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The purpose of the Service Definition and Support Document is to define and document key service and technical information about the named service. This includes:

**Service Definition** – Describing in non-technical language what the service is, how it is used and the defined ownership from a customer and BTS perspective.

**Support Model** – Details of how BTS supports the service and key contractual information from underpinning vendors/third parties

**Technical Support Information –** Documenting key technical information about the service for technical support resource to enable triage and restoration of the failed service

**Service Definition and Support**   **Document for**

***DC10 Scanning - ICR Documentum***

Business Technology Services

|  |  |
| --- | --- |
| **Document Information** |  |
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| **Date** | **Version** | **Person** | **Reason** |
| 15/03/2021 | 0.1 | Jim Harrison | Initial release. |
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| 18/03/2021 | 1 | Sarah Martin | Updates |
| 07/09/2021 | 1.1 | Lakshmi Bana | Updated Data Model,architecures. |
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| 16/09/2021 | 1.5 | Lakshmi Bana | Updates |
| 14/08/2023 | 1.6 | Saipriya Tingirkar | Updated Data Model,Architectures. |

References

|  |  |  |
| --- | --- | --- |
| **Ref No** | **Title** | **Path/Author/Details** |
| 1 | DAS SSD | Kathy Cairns  [Service Support Document](https://cambridgeassessment.sharepoint.com/:w:/s/ISP1633-Digitisationandmarking2/EbvylhBBZv9IpqFc8iZoqr4BtSOnwqKBgIx6UnvQE-zOGA?e=MnHajL) and from the Service Catalogue [here](http://servicecatalogue.ucles.internal/index.php?sl=&s=&c=FC24D3D5626F47158962228C3190AE04) |
| 2 | ICR User Guide | [ICR User Guide](https://cambridgeassessment-my.sharepoint.com/:w:/r/personal/bana_l_cambridgeassessment_org_uk/_layouts/15/Doc.aspx?sourcedoc=%7B51654E17-5565-41F3-ACE3-82DA5CCE4365%7D&file=ICR%20Documentum%20user%20guide_0.2.docx&action=default&mobileredirect=true) |
| 3 | Transition To BAU RACI | [*RACI*](https://teams.microsoft.com/l/file/4D3C11F5-908A-4F8C-9ABE-18C35CFD15ED?tenantId=4bf3d8d4-b939-432a-bbdd-9107b57548d0&fileType=xlsx&objectUrl=https%3A%2F%2Fcambridgeassessment.sharepoint.com%2Fsites%2FISP1633-Digitisationandmarking2%2FShared%20Documents%2FGeneral%2FBusiness%20Readiness%2FRACI%20Matrix%20Roles%20and%20Responsibilities.xlsx&baseUrl=https%3A%2F%2Fcambridgeassessment.sharepoint.com%2Fsites%2FISP1633-Digitisationandmarking2&serviceName=teams&threadId=19:4f7ed6083be84b2895e8179e44b17ad5@thread.skype&groupId=4e9ff5ea-0fdd-4742-b939-f74ddf7af64b) |

Document Creation and Approval

This document must be approved by or distributed to the people or job roles listed in the following table.

|  |  |  |
| --- | --- | --- |
| **Person/Job Role** | **Creation /Approval/ Distribution** | **Creation / Approval Responsibilities** |
| Project / Application Manager | Creation | The Project/Application Manager is accountable for facilitating the completion of the full SSD for new services being transitioned or major change to existing services |
| IT Service Manager | Creation | The IT Service Manager is responsible for working with the Project team to define the service and its associated support model |
| Business Service Owner | Approval | The Business Service Owner should agree and approve all elements in section 1 and 2 (Service Definition and Support Model) |
| BTS Service Owner | Approval | The BTS Service Owner should agree and approve all elements in sections 1 and 2 (Service Definition and Support Model) and also provide approval that the technical sections of the document are complete, accurate and sufficient for live operations |
| Head of IT Services (can be delegated to Service Manager / Service Authority) | Approval | The Service Authority should agree and approve all elements in sections 1 and 2 (Service Definition and Support Model), review the technical sections for completeness, and make a recommendation for approval based upon all elements of the SSD. |
| BTS Service Staff | Distribution (One Source) | N/A |

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# Service Definition

The following table provides key details about the service, how it is used and the defined ownership from a customer and BTS perspective. This section should also detail the service roadmap.

|  |  |
| --- | --- |
| Service Grouping | *Confirm the service grouping of the described service by ticking the below and where applicable naming the sub-service to which this new/changed service will belong.*  ☐ Cambridge International Services  ☐ Cambridge English Services  ☐ OCR Services  ☐ Finance/HR Services  ☒ Shared Business Services  ☐ Core IT Services |
| Service Name | *Name of the service and any applicable lower-level categorisation (specify whether these are new or existing Ivanti services and categories)*  Service Line: Shared Business Services  Service: Print & Distribution Services  Category: **DC10 Scanning - ICR**  Default Team: Pre-Assessment CoE |
| Service Description | The DC10 Scanning ICR (Intelligent Character Recognition) forms part of the digitisation capability for automated marking of short responses across various Cambridge English CEQs  Candidate answer sheets (scripts) will be scanned to produce a TIFF image into ICR Documentum. Validation against exam and candidate information is carried out via the scanned barcodes positioned at the top of the script and tasks are generated for any missing information.  The scripts are sent to DAS (see Reference 1 for DAS SSD) via an API call for digitisation, and then returned to Cambridge through the Mulesoft layer, which transforms returned JSON response files to XML to Documentum.  Documentum Captures the response xml and publishes to automarker/downstream systems once the script is valid (i.e., there is no missing barcode data / outstanding tasks in the Documentum workqueue). |
| Features and Functions | ICR Scanning Application is where user can login to UI.   * Search for scanned scripts/packets. * Search for published scripts * Search for DAS post timestamps     Search Preferences Page    Work queue Page  ICR Scanner: used for following activities:   * Repost items to DAS. * Batch Monitor * Download items.   Image - Repost DAS.    Image-Batch Monitor    Image – Search / Download    Please see the [ICR Documentum user guide](https://teams.microsoft.com/l/file/2C040731-92BA-4ABE-A728-78A3CFA548F6?tenantId=4bf3d8d4-b939-432a-bbdd-9107b57548d0&fileType=vsdx&objectUrl=https%3A%2F%2Fcambridgeassessment.sharepoint.com%2Fsites%2FScanningandLogisticService%2FShared%20Documents%2FGeneral%2FDigititisation%2Fvidardo.vsdx&baseUrl=https%3A%2F%2Fcambridgeassessment.sharepoint.com%2Fsites%2FScanningandLogisticService&serviceName=teams&threadId=19:264920a42f9a47f7bb8b20d65bc1d8dc@thread.skype&groupId=b4e9f7a1-254c-4300-8af3-228e88369307) for further information (also under ‘References’ documents) |
| +Service Access | *Details of how the service is accessed –e.g client software, production URL.*  Production URL:  [*https://icrscanning.ucles.internal*](https://icrscanning.ucles.internal) |
| Customers and User Base | *Detail the internal and external customers of this service.*  **Internal customers/users of the service:** GPAO and Cambridge English  **External customers/users:** *(tick boxes or write as appropriate)*:  ☐non-CA Employees, ☐Candidates, ☐Centres, ☐Contract Partners  **Geographic use of the system:** *(tick boxes as appropriate)*:  ☒Cambridge only, ☐All UK, ☐Global, ☐Singapore |
| Supported  Business Process | *Detail the business processes that this service supports/underpins.*  The capability to deploy auto-marking and more granular diagnostic feedback in assessment and learning products is a critical piece of Cambridge’s vision for its future success. Cambridge English’s strategic roadmap aims to introduce full auto-marking for CEQs paper-based tests by 2021. There are multiple strands of work that help to move towards this strategic goal, ICR Documentum/DAS being one. Introducing digitisation capability for short responses paves the way toward digitising extended text, allowing full utilisation of ELiT as an auto-marking solution for extended text (Examiner assessed) in accordance with the strategic roadmap. Business objectives  * Remove constraints on scalability, I.e., the reliance on recruiting and training sufficient clerical markers for ever increasing candidature. * Reduce the costs of running paper-based exams by removing the costs of clerical marking. * Contribute to the reduction in time for results to be released. * Capture item level response data to enable analytics.   These objectives are achieved by digitizing the Candidate’s short answer (one or a few words) responses and the multiple-choice question responses and having them automarked using the existing in-house automarker solution.  A diagram of a paper based learning  Description automatically generated |
| Business Service Owner | Michael Carter (GPAO Senior Operations Manager)  Tracy Williams (Cambridge English Senior Operations Manager) |
| Business Service SMEs | *Names and roles of key business personnel who are super users/ subject matter experts*  Tracy Williams (Cambridge English Senior Operations Manager)  Owen Foreman (Cambridge English Senior Operations Manager)  Simon Lowerson (GPAO Distribution Senior Supervisor)  Santa Karelin (GPAO Distribution Senior Supervisor) |
| Management Area / BTS Service Owner | Head of Pre-Assessment CoE Alessandro Tosi |
| BTS SME’s | Pre-Assessment CoE primarily, however, SMEs are as follows:  EUS: Paul Austin  Technical SME: TharakaLakshmi Ch, Documentum Technical Lead, Pre-Assessment COE  Functional SME: Daniel Amiss – Business Partner, Pre-Assessment CoE  Application Engineer: Eddie Duffy |
| Application Manager | *Bruce Storrie.* |
| **Service Usage Information** | |
| Bulk processing is expected to occur between May-August and Oct-Dec.  **Expected service user volumes:**  Peak:30 (Group Print and Operations staff)  Concurrent: 30  **Hours of service use:**   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 00 | | 01 | | 02 | | 03 | | 04 | | 05 | | 06 | | 07 | | 08 | | 09 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | Tu |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | W |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | Th |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | F |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | Sa |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | Su |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | |  | Application off peak | |  | Application peak shoulder period | |  | Application primary/peak period(s) |   **Key periods of service use:**   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | F |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | O |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | D |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | |  | Normal use | |  | Heightened period of use | |  | Peak period of use | | |
| Service Usage of Personal Data | **The service will hold personal data as below:**  **Candidates**   * Service will hold personal data about Candidates? Yes (Candidate name only)   **Assessors (ASP)**   * Service will hold personal data about Assessors? No   **Person-at-Centre**   * Service will hold personal data about people at centres (e.g. exams officers or teachers)? No   **Employees**   * Service will hold personal data about Employees. No |
| Service Roadmap | There is no published release cycle currently. When releases/patches are required TBC Support RACI will facilitate the contact from DAS and liaise with the BTS Application Manager in the event that enhancements to ICR Documentum is required and for necessary BTS resources to be booked and for the DAS Change Management process to be followed. Please see Reference 3 – Transition to BAU RACI |

# Service Support Model

The following table describes how Business Technology Services supports this service.

|  |  |
| --- | --- |
| Service Classification | *Select the agreed service classification.*  ☒ Core – critical for core business activity  ☐ Context – essential for ongoing business activity  ☐ Complement – useful non-essential service |
| Service Level Information | *Select the service level agreed by the Management Area (CoE) and confirm service level agreement.*  ☒ Managed  ☐ Supported  ☐ Sustained  Our corporate service level agreement is for 98.5% availability with the below restoration targets in accordance with incident priority:  A yellow and white table with black text  Description automatically generated  ☒ Service is confirmed to be aligned to the above corporate SLA  ☐ Bespoke SLA has been agreed, documented and approved by service and business owners |
| Hours of Support | M-F 07:30 – 17:30 (**Note – there is no on call/out of hours support in place for this service**) |
| Service Impact | Provide key information that may assist during incident management to understand the impact and priority of  this service being unavailable:  **Impact if Unavailable:** High/Medium/Low/Negligible *(highlight as appropriate)*  **Implications of the solution being unavailable:** Regulatory, Reputational and Financial.  Regulatory: The Scanning solution underpins the business critical post-exam processes (marking, scaling,  grading and results issue), therefore, in the event of failure during a key period, candidates may not be able.  to get their results within defined dates.  **Workaround in the event of failure:** In the event of failure the system can recover the service using the additional scanner available in DC20, however, at the time of writing it is understood that operations in DC20.  can only continue for a maximum of 24hrs. Please consult with the Content CoE for further information in the event of failure,  **Regulatory compliance**: Yes*:* |
| Major Incident Communication Group | Default major incident management processes apply with contact to GPAO IM Escalation Group for any P1 or  P2 incidents. |
| Support structure | *Describe which team will handle which support level and provide a diagram of the support flow (include contact details for 3rd parties that are part of the support arrangements).*  1st line – BTS Service Desk  2nd line – Pre Assessment CoE  3rd Line - Application Engineers (via Pre Assessment Management CoE)  4th Line – Infrastructure Services (Networks / Virtualisation / Servers)   |  |  |  | | --- | --- | --- | | **Team/Group** | **Owner / Contacts** | **Responsibilities / Hours of Support** | | BTS Service Desk | Ferdinand Abueg, Service Desk Manager | 1st line support for all BTS Services. Receive the incident, classify,  prioritise and triage to the correct team based on the incident details.  Hours of support: 24x7 | | Pre Assessment CoE | TharakaLakshmi Ch  Documentum Team Lead | Provides application support for the ICR Documentation application.  Hours of support: 07.30-17.30 M-F – there is no support outside of core hours | | Infrastructure Services  (Servers / Virtualisation / Networks / Data Services) | Simon Hopkins, Head of Infrastructure Services | Documentum ICR is hosted on premise, infrastructure services provide support for underpinning infrastructure services | | Documentum Opentext  (third party) | https://support.opentext.com/  [eu-support@opentext.com](mailto:eu-support@opentext.com)**Toll International:** +44 1189 84 84 84  Escalation Contact:  Roger Payne  Senior Account Director  Mobile:  07747 484336  Email:  [roger.payne@opentext.com](mailto:roger.payne@opentext.com) | Hours of support: 24x7 | |
| Early Life Support Details | **Date to start early life support:** N/A  **Date to end early life support and into BAU:** N/A  Support Model will commence after ELS. There is no changes to the documented support model above for ELS |
| Third Party Contracts and Agreements | Standard Contract with Cognizant applies.  **Documentum**: Opentext <https://support.opentext.com/portal/site/css?customView=ticketsHome>  24/7 via the website. Account manager Roger Payne (UK Busines hours). This site requires a login, and anyone with a Cambridge Assessment email address can register, however it is advised that contact is made via an Application Engineer, preferably from the Content CoE.  Opentext Support Classification and Target Response Times:  Each SR will be Classified by OT customer support as listed below. OT will consider, in good faith, your request to reclassify an SR.  Response Times are targets and cannot be guaranteed in all circumstances by OT.  Critical will be Classified as a critical incident if the performance issue reported causes the Covered Software to be functionally inoperable (entire system is down) and prevents the Covered Software from being used in Production Mode.  1 business hour or less, 5x8  Critical incidents must be logged by phone to OT directly.  Serious will be Classified as a serious incident if the performance issue reported significantly degrades the performance of the Covered Software or materially restricts your use of the Covered Software in a Production Mode (system is operational, but performance may be impacted).  2 business hours, 5x8  Normal will be Classified as a normal request if the performance issue reported is a question regarding: (i) end use; (ii) configuration of the Covered Software or a minor defect in the Covered Software that does not materially restrict your use of the Covered Software in a Production Mode; (iii) an enhancement, or (iv) related to questions on or configuration of the Covered Software.  As a rule, SRs reported via email and/or are for non-production systems are Classified as Normal.  Access to the Customer Service Portal remains available 7x24.  4 business hours, 5x8  Escalation: You may request an escalation at any time through the Customer Service Portal or phone.  **DAS**: see Reference 1 (DAS SSD) |
| Service Continuity / Disaster Recovery Provisions | Approved DR Procedure and DR checklist –  Actual DR test link :[click here](Disaster%20Recovery%20Procedure.docx) |
| Operational Support Risk Mitigation | Agreed with the Business standard support hours are applicable  DAS URL <https://shreddr.captricity.com/accounts/login/?next=/inbox/> is monitored by Site24x7.  DAS have bi-weekly planned maintenance Thursday 0400-0700 GMT/0500-0800 BST commencing  18 March. Documentum team will not attempt to contact DAS during planned outage.  **DAS contact information for the Support:**  mail: [urgent-support@DAS.ai](mailto:urgent-support@vidado.ai)  +1(510) 328-4028 |

# Technical Support Information

The ICR Documentum solution imports scripts and associated documents from the DC10 scanning system, metadata from the DAS system and combines the results into a structured set of candidate marks.

This focuses on digitising handwritten short answer responses. The Cambridge English strategic vision is to move away from bulk clerical marking and to automate the marking process. Initially this automated marking will be for multiple choice and short answer responses with the later introduction of automarking for extended text (outside of the scope of this project). Low levels of Clerical marking will still continue for special Needs candidates who have modified materials or where the answer sheets are not scannable (e.g. have been damaged

## Process Data

DAS will create a template for each candidate answer sheet. During the Read, if there is not enough ‘confidence’ in digitisation, images will be parked for human intervention. All digitised responses will be placed in an outbound queue. DAS will periodically process all data ready for output in the queue and will create an output to a queue in AWS SQS.

DAS can structure the outbound JSON file depending on the detailed requirements. It is expected that the JSON response will also be used to report any errors in digitisation for further action by Cambridge Assessment e.g. resend the image file.

A screenshot of a computer program

Description automatically generated Based on DAS’s PoC JSON file output, it will be possible to create a valid XML for downstream systems. This should verify against the existing Automarker *getItemMarkScheme* service xsd. A field level mapping exercise is required before agreeing the output format with DAS. MuleSoft will convert the JSON output to XML.

The below is the high-level processing of the scripts inside the Documentum.



## Integration Architecture



## Documentum Object types

|  |  |  |
| --- | --- | --- |
| S.No | Object Type | Functionality |
| 1 | CA\_CONFIG | This object type is to store/obtain config data related to Softrac database connection details |
| 2 | CA\_ICR\_BATCH | This Object Type is to maintain the batch details and respective DAS transfer status |
| 3 | CA\_ICR\_CANDIDATE\_SCRIPT | All candidate scripts related information are stored in this object type |
| 4 | CA\_ICR\_FOLDER | Folder details and its attributes are stored in this object type |
| 5 | CA\_ICR\_IMAGE | This object type is basically used to save image details, id scan id etc |
| 6 | CA\_ICR\_REDERIVE\_REQUEST | This object type is basically used to find request details |
| 7 | CA\_SCRIPT\_DAS\_MAPPING | This object type is basically used to find DAS mapping details |
| 8 | CA\_DAS\_BATCH | This object type is basically used to find out the DAS Batch Details |
| 9 | CA\_DAS\_OUTAGE | This object type is basically used to find out the DAS outage details |
| 10 | ICR\_TRACKING | This object type is basically used to icr tracking details, scanner details |
| 11 | ICR\_EXCEPTION | This object type is basically used to find out exception details |
| 12 | CA\_ICR\_NON\_VIDADO | This object type is basically used to save non-das/non-vidado images information |
| 13 | CA\_ICR\_EXAM\_DETAILS | This object type is basically used to store the module and pos information of the non-das scripts to avoid creating non-das images as scripts inside the documentum repository during ingestion.  Currently 02,04 modules and D601,D602,D603,D604,D606  Pos id are considered as non-das/non-vidado images. |

## Application URLs

|  |  |
| --- | --- |
| Environment | Application URL |
| DEV | http://dev-icrscanning.ucles.internal |
| QA1 | http://qa1-icrscanning.ucles.internal |
| PP2 | http://pp2-icrscanning.ucles.internal |
| PROD | http://icrscanning.ucles.internal/ |

## Logical Architecture

The below is the high-level logical architecture for ICR Documentum DAS solution.



## Workflows

|  |  |
| --- | --- |
| Workflow Name | Description |
| ICR Validate Script Images | Validate candidate scripts for mandatory fields, find the duplicates, resolve duplication errors by calling ICR Resolve Duplication Error workflow, Validate the status of the script and redirect accordingly to ICR Publish workflow or ICR rescan workflow after operators resolve the errors |
| ICR Read from Capture Queue | Reads the messages from the JMS MQ, validate the captured xml for any error messages/status, process the captured xml accordingly and invoke ICR Unscannable/ Invoke ICR Rescan workflows based on the DAS incomplete status |
| ICR publish | Validate the status, duplications, transform the Captured xml to Published xml |
| ICR RePublish | Republishes the scripts and this workflow can be triggered from UI as well by users |
| ICR Rescan | Create tasks for the Operators to Rescan or correct the Rescan status and triggers the ICR Rescan Manual Notification workflow |
| ICR Rescan Manual Notification | This provides email notification to operators to perform rescan |
| ICR Resolve Duplication Error | Resolves the Duplication errors by killing the duplicate workflows |
| ICR Unscannable | Validates the image status and creates the respective task to the operators based on the image status and invoke Rescan workflow if required |
| ICR Export to Zip file | This workflow will be triggered by the users to download renditions from xCP application |
| ICR Non-Vidado Notification | This workflow will be trigger task to operators when there are any non-DAS/non-vidado images available inside a batch.  Currently 02,04 modules and D601,D602,D603,D604,D606  Pos id are considered as non-das/non-vidado images |

## Physical Architecture



Physical Architecture for ICR application

## Documentum Servers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ICR Environments** | **Server Type** | **Server Name** | **OS** | **RAM** |
| DEV | Application Servers | udicrap030 | Unix server | 8 GB |
| Application Servers | udicrap031 | Unix server | 8 GB |
| Content Servers | udicrap010 | Unix server | 8 GB |
| Content Servers | udicrap011 | Unix server | 8 GB |
| QA1 | Application Servers | uqicrap430 | Unix server | 8 GB |
| Application Servers | uqicrap431 | Unix server | 8 GB |
| Application Servers | uqicrap432 | Unix server | 8 GB |
| Application Servers | uqicrap433 | Unix server | 8 GB |
| Content Servers | uqicrap410 | Unix server | 8 GB |
| Content Servers | uqicrap411 | Unix server | 8 GB |
| Content Servers | uqicrap412 | Unix server | 8 GB |
| Content Servers | uqicrap413 | Unix server | 8 GB |
| PP2 | Application Servers | uricrap730 | Unix server | 32 GB |
| Application Servers | uricrap731 | Unix server | 32 GB |
| Application Servers | uricrap732 | Unix server | 32 GB |
| Application Servers | uricrap733 | Unix server | 32 GB |
| Content Servers | uricrap710 | Unix server | 32 GB |
| Content Servers | uricrap711 | Unix server | 32 GB |
| Content Servers | uricrap712 | Unix server | 32 GB |
| Content Servers | uricrap713 | Unix server | 32 GB |
| PRD | Application Servers | upicrap030 | Unix server | 32 GB |
| Application Servers | upicrap031 | Unix server | 32 GB |
| Application Servers | upicrap032 | Unix server | 32 GB |
| Application Servers | upicrap033 | Unix server | 32 GB |
| Content Servers | upicrap010 | Unix server | 32 GB |
| Content Servers | upicrap011 | Unix server | 32 GB |
| Content Servers | upicrap012 | Unix server | 32 GB |
| Content Servers | upicrap013 | Unix server | 32 GB |

Server Specification Details

**Database Servers**

|  |  |  |
| --- | --- | --- |
| Environment | ServerName | OS |
| DEV | udicrap020 | Unix server |
| QA1 | uqicrap420 | Unix server |
| PP2 | uricrap720 | Unix server |
| PRD | upicrap020/21 | Unix server |

## Data Model

The below representation gives the high-level details to the custom object types in the ICR scanning Documentum system.



## Interfaces

The below are the Interfaces where Documentum connects:

* SoftTrack DB and Scanner filestore CFS (server details provided in InterOp)
* DAS systems (URL provided in InterOp)
* Message Queue server (MQS-PRD-90.ucles.internal)
* Biztalk server (URL provided in InterOp)

#### DAS Outage Management

DAS is having the Planned outage for every alternate Thursday from 4 AM to 6 AM during the summer time and Winter outage timings are from 3 AM to 5 AM.

There is a CA\_DAS\_OUTAGE object in the repository that holds the DAS outage details. Below are the attributes of the CA\_DAS\_OUTAGE object.

|  |  |
| --- | --- |
| **Attribute** | **Description** |
| n*ext\_outage\_start\_timestamp* | This attribute holds the value of next DAS outage start date |
| *next\_outage\_end\_timestamp* | This attribute holds the value of next DAS outage end date |
| *outage\_interval* | This attribute holds the value of time interval between two consecutive DAS outage windows. |
| *is\_inactive* | This attribute says if the ca\_DAS\_outage object is active or not. |

After the batches are ingested into the Documentum, the postToDAS() method will get the DAS outage details from CA\_DAS\_OUTAGE object and check if the current timestamp is in the outage window. If yes, the batches will not be posted to DAS from the ICR Documentum. After completion of DAS outage window, the batches get posted to DAS.

At every outage interval (currently it is 14 days), *next\_outage\_start\_timestamp, next\_outage\_end\_timestamp values* get automatically updated to the future dates if *is\_intactive* attribute is ‘*False*’.

For example:

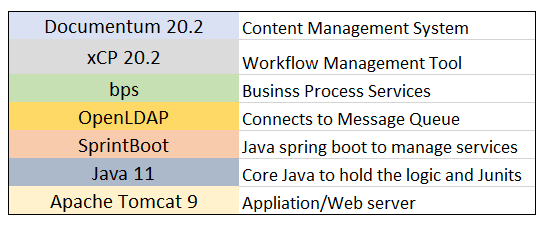
|  |  |  |
| --- | --- | --- |
| *If the below attribute* | *Value is equal to* | *Then it gets updated to* |
| n*ext\_outage\_start\_timestamp* | *02/09/2021 07:30:00* | *16/09/2021 07:30:00* |
| *next\_outage\_end\_timestamp* | *02/09/2021 12:00:00* | *16/09/2021 12:00:00* |
| *outage\_interval* | *14* | *14* |
| *is\_inactive* | *false* | *False* |

#### Repost DAS

ICR Repost DAS is an SLP(Stateless Process). This reposts the ICR batches to DAS. This can be triggered from UI. With the proper Batch name given as input, it will check for the script images in that batch. If the images are there, it posts the images to DAS outside the DAS outage window period.

## Technical Stack

Documentum Tech Stack:



#### Detailed Specifications

|  |  |
| --- | --- |
| Technical complexity (1 – Low to 5 – High) | 4 |
| Peak transaction volume (per unit time) | Not possible to retrieve this info |
| Size (LOC or in any applicable unit) | n/a |
| Number of screens/forms | 12 |
| Number of Custom Object types | 14 |
| Number of stored procedures | n/a |
| Number of reports | 3 |
| Number of batch Jobs | 12 |
| Number or servers | 10 |
| Number of databases | 7 |
| Number of installations | 4 (Dev, QA1, PP2 and PROD) |
| Required Backup Frequency | Daily |
| Confirmed/agreed regularity of data refresh to Support/BAU Environment | n/a |
| Recovery Target Objective | n/a |
| Required Archiving | n/a |

## Access Control

User access to Documentum is obtained by Ivanti Change Employee Access SR and actioned by the Pre Assessment CoE Documentum Team.

Standard AD access to workstations as well as specific accounts setup within the application

Please find the below steps for providing access to users

* Login to Documentum Administrator url
* <http://icrscanning.ucles.internal/da>
* Go to User Management -> click on new users
* Provide the details of user -> click on ok
* Provide ldap\_dn details of user, obtain the details from ldap browser
* Provide necessary roles for accessing the application

## Configuration Management

ICR Scanning source code is stored in Git Repository (http://udcsdap007.ucles.internal/DC10/CAScanning). master branch will always show the code that is currently deployed in production. All development is done by creating feature branches from a develop branch and subsequently merging back to develop and specific release branches when the feature is complete. When a release is planned, a release branch is created from develop and then merged back to develop once the release has occurred.

## Event Management

Foglight monitoring of:

|  |
| --- |
| upicror020  upicror021  upicrap010  upicrap011  upicrap012  upicrap013  upicrap030  upicrap031  upicrap032  upicrap033 |
|  |

URL monitoring: http://icrscanning.ucles.internal/icrApplication

## Capacity Management

Capacity Management is a subject that the Pre Assessment CoE is still working on and the document will be updated accordingly with the findings.

## Availability Management and Service Continuity Management

This is another area where the Pre Assessment CoE team is working in collaboration with GPAO and the supplier.

## Licensing and Certificates

Work is still ongoing to assess the licences for Prod environment and need to discuss with OpenText vendor to increase the licences.

# Service Revisions and Updates

Service is planned to be review any time a release for ICR Scanning is planned. Currently twice a year

## Functional Information

|  |  |
| --- | --- |
| Stability – number of changes / enhancements within the last 12 months including in-flight work (2) | Completed Changes: n/a  In-Flight Changes: n/a |
| Maturity – production longevity (months) |  |

* 1. Updates

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Project (ISP ID)** | **Release/Change ID** | **Description of Updates** |
| 05/04/2022 | N/A | 52812 | https://btsservice.atlassian.net/projects/SCAN/versions/18910/tab/release-report-all-issues |
| 12/05/2023 | N/A | 64506 | <https://btsservice.atlassian.net/projects/SCAN/versions/19921/tab/release-report-all-issues> |

# Issues and FAQs