employee-centric use cases like collaboration and file sync and share still exist today for portal technologies, those are increasingly supported by a distinct group of best-of-breed solutions. For customer and partner experiences, there are four areas of directly overlapping functionality; technologies other than portal increasingly support the first three scenarios:

1. **Personalized content.** Companies typically target content to an unknown customer via real-time heuristic analysis. Pattern-matching algorithms and targeting rules run in real time to analyze the customer experience metric (e.g., conversions or time on site) impact and optimize it for future sessions. Web marketing scenarios demand personalized content and WCM, and testing and optimization platforms often serve this need today.³
2. **Personalized offers.** Adding commercial rules both complicates and simplifies personalization. The goal is squarely focused on conversions, average order value, and other easily trackable commerce metrics. Conversely, discounts and packaged offers are constrained by currencies, regulations, and inventories. Today, eCommerce suites and recommendation engines often serve personalized offers.⁴
3. **Connected experiences.** If you do workflow right, you bridge product and organizational siloes to create a better customer experience. On the employee side, where rules, triggers, and employee permissions demand attention, business process management (BPM) or low-code platforms facilitate connected processes and are supported by specialty solutions like e-signature.⁵
4. **Self-service.** Customers — both B2C and B2B — increasingly want access to syndicated content, to do their own research, and to handle transactions without dealing with sales or account representatives. As products become digital, or digitally supported, customers need to log in and see everything that pertains to themselves or their accounts. In order to make self-service actionable and real-time, we need heavy integration. Today, this is digital experience portal's sweet spot.

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FIGURE 2 Various Technologies Support The Capabilities To Deliver Digital Experience Portal Scenarios



Yesterday’s Portal Servers Lag Behind Digital’s Rising Star

In 2015, improving the customer experience, particularly the online experience, was the No. 1 priority chosen by business leaders we surveyed.⁶ This should mean technologies that transform online experiences are worth their weight in gold. Yet, the assumption that newer is better pushes older technologies aside. To better understand this phenomenon, we must separate the customer portal scenarios, portal capabilities, and portal technologies:

- › **Portal scenarios.** These are unified, personalized, and secure customer or partner experiences, traditionally on the Web.

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- › **Portal capabilities.** These are modular front-end code containers, strong back-end integration tooling, and robust authentication support.
- › **Portal server technologies.** These application development and delivery platforms historically leverage portlets — pluggable user interface software components — which are invoked and then combined in the single request of a portal page.⁷

Legacy Portal Solved For A Customer Journey Mindset But Didn't Hit Every Step

As Forrester noted in 2010, the customer experience mandate and the portal server value proposition don't guarantee a match:⁸

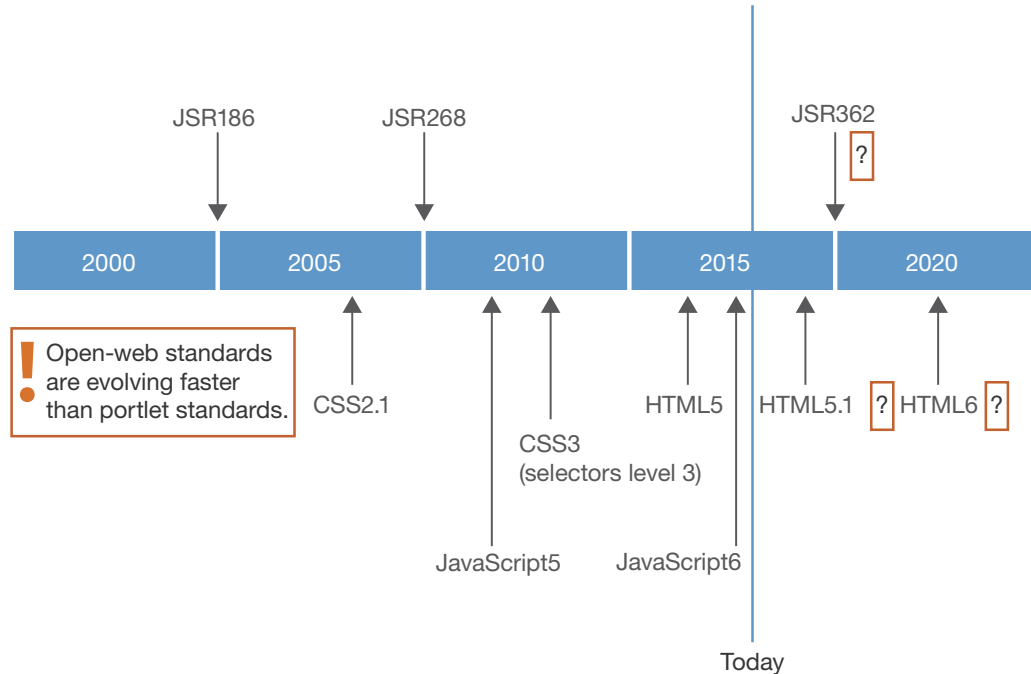
“Traditional portal server functionality — aggregation, authorization, and rich user environments — is only becoming more important as software silos breakdown and as companies are required to deliver smoothly integrated multichannel experiences to customers, partners, and employees alike. But the sources of this functionality are no longer restricted to portal servers.”

In the past five years, customer and partner experiences have demanded capabilities that portal server technologies have failed to fully meet (see Figure 3):

- › **Agility.** Portal's hard-coded presentation layer via portlets prevents rolling out portal experiences to new touchpoints and form factors. Simply put, portal was bad at mobile. Alternative front-end technologies like HTML5 and JavaScript have iterated faster and better suit a rapidly changing environment.
- › **Flexibility.** The rigid application stack prevents swapping in new capabilities and technologies without a big-bang replatforming effort. Modern integration frameworks based on RESTful APIs and flexible data interchange languages like JSON eclipse portal standards in embracing dynamic experiences.
- › **Scalability.** On-premises deployment and rigid architectures prevent traditional portal servers from scaling to Internet-scale needs. Today's in-memory and NoSQL database technologies support independently scalable microservices on elastic, virtual instances deployed globally on cloud architectures, and they blow portal out of the water.

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FIGURE 3 Portlet Standards Have Not Evolved Fast Enough To Keep Pace

Digital Experience Portal Is King For Customer Self-Service On Web

Self-service is squarely in portal's sweet spot. Customer and partner self-service bring buyers out of legacy portal server conversations and directly into digital experience portals. As one enterprise architect at a software company told us:

“Our [digital experience] portal is a critical resource for customers, staff, and account services, especially as we shift to a SaaS offering. We’re not there yet, but we envision one interface from which our customers and partners can manage tickets, environments, support documents, and collaborate with peers in forums and more.”

The same company’s marketing team plans to target existing clients inside the digital experience portal with opportunities for increased investment.

Portal technologies excel in customer service scenarios due to four main features that other technologies struggle with:

1. Heavy back-end application integration delivers all of your customer’s content in one place in real time.
2. Stateful UIs persist your customer’s experience from one session to the next

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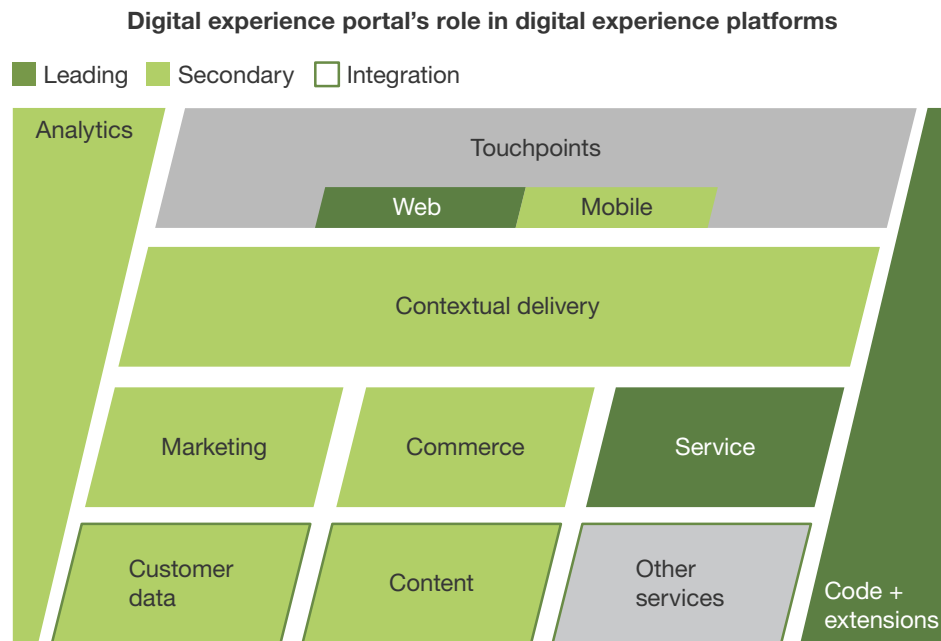
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3. Customization features allow your customer to create his or her own dashboard.
4. File sync and share enables deeper self-service workflows and collaboration.

Choose The Right Portal Solution For Your Digital Experience Needs

Leveraging digital experience portal for authenticated customer self-service is logical today. Leveraging it within the broader digital experience platform architecture is strategic for the future. Forrester advocates for a decoupled, modular architecture that abstracts between the tiers while maximizing reuse of content, data, and code across the platform (see Figure 4).⁹ Digital experience portals play a critical role: They own much of the reusable code for the authenticated web experience, stitch back-end data together, and allow the customer to self-serve. Increasingly, they also play supporting roles in marketing, and some are rolling out mobile support.

FIGURE 4 Digital Experience Portal In The Context Of Digital Experience Architecture



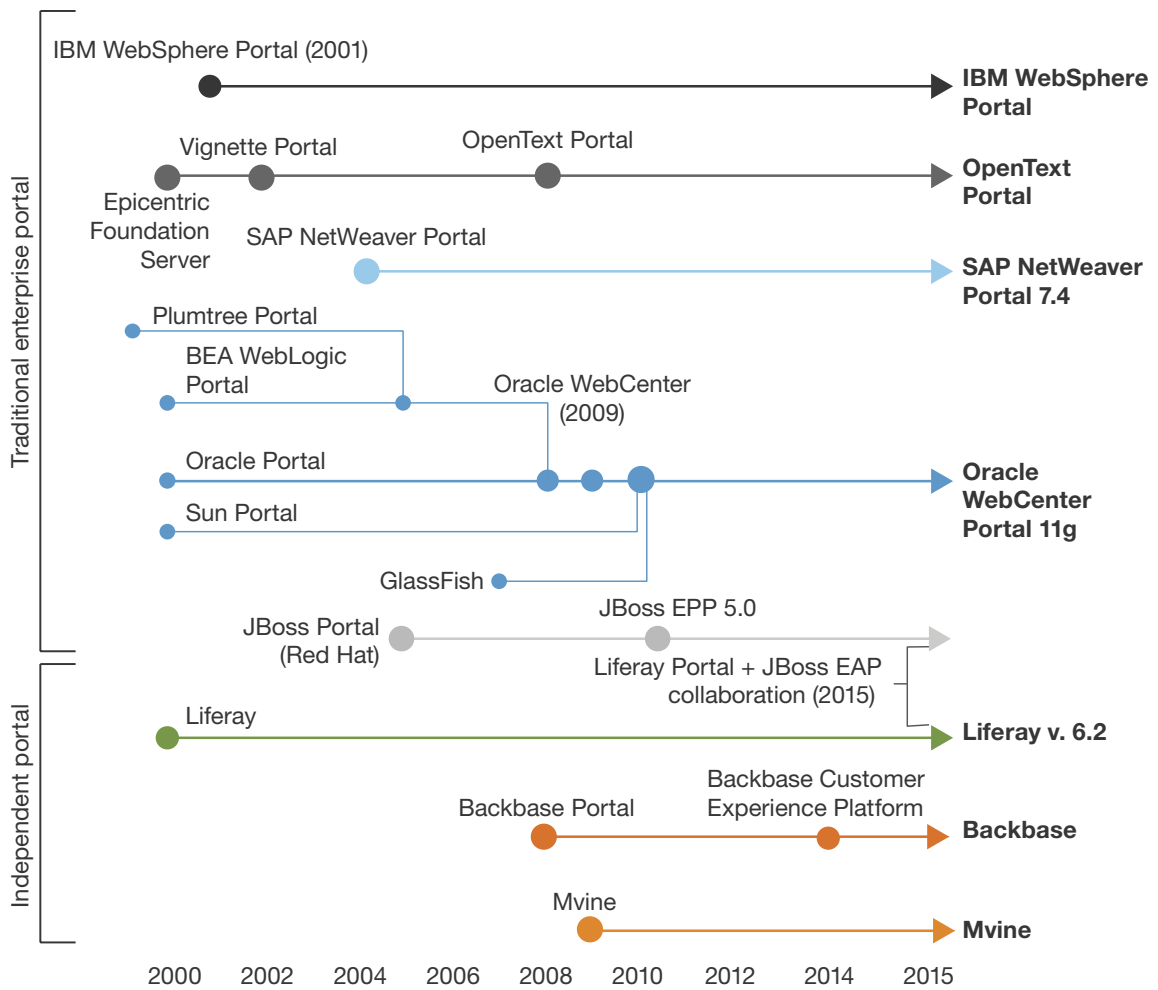
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The Portal Product Landscape Evolves In Support Of Digital Experience

The portal technology landscape has evolved heavily over the past 15 years (see Figure 5). AD&D professionals who shape their organization’s portal investments should understand the history of each product and the vendor’s broader strategy to better understand its future.

FIGURE 5 Portal Product Landscape Evolution



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Traditional Enterprise Portal Products Suit Complex Needs For Large Organizations

Traditional portal servers — on-premises with large server footprints, known for long implementation times, and designed to support multiple, independent application teams — are still important today. These solutions have historically failed to provide practitioners (e.g., marketers) with the means to effectively engage customers. But they're evolving via improved UIs, flexible tools that leverage open-web standards, and integration with their adjacent DX product to become digital experience portals.

Traditional portals are a best fit for large industries, like banking, insurance, manufacturing, education, and government, that serve their constituents on a 1-to-1 basis. Technology teams must support independent development efforts across multiple projects, regions, or business units. These large solutions provide the most custom code potential without compromises to core tenets like security.

Many of these vendors have road maps with even lighter-weight, cloud-based portal options. These solutions are arising due to customer demand for faster, lighter, cheaper, more nimble products. Details are limited today, but Forrester will be actively tracking these moves.

AD&D professionals looking at traditional, enterprise, digital experience portal options should consider:

- › **IBM WebSphere Portal.** WebSphere Portal is currently on version 8.5. Customers tell Forrester that the portal solution is well integrated with IBM's WCM solution (also on version 8.5), and these are both part of larger employee and customer experience suites. In parallel, IBM touts its digital data connector (DDC) strategy to provide non-Java Enterprise Edition (JEE) developers with XML or representational state transfer (REST) connections. IBM's road map will move beyond portlets to other skill sets (e.g., HTML, CSS, and JavaScript). WebSphere Portal is available via perpetual license, as a partner-managed offering (e.g., Avnet), and as a service on IBM Bluemix and SoftLayer.
- › **Oracle WebCenter Portal.** Oracle's portal solution is born from multiple acquisitions over the past 15 years. Today, WebCenter Portal maintains tight relationships with WebCenter Content, WebCenter Sites, and Oracle BPM. Touting prebuilt integration with core Oracle solutions in CRM, business intelligence (BI), and analytics, the Oracle ecosystem is one of its biggest selling points. The portal product road map includes friendlier practitioner tools, codeless integrations, full REST extensibility, and hybrid cloud options. Today, WebCenter Portal is available through a perpetual license and public and private cloud options.
- › **SAP Enterprise Portal.** SAP's portal strength is its integration with other SAP business applications and back-end technologies like ERP, CRM, and Supplier Resource Management (SRM). Existing SAP customers will recognize portal's UX as the broader SAP Fiori UX. SAP currently supports two main products: on-premises SAP Enterprise Portal (bundled via NetWeaver for the past 12 years) and SAP Hana Cloud Portal (bundled via SAP Hana Cloud Platform for the past two years).
- › **OpenText Portal.** OpenText acquired Vignette in 2009. Leveraging strengths in enterprise content management (ECM), BPM, and document management, OpenText's portal offering focuses on stitching all of those products together and frequently serves as the delivery environment for its

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web content management product. OpenText claims business practitioner tooling to minimize technology management involvement while extending traditional portlet design with Ajax support. OpenText Portal is available via a perpetual license and maintenance model, via platform-as-a-service (PaaS), and also as a white-label OEM solution.

- › **Open source.** Large organizations may opt to build their own portal and jumpstart efforts with an open source portal framework. JEE and PHP (e.g., Drupal) are two of the highest-profile options available. Within the JEE landscape, there are enterprise-supported options like Red Hat JBoss Enterprise Application Platform with Liferay Enterprise Portal. Within the Drupal community, contributors build portal themes, and enterprise-supported models (e.g., Acquia) or development shops (e.g., Pantheon) extend portal development.

Independent Solutions Reinvent Themselves To Embrace DX, Avoiding The Portal Moniker

Standalone portal products became increasingly rare after many of the larger vendors' acquisition sprees in the past 10 years. However, there are a few smaller pure-play options that still fly solo, and some boast impressive growth numbers. These solutions bring a lighter footprint of features and support for customization. Increasingly, these portal vendors don't go to market with portal, but something closer to an all-in-one DX platform.

Independent digital experience portal solutions are a best fit for regional or business-unit-level portal scenarios that have the opportunity to land and expand into adjacent concerns. Within this use case, these solutions are a potential match for brownfield scenarios for organizations that adopted a traditional enterprise product years ago and found it overbuilt for their needs. In greenfield scenarios, vertical-specific (e.g., banking) or engineering (e.g., open source software products) roots act as the primary matchmaker.

AD&D professionals looking for lighter-weight, dedicated digital experience portal vendor partners should consider:

- › **Liferay.** Liferay is a Java-based open source digital experience portal solution. Founded in 2000, Liferay remains self-funded. It focuses increasingly on out-of-the-box functionality — a nontraditional portal philosophy. The company's road map centers on adding more digital experience capabilities for marketing needs and becoming more flexible and API-centric. While Liferay is available as a free, open source download, and it accommodates elastic pricing for cloud environments, its main strategy is a subscription model including production management tooling, maintenance, and enterprise support.
- › **Backbase.** Backbase sells a digital experience portal product, Customer Experience Platform, and has made a name for itself in the financial services vertical with its Digital Banking Platform. Backbase touts a microservice-based architecture and a JavaScript front end built on Angular.js. Backbase runs leaner on functionality than some direct competitors, and it won't have a standalone cloud offering until the end of 2015, but neither has hurt the firm much in financial services, where customization and on-premises data protection are of paramount importance.

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- › **Mvine.** UK-based Mvine is one of the smaller and younger vendors in the digital experience portal space. It was founded in 2005, and it has the lightest feature footprint. Mvine touts a modern technology stack focused on security assertion markup language (SAML) authentication and real-time back-end integration. Mvine's focus is solely on solving for the authenticated customer experience and getting up and running fast via a low-code strategy, which means customers must rely on other software vendors for marketing or anonymous commerce scenarios. Mvine is available as a subscription service.

WCM And Commerce Products Support Lightweight Digital Experience Portal Scenarios

In addition to the dedicated portal players, there is a long list of adjacent players. Cloud-based WCM vendors like Acquia, CrownPeak, and Jahia all tout clients to use their solutions to solve for portal scenarios like modernizing legacy applications for customer self-service. Jahia has gone so far as to stand up a new cloud-based Portal Factory offering. Two .NET vendors, Episerver and Sitecore, have reaped the benefits of the SharePoint ecosystem splintering after Microsoft left the space in 2012. Even marketing-centric Adobe touts customers leveraging Adobe Experience Manager for portal scenarios, especially given recent updates to forms and modular code.

For the commerce suite market, B2B use cases are portallike. Vendors and products like IBM WebSphere Commerce, Insite Software, Intershop, Oracle Commerce, and SAP enable B2B organizations to deliver self-service digital commerce.¹⁰ The technologies embrace this portal scenario by facilitating easy integration with back-end product data, CRM-based account data, and ordering and fulfillment system data. Surfacing this content in a self-service front end is game-changing in verticals like manufacturing and consumer packaged goods (CPG). Throw in complex logic around exceptions, returns, or bulk pricing, and commerce's BPM capabilities truly shine.

Recommendations**Map Your DX Portfolio, Then Complement It With Portal Capabilities**

Organizations leverage many technologies — sometimes dozens — to serve customers on digital touchpoints. Given overlapping functionality, it's not always clear which solutions should serve portal scenarios. Do you need a dedicated digital experience portal solution? If so, which one? Forrester recommends AD&D pros do some upfront legwork in order to better align their technology selection with the needs of the customer and the business. Specifically, you should:

1. **Work with CX colleagues to find weak spots in your customer's ability to self-serve.** Find the gaps and disconnects in your customer experience, especially those instances where your customers don't want to rely on sales or support staff to get something accomplished. By working with customer experience colleagues to better understand the customer journey map (today) and road map (tomorrow), AD&D professionals can align their priorities with the customer's.

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2. **Identify the number and type of systems and repositories that you need to integrate.** Does your customer's journey focus on a complex series of approvals? BPM might be the biggest determining factor. Are you working with dozens of back-end applications? Many WCM or commerce engines might be overwhelmed by more than five to 10 concurrent connections to back-end systems. Note the type of each integration point, too. Product-centric repositories are different from service or software and will likely influence your options, especially due to the adjacent offerings many large vendors support.
3. **Factor in the benefit or risk to your development cadence.** What is your core development expertise with Java, .NET, or PHP? This skill set and comfort level is a big gating factor for which technology avenue you have available. How are your front-end development teams building today? For immature development organizations, a portlet model helps unify their development efforts. Conversely, AD&D teams that are adept at web and mobile development may find such a model would slow them down. However, given that many portal vendors are opening up their developer toolkits, this may only be a limiting factor for a short time.
4. **Avoid yesterday's portal trap — be agile and continuously iterate.** Digital experience demands are accelerating. Due to rapidly evolving customer expectations and business priorities, companies must react in seconds, minutes, or days — not months, quarters, or years. Regardless of the technology you pick to support your digital experience portal scenario, push your teams and your vendor to enable Agile and continuous delivery best practices. And if you're moving off of a five-, 10-, or even 15-year-old platform today, avoid overcustomization that prevents you from executing future version upgrades.

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Supplemental Material

Survey Methodology

Forrester's Business Technographics® Global Priorities And Journey Survey, 2015, was fielded to 14,596 business and technology decision-makers located in Australia, Brazil, Canada, China, France, Germany, India, New Zealand, the UK, and the US from SMB and enterprise companies with two or more employees. This survey is part of Forrester's Business Technographics and was fielded from December 2014 to March 2015. ResearchNow fielded this survey on behalf of Forrester. Survey respondent incentives include points redeemable for gift certificates. We have provided exact sample sizes in this report on a question-by-question basis.

Each calendar year, Forrester's Business Technographics fields business-to-business technology studies in 10 countries spanning North America, Latin America, Europe, and Asia Pacific. For quality control, we carefully screen respondents according to job title and function. Forrester's Business Technographics ensures that the final survey population contains only those with significant involvement in the planning, funding, and purchasing of business and technology products and services. Additionally, we set quotas for company size (number of employees) and industry as a means of controlling the data distribution and establishing alignment with IT spend calculated by Forrester analysts. Business Technographics uses only superior data sources and advanced data-cleaning techniques to ensure the highest data quality.

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Forrester conducted its Q1 2015 Digital Experience Delivery Online Survey among 135 digital experience professionals. Forrester fielded this survey in February 2015 to end users who are involved in digital experience technology decisions at their organizations. The sample consisted of organizations across industries and included third parties for relevant questions, as third parties become deeply entrenched partners for many digital experience initiatives.

Please note that there may be some sample bias. While Forrester fielded the survey to a global audience, the majority of respondents came from North America; they also came from an uneven distribution of industries and from companies of various sizes. This survey was not fielded to a random sample. The majority of the respondents came from readers of Forrester reports, which may have biased this sample. This survey is not guaranteed to be representative of the population. Unless otherwise noted, statistical data is intended to be used for descriptive and not inferential purposes.

Companies Interviewed For This Report

Acquia	Liferay
Adobe	Mvine
Backbase	OpenText
CrownPeak	Oracle
Episerver	QAD
IBM	Red Hat
Insite Software	SAP
Intershop	Sitecore
Jahia	

Endnotes

- ¹ Forrester surveyed 148 technology, marketing, and business professionals with decision-making roles in digital experience (DX) delivery technologies, and we asked them about their strategies for the coming 12 months. See the [“The State Of Digital Experience Delivery, 2014”](#) Forrester report and see the [“The State Of Digital Experience Delivery, 2015”](#) Forrester report.
- ² Nearly 75% indicate that buying from a website is more convenient than buying from a sales representative when purchasing products or services for work. In addition, 93% of B2B buyers say that they prefer to buy online rather than from a salesperson when they’ve decided what to buy and just need to make the purchase. Furthermore, an ever-increasing number of B2B buyers are deciding what to buy online long before they ever contact a company’s salesperson, if they ever do. See the [“Death Of A \(B2B\) Salesman”](#) Forrester report.
- ³ For more information on WCM and testing and optimization platforms, see the [“The Forrester Wave™: Web Content Management Systems, Q1 2015”](#) Forrester report and see the [“The Forrester Wave™: Online Testing Platforms, Q3 2015”](#) Forrester report.

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- ⁴ For more information on the personalized offers eCommerce suites and recommendation engines often serve, see the [“The Forrester Wave™: B2B Commerce Suites, Q2 2015”](#) Forrester report and see the [“The Forrester Wave™: B2C Commerce Suites, Q1 2015”](#) Forrester report.
- ⁵ For more information on how BPM platforms facilitate connected processes and are supported by specialty solutions, see the [“The Forrester Wave™: BPM Suites, Q1 2013”](#) Forrester report.
- ⁶ Source: Forrester’s Business Technographics Global Priorities And Journey Survey, 2015.
- ⁷ The portlet specifications 168 and 286 are defined and documented by the Java community. Source: “JSR 168: Portlet Specification,” Java Community Process (<https://jcp.org/en/jsr/detail?id=168>) and “JSR 286: Portlet Specification 2.0,” Java Community Process (<https://jcp.org/en/jsr/detail?id=286>).
- ⁸ “Traditional portal server functionality — aggregation, authorization, and rich user environments — is only becoming more important as software silos breakdown and as companies are required to deliver smoothly integrated multichannel experiences to customers, partners, and employees alike. But the sources of this functionality are no longer restricted to portal servers.” For more information, see the [“Market Overview: The Portal Server Market In 2010”](#) Forrester report.
- ⁹ Application development and delivery (AD&D) professionals must integrate these silos while keeping pace with the demand for net-new experiences. AD&D pros must make integration core to their experience platform strategy. Outside-in strategic thinking will carry the organization a long way, but AD&D professionals must collaborate with marketing and business colleagues to build a shared vision — including integration points — for digital experience (DX) technologies. For more information, see the [“The Integration Imperative Of Digital Experiences”](#) Forrester report.
- ¹⁰ For more information on Forrester’s evaluation of vendors that enable B2B organizations to deliver self-service and digital commerce, see the [“The Forrester Wave™: B2B Commerce Suites, Q2 2015”](#) Forrester report.

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