

This audit report was approved during the March 15, 2023, ARC meeting and is to be included in the Transportation Commission's packet for informational purposes.



**COLORADO**  
Department of Transportation  
Division of Audit

Report Number 23-001

# OnBase® Released Report



**February 2023**

The Colorado Department of Transportation (CDOT) Audit Division (Audit) is an independent, internal audit function authorized pursuant to Colorado Revised Statutes Section 43-1-106(12) to perform audits and furnish other information or assistance to help ensure the financial integrity, and efficient and effective operations of CDOT. Audit reports directly to an Audit Review Committee (ARC) that provides independent oversight, thereby ensuring the division is free from internal and external influences in order to provide objective and independent assessments. Audit is responsible for examining and evaluating CDOT's various operations in order to improve efficiency and effectiveness.

#### Audit Review Committee

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Eula Adams, Member, Chair, District 3  
Karen Stuart, Member, District 4  
Terry Hart, District 10

#### Audit Division Staff

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**COLORADO**  
Department of Transportation  
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March 15, 2023

The attached report presents the results of the OnBase® Audit (report number 23-001, dated February 2023). This report was reviewed and released by the CDOT Audit Review Committee (ARC) on March 15, 2023 and adds value by assisting management with improving the effectiveness with regard to the use and implementation of the OnBase® software.

We conducted this review as part of our FY 2023 audit plan and performed this work in accordance with Government Auditing Standards. This report presents our findings, conclusions, recommendations, and the responses of CDOT management.

Frank Spinelli, CPA, CIA  
Director, Audit Division

cc: Shoshana Lew, Executive Director  
Herman Stockinger, Deputy Director, and Director of Policy  
Sally Chafee, Chief of Staff



# Report Highlights



**COLORADO**  
Department of Transportation  
Division of Audit

## OnBase® Audit

The Audit Division assessed the Colorado Department of Transportation's (CDOT) implementation of OnBase®, specifically regarding the invoicing function.

### Background

OnBase® is a cloud-based modular electronic document management system (EDMS), which is a service platform that can capture information from various sources, automate processes, be integrated with other business applications, and serve as a database for secure record retention. OnBase® is the flagship product of the Hyland software company.

In FY 2019, CDOT began searching for a solution to electronically maintain documents, improve reporting, and reduce paper file storage and the associated maintenance and compliance risks. CDOT formed a committee to evaluate the various systems and ultimately selected OnBase®. The State of Colorado would also later select On Base® as the statewide EDMS solution. The adoption of OnBase® has allowed CDOT to streamline and move legacy systems and processes into a secure cloud-based environment, reducing the need for physical storage space and the associated compliance risks.

CDOT is in various stages of implementing OnBase®, which include the following areas:

- Contract Management,
- Position Description Questionnaire Management,
- Records Management Program,
- Operations Evaluation Web Tool, and
- Accounts Payable Electronic Invoicing.

### Summary

The Audit Division (Audit) assessed CDOT's implementation of OnBase® and found that not having a qualified project champion has led to implementation stagnation, as well as the software functionality not being fully optimized. Although there are opportunities for additional efficiencies, OnBase® has greatly improved the department's overall effectiveness regarding invoice processing, approval, and document retention. Audit did identify software implementation, keywords, and other opportunities related to general ledger account numbers, travel reimbursements, and Master Pricing Agreement rates that could further improve the department's efficiency. In addition, Audit made the following two recommendations and three suggestions:

#### Recommendations:

1. Management should implement a more robust implementation strategy, establishing deadlines and monitoring implementation with the assistance of an appropriate project champion.
2. Management should develop keyword standards by creating a user guide to ensure that keywords are defined and developed consistently. Also, when able, such a guide should include the type or examples of information to be entered for a field. Finally, management should consider reducing the number of keywords to minimize confusion.

#### Suggestions (For Management's Consideration)

1. Provide a drop-down menu in OnBase® containing those GLA numbers applicable to the expense being paid.
2. Develop a travel voucher form (Form 215) as a Unity Form, that would contain drop down boxes to help obtain current per diem and mileage rates.
3. Create the Appendix G Employee Listing as a Unity or electronic form containing the approved indirect cost and salary rates. This could assist approvers with verifying costs, as well as eliminate the need for these rates to be emailed to various users within the department. A Unity Form could also be used by firms to submit their proposed rates along with support documents for review.

## Objective

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Audit assessed the Colorado Department of Transportation's (CDOT) implementation of OnBase® (OnBase), specifically regarding the invoicing function.<sup>1</sup>

## Scope and Methodology

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Audit primarily focused on the accounts payable electronic invoice processing function of the OnBase platform, even though CDOT uses other functions of the software (see Background).

Our audit sampled 381 invoices from a total population of 40,847 invoices that were processed through OnBase during the period from April 1, 2020, through August 31, 2022. Our sample size is based on a 95% confidence level with a 5% margin of error. Our sample included:

- 145 utility invoices,
- 62 invoices that had a dollar value of at least \$50,000,
- 38 employee reimbursements, and
- 136 other non-purchase order invoices.

Audit also analyzed and compared various trends related to our audit objective. We conducted this performance audit from September 2022 through February 2023 in accordance with the 2018 *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence that provides a reasonable basis for our findings and conclusions based on the audit objective. We believe the evidence provides a reasonable basis for our findings and conclusions based on our audit objective. We did not assess the reliability of data from SAP, but through interviews with CDOT staff, determined that the data were sufficiently reliable for the purposes of this report.

The methods that Audit used to achieve our objective were:

- Analyzed and compared trends in invoice processing,
- Compared SAP and OnBase invoicing information including vendor information, dates, amounts, and invoice numbers for selected invoices,
- Reviewed invoices and support documentation,
- Reviewed the *Center for Procurement and Contract Services Operations Manual* dated July 2022,
- Reviewed Procedural Directive 51.1, "Requirements for the Retention of Documents," Updated July 2019,

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<sup>1</sup> OnBase is an electronic document management system.

- Reviewed OnBase Training Material,<sup>2</sup> and
- Interviewed CDOT staff.

## Background

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OnBase is a cloud-based modular electronic document management system (EDMS), which is a service platform that can capture information from various sources, automate processes, be integrated with other business applications, and serve as a database for secure record retention. OnBase is the flagship product of the Hyland software company.

In FY 2019, CDOT began searching for a solution to electronically maintain documents, improve reporting, and reduce paper file storage, as well as to reduce the associated maintenance and compliance risks. CDOT formed a committee to evaluate the various systems and ultimately selected OnBase as the solution for document management and retention. The State of Colorado would also later select OnBase as the statewide EDMS solution. CDOT is using OnBase as originally intended and, additionally, developing process flows within the software to help establish better internal controls for the organization. The adoption of OnBase has allowed CDOT to move and streamline legacy systems and processes into a secure cloud-based environment, reducing the need for physical storage space and the associated compliance risks.

OnBase is administered and supported by the Colorado Governor's Office of Information Technology (OIT) as the State of Colorado's global EDMS. CDOT is in various stages of implementing OnBase functional applications, which include the following areas:

- Contract Creation and Related Management,
- Position Description Questionnaire (PDQ) Management,
- Records Management Program,
- Operations Evaluation Web Tool, and
- Accounts Payable Invoice Processing.

With regard to accounts payable invoice processing, OnBase has been fully implemented in Regions 4 and 5 and partially implemented in Regions 1, 2, 3, and Headquarters.

## Findings and Conclusions

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Audit assessed CDOT's implementation of OnBase invoice processing and found that not having a qualified project champion has led to implementation stagnation as well as the software functionality not being fully optimized. Although there is opportunity for additional efficiencies, OnBase has greatly improved the department's overall effectiveness regarding invoice processing, approval, and document retention. The following describes these areas of opportunities.

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<sup>2</sup> OnBase training information can be found at <https://sites.google.com/state.co.us/learninglane/training-programs/onbase-training/onbase-invoices>

## 1. Implementation

The importance of a well-designed implementation plan is crucial to the successful ongoing use of software throughout an organization. Software implementation is a complex and risky endeavor. A staggering number of companies fail when integrating new software, and billions of dollars are lost by organizations each year because of software implementation errors.<sup>3</sup> Based on our research, Audit identified the following six steps necessary for a successful implementation:<sup>4</sup>

1. **Scope out the Implementation Project:** An implementation project scope should be identified in sufficient detail to outline the specific task as well as establish expectations.
2. **Develop an Implementation Plan:** Timelines should be established and monitored throughout the implementation process. In addition to timelines, metrics should be established and measured.
3. **Assign Team Owners to Drive the Implementation Process:** Communication is an essential part of successful software implementation. By assigning team owners, responsibilities can be identified and managed to prevent and/or address issues as they happen.
4. **Test New Software:** Ensure that new software is compatible with the current systems. The more testing that is performed, the greater the chance of implementation success.
5. **Create an Onboarding and Training Program:** Prepare the team by creating training programs to avoid downtime once the software is ready and make users more comfortable with the software.
6. **Assign a Project Champion to Oversee the Implementation:** The champion is responsible for ensuring that the software is properly implemented, monitoring progress, and addressing issues as they arise. Having a project champion is the most critical step to ensuring success of the implementation. This champion must have sufficient organizational authority to ensure staff compliance with the implementation plan. In addition, the champion plays a vital role in drumming up organizational excitement around the use of the new software.

Based on these steps, CDOT has been generally effective with step 3, Assigning Team Owners to help drive the implementation process, but has not been as effective with the other five steps, which has resulted in the following:

- **Limited Implementation:** Only two of the five regions, Regions 4 and 5, have fully implemented OnBase. This limited implementation was due to a soft rollout strategy that allowed regions flexibility with regard to the timing of their

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<sup>3</sup> Olmstead, Levi, “Software Implementation: Keys to a Successful Rollout (2023)”, August 4, 2021 retrieved from <https://whatfix.com/blog/software-implementation/>

<sup>4</sup> Malsom, William, “What Is an Implementation Plan & How Do I Create One?” Feb 18, 2022. Retrieved from <https://www.projectmanager.com/blog/implementation-plan>

implementation. Audit believes if there had been a qualified project champion in place, this soft roll out would not have resulted in stagnation, which has been counterproductive to the goal of a broad organizational acceptance.

- Considering OnBase has yet to be fully rolled out within the entire organization, and that Region 5 does not use it all the time, CDOT is maintaining two systems, SAP and OnBase, for invoice processing. This results in OnBase containing incomplete data. See [Table 1](#) for a sample of invoices processed within SAP rather than OnBase for Region 5.

**Table 1: Processed in SAP Not OnBase  
Region 5**

SAP Invoice #	SAP Posting Date	Document Description
1511446977	8/3/2022	1000.008.22-12
1190813282	7/21/2022	JESEBEL20220715
1190811529	7/11/2022	KEVCURR20220706
1511447693	8/8/2022	PAY APP #25
1511457134	9/21/2022	PAY APP #26

- Due to the use of two systems, sometimes the utility information that is required to be captured for EnergyCAP® does not occur.<sup>5</sup>
- In addition, OnBase’s record retention is automated, while documents maintained within SAP are not - reminders and manual intervention will be needed to discard records at the end of the retention period for documents not maintained within OnBase, which can create challenges.
- Also, OnBase’s reporting capabilities cannot be fully utilized since OnBase does not process all of CDOT’s or a Region’s invoices.

## 2. Keywords

CDOT has developed a best practice for the identification of keywords; however, it does not appear to be working effectively. The process that was designed has Team Owners meeting with process stakeholders to determine what keywords are important to them. Those identified keywords are then brought to a three-person committee who determines if the keywords are appropriate or important to users of the organization. Despite this effort, audit found that about a quarter of the keywords are used infrequently, and many are not used at all. In addition, a keyword search did not always retrieve the expected results. When you used different keywords for searching and expected the same results, you did not get it.

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<sup>5</sup> State agencies are required by Executive Order D 2010-006 to use the EnergyCAP® software to report and track energy and water consumption at their facilities with the goal of reducing overall use.



Audit also found that there is a lack of standardization when establishing invoice numbers for vendor invoices that lack such numbers. In addition, sometimes an invoice number is not entered exactly as indicated on the invoice document. For example, the invoice number field may contain an abbreviated invoice number, CDOT’s customer account number, or include additional characters. One method for that document to be easily retrieved through an electronic search is to enter the characters in the search field exactly as they were established; otherwise, it becomes a guessing game when trying to retrieve a specific document. Any spacing, dashes, periods, or special characters must be entered identically to easily retrieve the document successfully. See [Table 2](#) for some examples.

**Table 2: Invoice Number Discrepancies**

Document ID	Vendor	OnBase Invoice #	Document Invoice #
7866349	Vendor 1	CO210731003311	Coven2107310033-11
9841971	Vendor 1	COV22053100978	Coven2205310097-8
5543792	Vendor 1	20093000441	Coven2009300044-1
6905071	Vendor 1	2102280033-13	Coven2102280033-13
6178268	Vendor 2	14.0530.01-P19	14.0530.01 (account #)
7800108	Vendor 2	14053001JL21	14.0530.01 (account #)
6399760	Vendor 3	491460-002 DE	491460-002 (account #)
8398702	Vendor 3	492350002OC21	492350-002 (account #)
6900933	Vendor 4	00132438542FE21	718967583 (statement #)
8506512	Vendor 4	28517911NV22	754343786 (statement #)

This lack of standardization applies to other keyword fields as well. For example, the vendor’s name may be abbreviated in different ways, making it more difficult to locate a specific invoice in this manner. A possible solution would be to adopt a standard practice of entering the first four digits of the invoice number and for utility invoices, to enter the account number and the two-digit month and two-digit year. One risk of an ineffective search function, along with the lack of standardization, is that duplicate invoices could be missed as some vendors have multiple vendor numbers.

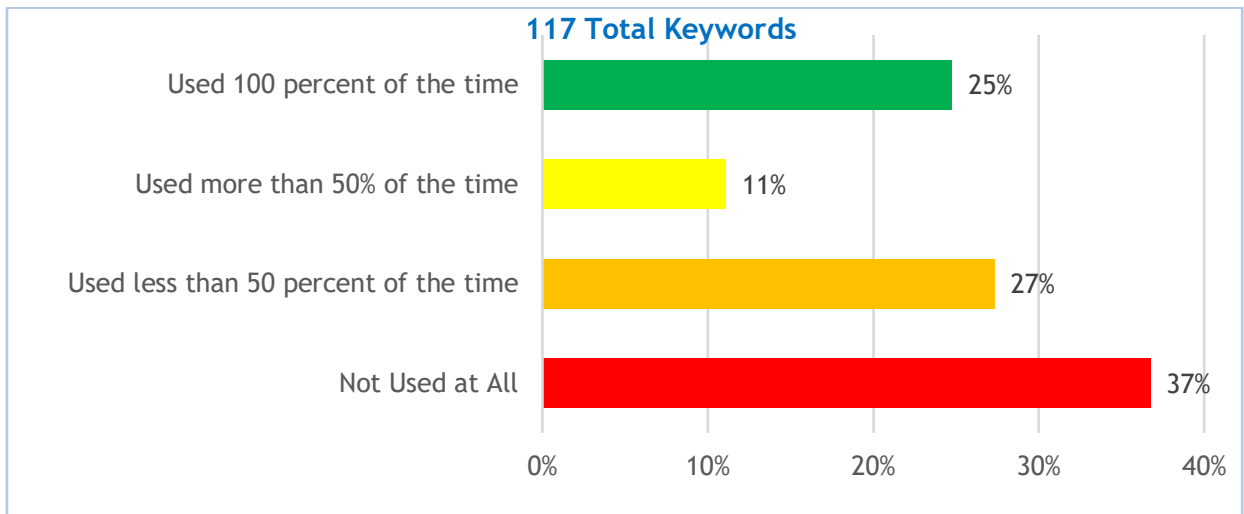
Contributing to some of the keyword ineffectiveness is keywords evolving from combining five different approaches as follows: 1) downloaded from SAP; 2) pre-loaded by OnBase; 3) collaborative effort with Hyland (CDOT’s first consultant with implementation); 4) collaborative effort with MF LLC Consulting (CDOT’s second and current consultant with implementation); and 5) collaborative effort with process stakeholders. This has resulted in as large number of keywords that are sometimes confusing and redundant.

As of September 2022, there were 117 keywords contained in the OnBase program, which will likely increase as document types continue to be added. This large number of keywords and lack of definition for each keyword will lead to user confusion as to

what the appropriate keyword(s) are to be used in a search. When Audit discussed the keywords with the Team Owners, they were unable to explain what some keywords meant nor able to clearly explain how to best search for invoices.

An analysis of the 117 keywords found that 37 percent, or 43 keywords, are not used at all, with an additional 27 percent, or 32 keywords, used less than 50 percent of the time. See Chart 1.

**Chart 1: Keyword Usage Analysis**



See Appendix A for a full listing of keywords and usage.

In addition, Audit found that some keywords had confusing meanings or appear redundant with other keywords, indicating that they could be either eliminated or modified. See Tables 3 and 4.

**Table 3: Confusing Keywords**

Confusing Keyword	Confusing Keyword
Premise Number	Bill-To Name
Use (ECAP)	Brainware Entry Time
Use UOM (ECAP)	Brainware Exit Time
1 <sup>st</sup> Backup Manager	2 <sup>nd</sup> Backup Manager
Admin Mail ID	AP Review
Premise Number	Bill-To Name

Confusing Keyword	Confusing Keyword
Use (ECAP)	Brainware Entry Time
Document Type Name	Current Approver
Current Buyer	Date Returned to Brainware
Date Sent to Brainware	Display Name
Duplicate Check Override	End Date (ECAP)
ERP Document Number	ERP Voucher Number
Extended Amount	Freight (dollars versus weight)
Hold Reason	Invoice Withholding Tax
Header Discount	Line Number
Item Number	Material Number
Line Total	Multiplier
Misc Amount	Net Terms
Order Number	PO Buyer ID
Payment Doc Number	PO Line Number
PO Company	PO Status
PO Release Number	Primary Manager
Premise Number	SAP Document Number
Priority	STP Flag
Storage Location	Verified User
Usage Detail	wvException
Vendor Site ID	wvObject ID
Invoice Number (Sometimes Account Numbers are Used)	CDOTAP AP Doc Handle
SYS Document Handle	CDOT AP Document Handle

**Table 4: Redundant Keywords**

Keyword	Keyword(s) With Similar Meaning
Doc Handle	Document ID, AP Doc Handle
Brainware Doc Type CDOT Doc Type	Document Type Name
Company Code	Field Entry is always 1000
Extended Amount	Invoice Total
Meter Code (ECAP)	Meter Number
Use UOM	Utility Unit of Measure

### 3. Other Opportunities

The following opportunities should be considered along with CDOT’s upcoming ERP decision, providing there is a cost/benefit analysis supporting the change. The current version of CDOT’s Enterprise Resource Planning (ERP) software, SAP, will be sunseting support for its software in the next 3 to 5 years, and CDOT could avoid the rework involved with developing a new interface needed with a different ERP. CDOT has begun the evaluation process of potentially replacing the ERP.

In addition, OnBase was initially purchased for document retention purposes. CDOT expanded the scope of the project to further enhance process effectiveness /efficiencies, and CDOT is succeeding in this endeavor. The matters noted below are suggested to further enhance process efficiency and the organization’s mission.

#### **General Ledger Account Numbers (GLA)**

Our analysis found that over 30 percent of utility invoices, as well as some non-utility invoices, were missing or had incorrect GLA numbers in OnBase; these subsequently had to be corrected in SAP before payment and posting. Providing a GLA drop box could be one approach to help employees with choosing the proper account.

The GLA drop box should be designed within OnBase so that it begins with all GLA numbers available to the organization and filters down to one or a few based upon information provided to the software. Algorithms can be written within OnBase so that the software can intelligently filter the accounts. Information such as a) cost center; b) department; c) region; d) participating or not participating (simple Y/N); e) type of expense, which can then be further filtered after identifying the first layer of type; and/or f) other SAP fields can be used to help with the filtering process.

## **Travel Reimbursements**

Travel vouchers account for a large number of transactions within CDOT. One way of ensuring that per diem and mileage rates are correct could be to electronically obtain this information through an Application Programming Interface (API); however, this information is sourced from the US General Services Administration (GSA) and currently there is no API interface between the GSA and the Colorado State Controller's Office (OSC).

## **Master Pricing Agreement (MPA) Rates**

Architectural and Engineering (A&E) firms, per the Brooks Act and other federal regulations,<sup>6</sup> are selected based on demonstrated competence and qualifications to be provided at a fair and reasonable cost. These fair and reasonable costs, as measured by the indirect cost rate and labor rates, are reviewed and approved by CDOT Audit and established in an MPA by CDOT's Engineering Contracts Services Unit, thus becoming the costs that A&E firms must use in their submitted invoices.

Based on our sample review of 26 A&E firm invoices consisting of 637 billed employees, the proper billing rates were generally used, indicating that the review and approval process is functioning as intended. Our analysis only found 6 exceptions, less than 1 percent, resulting in an insignificant monetary difference. Considering that the verification and approval process for A&E invoices is manually intensive, management is doing very well in processing these invoices.

An electronic solution that could be explored for A&E labor rates could begin with downloading an Appendix G, Employee Listing-Indirect Cost Rate, which the Audit Division completes during its annual fair and reasonable review of A&E rates. Although the Appendix G can be provided by Audit, management would still need to update labor rates if an employee was added by a contractor to its payroll or an existing employee received a promotion/raise. All these types of changes to A&E labor rates are time sensitive; therefore, the algorithm must be written to enable month/year start time for a change in a rate for any A&E existing or new employee.

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<sup>6</sup> 48 CFR, Federal Acquisition Regulations, Part 31 (FAR) and 23 CFR Part 172 are the federal regulations that pertain to A&E firms, including that rates must be fair and reasonable.

## Recommendations

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To further improve OnBase with regard to the invoice processing function, Audit is making two recommendations. In addition, for management's consideration, Audit is providing three suggestions that could further improve efficiency using OnBase.

### Recommendations:

1. Management should implement a more robust implementation strategy, establishing deadlines and monitoring implementation with the assistance of an appropriate project champion.
2. Management should develop keyword standards by creating a user guide to ensure that keywords are defined and developed consistently. Also, when able, such a guide should include the type or examples of information that should be entered for a field. Finally, management should consider reducing the number of keywords to minimize confusion.

### Suggestions: (Does Not Require a Management Response):

1. Provide a drop-down menu in OnBase containing those GLA numbers applicable to the expense being paid.
2. Develop a travel voucher form (Form 215), as a Unity Form that would contain drop down boxes to help obtain current per diem and mileage rates. Ideally, these rates would also be extracted by creating an Application Programming Interface (API); however, this information is sourced from the US General Services Administration (GSA), and there is currently no API interface between the GSA and the Colorado State Controller's Office (OSC). The per diem rates are hosted on the GSA website and, as a result, any API would need to be provided by GSA to OSC.
3. Create the Appendix G Employee Listing as a Unity or electronic form containing the approved billing rates (both indirect and salary rates). This could assist invoice approvers with verifying costs as well as eliminating the need for these rates to be emailed to various users within the department. A Unity Form could also be used by firms to submit their proposed rates along with support documentation for review.

## Management's Comments

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Management agrees with the findings and recommendations contained in this report. See [Appendix B](#) for Management's Official Comments. The Audit Division considers management's comments responsive to the recommendations and corrective actions should resolve the issues identified in this report.

## Appendix A: OnBase® Keywords and Usage

<b>Used 100 percent of the time</b>	CDOTAP Duplicate Check Override	CDOTAP Vendor City	CDOTAP Priority
Document Date	CDOTAP Freight	CDOTAP Vendor Country	CDOTAP Rejection Reason
Document ID	CDOTAP Misc Amount	CDOTAP Vendor DBA	CDOTAP Rejection Reason Comments
Document Name	CDOTAP Payment Doc Number	CDOTAP Vendor State	CDOTAP SAP Document Number
CDOTAP Invoice Number	CDOTAP Payment Method	CDOTAP Vendor Zip Code	CDOTAP STP Flag
Document Type Name	CDOTAP PO Number	<b>Not Used at All</b>	CDOTAP Supervisor Username
CDOTAP AP Status	CDOTAP Sales Tax	CDOTAP 1st Backup Manager	CDOTAP Usage Detail
CDOTAP Approver Business Office	MAIL Cc Address	CDOTAP 2nd Backup Manager	CDOTAP Utility Unit of Measure
CDOTAP Batch #	<b>Used less than 50 percent of the time</b>	CDOTAP Admin Mail ID	CDOTAP Vendor Site ID
CDOTAP Brainware Doc Type	CDOTAP Account Number	CDOTAP AP Review	CDOTAP Verifier User
CDOTAP Company Code	CDOTAP Check/Warrant Number	CDOTAP Bill-To Name	CDOTAP Void Reason
CDOTAP Currency Type	CDOTAP Cost Center	CDOTAP Brainware EntryTime	CDOTAP WBS Element
CDOTAP Date Returned to Brainware	CDOTAP Current Reading (ECAP)	CDOTAP Brainware Exit Time	CDOTAP wwException
CDOTAP Document Type	CDOTAP Display Name	CDOTAP Budget Owner	
CDOTAP Email	CDOTAP Due Date (ECAP)	CDOTAP Current Approver	
CDOTAP ERP Voucher Number	CDOTAP End Date (ECAP)	CDOTAP Current Buyer	
CDOTAP Fiscal Year	CDOTAP Extended Amount	CDOTAP Date Sent to Brainware	
CDOTAP Invalid Reason	CDOTAP Functional Area	CDOTAP Discount Amount	
CDOTAP Invoice Date	CDOTAP G/L Code	CDOTAP ERP Document Number	
CDOTAP Invoice Total	CDOTAP Invoice Header Discount	CDOTAP Hold Reason	
CDOTAP Invoice Type	CDOTAP Item Description	CDOTAP Hold to Date	
CDOTAP Line Item Total	CDOTAP Line Number	CDOTAP Invoice Withholding Tax	
CDOTAP PO Type	CDOTAP Meter Code (ECAP)	CDOTAP Item Number	
CDOTAP Previous Queue	CDOTAP Meter Number	CDOTAP Line Total	
CDOTAP SAP GUID	CDOTAP Previous Reading (ECAP)	CDOTAP Material Number	
CDOTAP Vendor Name	CDOTAP Project WBS	CDOTAP Multiplier (ECAP)	
CDOTAP Vendor Number	CDOTAP Quantity	CDOTAP Net Terms	
CDOTAP wwObjectID	CDOTAP Region	CDOTAP Order Number	
MAIL MessageID	CDOTAP Start Date (ECAP)	CDOTAP PO Buyer ID	
MAIL To Address	CDOTAP Storage Location	CDOTAP PO Company	
<b>Used more than 50% of the time</b>	CDOTAP Unit Price	CDOTAP PO Line Number	
CDOTAP AP Doc Handle	CDOTAP Unit of Measure	CDOTAP PO Release Number	
CDOTAP Approver Budget Level	CDOTAP Use (ECAP)	CDOTAP PO Status	
CDOTAP Approver PM/Buyer	CDOTAP Use UOM (ECAP)	CDOTAP PO Total Amount	
CDOTAP Clearing Date	CDOTAP Username	CDOTAP Premise Number	
CDOTAP Document Handle	CDOTAP Vendor Address 1	CDOTAP Primary Manager	

## Appendix B: Management's Comments

### OnBase Audit Report 23-001

<b>Opportunities exist to further improve OnBase with regards to the invoice processing function.</b>	<b>Agrees or Disagrees with Audit Finding:</b>  <b>Agrees</b>
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To further improve OnBase's invoice processing efficiency, Audit recommends the following:

- 1) Management should implement a more robust implementation strategy, establishing deadlines and monitoring implementation with the assistance of an appropriate project champion.
- 2) Management should develop keyword standards by creating a user guide to ensure that keywords are defined and developed consistently. Also, when able, include the type or examples of information that should be entered for a field. Finally, management should consider reducing the number of keywords to minimize confusion.

#### Management's Response to Recommendations:

Management agrees with the recommendation on a more robust implementation strategy and is preparing a second phase roll-out this Spring. Since fall, the OnBase Project Team, with the support of a consultant partner, has been working on developing plans for a more robust and formalized implementation. This has included significant time working with Region Business Offices to address issues and process gaps, and identify differences among Business Office approaches to implementation. The team has also focused on developing a more complete and robust training regimen and supporting materials including user manuals. A pilot roll out was conducted with a Maintenance Section in Region 3 in January, with lessons learned applied to the final roll-out plans. A timeline has been developed that has the remaining Business Offices which are not fully implemented completing that implementation by approximately June 30. Region 3 is completing training in February, with launch in March. Region 2 will undergo training in March, with launch in April, Region 1 will train in April, with launch in May, and Headquarters will complete remaining training and implementation in May and June. A follow-up enhancement phase is planned after June. In this phase the OnBase Project Team will work with End Users and Business Offices to identify and prioritize issues/bug fixes, enhancements, etc.

Management further agrees that the OnBase AP project would benefit from more robust "project champion" engagement, and governance in general. Jeff Sudmeier and



Herman Stockinger will serve as Project Champions in these subsequent implementation phases. Additionally, an OnBase AP Steering Committee consisting of representatives from each of the CDOT Business Offices, as well as OnBase AP End Users, is being formed to help guide implementation and enhancement going forward.

Management agrees that the recommendation related to keywords represent best practices and merits further consideration. As part of the subsequent enhancement phase described above, the OnBase AP Project Team working with the OnBase AP Steering Committee will review and assess the need for additional keyword standards, the development of additional resources such as a user guide, and the potential deactivation of unnecessary or unutilized keywords.

Management appreciates the additional improvement suggestions identified in this report as “other opportunities.” The OnBase AP Project Team, with the help of the OnBase AP Steering Committee, will review and consider each of these in detail in order to determine how best to address, and if appropriate will incorporate into the previously described enhancements phase.

<b>Target Date to Complete Implementation of Recommendations</b>	<b>Name of Specific Point of Contact for Implementation of Recommendation</b>
1) <a href="#">September 30 2023</a>	1) <a href="#">Jeff Sudmeier</a>
2) <a href="#">September 30 2023</a>	2) <a href="#">Gregg Miller</a>