



The state of CICS in the modern enterprise

Part 2: CICS and its relationship to crucial business data

A CICS survey analysis report from:





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Introduction

Because CICS has traditionally held an important place in organizations with mainframes, *Enterprise Tech Journal* often reviews the state of CICS usage by conducting a survey aimed at IT professionals. The survey explores the usage, challenges, and future of CICS based on the experience of people working in this area. This three-part report presents the 2015 survey results and discusses the significance of the data in relation to today's IT environment.

Part 1 of the report reviewed the importance of CICS in the mainframe environment including usage, application availability, and access from mobile devices and PCs. This second part covers survey results related to CICS' relationship to crucial business data, as well as challenges with those relationships. In this part of the report, you'll also see comparisons with previous years' results and uncover if predictions in this area came true.

Business-critical data, the mainframe, and CICS

As with the 2012 survey, the 2015 survey asked about the mainframe, CICS, and business-critical data. Questions focused on where data is stored and how it's accessed. The survey also looked at significant changes since the 2012 survey.

Mainframe access

Data stored on the mainframe is still central to most organizations. In 2015, most respondents — 86 percent — said the mainframe accessed more than half of their business-critical data. This figure is actually up from three years ago, when 77 percent said the same thing.

Mainframe access to business-critical data increases since 2012

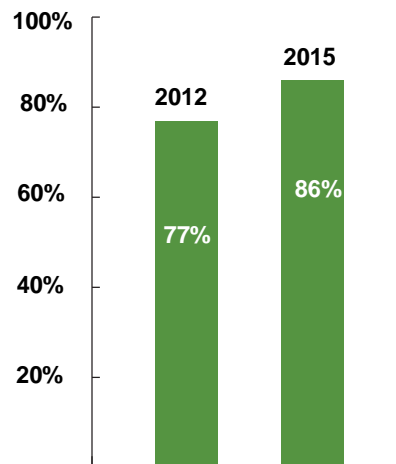


Figure 1. Business-critical data that the mainframe accesses

Certain industries see the mainframe accessing very large quantities of data. Almost two-thirds of Financial Services & Banking respondents said that the mainframe accesses 75 to 100 percent of their business-critical data. More than half of Insurance respondents (52 percent) and just under half of Government respondents (47 percent) said the same thing.

The CICS connection to data

Data accessed through CICS has remained similarly strong. This year, 70 percent of respondents said that CICS accesses more than half of their business-critical data stored on the mainframe. Again, this is up from three years ago, when 62 percent of respondents said the same thing.

CICS continues to access significant amounts of business-critical data on the mainframe

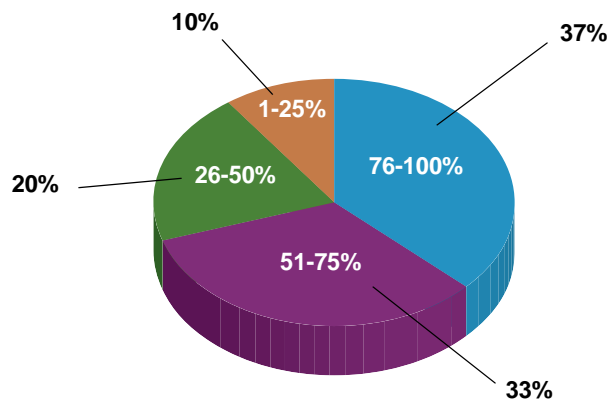


Figure 2. Business-critical data on the mainframe that CICS accesses

Financial Services & Banking reliant on CICS

In relation to industry, Insurance and Government respondents' most frequent response was that CICS accesses 51 to 75 percent of their business-critical data on the mainframe. The next most frequent response for Insurance was 75 to 100 percent, while Government respondents equally picked 75 to 100 percent and 1 to 25 percent as their next most frequent choice.

Financial Services & Banking organizations were even more reliant on CICS; more than half of respondents from this industry reported that CICS accesses 75 to 100 percent of their business-critical data on the mainframe.

All the data types that CICS accesses

This year, respondents were again asked about the types of data that their CICS applications accessed. The year-to-year comparison below shows that reliance on VSAM, Db2, and IMS grew, while reliance on Oracle and DL/1 actually receded.

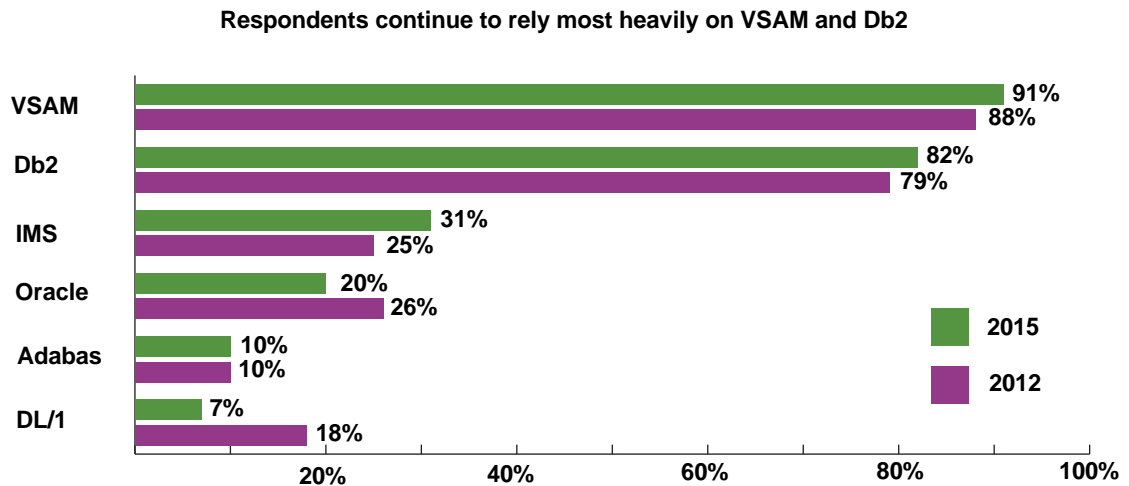


Figure 3. Data types used with CICS applications

VSAM and Db2 remain dominant

Clearly, VSAM and Db2 are the two data types that respondents rely on most heavily with their CICS applications, with IMS coming in a distant third.

VSAM's service to CICS

As mentioned earlier, organizations' reliance on VSAM continues to hold at a steady pace, with a large majority — 91 percent — saying they had at least some business-critical data in VSAM.

Business-critical data in VSAM increases

Perhaps surprisingly, the percentage of business-critical data in VSAM has actually gone up in the past few years. Of the 2015 respondents with VSAM, 38 percent said that more than half of their business-critical data on the mainframe was in VSAM, while only 27 percent of 2012 respondents and 33 percent of 2011 respondents said the same thing. In fact, about 17 percent this year said they had 76 to 100 percent of business-critical data in VSAM, while only 13 percent said the same thing in 2012 and 11 percent said so in 2011.

Respondents from Financial Services & Banking most often said they had 76 to 100 percent of their business-critical data in VSAM files, while Insurance respondents most often said that they had 50 to 75 percent. Government respondents were the least reliant on VSAM data of any of the industry groups.

Do organizations update VSAM data?

Organizations continue to update their VSAM data actively. Of respondents using VSAM, almost all — 99 percent — said that batch updates some portion of their VSAM data, with 49 percent saying that batch updates more than half. This figure is up from the 46 percent of 2012 respondents and 44 percent of 2011 respondents who said the same thing.

Almost all respondents with VSAM update some portion using batch

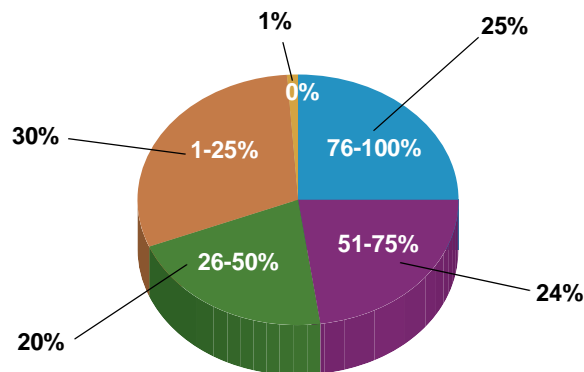


Figure 4. Business-critical data in VSAM that batch updates (VSAM group)

Insurance and Financial Services & Banking respondents were most likely to rely on batch updates. More than 55 percent of Insurance respondents and 52 percent of Financial Services & Banking respondents said batch updates more than half of their business-critical data in VSAM files.

Business challenges organizations face with VSAM

Delving a little deeper, the survey asked respondents what challenges they faced with business-critical CICS applications that use VSAM files. (Respondents could select multiple answers.) Of the 60 percent who admitted to challenges, the top answer was “Lack of availability for CICS applications during certain periods of the day or night” at 74 percent. The second most frequently given answer was “Lack of real-time data for internal or external customers because of the delay due to batch processing” at 48 percent. Interestingly, both of these challenges can be solved with software solutions.

Are organizations staying on VSAM?

Respondents with VSAM were asked if they are planning to move away from VSAM in the next three to five years. Overall, 51 percent said No, while another 39 percent said Yes.

However, in looking at the data by industry, certain ones were far more likely to be keeping VSAM. Even though Government respondents had the least data in VSAM of any industry group, they still said No to moving off VSAM by a margin of 3 to 2. In Insurance, those saying No to moving off climbed to a rate of more than 2 to 1. And in Financial Services & Banking, respondents staying with VSAM came in at a rate approaching 3 to 1.

Did VSAM predictions come true?

Back in 2012, respondents who used VSAM were asked if their organization was planning on moving away from it in the next three years. At that time, 15 percent said they were. Overall, the percentage of respondents using VSAM this year went up slightly to 91 percent from 88 percent three years ago. Respondents also now have a greater portion of important data in this file structure. In 2015, 38 percent of respondents that use VSAM said more than half of their organization's business-critical data is in VSAM. In 2012, only 27 percent said the same thing.

How do organizations view Db2?

While Db2 usage is holding relatively steady, there are subtle signs that usage might be slowing.

Db2 usage and importance — which way are they headed?

As mentioned earlier, 82 percent of total 2015 respondents said they had some portion of their business-critical data in Db2, which is identical to 2012 respondents. Of the 2015 respondents with Db2, 49 percent reported that more than half of their business-critical data is in Db2. Similar to 2012, 2015 respondents in each tier were fairly evenly distributed. As many people said they had no data in Db2 as said they had 75 to 100 percent in this data type.

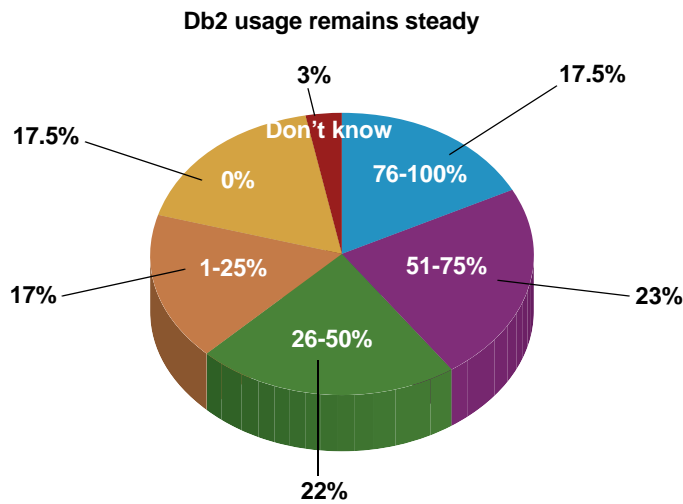


Figure 5. Business-critical data on the mainframe stored in Db2

When asked if the percentage of data in Db2 was Increasing, Decreasing, or Staying about the Same, only 59 percent of this year's respondents with Db2 said Increasing, which is down from 2012 when the percentage stood at 67 percent.

What was also interesting was the other end of the spectrum. In 2012, only 3 percent of respondents with Db2 said the percentage of business-critical data in Db2 was Decreasing. However, this year, those who said Decreasing shifted to a startling 20 percent.

Did Db2 predictions come true?

Even though 67 percent of 2012 respondents with Db2 said that the percentage of business-critical data in Db2 was Increasing, the overall percentage of respondents using Db2 in 2015 was virtually unchanged.

Also, the amount of business-critical data in Db2 has remained steady through the past three years. As mentioned above, 49 percent of 2015 respondents with Db2 said their organizations had more than half of their business-critical data in Db2. In 2012, 48 percent of respondents with Db2 said the same thing.

This means that the percentage of business-critical data in Db2 didn't increase perceptibly, as two-thirds of the 2012 respondents predicted it would.

In 2012, only 3% of respondents with Db2 said the percentage of business-critical data in Db2 was Decreasing. This year, those who said Decreasing grew to a startling 20%.

Databases strategic to today's organizations

Respondents were also asked which databases were strategic to their organizations. Note that this question was not specific to CICS or even the mainframe. When compared to past results, the percentage of this year's respondents who said Db2 was strategic dropped slightly to 73 percent from 77 percent in 2012. Similarly, those saying Oracle was strategic dropped slightly to 58 percent from 2012's 60 percent.

However, a greater percentage of this year's respondents (51 percent) said that SQL was strategic to their organization than said so in 2012 (42 percent). In looking at this information according to industry, Government, Insurance, and Other industries reported SQL as being strategic at a higher rate compared to Financial Services & Banking.

Conclusion

The mainframe continues to have significant interactions with data. A large majority (86 percent) of respondents said that the mainframe accesses more than half of their business-critical data, which is up from 77 percent in 2012. CICS ties to data also remain strong, with 70 percent of respondents saying that CICS accesses more than half of their business-critical data stored on the mainframe, compared to 62 percent of respondents three years ago.

When looking at the types of data, VSAM continues to be crucial, with 91 percent of respondents saying they had at least some business-critical data in VSAM. This is up slightly from 88 percent of respondents who said the same thing three years ago. These 2015 respondents also reported they had a slightly greater portion of business-critical data is in VSAM than 2012 respondents did.

Respondents with VSAM continue to use it actively, with nearly all respondents saying they update some portion of VSAM data using batch. Respondents also reported the top challenges with VSAM as being “Lack of availability for CICS applications during certain periods of the day or night” and “Lack of real-time data for internal or external customers because of the delay due to batch processing,” both of which can be resolve with software solutions.

Db2 usage remains steady, but there are hints that this trend might be changing. Fewer respondents in 2015 (59 percent) see usage of Db2 Increasing compared with 2012 (67 percent). More respondents with Db2 also project the percentage of business-critical data in Db2 to be Decreasing, shifting to a surprising 20 percent from just 3 percent in 2012.

In Part 3, look for a summary of findings from across the report, as well as demographic information about the participants. How similar are respondents to you and your organization?

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