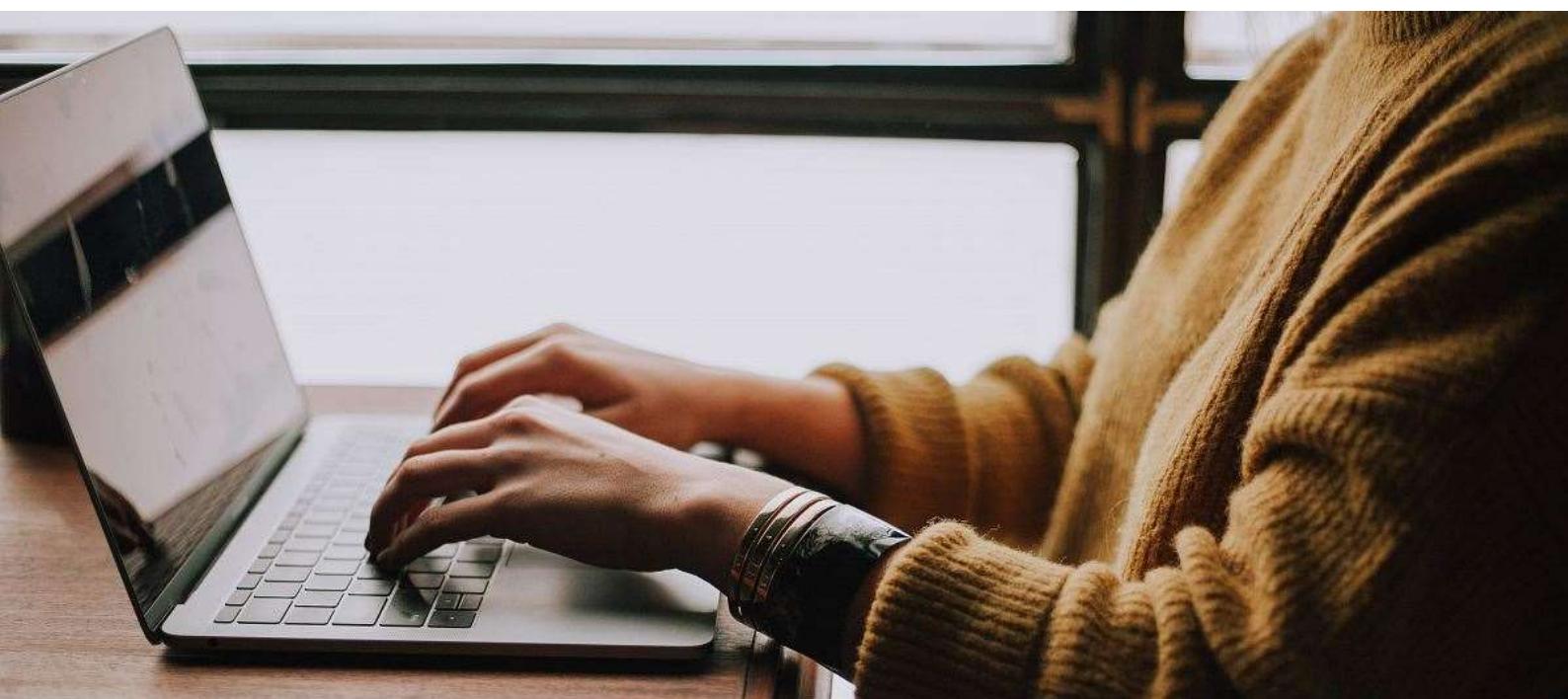


## **Technical Proposal for “SUPPLY, INSTALLATION AND COMMISSIONING OF DOCUMENT MANAGEMENT SYSTEM (DMS) FOR e-ARCHIVING of ACCOUNT OPENING FORM OF BANK ASIA LIMITED”**



**Submitted To:**



Vice President, Logistics Support Services Division (LSSD), Bank Asia Limited, Corporate Office, Bank Asia Tower, 32 & 34, Kazi Nazrul Islam Avenue, Karwan Bazar, Dhaka.

**Submitted By:**



**Devnet Limited**

BDBL Bhaban, 9th Floor, East), 12  
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1215

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1. Brochure of the Document Management Software (DocuDEX) and operation manual
2. Company Profile
3. Legal Documents
4. Experience Certificates and Work orders
5. CV of the project team

## BID FORM FOR TECHNICAL PROPOSAL

## Power of Attorney

## Introduction

Devnet is a high-end provider of vertically-focused enterprise technology solutions and platforms that unleash the potential of our clients' organization and enable business transformation. Our vertical focus areas are Government/public sector, Banking and Financial, Insurance, Education and retail. We have a proven track record in these sectors as well as intellectual property and reusable frameworks. Our offering portfolio also includes business and technology services comprising of:

- Document Management
- Document Imaging and archiving
- Process automation/workflow application
- Warehouse management and Consulting
- Web based Application Development
- AI based Online Proctored Exam Solution
- HRMS
- E-KYC and Customer Information Management System
- Audit Process Automation Solution
- Legal Case Management System
- Systems Integration
- Application Management Outsourcing
- Data Warehousing and Business Intelligence
- Robotic Process Automation (RPA)
- Legacy Modernization

Devnet has its own off the shelf document management product line called "**DocuDEX**" specialized in Document Capture, Process and Management, Business Process Automation, Imaging and archiving. Since 2003 the **DocuDEX** family grown into a full Enterprise Content Management with 45+ implementations which makes it market leader in Bangladesh. **DocuDEX** is a powerful document management system that delivers an affordable platform to store, manage and share vital information across the organization. **DocuDEX** allows the automation of capture and management of document, replacing manual paperwork with electronic filing and documentation. With this domain knowledge Devnet is offering a complete Web based DOCUMENT MANAGEMENT SYSTEM (DMS) FOR e-ARCHIVING of ACCOUNT OPENING FORM OF BANK ASIA LIMITED.

## Details of the Bidder/Company Information

Company Information	
Company Contact Details	
<b>Company Name</b>	DEVNET LIMITED
<b>Address</b>	Office: BDBL Bhaban (Level 9, East), 12 Karwan Bazar, Dhaka 1215, Bangladesh.
<b>Telephone No</b>	+88 02 8189349-50
<b>Fax</b>	+88 02 8189339
<b>Contact Person &amp; Designation</b>	Ehsanul Haque Shujan Bhuiyan Manager, Digital Transformation
<b>Mobile Phone No.</b>	+88 01713249826 +88 01713249735
<b>E-mail</b>	<a href="mailto:shujan@devnetlimited.com">shujan@devnetlimited.com</a> <a href="mailto:info@devnetlimited.com">info@devnetlimited.com</a>

## REQUIRED INFORMATION

<b>Trade License No</b>	<b>05-57121</b>
<b>TIN No.</b>	248142749576
<b>VAT Registration No.</b>	000501803-0203

## Facts about Devnet:

Devnet Limited (A CMMISVC/3, ISO 9001:2008 and ISO 27001certified Company) is Bangladesh's first ECM (Enterprise Content Management) Company established in 1997. We are the leading service provider dedicated in helping organizations seeking to drive efficiency by streamlining their enterprise contents with process automation and management of their documents web contents and records. As a leading solution and service provider Devnet is working with reputed organizations like Rajuk, Ministry of Health, Ministry of Public Administration (MOPA), Directorate of Archives & Libraries, HSBC, Banglalink, ICDDR,B, UNDP, City Bank, Bangladesh Army, Bangladesh Bureau of Statistics etc. We are Authorized distributor of Kodak Document Imaging products and Partner of ABBYY Software House. By empowering consistent communication, Devnet's customers and partners experience new cost efficiencies, enhanced revenue opportunities, rapid response to change and advanced customer service and satisfaction.

### Vision Statement:

- Be the best-chosen brand with international exposure in outsourcing services through having satisfied customers.
- We will earn satisfied consumers' through innovative products and services with assurance of accuracy, efficiency and reliability.

Name of the Company: Devnet Limited.

### Registered Address:

BDBL Bhaban (Level 9, East), 12 Karwan Bazar, Dhaka-1215



### Head Office:

BDBL Bhaban (Level 9, East), Karwan Bazar, Dhaka-1215

Ph: (+88) 02 8189349-50. Fax: (+88) 02 8189339

Hotlines: +8801713 044055, +8801713001881

E-mail: info@devnetlimited.com

Web: www.devnetlimited.com

### Service Bureaus:

Service Bureau 1	Service Bureau2	Service Bureau 3 (Specialized)
<b>363/1, Barua, Lonjoni Para, ward No-07, P.S: Khilkhet, Dhaka-1229</b>	Lutfur Plaza, Dakkhin Khan Bazar, Dakkhin Khan, Uttara, Dhaka 1230	BDBL Bhaban, 9th floor (West side), 12, Karwan Bazar, Dhaka
<b>Floor space 17500 sqft</b>	<b>Floor space 2500 sqft</b>	<b>Floor Space2331 sqft</b>
<b>DPO Capacity: 75,000 documents per day/shift</b>	<b>DPO Capacity: 50,000 documents per day/shift</b>	<b>DPO Capacity: 60,000 documents per day</b>  Also equipped with MAP and book scanners

Company Structure: Private Limited Company. Incorporated in 2000 under Registrar of Joint Stock Companies, Dhaka.

Chief Functionary: Syed Abu Md. Jafor, Managing Director

Geographical Areas of Operation: Bangladesh

Years of functioning and previous experience: 21+ years

Number of Installation: 45+ DMS and similar solution installation

Time zone: +6:00 GMT

Total HR: Full time employees: 56, Parttime: 93

Language: English, Bangla

Days of operation: 5 days a week

Standard Practices:

- CMMISVC/3
- Service delivery: ITIL V3.0 Framework (ISO/IEC 20000-1 )
- Security: ISO 27001:2005 certified
- Quality: ISO 9001:2008 certified
- Project Management: PM Guide V3.0 from PMI

Partners

- ABBYY
- ATIZ
- Avision
- Piql
- Kodak Alaris
- I2S Digibook + Kirtas
- SMA eDocument
- Postec

Memberships

- AIIM (Association for Information and Image Management), USA
- BASIS (Bangladesh Association of Software and IT enables and Services), Membership No: GE-05-05-146
- BCS (Bangladesh Computer Shamity), Membership No: 453
- DCCI (Dhaka Chamber of Commerce and Industries), Membership No: B27-SI2613
- BGCCI (Bangladesh German Chamber of Commerce & Industries), Membership No: 479
- BACCO

## Financial Status

Financial Status						
S/N	Particulars	2017	2018	2019	2020	2021
<b>1</b>	<b>Total Turn Over</b>	125,188,499.00	127,213,886.00	130,155,167.00	96,105,899.00	78,707,252.00
<b>2</b>	<b>Total assets</b>	118,963,026.00	125,389,350.00	180,007,085.00	193,054,620.00	186,450,408.00
<b>3</b>	<b>Current assets</b>	97,778,685.00	106,937,230.00	162,383,629.00	177,155,770.00	174,366,593.00
<b>4</b>	<b>Total liabilities</b>	29,910,387.00	31,564,201.00	81,075,096.00	94,566,430.00	86,438,895.00
<b>5</b>	<b>Current liabilities</b>	29,175,387.00	30,829,201.00	3,075,139.00	3,270,143.00	2,495,544.00
<b>6</b>	<b>Profits</b>	31,124,285.00	4,887,085.00	4,488,512.00	722,177.00	2,227,397.00

## Strength of Devnet for this project

Devnet is one of the most experienced and reputed organization of the country for document management software and scanning & archiving services. Below are the key aspects for considering Devnet in this project:

Sl#	Firm name	Expertise/strength
1	Devnet Limited	<ul style="list-style-type: none"> <li>• 21+ years of experience</li> <li>• 15+ years of experience in developing document management software/web-based application//e-service platform/web portal etc.</li> <li>• Only Bangladeshi company having end to end own Document Management Platform.</li> <li>• Our DMS is running in 15 Bank and NBFI</li> <li>• 60+ similar projects across the country.</li> <li>• Experience of Account opening document archiving projects for several banks.</li> <li>• Only Bangladeshi company having Experience of very old document, newspaper, map and manuscript scanning.</li> <li>• Only Bangladeshi company having experience of Microfilm and microfiche scanning digitation</li> <li>• Distributorship of renowned document scanner/map scanner/book scanner (Kodak Alaris, Avision, Atiz, SMA, i2s etc)</li> <li>• Distributorship of renowned OCR/ICR software (ABBYY)</li> <li>• Largest scanning service bureau of the country with state of the art scanning and indexing equipment's.</li> <li>• Very sound technical knowledge for similar solution</li> <li>• Strong development team</li> <li>• Experience of similar large-scale government project implementation</li> <li>• CMMI Level 3 certification, ISO 9001:2008 and ISO 27001:2005 certification.</li> <li>• Membership of BASIS, BCS, BACCO, BGCCI, AIIM etc.</li> </ul>

## Scope of Work

The scope as shared by Bank Asia is as follows:

- Supply, Installation and Commissioning of Document Management System (DMS) for e-archiving of account opening form of Bank Asia Limited.
- Scanning of approximately 10,00,000 account opening form having 20 pages in form
- Indexing of scanned files with required metadata (maximum 6 fields/form).
- Providing a workflow management solution within the DMS
- Providing three (03) years warranty
- Providing four (04) years AMC support after the warranty period
- Ensure technology and support availability for seven (7) years
- Other required scope as per RFP

In light of the above, we are furnishing the technical details to cater the scope of work and achieve the desired objective set by Bank Asia.

## Response to the Eligibility Criteria

S/N	Requirements	Response
	The bidder should be an authorized partner of OEM	Fully Compliant. We are authorized partner of several OEM. But the offered solution is fully developed and owned by us.
	The bidder as a registered company should have a legal entity to enter into contracts with at least 3 years' experience in the relevant business including IT based profession	Fully Compliant. 21+ years of experience in the relevant business including IT based profession. Experience documents are attached in annexure 4 and legal documents are attached in annexure 3.
	The bidder should have own/representative office and all-time presence in Dhaka with well-equipped service/support/ system up-gradation cell manned with adequate qualified technical personnel for installation, maintenance and support to the proposed products/systems.	Fully Compliant. We have well equipped own office in Dhaka with service/support/ system up-gradation cell manned with adequate qualified technical personnel for installation, maintenance and support to the proposed products/systems. Please refer to page no. 9 for necessary details
	The bidder must be regular TAXPAYER.	Fully Compliant. Tax clearance certificate is attached in annexure 3
	The bidder must have past performance on installation, commissioning, and maintenance of the relevant products for at least in 3 (Three) organizations preferably in the banking sector. Details of experience and past performance of the bidder are to be submitted along with the bid in support of proof.	Fully Compliant. 40+ installation of similar solution including 10 banks, 3 NBFI. Details of experience is mentioned in page no. 97-106 and certificates are attached in annexure 4.
	The bidder must hold manufacturer's authorization on this bid for the items those are not produced by the bidder itself but offered in the bid.	Fully Compliant. All offered items are produced by us.
	Bidders must submit the following documents along with their offer and their offer would be in their own Letter Head Pad and signed by any authorized persons: <ul style="list-style-type: none"> <li>• 3 years' experience certificate in similar type project</li> <li>• Income Tax certificate</li> <li>• VAT certificate</li> <li>• Valid Trade License/Memorandum/Article of</li> <li>• Company profile</li> <li>• Top 3 (Three) detail client list for product</li> <li>• Vendor should have at least 3 ongoing AMC support.</li> <li>• Distributorship Certificate' from the principal/Manufacturer must be submitted including Draft SLA</li> </ul>	Fully Compliant. Offers are submitted in own Letter Head Pad and signed by authorized person. All relevant documents are submitted along with the proposal. Please refer to the contents for specific item.

	<ul style="list-style-type: none"> <li>• Project Implementation schedule</li> <li>• Bid Bond (Po/BG) as specified on clause# 5.17</li> </ul>	
	Bidders must submit the description of their support team with the profile of experts for the items they will supply.	Fully Compliant. Please see page no 65-68 for support service details
	Vendor should have at least 3 ongoing AMC support. Distributorship Certificate' from the principal/Manufacturer must be submitted.	<p>Fully Compliant. On-going AMC with:</p> <ul style="list-style-type: none"> <li>• HSBC</li> <li>• Al-Arafah Islami Bank</li> <li>• BASB</li> <li>• Islami Bank Bangladesh Limited</li> <li>• bKash Limited</li> <li>• UCBL</li> <li>• Dhaka Bank Limited etc</li> </ul> <p>Please see page no 98 for maintenance experience details and annexure 4 for related documents</p>
	During implementation phase minimum one IT resource people should be provided by bidder at on-site for smooth function of equipment.	Fully Compliant.
	Validity of Price Quotation must be for a minimum of 12 (twelve) months.	Fully Compliant. Our offer is valid for 12 (twelve) months after submission date.
	Tenderer will have to ensure that their technology and support will be available for next 7 (seven) years.	Fully Compliant. Our technology and support will be available for next 7 (seven) years.
	Product warranty will be 03 (three) years including support services.	Fully Compliant. Our offered products will come with 03 (three) years warranty including support services

## Response to Evaluation criteria

SL	Attributes	Requirements	Comments
01	Design and Specifications of the supplied products.	<ul style="list-style-type: none"> <li>-Detailed design for offered systems should be furnished by the bidder (if any).</li> <li>-The minimum requirements are presented in the specifications in the document.</li> <li>-Better specifications and feature with latest technological information is required for evaluating this attribute. The specifications must be filled as per Format presented in the document.</li> <li>-The specification failing to maintain minimum requirement will lead towards disqualification.</li> <li>-Project implementation schedule in the form of a Gantt chart must be provided.</li> </ul>	<ul style="list-style-type: none"> <li>• Please see page no. 19-92 for Design and Specifications of the supplied products.</li> <li>• Please see page no. 93-96 for Project implementation schedule</li> </ul>
02	Company profile and Financial status	<ul style="list-style-type: none"> <li>-Company overview should be provided with the address and telephone number of the contact person.</li> <li>-Company profile along with supported all documents. -Details of assets, financial strength, turnovers, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Company overview mentioned in page no 7-12</li> <li>• Company profile is attached in Annexure 2</li> <li>• Details of assets, financial strength, turnovers is mentioned in page no. 11</li> </ul>
03	General experience.	<ul style="list-style-type: none"> <li>-General IT Experience</li> <li>- Implementation of CISC &amp; RISC base server.</li> </ul>	<ul style="list-style-type: none"> <li>• 21+ years of general IT experience.</li> <li>• Implemented CISC &amp; RISC base server in different banks</li> </ul>
04	Specific experience including work experience in Bank Asia environment.	<ul style="list-style-type: none"> <li>-Experience in DMS solution for any Bank or financial company.</li> <li>-Existing service or worked experience with Bank Asia (if any).</li> </ul>	<ul style="list-style-type: none"> <li>• 40+ solution running including 10 banks, 3 NBFI</li> <li>• E-KYC solution implemented for Bank Asia</li> </ul> <p>Detail list mentioned inexperience section page no. 97-106</p>
05	Support and technical expertise details.	<ul style="list-style-type: none"> <li>-Third party dependency</li> <li>-Support team and expertise details</li> <li>-Expertise details on particular product</li> <li>-Support experience of similar work.</li> <li>--Should have adequate 1st level to all levels of support, service and maintenance arrangement.</li> </ul>	Please see page no. 65-68 for Support and technical expertise details

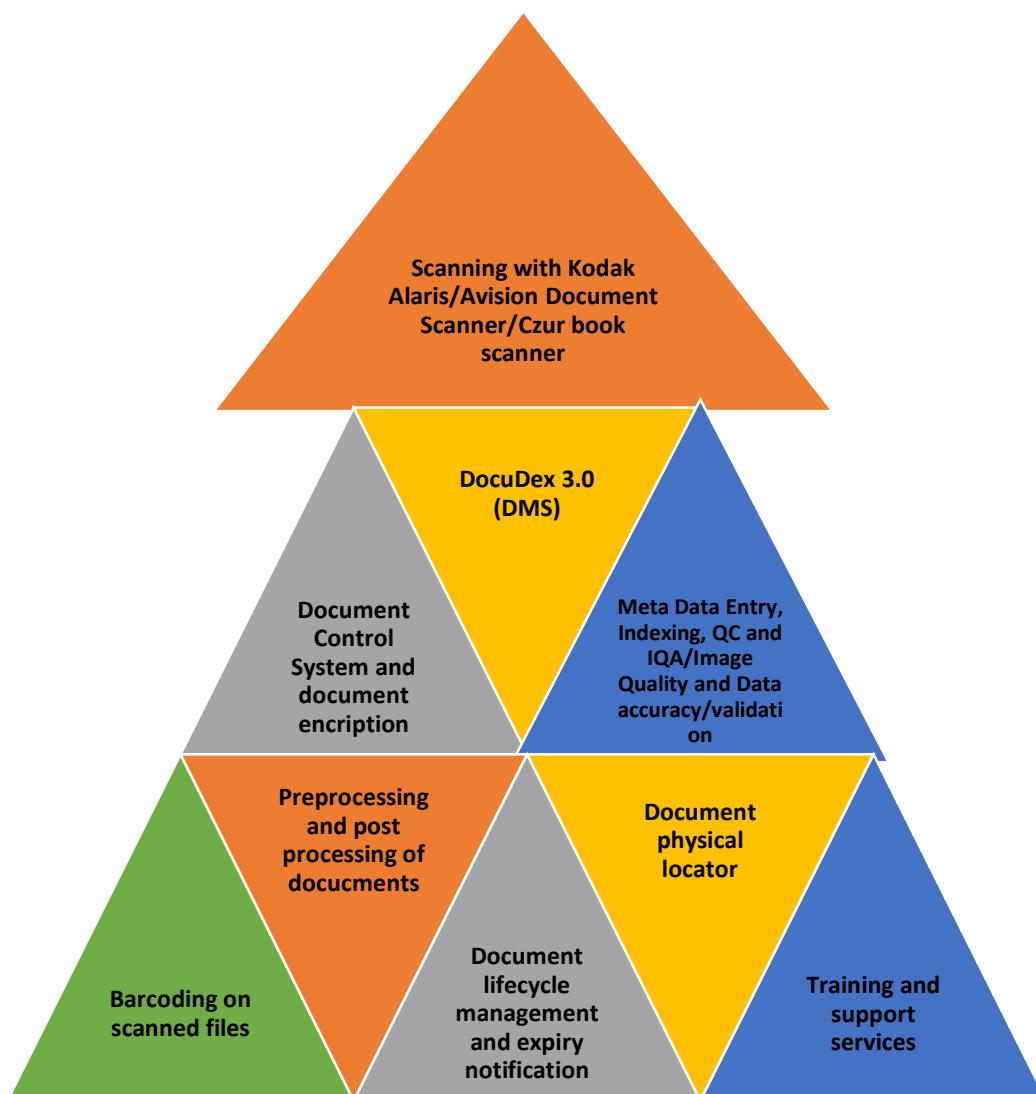
		<ul style="list-style-type: none"> <li>-Minimum response time should be within 30 min.</li> <li>- For solution of the problem should attended within 2 (two) hours from the reporting.</li> <li>-24x365 days support officials availability</li> <li>- Should ensure on premises support as required from the UAT date till warranty period.</li> <li>-The proposed maintenance support plan must be presented for evaluating the attribute and s should have adequate personnel with necessary qualifications to provide support, maintenance and training.</li> <li>-On call support</li> <li>-Remote support</li> <li>-Preventive maintenance</li> <li>-Corrective maintenance</li> </ul>	
<b>06</b>	Maintenance with other organizations	<ul style="list-style-type: none"> <li>-Top three clients list</li> <li>-Client's certificate</li> <li>- Annual Maintenance details with other organizations</li> </ul>	List mentioned in page no. 98 and clients certificate attached in annexure 4
<b>07</b>	Proposal & product catalogues	<ul style="list-style-type: none"> <li>-Specific products proposal</li> <li>-Justification of proposed product</li> <li>-Product Brochures</li> <li>-Product Catalogues</li> <li>-Product Data Sheets</li> <li>-Operation Manuals</li> </ul>	<ul style="list-style-type: none"> <li>• Product brochure with datasheets and operational manual attached in annexure 1</li> <li>• Justifications mentioned in page 12 &amp; 24</li> </ul>
<b>08</b>	Submitted overall project plan and delivery timeline	<ul style="list-style-type: none"> <li>-Project plan including Gantt chart</li> <li>-Project proposal quality (Technical &amp; Management level)</li> <li>-Justification of project plan with experienced documents.</li> <li>-Product delivery timeline including custom or other authority formalities</li> <li>-Installation, testing, commission, and maintenance plan</li> </ul>	Please refer to page no. 93-96 for Implementation plan
<b>09</b>	Operation manuals	<ul style="list-style-type: none"> <li>-Supplied products specific operation manuals which will help to operate the device properly.</li> </ul>	Operational manual attached in annexure 1
<b>10</b>	Warranty and spare parts availability	<ul style="list-style-type: none"> <li>-Specified minimum 3 three years product warranty</li> <li>-Replacement time line of faulty spare parts</li> <li>- Ensure the availability of spare parts location/warehouse details.</li> </ul>	Products will be delivered with three (03) years warranty

## Response to Technical Specification

Item	Description	Yes/No
Brand/Name	DocuDEX	
Model/Version	3.0	
Delivery/Period	1 month	
Warranty Period	03 years	
Document Management Support and Technical Expertise	<p>The solution should be provided the following:</p> <ul style="list-style-type: none"> <li>i. Document Attachment facility</li> <li>ii. Document classification as per given category</li> <li>iii. Metadata of document based on category</li> <li>iv. Searching document by parent program information</li> <li>v. Searching by document attributes (name, date etc.)</li> <li>vi. Searching by category and/or metadata</li> <li>vii. Manage multi-level document categories</li> <li>viii. Manage metadata for Document categories</li> <li>ix. Tracking expired documents notifications</li> <li>x. Keeping information of archive locator</li> <li>xi. Check-in, check-out of archived document</li> </ul>	<b>Yes</b>
Other Features	<ul style="list-style-type: none"> <li>i. Documents Upload &amp; Indexing</li> <li>ii. Documents bulk uploading facility</li> <li>iii. Data Validation facility</li> <li>iv. View documents facility</li> <li>v. Version control system</li> <li>vi. Documents retention policy compliance</li> </ul>	<b>Yes</b>
AMC	AMC will start after 3 years warranty period	<b>Yes</b>
User Management	Role based user creation & Role based access control	<b>Yes</b>
Reports	The solution should capable to provide customized report	<b>Yes</b>
Audit log	The solution should provide all major activity log, User login/activity, deletion, modification, creation etc. audit log	<b>Yes</b>
Workflow Management	The solution should be customize workflow according to Bank Asia business needs. Workflow management module allows the authority to customize tasks within a present workflow, define multiple conditions for the flow paths.	<b>Yes</b>
Browser Compatibility	The solution should be support all browser (Opera, Google Chrome, Mozilla Firefox, Microsoft Edge, safari etc.)	<b>Yes</b>
Hardware Compliance	The solution should be compliance, database and application will be separate hardware	<b>Yes</b>
API facility	The solution should be support API integration with other application(s).	<b>Yes</b>
Third Party Involvement	The vendor should not depend on third party to complete the task.	<b>Yes</b>
Disaster Recovery	The solution should be capable disaster recovery from DR site.	<b>Yes</b>
Clients	Minimum 3 Bank/NBFI	<b>Yes</b>

## Proposed Solution at a glance

The proposed solution is based on DocuDEX 3.0. DocuDEX 3.0 is a powerful document management system that delivers an affordable platform to store, manage and share vital information across the organization. It allows the automation of capture and management of document, replacing manual paper work with electronic filing and documentation. Besides allowing documents and information to be updated instantaneously, it also enables key information to be accessed quickly and in real-time regardless of the location of employees; saving time, costs, and allowing for greater efficiency.



## Document Management Software (DocuDex)

We are offering custom built Document Management Software based on our flagship document management software DocuDex 3.0 for **e-ARCHIVING of ACCOUNT OPENING FORM OF BANK ASIA LIMITED** in conformity with the required features and functionalities and following key considerations:

- Application will be light weight and rich client-side scripting
- Application will run with narrow bandwidth
- UI is developed based on UX
- Efficient system that can minimize manual work steps by ensuring easy search & retrieve
- System that is scalable and flexible to incorporate current and future requirements (like various software, tools, techniques, device etc.)
- Efficient user interface that can positively add value to the performance
- Capable of integrating with other system via API
- Highest level of user integration
- Improve organization's ability to respond to management requirements faster
- Deploy a system in which business transactions are streamlined controlled with the following capabilities:
  - Centralized database
  - Improved flexibility of tracking and retrieving documents
  - Improved controls and reduced dependency on people for routine activities
- Security breach and disaster prevention capability
- Keeping audit trail for all actions
- Have efficiency to handle huge volume of document
- Faster system response

## Features of the offered Document management Software

- **Internet based electronic document archiving system:** A PHP, MYSQL and Apache based solution. A J2EE version will also available for ORACLE users. The system can be hosted in corporate intranet, internet or extranet.
- **Access control:** Client can control every access to the documents and repository. Different level of management will have different levels of access control. From a single administration form we can manage the entire accessibility of the repository. Along with our own application level security client can also use the OS and database level security. The application is build with SSL features. The user access control is based on LDAP.
- **Search & retrieve:** Client can search the documents within the repository in two or three levels. The search can be performed with all the major fields. The user will be using common web browser for searching. Search can be designed based on 25 fields within the data base.
- **Transformation** (Optional, if kept in JPEG format): Changing content from JPEG to PDF format for external use of documents in necessary
- **Optical Disc:** Primarily WORM (Write-Once, Read-Many); Optical disk on which data is recorded by the user once (and is unalterable) and can be read many times.
- **Full Audit Trails:** Log of who changed what when for accountability.
- **Records Management:** Enables an enterprise to assign a specific life cycle to individual pieces of corporate information from creation, receipt, maintenance, and use to the ultimate disposition

of records. A record is not necessarily the same as a document. All documents are potential records, but not vice versa. A record is essential for the business; documents are containers of "working information." Records are documents with evidentiary value.

- **Check-in/check-out:** Ensures that only one person can work on a document at any time if necessary.
- **Physical Library services:** Documents that are scanned will be batched and give a unique number for physical retrieval. We will add shelf number and row information within a shelf for physical tracking.
- **Categorization:** Organizing documents, and other content into logical groupings, based on their contents. We can categorize the documents according to the payment type and package type.
- **Indexing:** Identification of specific attributes of a document or database record to facilitate retrieval. The database will consist of all the information available with a Map. We can index the documents according to UID or Map ID.
- **Version Control:** A document can have multiple versions as required. Our system will be able to keep upto 9 version of a specific document.
- **3rd party application import through API:** The software can import 3rd party documents and data through specially custom designed modules and API. We offer REST based API for all of our modules. We can import PDF reports with data from ay applications.
- **Document expiration management with notification:** The system shall notify the user on the expiry of any specific document through email, SMS or dashboard notification.
- **Reporting:** Report based on several parameters can be generated from the system with downloadable and printable option.
- **Hardcopy Archiving System:** This is a simple system to incorporate the hardcopy management service with the electronic copy. Once configured the system can easily locate the physical location of the document.
- **Physical Document Check in/out:** This is required for checking-in and out of the physical documents for several use cases ie. Legal requirements, regulatory compliance or audit purposes. The solution can also manage scheduled reminders and also keep possible return date of the hardcopy.

We will built a powerful solution

- **Comprehensive** software includes a wide range of document and knowledge management functionalities.
- **Flexible** modular design allows potential customers to purchase a system that matches their need exactly, with the guarantee that they will be able to add extra extensions when required.
- **Simple** software runs on a simple server configuration.
- **Secure** software provides authentication, authorization, and usage monitoring along with image security.

An easy-to-use application for any users

- **Simple** provides the ease-of-use of a Web site. With a few clicks, users can find, open, upload, and print documents.
- **Organized** displays information in a structured and consistent way through a single user interface.

- **Up-to-date** Relevant up-to-date information is presented to users as soon as they enter the application.

## Highlights

- Rapid deployment and easy to implement, integrate and manage
- Fully customizable search parameter
- Role based access control and audit trail
- Web based application and accessible virtually from any browser
- Easy to integrate with any business application with any system
- Has full support of English and Unicode Bangla

## Reference clients of our Document Management Software:

1. Al-Arafah Islami Bank Limited
2. Social Islami Bank Ltd.
3. Dhaka Bank Ltd.
4. The City Bank Ltd.
5. United Commercial Bank Limited
6. Southeast Bank Limited
7. Mutual Trust Bank Limited
8. Prime Bank Limited
9. IPDC
10. IIDFC
11. IDCOL
12. Union Capital Limited
13. Brac
14. Aarong
15. Brac University
16. Rajuk
17. LankaBangla Investment Limited
18. Bengal Group of Companies
19. Micro Credit Regulatory Authority (MRA)
20. Department of Land Records & Surveys (DLRS)
21. East West University
22. Novartis Pharmaceuticals Ltd.
23. Public Library
24. CPD
25. Alpha Credit Rating Company Ltd.
26. BANBEIS
27. Roads & Highways Department (RHD)
28. DGHS, Ministry of Health
29. UNDP
30. Bangladesh Energy Regulatory Commission
31. Dhaka University
32. Economic Relation Division (ERD)
33. bKash Limited
34. Bangladesh Bank
35. BIRDEM
36. The Daily Prothom Alo
37. Bangladesh Association of software Information System (BASIS)
38. Grameen Bank
39. Buro Bangladesh
40. Brac IT Services Limited
41. Plan International Bangladesh
42. BISS (Bangladesh Institute of International Strategic Studies)
43. Bangladesh Police



## Benefits/Justification of using DocuDex

DocuDEX 3.0 is a user friendly application that has been designed to meet the functional requirements of different departments of an organization. An affordable, cost effective solution that will help to gain cutting edge advantages through effective information sharing and mitigating the challenges associated with & papers. It will enable organizations to reduce cost & gain operational efficiency and saves time, space & money.



### Comprehensive

Includes a wide range of document & knowledge management functionalities.



### Flexible

Includes a wide range of document & knowledge management functionalities.



### Secure

Provides authentication, authorization, & usage monitoring along with image security.



### Simple

Runs on a simple server configuration



### Up to date

Relevant up-to-date information is presented to users as soon as they enter the application



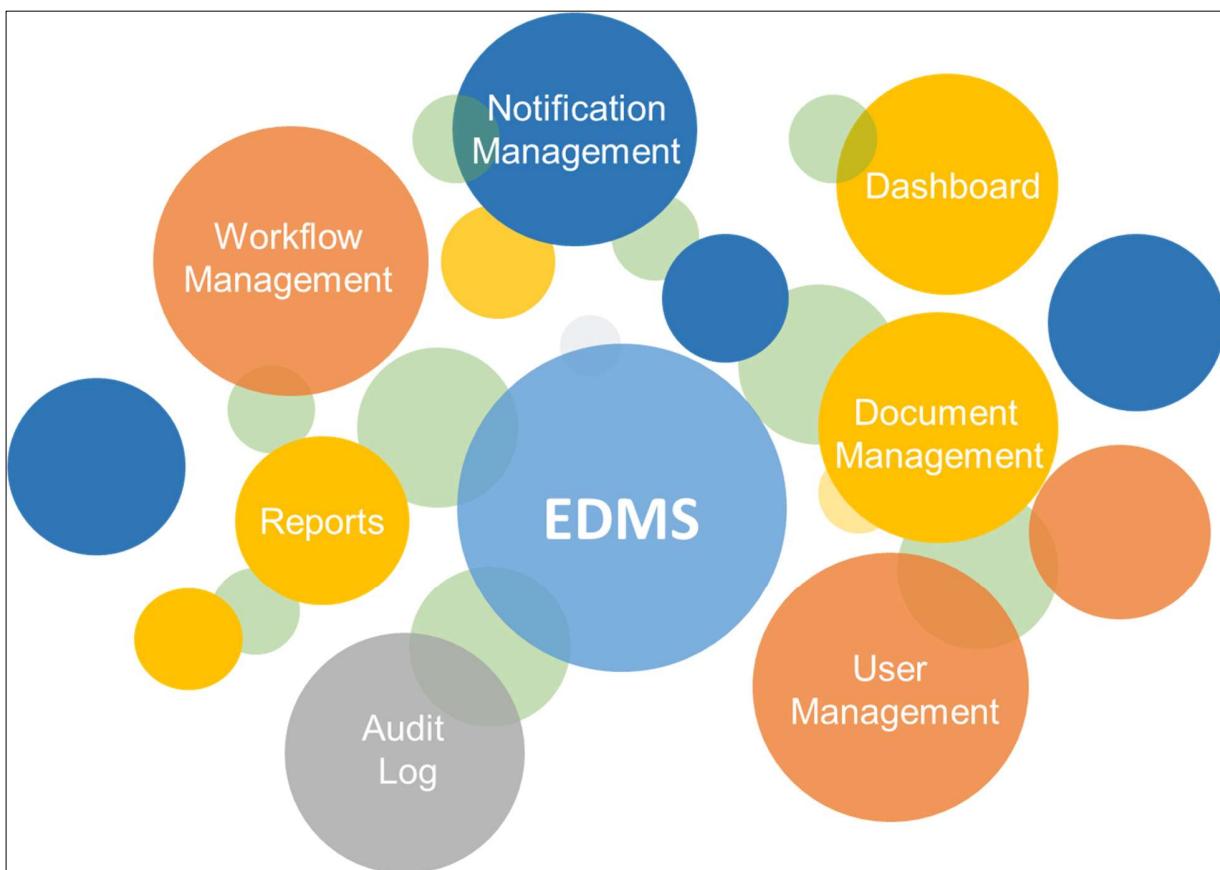
### Organized

Information is presented to users as soon as they enter the application.



## Functional Modules

It's a large System with multiple Modules and Functional components. Each module has distinct functionality with interaction with different stakeholders and dependency/relation with other Modules. The mindmap below represents the high level organogram of modules and functionality groups in discussing System





## Document Management Module

Every process of any system requires some physical documents. After the process is over, the documents need to be kept in a way so that it can retrieved quickly as soon as it's required. This archiving module ensures organized storing and easy requisition of Documents.

Some functionalities of this module will be working inside other modules, and some distinct features will be available under its individual namespace. Briefly this module will have the following functionalities:

- Embedded in other Modules
  - Document Attachment
  - Document Classification
  - Metadata of document based on Category
- Searching, Classification and Metadata
  - Searching Document by parent program information
  - Searching by Document attributes (Name, date etc.)
  - Searching by category and/or metadata
  - Manage Multi-Level Document categories
  - Manage Metadata for Document Categories
- Archiving Features
  - Managing Archive locating attributes (Warehouse, Room, Shelf etc.)
  - Tracking Expired Documents
  - Notification for Archiving Document
  - Keeping information of Archive locator
  - Requisition for Archived Document
  - Check-In, Check-out of archived Document

## Other Features of Document Management Module

### Document Capture



One can capture a document using a scanner and then convert it to PDF file and upload it into DocuDEX. If using standard document scanners like KODAK, the application can directly insert PDF into ECM Lite. An optional integration with award winning Kodak Capture Software is also possible. Provides scanning capability to scan simplex/duplex document using any document scanner through standard TWAIN drivers.

### Search and Retrieve



Very powerful search capabilities including key word and full text search enable the users to find out the exact document.

Client can search the documents within the repository in two or three levels. The user will be using common web browser for searching. Search can be designed based on as many fields as necessary.

Once the document is found a simple click will open the PDF/JPEG file within the application. We will be using Adobe Acrobat workspace for viewing. We Devnet are licensed by Adobe to provide Acrobat Solutions. We can also distribute the Acrobat reader without application if necessary. We use the original Software Development Kit from ADOBE Inc. The user can print directly from the workspace. Retrieved documents like: doc, pdf, image, video and audio can be viewed in the DocuDEX platform. Other file formats will need to be downloaded to access its contents.

### Document assembly and categorization



Scanned pages can be re-assembled as a specific document through pre-defined rules or manual sorting. This tool also enables you to perform multi-level categorization of documents.

### Document Indexing



Identification of specific attributes of a document or database record to facilitate retrieval. The database will consist of all the information available with a Map. We can index the documents according to UID or any sort of ID.



## User Management

You can assign users different roles in your system these roles allows a user particular functionality within your system so that he/she can perform a task or set of tasks.

- **Registering New Users:** You can create a new user account using the system.
- **Verifying Users through Email:** The User Management service can provide user verification mechanism based on email templates.
- **Logging Users In and Out:** After logging in using a username and password pair, the user will receive a Bearer token that authenticates them for following requests. Logging out invalidates the Bearer access token.
- **Access Control:** You can restrict what a user can do by applying role-based, type-level, or item-level permissions. **Recovering User Accounts:** The system allows user to choose between two methods of account recovery: using email or using a secret question.
- **Manage User Account Data:** The User Management service will be set up around the built-in Users content type that will have a number of predefined fields such as Username, Password, and Display Name, to which you can add your own. Predefined fields cannot be removed. Similarly to other content types, you can perform full CRUD operations:
  - Read information about user accounts by Id or by applying a rich set of filters and sorting
  - Update user account information such as the password
  - Delete user accounts
- **Data Permissions:** Data stored in our system is secured through an Access Control Lists (ACLs)-based permissions model.

BASB Automation System

Dashboard Modules Finance

CREATE USER

User Login Information

Username	<input type="text"/>
Email	<input type="text"/>
Password	<input type="password"/>
Repeat password	<input type="password"/>
Office	Select Office
Select Personnel	Select Personnel
<input type="checkbox"/> enabled	

Role

Establishment clerk
Budget Clerk
Account Clerk
Welfare Clerk

Submit

```

<icon></icon>
<icon type="image">content="data:application/x-icon; initial-scale=1, user-scalable=1, width=16px, height=16px"</icon>
<icon ref="startIcon" href="Harddog.ico" type="image"/>
<icon ref="icon" href="Harddog.ico" type="image"/>
<icon type="text/css" ref="stylenext" href="calibration.css" style="color: #0000ff; font-size: 1em; font-weight: bold; margin-right: 0.2em; vertical-align: middle;"/>
<icon ref="stylenext" href="720px-Standard_JavaScript_minified_code.png" type="image"/>
<icon ref="stylenext" href="720px-JavaScript_minified_code.png" type="image"/>

```

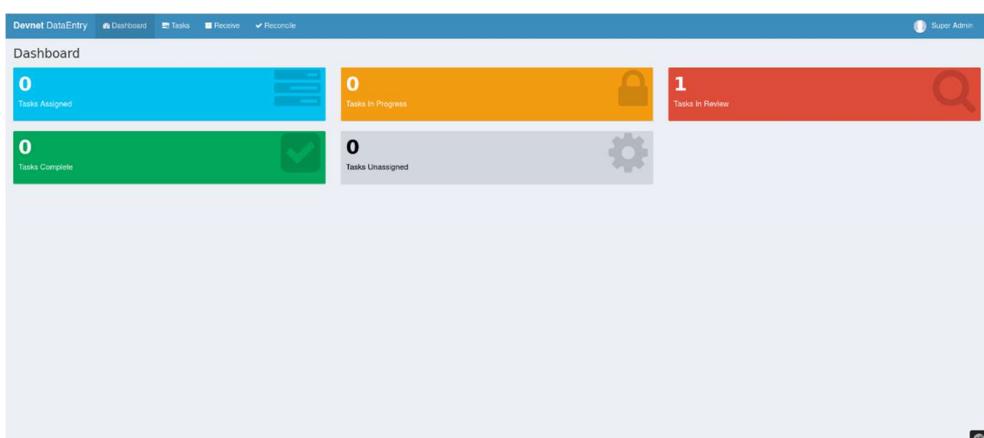
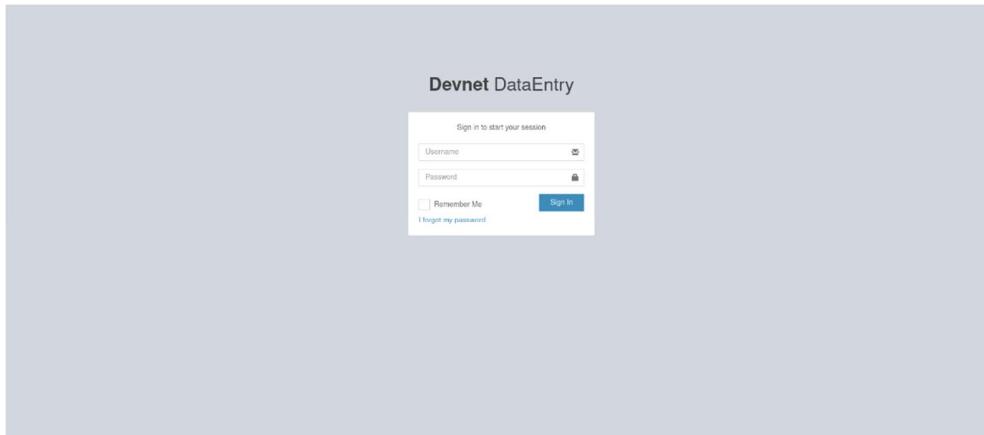
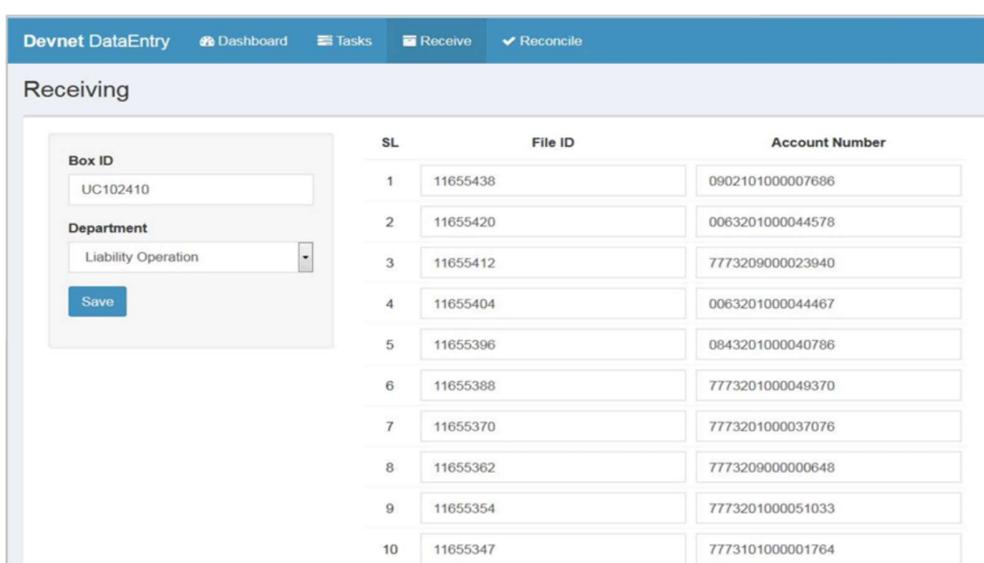
## Audit Log

All pre-defined activities of Users will be logged including timestamp and client IP. User action on significant Entities will be logged. Action history on an entity can be generated. We are integrating a powerful and flexible audit tracking module to Logging user activity and notable domain Entity related events. The audit log will provide information like:

- Log the users who are accessing the system.
- Log the parts of the application that are being accessed.
- Log the fields that are being modified.
- Log the results of these modifications.
- Log attempted breaches of access.
- Log attempted breaches of modification rights.
- Time stamp of changes.

Time	Event	Description	Branch	User	IP
23/10/2016 17:10:35	Document Search	Search Parameters: category[0]=59157100998374048&category[1]=612231570660528128&category[2]=612231802534236160&auto_suggest=[614690210378158080]=1&auto_suggest=[614690287217807360]=1&auto_suggest=[614690361293410304]=1	Motijheel	admin	117.103.81.58
23/10/2016 17:10:06	Document Search	Search Parameters: category[0]=606014412293148872&category[1]=60601456988955648&category[2]=606014680858628056	Motijheel	admin	117.103.81.58
23/10/2016 11:47:20	Document Search	Search Parameters: category[0]=581730459155697664&category[1]=581730793345257472&auto_suggest=[581732057177133056]=1&auto_suggest=[581732181957677056]=1&auto_suggest=[636790993009512448]=1	Motijheel	admin	117.103.81.58
23/10/2016 11:34:17	Document Search	Search Parameters: category[0]=581730459155697664&category[1]=581730793345257472&auto_suggest=[581732057177133056]=1&auto_suggest=[581732181957677056]=1&auto_suggest=[636790993009512448]=1	Motijheel	admin	117.103.81.58
20/10/2016 14:27:15	Document Search	Search Parameters: keyword=scanning hall	—	mazhar	202.4.114.226
20/10/2016 14:27:05	Document Search	Search Parameters: keyword=s	—	mazhar	202.4.114.226
20/10/2016 14:26:59	Document Search	Search Parameters: keyword=ooxide	—	mazhar	202.4.114.226
20/10/2016 14:26:38	Document Search	Search Parameters: keyword=ooxide	—	mazhar	202.4.114.226
20/10/2016 14:26:23	Document Search	Search Parameters: keyword=scanning hall	—	mazhar	202.4.114.226
20/10/2016 14:26:06	Document Search	Search Parameters: keyword=scanning hall&category[0]=634259566997016576&category[1]=63420135832719360&category[2]=634404316085489664&category[3]=634407600057288224&auto_suggest=[634396535521546240]=1&auto_suggest=[63439671008009112]=1&auto_suggest=[635005924028715008]=1&auto_sug	—	mazhar	202.4.114.226
20/10/2016 14:25:52	Document Search	Search Parameters: category[0]=634259566997016576&category[1]=63420135832719360&category[2]=634404316085489664&category[3]=634407600057288224&auto_suggest=[634396535521546240]=1&auto_suggest=[63439671008009112]=1&auto_suggest=[635005924028715008]=1&auto_sug	—	mazhar	202.4.114.226

## QC Tool for Archiving Service & Solution

The receiving screen has a blue header with the title "Devnet DataEntry" and navigation links for "Dashboard", "Tasks", "Receive", and "Reconcile". The main area is titled "Receiving". On the left, there is a form for entering "Box ID" (UC102410), "Department" (Liability Operation), and a "Save" button. On the right, there is a table with columns "SL", "File ID", and "Account Number". The table contains 10 rows of data.

SL	File ID	Account Number
1	11655438	090210100007686
2	11655420	0063201000044578
3	11655412	7773209000023940
4	11655404	0063201000044467
5	11655396	0843201000040786
6	11655388	7773201000049370
7	11655370	7773201000037076
8	11655362	7773209000006468
9	11655354	7773201000051033
10	11655347	777310100001764

Devnet DataEntry    Dashboard    Tasks    Receive    Reconcile

### Reconcile

SL	File ID	Customer ID	Reconciled
1	11632379	123RPLN190650001	
2	11632361	095EAAS190300005	
3	11632353	152RPLN190640001	
4	11632338	095EAAS190640008	
5	11632346	095EAAS190300003	
6	11632387	095EAAS190550003	
7	11632296	095RAAS190570506	
8	11632395	160RAAS190580001	
9	11632304	095RAAS190630001	
10	11632312	124RPLN190580001	
11	11632320	Customer ID / Account Number	
12	11632288	Customer ID / Account Number	
13	11632221	Customer ID / Account Number	
14	11632270	Customer ID / Account Number	

				Select Size: A4
				Department: <input type="radio"/> AOD <input type="radio"/> Bank Statement <input type="radio"/> BRPA Registration <input type="radio"/> Charge Document <input type="radio"/> Check List <input type="radio"/> Cheques and Forwarding <input type="radio"/> CIB <input type="radio"/> Client Visit Report <input type="radio"/> Credit Rating Report <input type="radio"/> Financial Security FDR Bond Etc <input type="radio"/> Further Charge <input type="radio"/> General Undertaking <input type="radio"/> Guarantor Information <input type="radio"/> Insurance Policy <input type="radio"/> Legal Documents <input checked="" type="radio"/> Loan Application Form <input type="radio"/> MICR Cheque <input type="radio"/> NID <input type="radio"/> Office Note <input type="radio"/> Others <input type="radio"/> Personal Net Worth <input type="radio"/> Sanction Letter <input type="radio"/> SME Approval Note <input type="radio"/> Tax Certificate <input type="radio"/> TIN <input type="radio"/> Trade License
				<input type="button" value="Create PDF"/> <input type="button" value="Finish Task"/>

# System Integration



## Integration with other systems



The solution has the provision to be integrated with different systems via API. The interaction can be single or bi directional, which will allow the system to access necessary information held by the other system. Archived documents can be pushed to other systems if the system external system allows it. The systems that are going to be integrated are as follows:

SI No.	System Name	Dependent Organization
1.	Govt Agencies	Will be discussed while scope finalization.
2.	Banks (Optional)	Will be discussed while scope finalization.
3.	Payment Gateway (Optional)	Will be discussed while scope finalization.
4.	NID (Optional)	Will be discussed while scope finalization.
5.	SMS	Service Provider
6.	E-mail	Service Provider
7.	CBS	BANK ASIA

# Key Components of EDMS



## Notification Channels

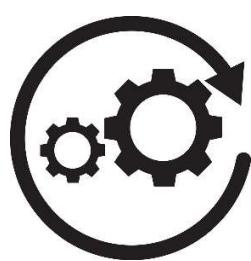
The system will be able to generate automated notification for all the system user. The type and medium of the notification will vary according to the task and recipient. The notification type and medium of notification is fully customizable and can be modified according to user's needs. The system will be able to provide notification via different mediums:

- SMS – Will mostly be used to notify the system users.
- Email – Will be used to notify the system users and the system.
- System Notification – Will be used to notify the system users.



## Workflow Engine

Our solution also has a built in workflow engine. It is a tool that automates the tasks involved in a business process. The workflow application routes data along a predefined path until an item in the process is completed. Tasks in the workflow may include approvals, adding information, or data transfers. The workflows are fully configurable, the administrator can create, update and delete a workflow. The admin can also add/update steps and users responsible within a workflow.



## Management Dashboard

Use pie charts, bar charts, and geographical charts to show the relevant data are important. Data is synced in real time. Each individual user in the system gets a customized dashboard which will only show data relevant to perform their tasks



## PDF Export

After a search operation has been performed, the aggregated result will be visible to the authorized user. The user will be able to download the search archived documents in the form of pdf. Our system is capable of handling bulk pdf exporting operation.



## Privilege Accessibility



The User and Role Management is a role-based access control (RBAC) module. The system users will be created by the system Admin. While registering a new user in the system the user's basic information along with mobile number and email address are recorded. The email address and mobile number serves as the user's verification. System generated password is sent to the user's mobile and email address. The user provides proper credentials to access the system. If the user forgets the password it is recovered via mobile and email address.

Each system user will be assigned different roles in the system. The roles will define which module and services of the system they will be allowed to access. Assigning specific roles to user ensures better management and security, and helps track user activity in the system

The system admin can create new role and define access level for the new role. The user and role management module will provide a list of system users. The admin can activate/deactivate system users if necessary. System user's profile can be accessed and information can be edited if necessary.

## Reporting

- We offer tailored reports and custom statements as per organization needs
- The report access is configurable and will ensure only the authorized user can view/download the report.
- Output to Excel and PDF. Schedule reports to run automatically. Save them to the database or export them.
- Each report has various filter criteria for selecting and sorting data. Once the criteria are selected, the user has the ability to save the parameters and schedule the report to run automatically at pre-determined intervals.



## Logging and Monitoring



The system will maintain an extensive audit trail of authentication based on system activities (success / failure/ account lockout etc.). The audit log also keep track user login/log out, document access, modification, data update, deletion and system settings changes. The system logs are stored in the database as encrypted contents. The logs can be viewed according to category and within a specific date range. The audit logs can be exported as excel file and can be printed if needed.

## Data Encryption

Since the solution deals with sensitive case details data security and encryption is an important avenue. The system generated contents and the sensitive information are kept in the database as encrypted content. The data will be encrypted via AES256 algorithm

The system supports secure login id and passwords for each user and the passwords are stored in encrypted format in the database



## Security Policy



Our system manages user login session through Database. Our solution prevents multiple sessions for same user at a time, and automatically logs the user out of the system. Whenever a user account is disabled the system automatically sends notification to the user through mail/SMS or both

The system also supports Two-factor Authentication (2FA) login/authentication, which can be used for system users as well as back office users.

The security policy is fully configurable from the front end and functionalities like: auto disable user account after a certain duration of inactivity, set session/Idle time out, password parameter and lockout duration.

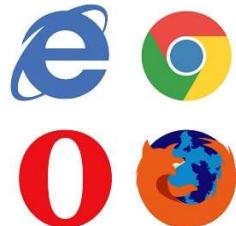
## Browser Compatibility

Cross-browser refers to the ability of a website, HTML construct, application or even client-side script to work in several different environments, ones that provide its required features. The web application will be designed in such a manner that it will be compatible with web browsers like:



- Safari 14.1

- Opera 75
- Google Chrome 90
- Internet Explorer 11
- Mozilla Firefox 88
- Microsoft Edge 90



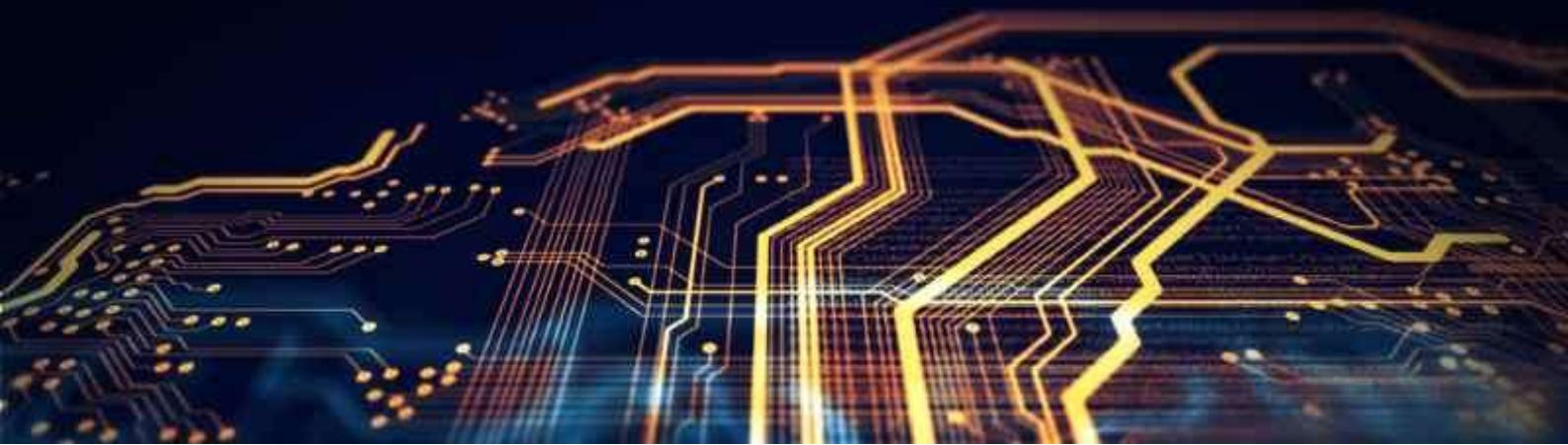
## Physical Document Tracking (Optional)

After a document has been archived in the system. The document is then printed out and a hardcopy is kept as a safe keeping. Our document tracking module allows the system users to track these physical documents. Our system is designed in such a way that system users can precisely locate the document location and status. Our system can detail down to on which warehouse, which shelf, which rack, and which box the document is stored at.

## Document Lifecycle Management

The system shall notify the user on the expiry of any specific document through email, SMS or dash board notification.

# Technical Approach & Standards



## Technical Approach & Standards

### Coding Standard

We strictly follow PSR-1 and PSR-2 coding guideline and properly document our code for easier handover.

#### PSR – 1 Overview:

- Files MUST use only `<?php` and `<?=` tags.
- Files MUST use only UTF-8 without BOM for PHP code.
- Files SHOULD either declare symbols (classes, functions, constants, etc.) or cause side-effects (e.g. generate output, change .ini settings, etc.) but SHOULD NOT do both.
- Namespaces and classes MUST follow an “autoloading” PSR: [PSR-0, PSR-4].
- Class names MUST be declared in StudlyCaps.
- Class constants MUST be declared in all upper case with underscore separators.
- Method names MUST be declared in camelCase.

#### PSR -2 Overview:

- Code MUST follow a “coding style guide” PSR [PSR-1].
- Code MUST use 4 spaces for indenting, not tabs.
- There MUST NOT be a hard limit on line length; the soft limit MUST be 120 characters; lines SHOULD be 80 characters or less.
- There MUST be one blank line after the namespace declaration, and there MUST be one blank line after the block of use declarations.
- Opening braces for classes MUST go on the next line, and closing braces MUST go on the next line after the body.
- Opening braces for methods MUST go on the next line, and closing braces MUST go on the next line after the body.
- Visibility MUST be declared on all properties and methods; abstract and final MUST be declared before the visibility; static MUST be declared after the visibility.
- Control structure keywords MUST have one space after them; method and function calls MUST NOT.

- Opening braces for control structures MUST go on the same line, and closing braces MUST go on the next line after the body.
- Opening parentheses for control structures MUST NOT have a space after them, and closing parentheses for control structures MUST NOT have a space before.

### Security Standards

Software security vulnerabilities are real threats, and keeping a system secure is a hard task. Our solution will provide security features which will prevent system vulnerabilities thus ensuring greater security for the overall application. Listed below are several **OWASP** and **SANS 25** vulnerabilities which has been tackled in our solution:

- Injection
- Broken Authentication
- Sensitive Data Exposure
- XML External Entities (XXE)
- Security Misconfiguration
- Cross-Site Scripting XSS
- Insecure Deserialization
- Using Components with Known Vulnerabilities
- Insufficient Logging & Monitoring

### Certifications:

- ISO 9001 for quality processes
- ISO 27001 for information security
- CMMI Level 3 (SVC)

 **CMMI SVC /3**<sup>SM</sup>



## System Architecture

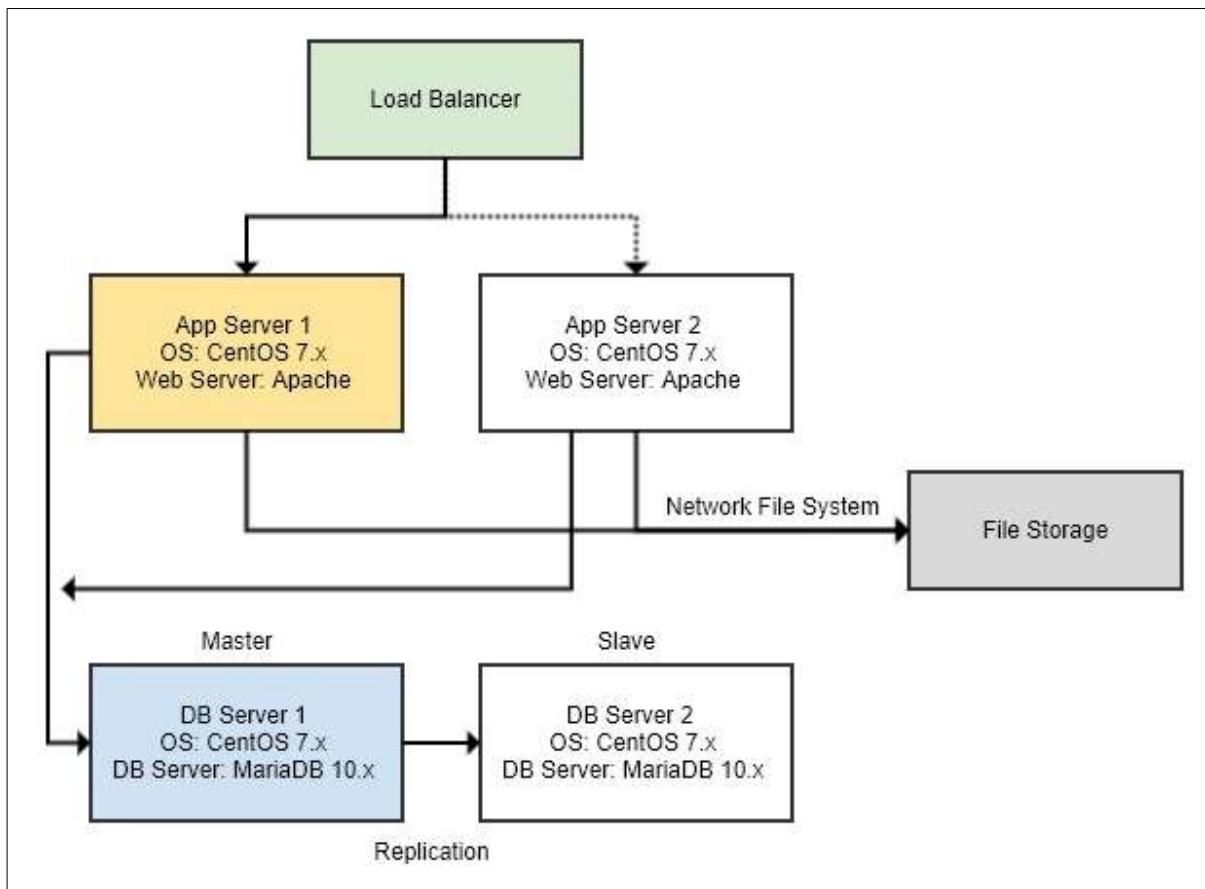


Fig: System Architecture for EDMS.

## 1. Server Details

SL	Description	Purpose
1-2	DocuDEX Application Server	Document Archiving Platform
3-4	DocuDEX DB Server	Archived documents data
5	SAN Storage	Shared storage to store files and backup of DB.

## 2. Server Configurations

SL	Server Class *	CPU	RAM	HDD	OS
1-2	DELL R730 or equivalent	8 Core Xeon	128GB	1 x 1000GB SAS	CentOS 7.x
3-4	DELL R730 or equivalent	8 Core Xeon	128GB	1 x 1000GB SAS	CentOS 7.x

\* Only for physical hardware, please choose your preferred server class for virtualization

DC							
Item Description	OS	HDD	RAM	Core	CPU Utilization	RAM Utilization	Disk Utilization
APP N1	Linux 7.9	386GB	64GB	16	10%	7%	30%
APP N2	Linux 7.8	2.2TB	64GB	16	47%	48%	32%
DB N1	Linux 7.8	612GB	64GB	16	5%	43%	21%
DB N2	Linux 7.8	606GB	64GB	16	2%	17%	31%

DR							
Item Description	OS	HDD	RAM	Core	CPU Utilization	RAM Utilization	Disk Utilization
APP N1	Linux 7.8	310GB	16GB	4	1%	72%	17%
APP N2	Linux 7.8	2TB	16GB	4	1%	70%	9%
DB N1	Linux 7.8	510GB	16GB	4	1%	65%	26%
DB N2	Linux 7.8	500GB	8GP	4	1%	84%	18%

### Storage

A shared SAN storage should be configured with a total **20TB** of storage and should be mounted with all the servers. This storage will be used to store all uploaded files as well as regular backups of DB.

## 3. Redundancy

The 2<sup>nd</sup> App Server will act as a redundant application server in case 1<sup>st</sup> App Server fails. The router will need to route requests to 2<sup>nd</sup> App Server in case the 1<sup>st</sup> App Server is down.

The 2<sup>nd</sup> DB server will have master-master replication from 1<sup>st</sup> DB server and is always up-to date with latest data. In case 1<sup>st</sup> DB server fails, the 2<sup>nd</sup> DB server will work as the redundant DB server.

#### 4. Failover Strategy

This architecture is based on active-passive mode and manual failover strategy is applicable.

#### 5. Scalability

The above architecture is able to handle 200 concurrent users.

### Factors Considered in the system architecture

#### 3 Tier Architecture

The solution is designed following the 3 tier architecture principles and is based on MySQL. The solution has the capacity to be deployed on Premise or Cloud, where no performance issue was noted. Solution has the capacity to be deployed on container. System has an inbuilt load management functionality, which is able to manage system load efficiently and ensures that performance does not hamper. This solution is platform independent.

#### Fault Tolerance and Load Balancing

Fault tolerance is the property that enables a system to continue operating properly in the event of the failure of (or one or more faults within) some of its components. The system's ability to recover and tolerate faults without failing can be handled by hardware, software, or a combined solution leveraging load balancers. High level fault tolerance is ensured by multiple processors collaborate to scan data and output to detect errors, and then immediately correct them.

A highly available system such as one served by a load balancer allows minimal downtime and related interruption in service without total redundancy when a failure occurs. A system with some critical parts mirrored and other, smaller components duplicated has a hybrid strategy

#### Modular Design

System modularity was a key aspect considered while designing the solution. Modular programming is a software design technique that emphasizes separating the functionality of a program into independent, interchangeable modules, such that each contains everything necessary to execute only one aspect of the desired functionality. This modular design allows the our system to add further modules without disturbing the core system or any downtime

#### High Performance

Our proposed solution can handle thousands of concurrent visitors without any lag and can serve content within 5 secs or less. We adhere to 90+ score in YSlow performance benchmark test in all aspects. The Judicial Service Delivery platform will comply with the below mentioned techniques:

- Minimize HTTP requests
- Use of Content Delivery Network (CDN)
- Use far-fetched Expire Headers
- Compress text content using Gzip
- External CSS/JS, plus separate host for storing them
- Minimizing CSS/JS
- Properly configured ETags
- Optimize Images / Use CSS sprites
- Proper placement of CSS/JS

## Highly Optimized Database

Our proposed solution uses industry standard MySQL database for handling high load as well as to handle different types of datasets including support for JSON and XML data.

## High Scalability

Our proposed solution supports a horizontally scalable architecture that would allow scaling the system up/down with no change in code/configuration. All you need to do is add/remove server from the pool and update the routing configuration. Below are the list of issues that will be handled in the system:

- Identifying average number of users (named / anonymous) configure web server.
- Configure database server.
- user management both in server and database
- Configure user authorization and authentication.
- Database backup.
- asset backup
- database migration
- Log management migration
- Handling maximum number of concurrent users
- Calculating Average Time Between Page Requests
- Transaction Time
- Workload Conditions
- Average Session Time
- User activities (navigation steps per time unit)
- Continuous monitoring & implement caching mechanism in different layer.
- Intra server troubleshooting
- configure caching server

## High Availability

Our proposed solution supports High Availability (HA) setup so that backup instances can take over anytime there is an unavailability of primary servers. We suggest 1+1 configurations of all critical components of the system for this.

## Asynchronous

Our system is asynchronous in nature. Asynchronous programming refers to a style of structuring a program whereby a *call* to some unit of functionality triggers an action that is allowed to continue outside of the ongoing flow of the program.



## Tools and Technologies

Issues/Phases/Purpose	Used Technology/Tools	Justification For Use
Project Management	JIRA/Linear	It is used for bug tracking, issue tracking, and project management.
Version Control	Git, Github	<b>GitHub</b> is a web-based service - for software development projects - that uses <b>Git</b> , which, by itself, is a (distributed revision control and) source code management system.
System Requirement Analysis	User Stories	<b>User story</b> is a very high-level definition of a requirement, containing just enough information so that the developers can produce a reasonable estimate of the effort to implement it
System Design	UML, ERD	( <b>UML</b> ) is a standardized modeling language enabling developers to specify, visualize, construct and document artifacts of a software system.
Development (Client End)	Javascript, VueJS	<b>Javascript</b> is executed on the client side. This means that the code is executed on the user's processor instead of the web server thus saving bandwidth and strain on the web server
Development (Server End)	PHP 8 (Symfony 5/Laravel 8)	Cross-Platform, Open source and Powerful library support
API/Web Services	REST	<b>REST</b> - or Representational State Transfer - can be <b>used</b> over nearly any protocol, when <b>used</b> for web <b>APIs</b> it typically takes advantage of HTTP
Testing	Functional Testing and Unit Testing	<b>Functional testing</b> is a way of checking software to ensure that it has all the required <b>functionality</b> that's specified within its <b>functional</b> requirements
Hosting & Deployment	BCC Hosting, AWS, Linode, DigitalOcean	Provides good customer support and easy to use. Any compatible hosting platform can be used as per client requirement.
Documentation	Google Docs	Users of <b>Google Docs</b> can import, create, edit and update documents and spreadsheets . <b>Google Docs</b> is

		compatible with most presentation software and word processor applications
QA	Selenium	<b>Selenium</b> is a portable software- <b>testing</b> framework for web applications. <b>Selenium</b> provides a playback <b>tool</b> for authoring tests without the need to learn a test scripting language
Helpdesk/Support	Mantis	Mantis free and open source, web-based bug tracking system. The most common use of MantisBT is to track software defects.
Reporting	Self-developed	We will develop customized report as per client requirements.
Communication	Slack, Skype, Email	Slack is a cloud-based set of proprietary team collaboration tools and services.

# Security and Data Privacy



## Security and Data Privacy Plan

### Code obfuscation

The solution will use code obfuscation. It is a technique of making the source code of an application difficult to read and comprehend so it becomes almost impossible for any unauthorized third-party group or individual, using any available tools, to reverse engineer it.

### Error handling

Is the process of catching errors raised by your program and then taking appropriate action if you would handle errors properly then it may lead to many unforeseen consequences. Our system will be designed in such a manner that all the error handling avenues are covered.

### X-Frame

The X-Frame-Options HTTP response header can be used to indicate whether or not a browser should be allowed to render a page in a <frame>, <iframe>, <embed> or <object>. Our solution will use this to avoid clickjacking attacks, by ensuring that their content is not embedded into other sites.

### Invalid Input:

In order to cover data integrity and user access, all incoming data will be validated, checked and purified before acting on that.

### URL restriction

The system only shows the links to which the logged in user has permission. Moreover, trying to access a URL by guessing is automatically prohibited.

### Protected Administration Panel

The admin panel URLs of the web solution will be different than the well-known web solution URLs. The communication between the user's browser and the administration panel will be SSL encrypted to prevent data hijacking through network protocols.

## Password Hashing

All kinds of password in the system are hashed using one-way algorithm and random salts are used to strengthen the hashing mechanism.

## Session and Cookies

User sessions and cookies are always re-generated uniquely each time they log in.

## Disclosure of Sensitive information

In case of any system failure or error condition, no sensitive information (ex: database credential) are displayed on the site. All kinds of errors are suppressed and logged and are only accessible by the administrators with proper rights.

## CSRF Prevention

In order to prevent CSRF (Cross-Site Request Forgery) attack, automatic tokens are generated for each form so that unauthorized submission of forms cannot take place.

## System File Access

No system level file/information is accessible throughout the web browser thanks to Symfony's tight file security. The system also does not allow executing direct files.

## SQL Injection

Using prepared statements and proper escaping prevents SQL and Code injections.

## Cross Site Scripting Prevention

The contents submitted by the end users (ex: comments) are always filtered to remove all malicious script so that XSS (Cross-Site Scripting) cannot take place.

## Security Standards

Software security vulnerabilities are real threats, and keeping a system secure is a hard task. Our solution will provide security features which will prevent system vulnerabilities thus ensuring greater security for the overall application. Listed below are several **OWASP** and **SANS 25** vulnerabilities which has been tackled in our solution:

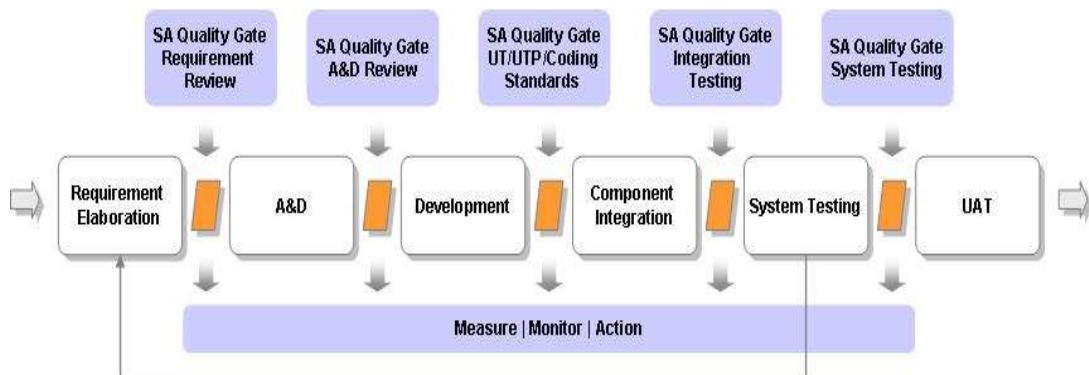
- Injection
- Broken Authentication
- Sensitive Data Exposure
- XML External Entities (XXE)
- Security Misconfiguration
- Cross-Site Scripting XSS
- Insecure Deserialization
- Using Components with Known Vulnerabilities
- Insufficient Logging & Monitoring

# Quality Assurance & Testing



## Quality Assurance and Testing Plan

There will be a dedicated Assurance team that is a virtual extension into the development teams. The team assures that the deliverables are fit for purpose from technical perspective and would run in the end production environment. The team reviews solution design and product development throughout the SDLC and provides technical support & guidance to the development teams. The following diagram depicts the phases in the SDLC where solution quality checks are implemented via quality gates.



**Process Quality:** Devnet's delivery methodology is based on the project management methodology defined in Devnet Quality Management System (QMS). (The QMS is built around the ISO 9000). In order to ensure that consistency, standards and quality of delivery is maintained throughout the life cycle of the project, Devnet will assure quality deliverables based on this QMS. Quality Assurance also includes periodic reviews and audits. These reviews and audits are used to confirm that the project processes are being successfully followed and that feedback for updates is being provided when necessary. *Devnet assembles different software architects from different organization to perform a code review once every month.*

### Technical Assurance

- Validation of technical solutions
- Provision of frameworks to ensure extension of service with minimum impact
- Adherence to standards and best practices
- Reusability of application components

### Deployment Assurance

- Provide deployment design with respect to Live deployment architecture

- Validate the sub-system integration interfaces
- Validate the application's integration architecture
- Validate the application development baseline against the deployment baseline

### Functional Assurance

- Validate traceability of solution delivered to requirements
- Validate functional test coverage
- Review System test results

Component	Quality Practices
Application development, Architecture	ISO 9001: 2008
Information Security	ISO 27001:2005
Processes and service delivery	ISO 9001:2008
Data entry and processing	Dual Keying (For automatic data capture and manual keying)
Imaging Quality	ANSI/AIIM MS44-1993
Project Management	Agile

To reduce the risk of the system, our Quality Assurance strategy involves both automated and manual testing. Our QA process goes through multiple types of test phases. Our proposed QA plan is discussed below which gives a glimpse about how we will perform quality assurance testing if the contract is awarded to us.

### Types of Testing

<b>Unit Test</b>	We will write Unit test to validate the small components of the system. The developers will write the unit tests for the components that they are developing. As a result, it will also get attached in our continuous integration process so that any build that will failed to pass the unit test will not go through the pipeline.
<b>Smoke Test</b>	Smoke test will be used to validate the most important function of the build. It is the starting point which will help the team to make a decision whether the build is stable enough for further testing.
<b>Integration Test</b>	We will use Integration test to ensure that the new set of implemented components play nicely together.
<b>Regression Test</b>	Regression test will be used to ensure that further changes have not broken any units that have already been tested.
<b>Functional Test</b>	In Functional test phase, it will be verified that the system conforms with all the requirements that was supposed to be implemented in the build.

Once the project reaches certain milestones, a new set of test phases will get involved into our quality assurance review mechanism:

<b>Cross-browser Test</b>	The cross-browser testing will make sure that the behavior and experience is consistent across all browsers, devices and platforms, so that users of the system will be able to use the system on their preferred platform.
<b>Load Test</b>	We will perform load testing to identify the maximum operating capacity of the system. It will also help us in finding bottlenecks and elements that cause performance degradation. We will also consider testing behaviour under normal and peak workload conditions.
<b>Stress Test</b>	We will apply stress test to the system to ensure that the system can sustain the stress. It will help us to monitor the system performance during failure, verify if the system saves important data before crashing or not, to monitor if proper error message is logged while crashing, to verify if the crash doesn't cause any security issues etc.
<b>Security Test</b>	Security test help us to find out the vulnerabilities in the network infrastructure, software (operating system, database), client-side application (browsers, mobile apps) and server-side application for authentication, authorization, CSRF, XSS, CORS etc. Implementing software application security best practices requires a reliable process to guide a development team in creating and deploying an application that is as resistant as possible to security attacks. Within a software development project, the CLASP Best Practices by OWASP provides a standard basis of all security-related software development activities. We suggest to use it in this project.
<b>User Acceptance Test</b>	On a certain phase of the project, a beta build will be provided on a separate environment (staging environment) for "Real World Testing" by the intended audience. The experiences of the early users are forwarded back to the development team as feedback which will again go through a triaging process and eventually be fixed by the team on an agreed sprint.

Once testing is done on a particular test case, it will be marked with proper status. These statuses will depend on the result of the test. If the test case passed successfully then it will be marked as verified/closed, otherwise it will be marked as a bug/issue. After the bugs/issues are reported by the QA team, the Project Manager and System Analyst will verify the bug through a bug/ issue triaging session (held on each sprint/iteration). Then the development team will work on those verified bugs and make necessary changes to solve them. After the issues get solved these goes through the testing phase again to review the quality of the system.

# Data Migration Plan

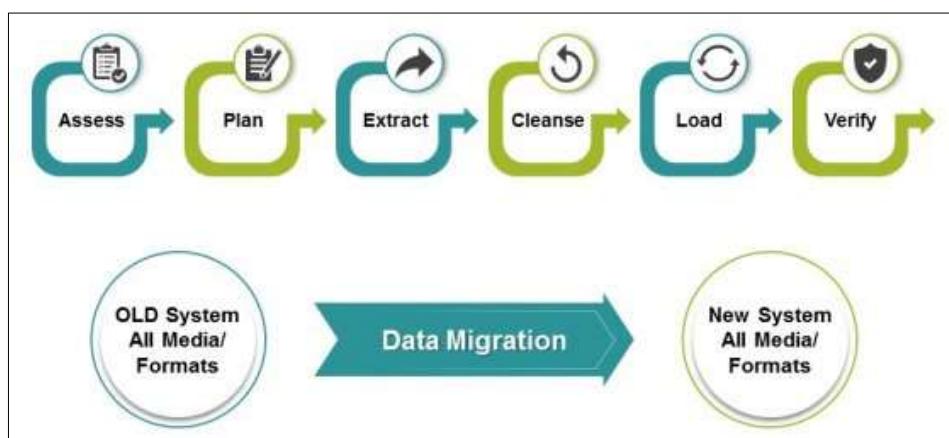


## Data Migration Plan

Data migration is the process of transferring data from a source system to a target system. It is a core task for any data storage professional. A detailed data migration plan is the essential first step in a successful data migration project to select, prepare, extract, transform and transfer data of the correct form and quality. Below we outline seven steps to a successful data migration.

### Identify the data format, location, and sensitivity

Before beginning the data migration process, identify what data is to be migrated, what format it's currently in, where it lives, and what format it should be in post-migration. By identifying this information, you'll be armed with knowledge going into the project. During this pre-planning process, we spot potential risks that is needed to be planned prior to the move, or realize that certain security measures must be taken before migrating a specific data. This pre-planning step can negate from making a critical error during the actual migration process.



### Planning for the size and scope of the project

Once we have an understanding of the data being moved, define the scope of the data migration plan. Plan out the resources that is needed to be used during the migration and put a realistic budget in place.

Conduct an advanced analysis of both the source and target system, and write out a flexible timeline for the project. Consider whether the data migration will interfere with normal business operations, or contribute to downtime. Plan the migration to take place after hours or on weekends to avoid interrupting business continuity.

## Backup all data

Prior to the migration, make sure that all the data is backed up, especially the files that will be migrated. If problems are encountered during migration, such as corrupt, incomplete, or missing files, we will have the ability to correct the error by restoring the data to its original state.

## Assess staff and migration tool

Data migration can be a big job, especially if we are moving a large number of files, the migration is complex, when we are migrating sensitive information. Refer back to the size and scope of the project and use this information to determine:

- If the team has the knowledge and skills necessary to accomplish the project, or if we need to consult an outside expert
- If the team has the time and resources available to tackle the project within the designated time frame,
- Who we could bring on to help to accomplish the project. If we have determined to use a data migration software, reassess its features and flexibility to ensure it will meet the requirements you need to accomplish the migration.

## Execution of the data migration plan

With the plans, ensure the right system permissions are applied to allow for successful data migration and extract all data migrating to the target, from source system. Ensure this data is cleaned to protect target system, then transform it into the proper format for transfer. Finally, load cleaned and de-duplicated data into the target system data migration rules and map we have already laid out. Closely monitor the data migration during the process, so that we can identify and resolve any problems that arise.

## Testing of final system

Once the migration is complete, ensure there are no connectivity problems with source and target systems. The goal is to ensure all data migrated is correct, secure, and in the proper location. To verify this, conduct unit, system, volume, web-based application and batch application tests.

## Follow-up and maintenance of data migration plan

Even with testing, it's always possible that an error was made during migration. To account for this, conduct a full audit of the system and data quality to ensure everything is correct once the data migration process has completed. If we notice errors, missing, incomplete, or corrupt data, restore these files from your backup.

By using the seven steps outlined above, we are able to successfully move data from source to target system. We backup all data before beginning the data migration. In the event an unforeseen problem occurs, we will be able to undo the damage and recover the important data your business relies on.

# Training Plan



## Training Plan

Training will be given in the following areas

- Document Capture, Search and Archival
- Approval Workflow
- User Management, Role Management
- Notification Management
- Reports
- Analytical Dashboard

A detail training plan with content and duration will be generated after a detail gap analysis performed. That will be a part of contract.

### Training process

Realizing importance and benefits of the training, before or after implementing the product, training will be provided to the operator, employees and other users of this system of the client site, so that user will face less problem when interacting with the system. Now here are the phases that will be involved in training plan:

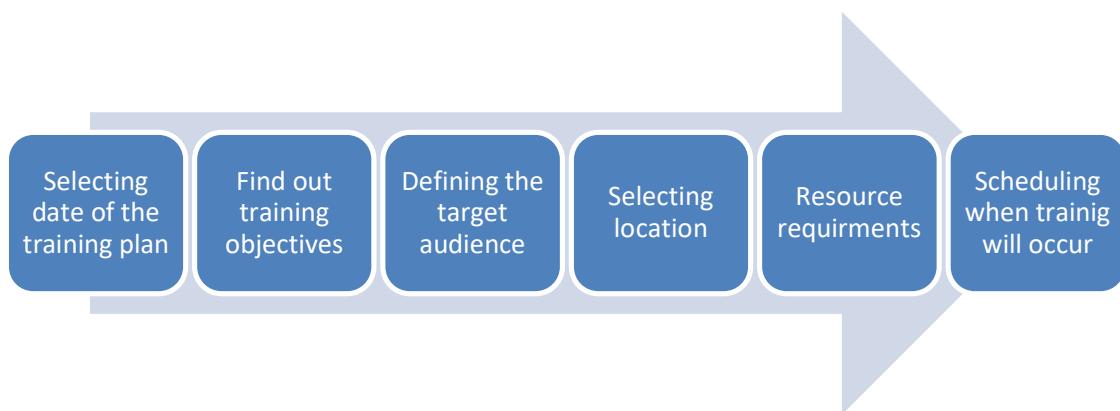


Figure: Phases of training process

### Training program

Adequate training will be provided via online communication medium (suggested by the client) for the transfer of knowledge and proper using of proposed application software to the client. The objective of the training plan is to train the selected personnel, so that they can administer /maintain/use the developed application.

Training manuals will be prepared for using the application as well as for administering the application. The documents will be written in such a format so that even a novice user can easily use and administer the application.

## Off Site Training

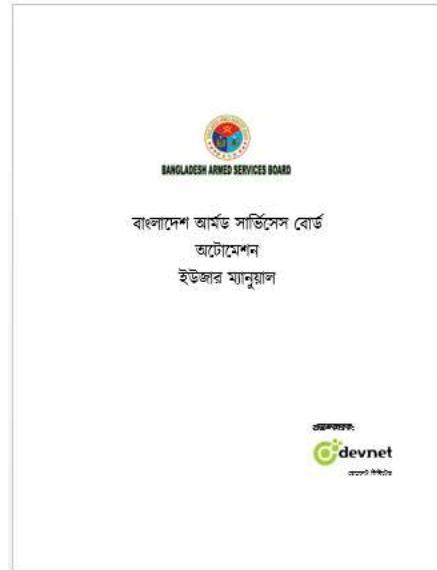
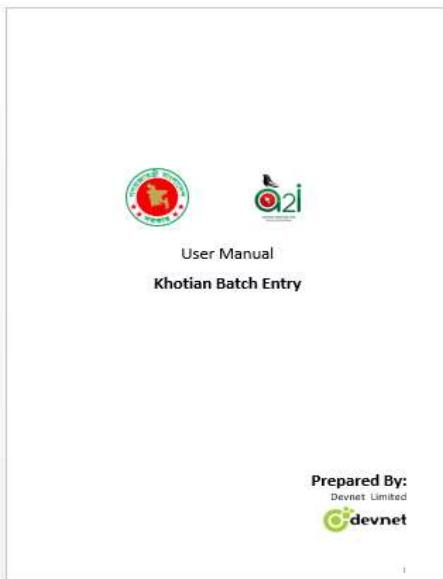
Offsite training programs will be conducted virtually from the stakeholders' premises by distant training software (e.g. Zoom, Skype, Facebook Live, YouTube Live, etc.) online via the internet. The offsite trainings will be arranged by the organizational stakeholders and the institutional stakeholders. Several number of batches will be enlisted for the offsite training which is subject to further analysis.

## Self-training

For this type of training, no in-person training will be given. But the user manual (document, video, etc.) will be provided. The mass users such as all staffs and employees of judiciary system across the country will fall into this category of training. Self-training may be taken any time in the year by the relevant users as the materials and self-training environment will be available with the developed system.

## Training manuals

The training manual should contain the training contents for the target users during the training period followed by the software development process. Separate contents should be developed for data entry, generic user level and maintenance level training.



# Documentation



## Documentation Plan

Different documents will be delivered during the different phases of development. These Software documentation or source code documentation will be written text that will accompanied computer software. It will either explain how it operates or how to use it, or may mean different things to people in different roles. And thus the way it will make the work easier for the user any organization.

The proposed system can be accompanied with the following documents:

Document Title	Description
Inception report	In this report we will identify key stakeholders, flesh out requirements, produce UML diagrams and write main user stories. We will also map of current system data flows and make recommendations on considerations for the Integrated System.
Software Requirements Specification (SRS)	The SRS will detailed database architecture showing and explaining the interrelations between different entities in modular and sub-modular level, detailed system architecture showing interrelations between interfaces and proposed user interfaces.
Test plan documents	The test plan document will comprise of test cases for each functionality that module offers. Additionally a release plan will be included, describing the acceptance criteria followed throughout the development process by the QA team.
User Manual	The user manual will include the following items: <ul style="list-style-type: none"><li>● A preface, containing details of related documents and information on how to best use the user guide</li><li>● A contents page</li><li>● A guide on how to use at least the main functions of the system</li><li>● A troubleshooting section detailing possible errors or problems that may occur along with how to fix them</li><li>● A FAQ (Frequently Asked Questions)</li><li>● Where to find further help and contact details</li><li>● A glossary and an index</li></ul>

Technical manual	The technical manual would include the following items <ul style="list-style-type: none"><li>● A release note describing the version number, known issue summary, upgrade notes, disclaimers and support contacts</li><li>● Required technical explanation of how each modules and/or applications can be configured /altered as per changed requirements</li><li>● Technical description of maintenance</li></ul>
Training Manual	The training manual will contain the training contents for the target users during the training period followed by the software development process. Separate contents will be provided for maintenance level training.
User Acceptance Report	This report will summarize the services performed, outcome and user feedback to user acceptance testing (UAT) performed by our team.

# Support & Maintenance



## Support and Maintenance Plan

We propose to use Level 1-3 Maintenance Framework for maintenance and support. Some of the key features and benefits that would be met by include:

- Providing a unified Configuration Management Database.
- Support Help Desk to handle end-user calls as well as automated alerts.
- Change Management solution to control software changes, and thus help service availability.
- Management of the entire life cycle of Service Level Agreements (SLAs)
- Generation of timely reports on SLA violations, SLA compliance, Change Management activities, etc this providing quicker time to value.
- On-call support
- Remote support
- Preventative Maintenance
- Corrective maintenance

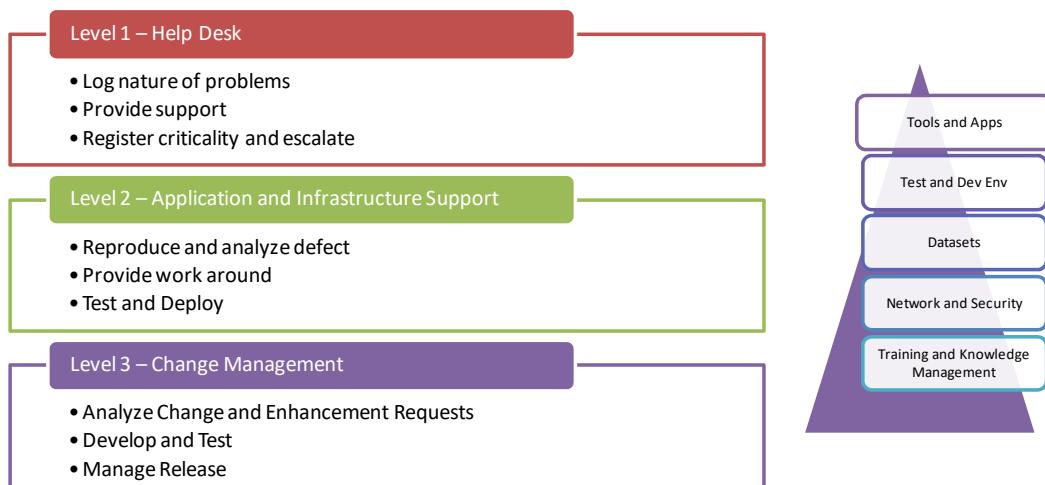


Fig: AMC service levels

The service support functions provided will include:

- Problem Management
- Configuration Management
- Incidence Management
- Change Management
- Release Management

We recognize that these lines of support have an important role to play in keeping up the service levels. Consequently, we perceive the entire Service Management as a 'service value delivery' space where support teams from the consortium individually contribute to service quality.

The support team will be accountable for Problem Management against service levels that are specifically applicable to their scope of responsibility. The structure of the Support team will be designed to ensure clear ownership for delivery of the service- level commitments as well as management of the other critical success factors like knowledge management, process improvement and acceptance into service.

#### Activities

1. Define the SLAs
2. Build AMC team and access mechanism
3. Maintaining history of all Issues / Queries / bugs raised and resolved
4. Incorporate feedback in the service
5. Hardware and networking support
6. Provide Application Software Monitoring Service and production support
7. Fix software bugs
8. Raise Change Request for enhancements, new developments which are out of scope during the maintenance period.

#### Managing Severity 1 and 2

The Service Levels for Severity 1 and 2 type incidents are extremely stringent. Consequently, the most effective solution would be to avoid / prevent occurrence of such incidents. The following strategies will be employed to deal with level 1 and 2 incidents:

1. Schedule preventive maintenance work to avoid failure of software systems
2. Swift classification and resolution of alerts raised by monitoring procedures
3. Ensure right resources are on the job full-time
4. Appoint responsibility to a task force rather than an individual to resolve the problem

5. Closed loop coordination with the Support team and respective suppliers involved in the call
6. Plough back knowledge and understand preventive action on closure of problems

Managing Severity 3 and 4

While the service levels are more relaxed the volume of problems is likely to be significant compared to Level 1 and 2. The following strategies will be employed to deal with these problems,

1. Early identification of the 'application scope' of the problem
2. Appoint single point ownership for problems
3. Ensure appropriate handover processes
4. Finally prevent recurrence of problem through right level of testing

#### Escalation Matrix

Below table shows expected issue priority levels as well as the resolutions.

#### Issue Priority Level

Priority	Name	Resolution
P1	Critical	A problem or issue impacting a significant group of customers or any mission critical issue affecting a single customer.
P2	Important	Non critical but significant issue affecting a single user; or an issue that is degrading the performance and reliability of supported services; however, the services are still operational. Support issues that could escalate to Critical if not addressed quickly.
P3	Normal	Routine support requests that impact a single user or non-critical software or hardware error.
P4	Low	A minor service issue or general inquiry.

#### Targeted Response & Resolution Time

**Below is the targeted response and resolution time.**

Priority Code	Description	Target Response Time	Target Resolution Time
1	Critical	Immediate	2-3 Hour
2	High	15 Minutes	4-6 Hours
3	Medium	1 Hour	8 Hours
4	Low	4 Hours	24 Hours

## Support and Expertise Details

SL	NAME	Expertise	Years of experience	CONTACT DETAIL
1	Habib Ullah Bhuiyan	Scanning & Archiving	20	Cell: 01713249779, Email: <a href="mailto:habib@devnetlimited.com">habib@devnetlimited.com</a>
2	Rakib Islam	Project Management	8	Cell: 01711385502, Email: <a href="mailto:rakib@devnetlimited.com">rakib@devnetlimited.com</a>
3	Md. Reazul Islam Palash	DocuDex and Server Installation & Implementation	12	Cell: +8801713249740, Email: <a href="mailto:palash@devnetlimited.com">palash@devnetlimited.com</a>
4	Nazmul Alam Riaz	DocuDex Installation & Implementation	13	Cell: +8801713249736, Email: <a href="mailto:riaz@devnetlimited.com">riaz@devnetlimited.com</a>
5	Nafiz Imtiaz	DocuDex Installation & Implementation	5	Cell: +8801711385502, Email: <a href="mailto:rakib@devnetlimited.com">rakib@devnetlimited.com</a>
6	Forhadul Islam	DocuDex Installation & Implementation	6	Cell: +8801713249786, Email: <a href="mailto:forhadul@devnetlimited.com">forhadul@devnetlimited.com</a>
7	Md. Kabir Hossain	Scanning and Scanner maintenance	8	Cell: +8801713249762, Email: <a href="mailto:kabir@devnetlimited.com">kabir@devnetlimited.com</a>
8	Md. Sorif Khan	Scanner maintenance	3	Cell: +8801713249757, Email: <a href="mailto:sorif@devnetlimited.com">sorif@devnetlimited.com</a>

### Online Support:

Please email to: [support@devnetlimited.com](mailto:support@devnetlimited.com)

Jira helpdesk is also available. We will issue a user license of Jira to you.

**We have no third-party dependency for support service**



**CMMI SVC /3**<sup>SM</sup>

Exp. 2022-07-31 / Approval #4384

**docuDEX** Electronic Document Management System

# Backup & Restore

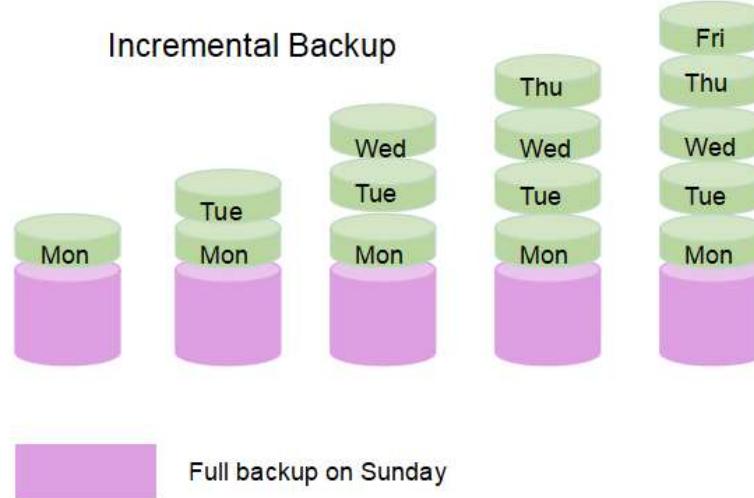


## Backup and Restore

### Incremental Backups

Our solution is designed to take incremental backup of the database at the end of each day. The backup can be revised and can be catered to client's requirement. An incremental backup will grab only the files that have been updated since the last normal backup. Once the incremental backup has run, that file will not be backed up again unless it changes or during the next full backup.

While incremental database backups do run faster, the recovery process is easier. If the normal backup runs on Saturday and a file is then updated Monday morning, should something happen to that file on Tuesday, one would need to access the Monday night backup to restore it.



Backup Strategy	Backup Basis	Backup Speed	Space Taken	Similarity	Media Required for Recovery
Full Backup	Full Backup	Slow	Big	/	Most recent backup only
Differential Backup	Full Backup	Medium	Big	Backup only files	Most recent full + most recent differential

Incremental Backup	Last Backup of Any Type	Fast	Small	that have changed	Most recent full + all incremental since full
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Table: Differences between different Backup Strategy

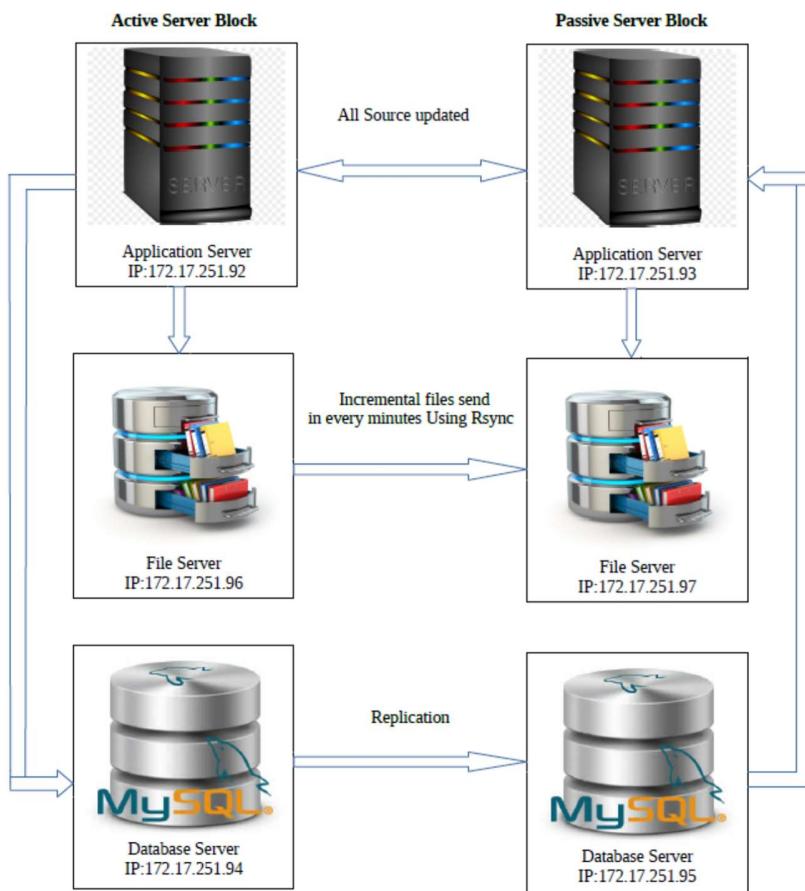


Fig: Proposed Incremental Backup Strategy



## Scanning & Archiving Services

With the increase in Business complexity and competition, document management has become increasingly more complicated and difficult. In today's climate, it's now more important than ever employees can access business-critical documents remotely. As we've learnt, digital, flexible access could make the difference between continued operations and potential closure.

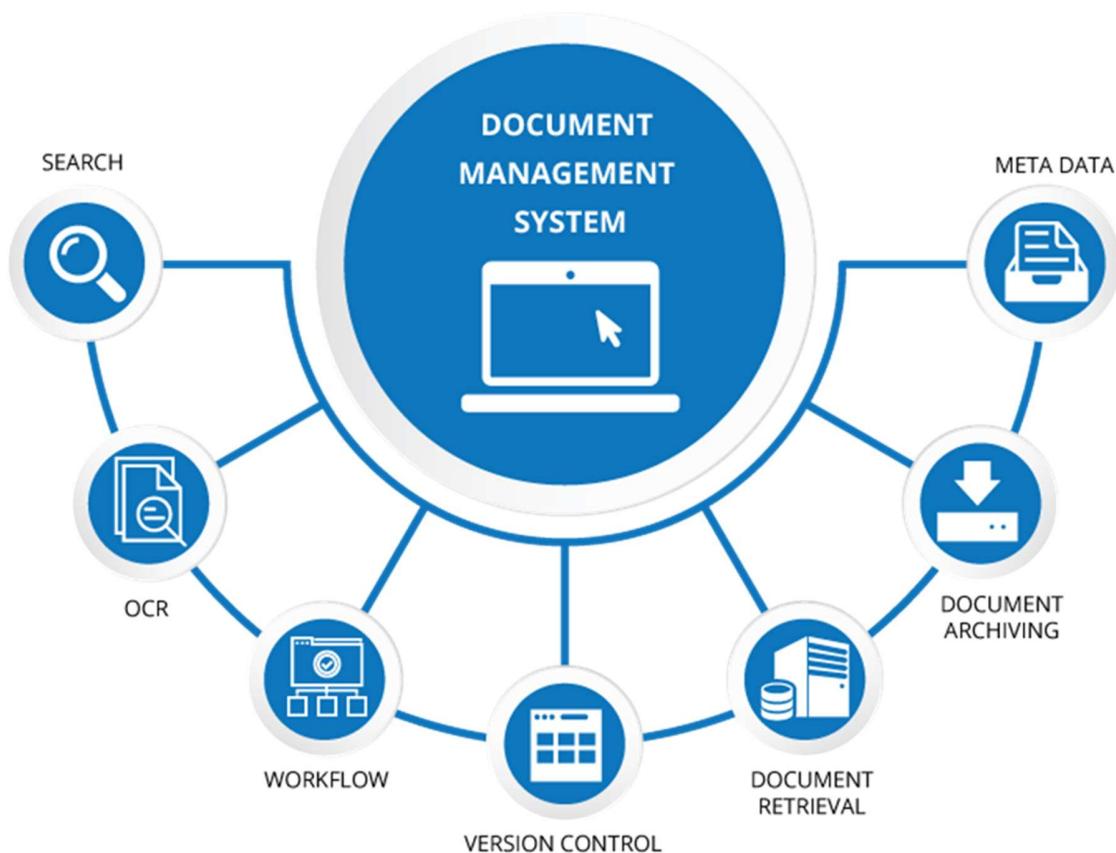
With quick, efficient access to your paper documents, your employees can focus resources on important business activities. Digital access to documents also means you no longer have to pay on-going storage fees to retain your paper archives.

Digital access to documents removes the risk of misplacing or losing important information. Furthermore, with an inventory of all records you can easily manage retention guidelines and ensure your business is compliant.

## Benefits of Archiving

Moving your paper-based document management to digital processes means that you benefit from:

- Remote working
- Save money and resources
- Fast access to your information where and when you need it most
- Reduced risk of error and document loss associated with manual processes
- Easier regulatory compliance through improved access to information
- Improved performance against environmental policies with a move to paperless work processes





## Scope of proposed Scanning & Archiving service

The scope of the service includes the following:

- Scanning and Archiving of Account Opening Forms including following phases:
  - i. Pre-process of the hardcopy document
  - ii. Scanning of approximately 10,00,000 account opening form having 20 pages in form
  - iii. Indexing of scanned files with required metadata (maximum 6 fields/form).
  - iv. Image and data quality assurance
  - v. Indexing
  - vi. Document categorization and assembly
  - vii. Post-process of the hardcopy document
  - viii. Export/upload data and image to local server/ archiving platform
  - ix. Working premises will be in Bank Office
  - x. Vendor will provide scanner, PC, software, human resources and other necessary equipment and facilities
  - xi. Working time is regular banking time
- Enable hardcopy locator
- Document lifecycle management
- Document Expiry notification
- 1 barcode sticker in each form
  - i. Sticker Type: Polyester label with High-Quality Adhesive
  - ii. Sticker Size: 1" X 2.75"

### SLA

- Daily/monthly process volume: 85,000 per day or 17,00,000 per month (20 days/month). We considered 20 days in a month rest 5 days is kept as back up.
- Scalability: ±20% of the SLA agreed volume.
- Data entry/Indexing: Data entry/Indexing shall be done in proportion of the scanned images/day
- Above volume is subject to availability of space and other required facility at the client end.

### Hardcopy release and receipt

**Release to :** Daily& after 6pm except Friday/ twice in a week

**Receipt:** Daily& after 6pm except Friday/twice in a week

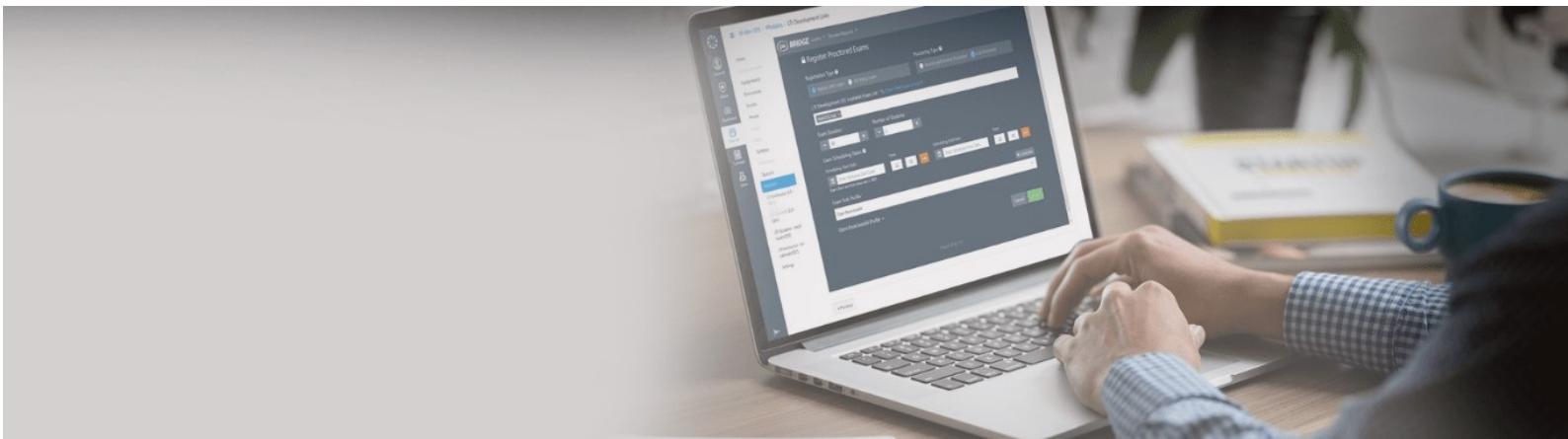
### Reporting

- Production Report: Everyday evening and viewable online or 2<sup>nd</sup> day of every month

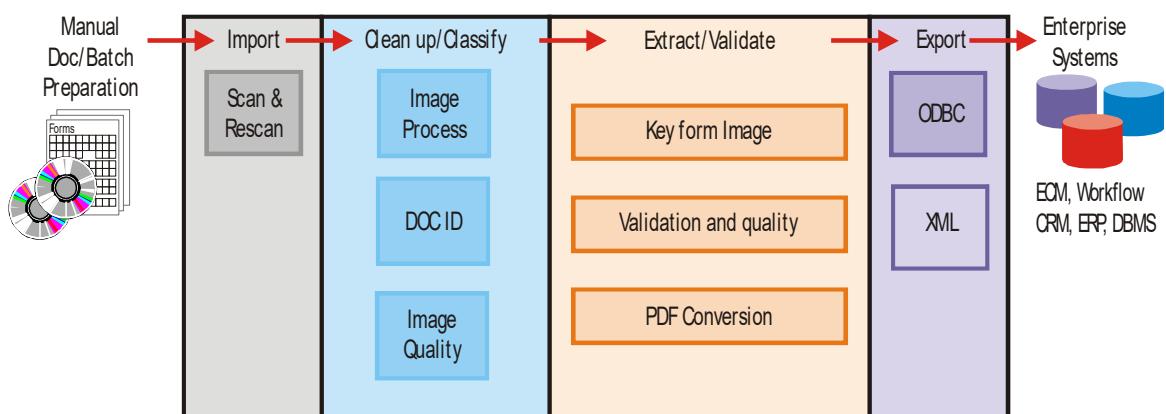
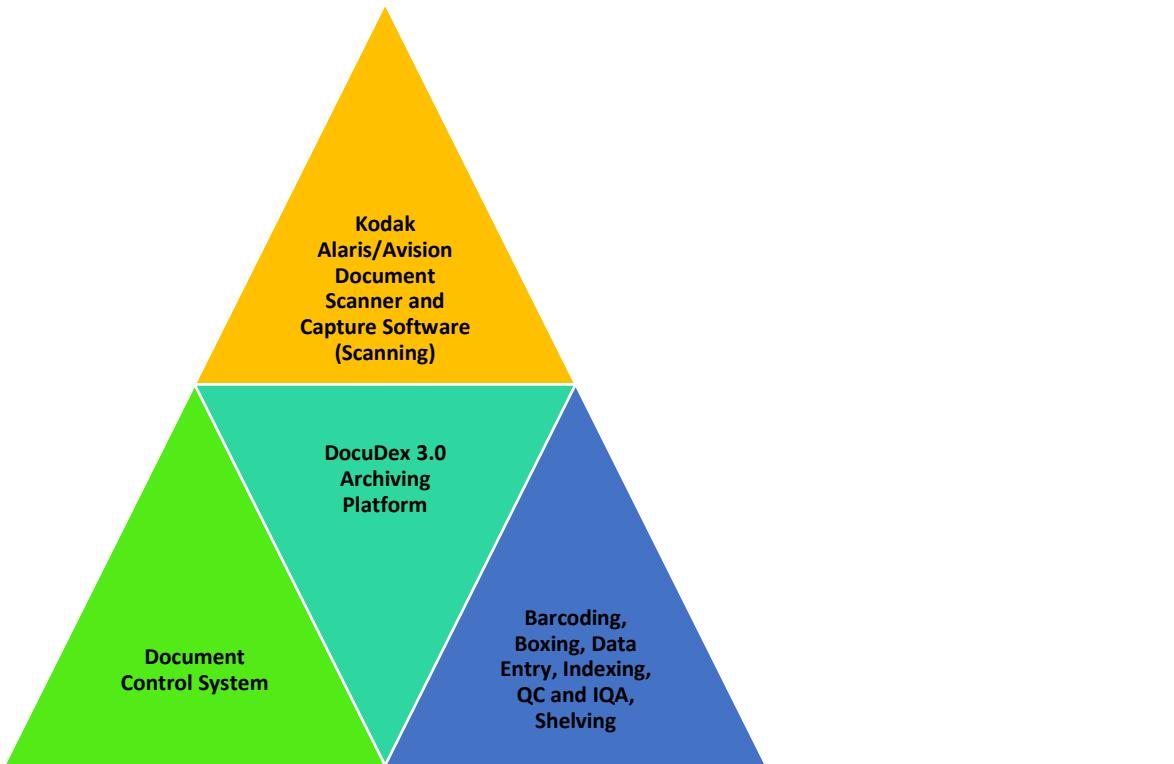
- Document control
- Grievance reporting: Every morning (yesterday's grievances)

#### Dependencies to meet SLA

- Availability of space
- Availability of document



## Solution stack for providing the Scanning & Archiving service



## The brief description of a generic scanning processes

### Documents Collection:

Devnet Limited will collect the documents from Bank twice in a week/daily. We will use boxes every time we transfer the documents.

### Document Pre-Processing (unstapled, unbind documents where necessary):

Documents pre-processing is required for sorting and preparing the documents for scanners. We will process the documents for binding, humidity, damaged pages, turned pages, skewed pages and finally staple/pin.

These checks are very important for scanning as well as future preservation.

The supplies listed below are considered to be necessary tools for all document prep jobs. However, some jobs may require other supplies dependent upon specific properties of the documents to be prepped and each client's specific needs. The coinciding photos that follow represent the types of products we currently use.

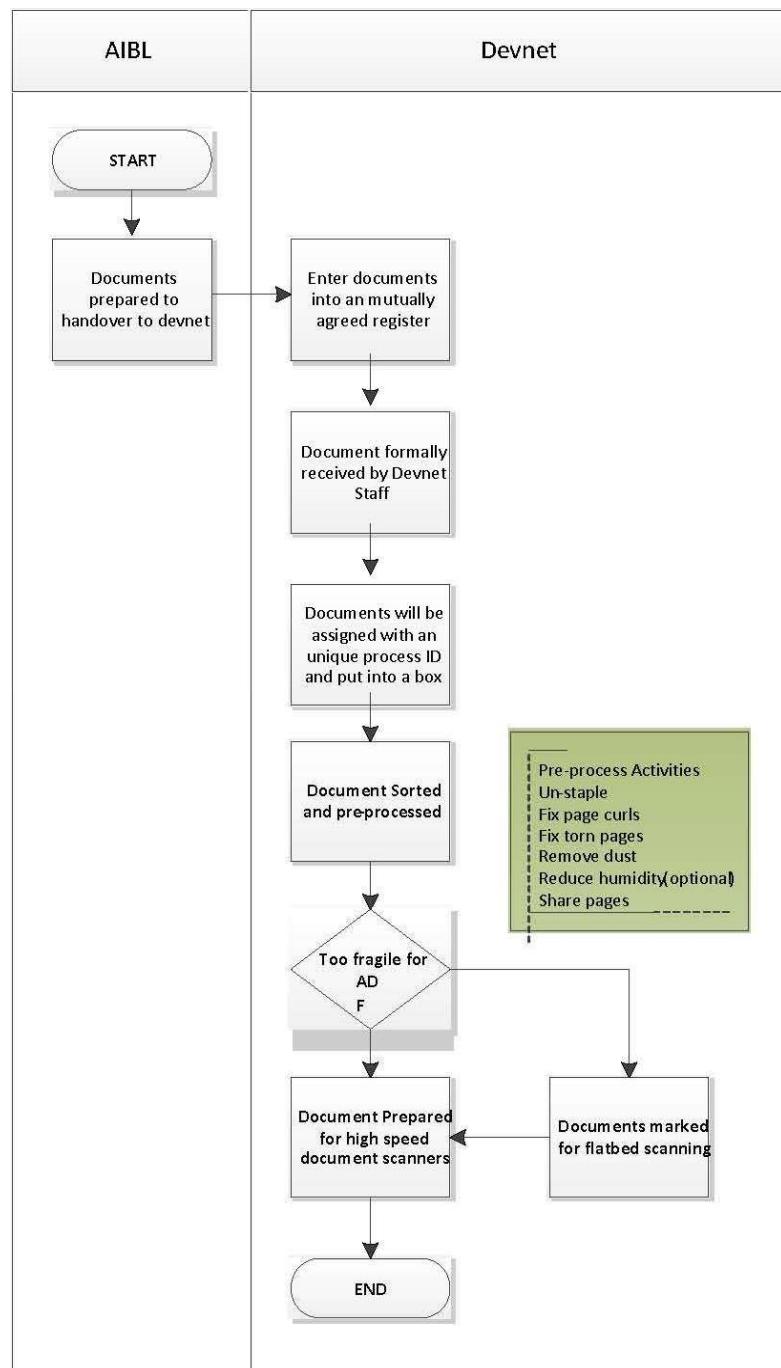




Figure 2.1



Figure 2.2



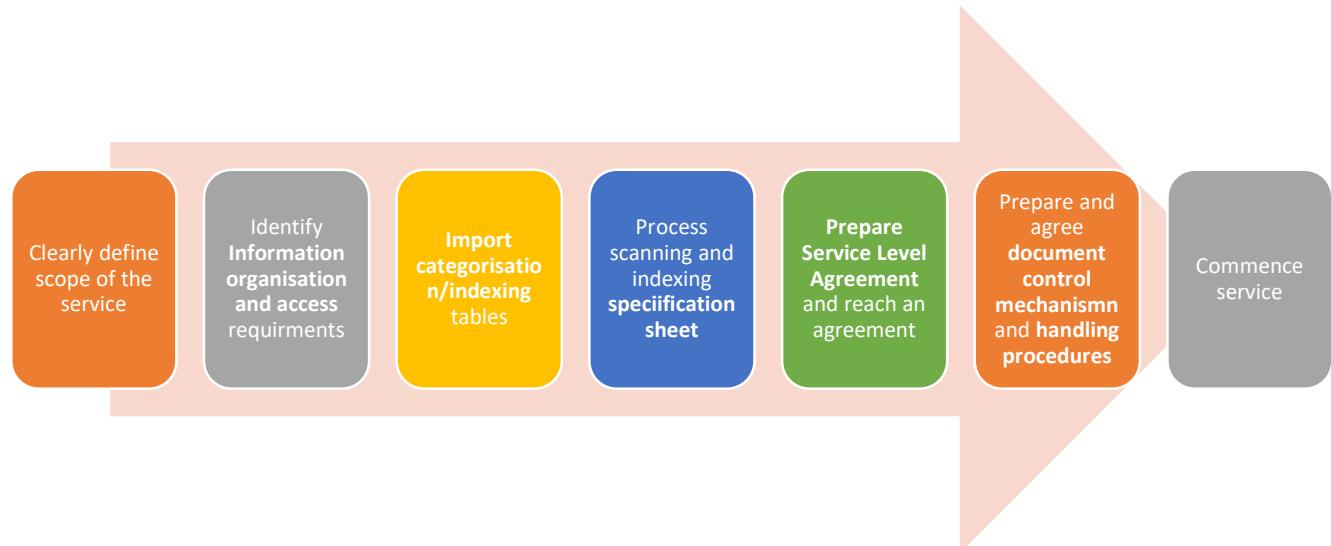
Figure 2.3



Figure 2.4

• Letter Opener	figure 2.3
• Tape Dispenser	figure 2.3
• Rubber Fingertips or Fingertip Moistener	figure 2.4
• Staple Removers	figure 2.1
• Blank Paper	
• Paper Cutter	figure 2.2
• Scissors	figure 2.3

## Process for imaging specification analysis



## Scanning

Scanning will be performed using Kodak Alaris/Avision scanner with Kodak PerfectPage<sup>1</sup> with iThresholding<sup>2</sup> technology. Those documents which are not ready for high speed document scanners they will be manually scanned using dock-able flatbed or use of transparent sleeves to scan in batches using ADF. Our scanners can scan documents up to 100 pages per minute in both simplex and duplex mode. The scanners have a daily duty cycle of 30000 documents and can easily scan up to 35,000 documents.



## Scanners to be used



Sl. No.	Brand	Model	Daily Duty Cycle	Throughput speed
1	Kodak	i3250	15000 pages/day	50 PPM/Duplex
2	Kodak	i1150	3000 pages/day	30 PPM/Duplex
3	Avision	FB5400	10000 pages/day	50 PPM/Duplex
4	Avision	AD230	6000 pages/day	40 PPM/Duplex
5	Avision	AD345FN	10000 pages/day	60 PPM

<sup>1</sup> PerfectPage is a Registered Trademark of Eastman Kodak company. A description of this technology is available in "Annexure A: technology and Product brochure"

<sup>2</sup> iThresholding is a Registered Trademark of Eastman Kodak Company. All rights reserved.

## Features of the above scanners:

---

- Adaptive threshold processing
  - Aggressive cropping
  - Auto white balance
  - Autocrop
  - Automatic color balance
  - Automatic color detection
  - Automatic orientation
  - Barcode reading
  - Color-on-the-fly toggle patch
  - Content-based blank page removal
  - Controlled stacking
  - Deskew
  - Electronic color dropout
  - Enhanced color adjustment
  - Enhanced color management
  - Enhanced jam recovery
  - Fixed cropping
  - Fixed thresholding
  - Front side printer
  - Halftone removal
  - Image edge fill
  - Image hole fill
  - Image merge
  - Intelligent Document Protection
  - Interactive multifeed with image display on host
  - Interactive Operator Control Panel (OCP)
  - iThresholding
  - Lone Pixel Noise Removal
  - Metal (staple) detection
  - Multicolor dropout
  - Automatic orientation
  - Operator overrides
  - Orthogonal rotation
  - Output Compression-CCITT Group IV, JPEG, Uncompressed Output
  - Relative cropping
  - Image hole fill
  - Sharpening
  - Streak filtering
  - Ultrasonic Multifeed Technology
-

## Technical Features for imaging/archiving:

- Scan resolution: 200 dpi minimum
  - Color depth: 24-bit color
  - File output: TIFF or JPEG standard
- Image enhancements
  - De-skew
  - Auto cropping
  - Auto-rotation
  - Text enhancement
  - Background color smoothing
- Image clarity: Easily readable (90%)
- Data will be embedded with image file and will be exported to any archiving platform.

## Image Quality check

For ensuring the quality of the image we will be using Perfect Page with iThresholding Technology from Kodak. We are offering TIFF, PDF/A format for each document for long term archiving and PDF for regular use with EDMS (Electronic Document Management Systems) or ERM (Enterprise Record Management) systems. The TIFF will ensure easy accessibility by other systems for future re-use of the documents; i.e. Microfilm, Kodak DR9000 writers, Microfiche etc.

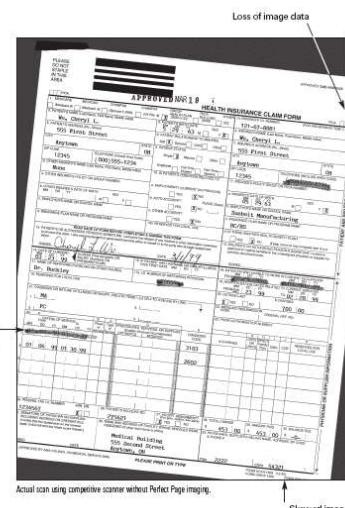
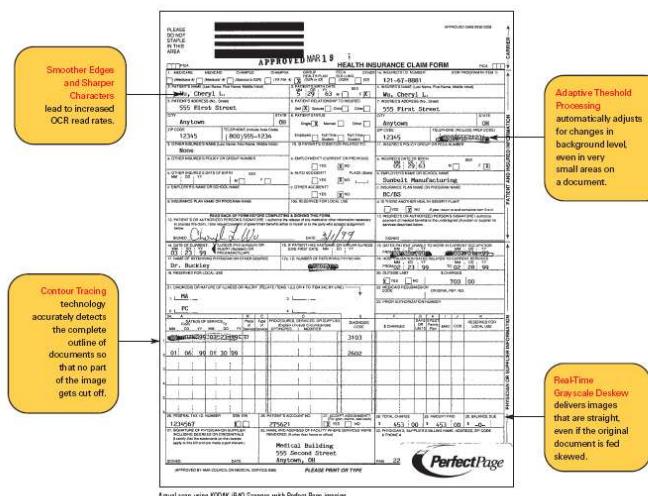
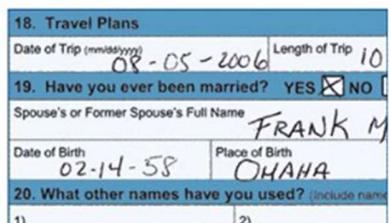
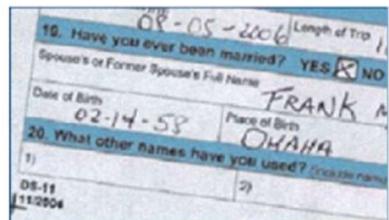
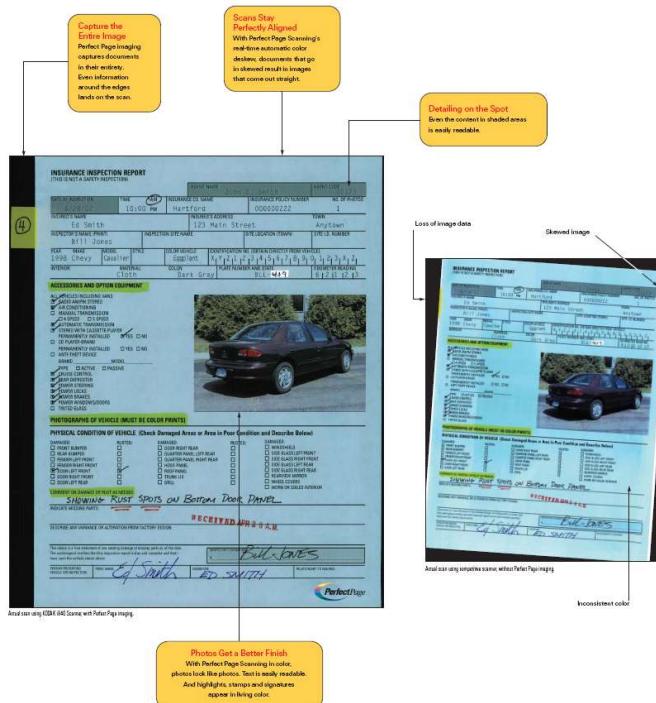


## Perfect Page Technology

Maximize image quality right at the scanner with Perfect Page Scanning from Kodak.

- More efficient workflow
- virtually eliminate re-scanning images
- Easy to use
- Get great images from documents that are far less than perfect
- Scan more of your documents automatically, with fewer rescans
- Streamline your capture process and profit from greater productivity

In this stage our system will check for Contrast<sup>3</sup>, Details<sup>4</sup>, Curve optimization<sup>5</sup>, Edge definition<sup>6</sup>, Resolution<sup>7</sup>, Color and Artifacts<sup>8</sup>.



- <sup>3</sup> Contrast — the difference between light and dark in an image
- <sup>4</sup> Detail — the ability to discern small features in an image
- <sup>5</sup> Curve optimization — how smoothly rounded characters are displayed
- <sup>6</sup> Edge definition — the difference between data and background
- <sup>7</sup> Resolution — how many dots per inch the image sensor detects
- <sup>8</sup> Artifacts — “noise” or stray dots appearing in a scanned image that weren’t in the original

## Indexing, Keying, Document categorization & assembly

Stage where the softcopy will be processed for keying or automatic categorization (Optional). We will be keying in the metadata information in the database and link the database with the softcopy. Plan International may choose to add more useful information with this database.

Our keyers/operators will key-in the information from images thus making the system faster and more secured. Only 4 people will be handling the documents while scanning and rest of the fleet will be using scanned images for further operation. This will reduce the risk of misplacing the documents also.

## Post Process (Re-bind/Re-Staple the Documents)

The documents will be re-bind/re-staple where necessary. However this will be performed once we receive the final confirmation from the Org. that the softcopies are acceptable. We will process the document as they were in case of Org. wants to preserve the hardcopy in remote locations.

## Final delivery of the softcopy

In this stage the image and the database will be transported to Tullow systems.

Document format: TIFF/JPEG/PDF

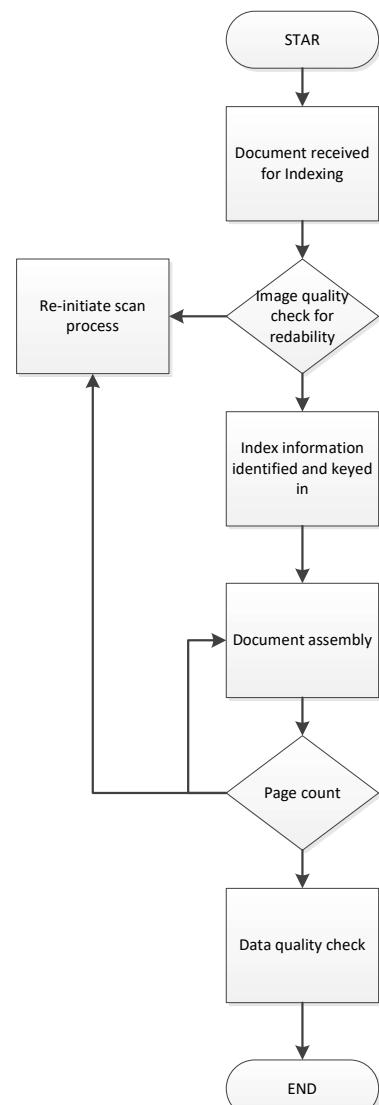
Color: 24-bit color/Bi-tonal/Grayscale or Dual streaming

Resolution: 200-600Dpi according to client's requirements

Database: MSSQL, Oracle, IBM DB2 or MYSQL or as per clients requirement

## Final delivery of the hardcopy/Archiving

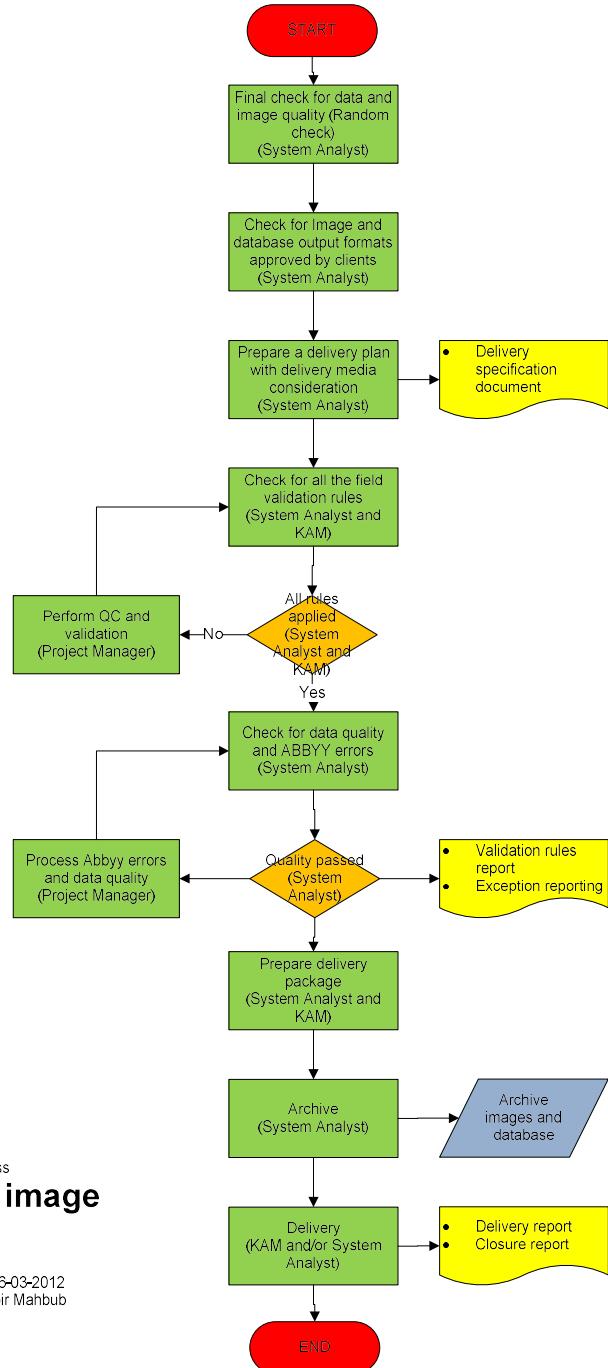
According to clients specific specifications.



## DOCUMENT ARCHIVING PROCEDURE



## Standard data and image delivery practices by us



## Quality control practices by Devnet Limited

### Image Quality Assurance (IQA)

Quality — its beauty is in the eye of the beholder. Evaluating image quality takes equal parts subjective and objective judgment. Remember, the goal of document imaging is to capture and share information visually.

A quick search on imaging standards posted on the Web by foreign government agencies and Educational institutions tells the tale. Considering this from the Inland Revenue Authority of Singapore: "All information contained in the document (be it graphical, textual, handwritten, or otherwise) must be capable of being captured in its entirety and with a level of accuracy that ensures that no information that can reasonably be expected to form part of any subsequent business process is lost or altered in any way."

To put it another way, what you get is what you see. The image on the computer screen contains all of the relevant information that appears on the original document. No more, no less.

- Contrast — the difference between light and dark in an image
- Detail — the ability to discern small features in an image
- Curve optimization — how smoothly rounded characters are displayed
- Edge definition — the difference between data and background
- Illumination — evenness lighting from side to side without bleed through
- Resolution — how many dots per inch the image sensor detects
- Color depth — multiple values of red, green, and blue
- De-skew — Fix the skew errors
- Rotation — Rotating the documents according to text orientation
- Cropping — removing black borders around the document if any
- Background smoothing (optional)
- Picture position

#### The inside story on image capture

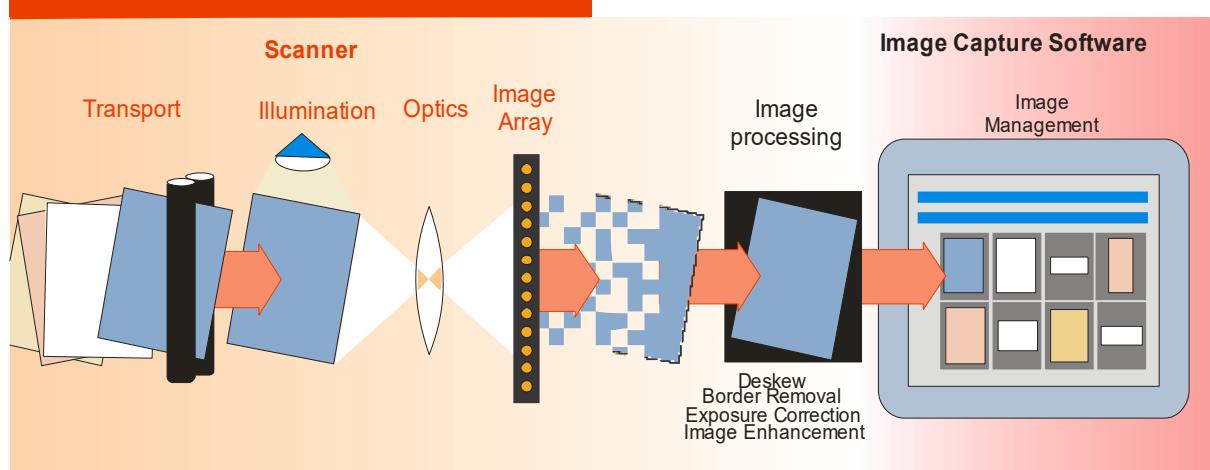


Image quality variables are generally centered on scanning and image processing. However, anything we can do to improve performance at any one of the steps noted here can help make your overall business process as efficient as possible. So our choice of scanner takes all the steps into account.

### Dependencies

- Supply of hardcopies and any accessory which might require for hardcopy archiving (ie. Envelops, box etc.)
- Technical documents for integration with/export to Bank's systems
- Any database that might require for efficient processing and vetting

### Accuracy and efficiency

Devnet sees quality and data accuracy as being of great importance. We guarantee our clients the highest level of accuracy up to 98-99%. We do this by maintaining stringent checks on client data at all times during the keying process. These checks form part of a company-wide standard operating procedure, which is always followed. As a result, Devnet is able to achieve and maintain a higher accuracy rate on single key entry work than many companies accomplish using double key entry. For clients with extraordinary requirements Devnet performs Dual Entry Keying, offering an unparalleled 99.997% accuracy. In the area of quality control, we have specific edits and validation tables that are customized by our experienced programmers for each job. Simply put, validation routines are algorithms that examine ICR results for reasonableness against predetermined standards.

### For keying

- We will be using dual keying technology for the Account number therefore the Account number will be >99.995% accurate. We will do it since this is the primary identification for the usability of the system. This will be performed if and only if we have to enter the mobile number manually.
- QC the other two fields for errors to reach minimum 98% accuracy for those fields
- Table lookups
- Field validation

We have three basic types of validation routines:

#### Table look-ups

In a table look up one or more fields are validated against a database. If there is an exact match the odds are good that the data is correct since it proved to be congruent with a set of known quantities.

#### Data / range checks

With data/range checks the field or character information is compared with a model to see that it conforms to a specific type, such as, a specific alphanumeric sequence or date, such as the date of purchase on a bill of sale used to support a title guarantee application. A validation routine might also check to see that a number is within a specific range or contains a certain number of digits.

#### Relationship validation

Relationship validation is when a column of numbers totals correctly. If there is a match on the total, then the probability is extremely high that all the numbers are correct.

All data fields are systematically analyzed to ensure data validity and integrity. Among the variables that the quality control system check: Field Length, Data Type, Relational Data Integrity, Valid Codes, and Applicable Abbreviations. When Applicable, Mandatory Fields, & Sequential Numbering.

All processing is overseen by experienced on premises managers. They are responsible for the final quality assurance of data. Special quality control checks designed specifically for each project are utilized in addition to the quality control procedures that are in place during processing. These supplemental checks, coupled with professional account management, further ensure data integrity, quality, accuracy and dependability.

### **Image Quality**

Let's begin with the basics. There's more to document imaging than running paper through a scanner.

image processing — adjusting exposure, removing skew, removing borders, image compression quality assurance — checking to make sure scanning and processing are correct an image

A quick search on imaging standards posted on the Web by U.S. and foreign government agencies and educational institutions tells the tale. Consider this from the Inland Revenue Authority of Singapore: "All information contained in the document (be it graphical, textual, handwritten, or otherwise) must be capable of being captured in its entirety and with a level of accuracy that ensures that no information that can reasonably be expected to form part of any subsequent business process is lost or altered in any way."

Putting it another way, what you get is what you see. The image on the computer screen contains all the relevant information that appears on the original document. No more, no less.

## **Confidentiality and Security**

There are many situations that dictate confidentiality and/or security that the processing of documentation will be confined. Processing is completed in our secured complex where we can ensure the highest quality, convenience and meet deadline. Documentation that is confidential in nature and cannot leave the premise can be processed in the strictest of confidence and still be outsourced.

Devnet is further unique in the way it manages confidentiality. Confidentiality is managed by a team of confidentiality management operators at the data center whose job function is primarily that of maintaining data and documents content confidentiality. Data is disseminated throughout the workflow according to the processing need i.e. even an operator has access only to a part of a page that is relevant to his specific processing needs.

### **Employees**

Security not only includes documents and/or records but our personnel as well. Records entering or leaving the facility need management approval. All employees sign a confidential agreement with us which safeguards clients' information even after they leave us.

Devnet employees have gone through security and background checks to ensure confidentiality. All employees must sign employment agreements which include: confidentiality of information, consent to conduct background investigation, covenant not to solicit, computer usage policy, acknowledgment of our smoking and drug free workplace and agreement to submit to drug testing as company policy dictates.

## Document Handling

Devnet has procedures that are in place throughout the processing phase to assure that all work is completed. All documentation is tracked and accounted for. As documentation is received at our processing center, it is logged in, assigned a production number, counted, put in batches consists of 20-50 pages, and assigned batch numbers prior to be processed. This provides us with the ability to track, identify, & verify the production process.

## Data Backup

It is important for Devnet to have a two level 3 (three) time daily backup. All data is backed up three times per day at the facility, first to a backup server, second to a tape cartridge and then stored in a secure location under management control.

## Data Security

We maintain the most stringent standards of data and document security. All database application software files are backed up off-site. Fire walls are in place for the URFc and secure transfer of data-both from clients to us and between our locations. Data can be encrypted prior to transmission. Our facility is designed to comply with the special requirements of clients who require the highest level of security.

## Quality practices

Devnet is undergoing for different compliances. Please find the descriptions of the compliance below

Compliance	Process stage
CMMISVC/3	Certified
ISO 9001:2008	Certified
ISO 27001	Certified

## Available Resources for Scanning Service

Below is the list of available resources. Additional resources based on actual production requirement shall be deployed within 7 days of award.

Sl. No.	Item	Description	Quantity
<b>1</b>	Workstations	Minimum Intel core i3, 2Gb RAM and 18.8" LCD, 500GB HDD	207
<b>2</b>	Laptop	different configuration	55
<b>3</b>	Document Scanner	Avision FB 5000 Kodak i5250 Kodak i4200 Kodak i3400 Kodak i3200 Kodak i1420 Kodak i1405 Kodak i2900 Kodak i2600 Kodak i2400 Kodak i1150 Kodak E-1035 Fujitsu fi-6130 Avision AD230U Avision AD345FN Fujitsu 4097D	78
<b>4</b>	Map Scanner	SMA Map Master A0+ size flatbed scanner Graphitech 36" Large format HD scanner	1 1
<b>5</b>	Book Scanner	Atiz BookDrive Pro A0 Book Scanner Fujitsu SV600 Book Scanner Czur ET16 Plus	2 1 8
<b>6</b>	Server	Dell T310 Server with total 17Tb Space Dell T110 Server with total 10Tb Space Dell R720 Server	3 8 2
<b>7</b>	Router	CISCO 300 Business series manageable switch	3
<b>8</b>	Switch	CISCO 1800 series CISCO 300 series Linksys 16 port Gigabit Business series manageable switch	3 3 1
<b>9</b>	Printer	Epson Color laser printer HP network laser printer HP laser printer Samsung laser printer	1 2 5 2
<b>10</b>	Photocopier	Ricoh photo copier	1
<b>11</b>	Power Generator	40 KVA diesel generator 5 KVA Diesel generator	1 1

12	Multi Media Projector	Hitachi CPX3021WN network projector with 42" LED display	2
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### Distributorship of Scanning/Archiving related vendors

Sl. No.	Name of vendor	Type	Country	Website	duration
1	Kodak Alaris	Document scanner	USA	<a href="https://www.kodakalaris.com/">https://www.kodakalaris.com/</a>	Since 2004
2	Avision	Document scanner	Taiwan	<a href="https://www.avision.com/">https://www.avision.com/</a>	Since 2011
3	Atiz	Book Scanner	Thailand	<a href="https://www.atiz.com/">https://www.atiz.com/</a>	Since 2010
4	i2s SA	Book and Map scanner	France	<a href="https://www.i2s.fr/en/">https://www.i2s.fr/en/</a>	Since 2013
5	SMA e-document	Book and Map scanner	Germany	<a href="https://www.smascanners.com/en/">https://www.smascanners.com/en/</a>	Since 2013
6	PIQL	long term preservation	Norway	<a href="https://www.piql.com/">https://www.piql.com/</a>	Since 2018
7	ABBYY	OCR/ICR	Russia	<a href="https://www.abbyy.com/">https://www.abbyy.com/</a>	Since 2006
8	POSTEK	Barcode scanner	China	<a href="http://www.postekchina.com/en/Index.aspx">http://www.postekchina.com/en/Index.aspx</a>	Since 2016

### Standard approach, methodology and quality matrix for IT service delivery by Devnet

Functions/ Sub-functions	Approach	Methodology	Brief Description/ Detail description page information	Quality practices
<b>Project Management</b>	Agile and PMP	Devnet Adopted PM (Template included)	We have developed our own PM tool based on knowledge from PMI's practices and Agile methodology	ISO 9001:2008
<b>SDLC</b>	Agile	Scrum	Agile project management is a value-driven approach that allows Project Managers to deliver high-priority, high-quality work – and look like rock stars to their stakeholders.	ISO 9001:2008
<b>IT Infrastructure design and deployment</b>	Use of ITIL Process framework for	CISCO's deployment methodology is followed during	Deploying a IT system involves a series of several steps. These steps include analyzing requirements, designing system, and implementing	ISO 9001:2008

	Infrastructure Service Delivery	the preparation of this proposal	the components. This process will likely involve collaboration between business and technical personnel and various representatives and experts. We have customized and follow CISCO's UC's for our infrastructure deployment	
<b>Business continuity and disaster recovery practices</b>	We will follow BSI 17799 practices	a) Counteract interruptions to business activities and protect critical processes from the effects of major failures/disasters b) Ensure timely resumption of the above	<ul style="list-style-type: none"> <li>• Initiating the BCP Project</li> <li>• Assessing the BCP Security Risk</li> <li>• Developing the BCP</li> <li>• Testing the BCP</li> <li>• Training and Staff Awareness on BCP</li> <li>• Maintaining and Updating the BCP Realistic Testing Environment for Business Continuity Plans</li> <li>• Impact of the Pace of change on the BCP</li> </ul>	BSI 17799 and Partial use of ISO 270031
<b>Information Security</b>	We will follow ISO 27002 practices		<p>ISO/IEC 27002 is an information security standard published by the International Organization for Standardization (ISO) and by the International Electrotechnical Commission (IEC), entitled Information technology - Security techniques - Code of practice for information security management.</p> <p>ISO/IEC 27002:2005 has developed from BS7799, published in the mid-1990's. The British Standard was adopted by ISO/IEC as ISO/IEC 17799:2000, revised in 2005, and renumbered (but otherwise unchanged) in 2007 to align with the other ISO/IEC 27000-series standards.</p>	ISO 27001
<b>Information organization and Access (IOA)</b>	AIIM IOA practices	AIIM IOA Practices	IOA is the Information Access as the findability of information regardless of format, channel, or location.	AIIM guides for IOA
<b>Record management (RM)</b>	AIIM RM <sup>9</sup> Practices	AIIM ERM Practices	Records management has gained increasing prominence over the past few years. Electronic records	AIIM guides for ERM

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<sup>9</sup> Record Management

management systems have also matured, gaining in functionality and depth, and with adoption moving from government and regulated industries to all types of organizations, across all sectors.				
<b>IT service Delivery</b>	ITIL V3.0	ISO 20001:2005	Out ITES service delivery is designed with ITIL framework	CMMI SVC/3



## Project Plan

### Activity Schedule

Activity number	Milestone/activity	Completion time
D-01	Submission of inception report	Within one week from contract Award
D-02	Recruitment, training and deployment of sufficient number of operators	Within two weeks from contract effectiveness
D-03	Installation, testing, commissioning and configuration of all required hardware and software on Bank's premises and set ready for operation	Within two weeks from contract effectiveness
D-04	Inception of scanning	Within Two weeks from contract effectiveness
D-05	Completion of Scanning and indexing of 1000000 files having 20 pages in each file	Within 12 months from contract effectiveness
D-06	Delivery of all scanned images with metadata	Within 12 months from contract effectiveness
D-07	Software Requirement Specification Finalization	Within 01 month from contract effectiveness
D-08	Deploy Document Management Software for test run	Within 03 months from contract effectiveness
D-09	Open for final testing for live hosting training for developed application and scanning and archiving process	Within 03 months from contract effectiveness In 4 <sup>th</sup> month from contract effectiveness
D-10	Live hosting of application with scanned images	In 4 <sup>th</sup> month from contract effectiveness
D-11	Live hosting of application with all scanned images	Within 12 months from contract effectiveness
D-12	Live run and UAT sign off	Within 12 months from contract effectiveness
D-13	Submission of completion report	Within 12 months from contract effectiveness
D-14	Warranty period	From UAT to next three years.
D-15	Maintenance period	4 years from after warranty

## Planning for deliverables

Our planning takes two deliverables in account since it takes two types of "deliverables" to make any project happen - the **project deliverable** and the **process deliverable**. While each of these deliverable "types" serve a specific purpose within the project management process, they do work hand-in-hand, and one can't forsake one for the other if the project deliverable is the destination, the process deliverable is the roadmap used to get there.

**Project deliverables are the end-result:** By definition, projects are initiated to produce specific, unique outcomes based on specific, unique needs (that's how they differ from day-to-day operations). The purpose of these assignments is to build a robust archive of case files stored in Supreme Court premises. We will ensure an accurate archiving with end-to-end, flexible, scalable web based Document Management System.

**Process deliverables are how the result is achieved:** This is where how the above will be achieved. For this we need a proactive plan with managed risks and superior delivery practices with highest standards. We will follow ISO 20001 for service delivery. Following is our plan on how to execute and complete a given project - all from a "management" point of view.

The high-level process deliverables are the following

- Requirement finalization
- Solution implementation
- Hardware and network installations
- Commissioning of Scanners
- Configuration of workstations
- Configuration of server core
- File scanning of 1000000 files having 20 pages in each file
- Indexing of files
- Building of relationship tree
- Quality control to achieve minimum 99% accuracy
- Data delivery to database
- Scanned files delivery to Archiving System
- Training materials
- User and admin manuals
- Training of the users
- System administrator training
- Knowledge transfer (training)

Our plan is to deliver the services with minimum 99% accuracy.

## Documentation deliverables

- Project documents and reports
- SRS
- User manuals
- Training manuals
- Test Reports
- License documentations
- Production reports



## Plan for Scanning, Archiving and Software Deployment

S/N	Activity	Months												Years							
		1	2	3	4	5	6	7	8	9	10	11	12	2	3	4	5	6	7	8	
1	Conduct background scoping and research work and finalizing the service requirements	■																			
2	Deployment of necessary hardware and equipment's to client premises	■																			
3	Deployment of Document Management System		■	■																	
4	Document Pre-process	■	■	■	■	■	■	■	■	■	■	■	■								
5	Sorting	■	■	■	■	■	■	■	■	■	■	■	■								
6	Document set identification	■	■	■	■	■	■	■	■	■	■	■	■								
7	Key data entry	■	■	■	■	■	■	■	■	■	■	■	■								
8	Scanning	■	■	■	■	■	■	■	■	■	■	■	■								
9	Image quality check	■	■	■	■	■	■	■	■	■	■	■	■								
10	Document assembly and conversion	■	■	■	■	■	■	■	■	■	■	■	■								
11	Data quality check	■	■	■	■	■	■	■	■	■	■	■	■								
12	Document post processing	■	■	■	■	■	■	■	■	■	■	■	■								
13	Document assembly check	■	■	■	■	■	■	■	■	■	■	■	■								
14	Document export to live system			■	■	■	■	■	■	■	■	■	■								
15	Training				■																
16	Project handover													■							
17	Warranty & Support														■	■	■				
18	AMC																■	■	■	■	■

\* Timeline is 12 months for project completion and 07 years for warranty, support and maintenance

\*\* Timeline depends on availability of space, resources and documents



## Organization & Staffing Plan

Sl. No.	Position	Nos	Name
1	Project Manager	1	Maksudur Rahman
2	Archiving Expert	1	Md. Moniruzzaman Miah
3	Business Analyst	1	Nayem Abdullah
4	Data Capture Specialist	1	Shams Shahriar Sharif
5	Implementation Engineer	1	Md. Reazul Islam Palash
6	Deployment & Support Engineer	1	Nazmul Alam Riaz
7	Deployment & Support Engineer	1	Forhadul Islam
8	Support Engineer (Software)	1	Nafiz Imtiaz
9	Support Engineer (Hardware)	1	Md. Sorif Khan
10	Scanning Supervisor	1	Zahirul Islam
11	Data Entry Supervisor	1	Abdul Mukim
12	Scanning Operator	As per requirement	
13	Data Entry Operator	As per requirement	
14	Document Processor	As per requirement	
15	QC Supervisor	As per requirement	
16	Quality Controller	As per requirement	
17	Indexing operator	As per requirement	
18	Shift Supervisor	As per requirement	
19	Project Coordinator	As per requirement	
20	Scanner Maintenance Engineer	As per requirement	



## Experience

### Top Three detail client list for similar product

Sl. No.	Client/project name	Brief description	Contact Person
1	United Commercial Bank Limited	Supply, installation., Training and implementation of Document Management system (DMS) and archiving Managed service	Mohammad Fazle Mahmood Vice President Archive Management Unit United Commercial Bank Limited Corporate Office: plot-CWS(A)-1, Road No-34, Gulshan Avenue. Dhaka-1212, Bangladesh. Phone: +880-2-55668070, Mobile: 01616246663, E-mail: <a href="mailto:fazle.mahmood@ucb.com.bd">fazle.mahmood@ucb.com.bd</a>
2	Al-Arafah Islami Bank Ltd.	: Supply, installation, testing and commissioning of Electronic Document Management System, Record Management, Workflow, Imaging infrastructure Management Software and related hardware along with related support services.	Syed Masodul Bari, EVP & Head of IT, ICT Division, Al-Arafah Islami Bank Limited, 36, Dilkusha C/A (9th Floor), Dhaka-1000. 55-7,Bangladesh, Email: <a href="mailto:masud@al-rafahbank.com">masud@al-rafahbank.com</a> , Ph:+88029560198
3	Scanning & Data Capture of GR survey Form	Developed Web enabled archiving software to be accessed from 480 Upazila. Providing scanning & data entry service for more than 30 million GR survey form. Contract Number: CMSD/Proc-115/GOB(dev.)/NCS-1101(QCBS)/2011-2012/D-3/02 dated 25/03/2013	Prof. Dr. Abul Kalam Azad ADG Planning & development & Director, MIS, Directorate Genera; of Health Services Ph:8816459 Fax: 8813875 Email: <a href="mailto:info@dghs.gov.bd">info@dghs.gov.bd</a> Engr. Sukhendu Shekhor Roy, System Analyst (MIS), Cell: +8801712214539, Email: <a href="mailto:sukhendu@mis.dghs.gov.bd">sukhendu@mis.dghs.gov.bd</a>

### Annual Maintenance details with other organizations

Sl. No.	Client/project name	Brief description	Contact Person
1	Bangladesh Armed Services Board	Establishment of BASB Automation System  ERP for Bangladesh Armed Services Board (BASB)	Deputy Director (Coordination) Name : Mohammad Shimul Mahmud Bhuyan, psc BA No : BA-5888 Rank : Major Tel : 88-02-58311056 Mob : 01769010303 E-Mail : ao@basb.gov.bd Fax : 88-02-9353828  Establishment of BASB Automation System, Bangladesh Armed Services Board (BASB), 160, Kakrail, Dhaka
2	Al-Arafah Islami Bank Ltd.	Supply, installation, testing and commissioning of Electronic Document Management System, Record Management, Workflow, Imaging infrastructure Management Software and related hardware along with related support services.	Syed Masodul Bari, EVP & Head of IT, ICT Division, Al-Arafah Islami Bank Limited, 36, Dilkusha C/A (9th Floor), Dhaka-1000. 55-7, Bangladesh, Email: <a href="mailto:masud@al-arafahbank.com">masud@al-arafahbank.com</a> , Ph:+88029560198
3	bKash Limited	KYC Management Solution	S.M Saklainul Haque Rummon Manager, Supply Chain & Procurement bKash Limited Cell: +8801712116572 Email: <a href="mailto:saklainul.rummon@bkash.com">saklainul.rummon@bkash.com</a>
4	United Commercial Bank Limited	Supply, installation., Training and implementation of Document Management system (DMS) and archiving Managed service	Mohammad Fazle Mahmood Vice President Archive Management Unit, UCBL, Plot-CWS(A)-1, Road No-34, Gulshan Avenue. Dhaka-1212, Bangladesh. Phone: +880-2-55668070, Mobile: 01616246663, E-mail: <a href="mailto:fazle.mahmood@ucb.com.bd">fazle.mahmood@ucb.com.bd</a>
5	Islami Bank Bangladesh Limited	Supply, installation and commissioning of Software license for preparation of Audit database and automation of Auditing process	Mohammad Mostafizur Rahman Assistant Vice President, Audit & inspection Division, Islami Bank Tower, 40, Dilkusha C/A Dhaka – 1000, Bangladesh Mobile: 01978426365 E-mail: <a href="mailto:rakib.hasan@islamibank.com">rakib.hasan@islamibank.com</a>
6	The Hongkong and Shanghai Banking Corporation Limited (HSBC)	Document Scanner AMC (Service and Support)	Hassan Ahmed AVP, Strategic Procurement Service, HSBC Bangladesh. <a href="mailto:Hassan1.ahmed@hsbc.com.bd">Hassan1.ahmed@hsbc.com.bd</a> Mobile: 01730387645 Bay's Park Heights, Plot-02 Road-09, Dhaka-1205

## List of similar other experience

Sl. No.	Client/project name	Brief description	Contact Person
1	The City Bank Ltd.	Development, supply, installation, integration, testing, commissioning & implementation of Digital Archive Work Flow Process Solution at The City Bank Limited	Kazi Azizur Rahman, Chief Information Officer (CIO), The City Bank Ltd. Phone: 8813483, 881437S, 8813126 Fax: 880-2-9884446; G.P.O. Box No. 3381, Dhaka, E-mail: <a href="mailto:info@lhecitybank.com">info@lhecitybank.com</a> ; Web: <a href="http://www.lhecitybank.com">www.lhecitybank.com</a> ;
2	Mutual Trust Bank Limited	WORK ORDER FOR SUPPLY & INSTALLATION OF "DOCUMENT MANAGEMENT SYSTEM (OMS) FOR IMPLEMENTATION OF CENTRALIZED OPERATIONS OF AIC OPENING AND ARCHIVAL OF LOAN DOCUMENTS BY CAD FOR MTB	AMITAV KAISER, EVP & HoMID Email: <a href="mailto:amitav.kaiser@mutualtrustbank.com">amitav.kaiser@mutualtrustbank.com</a> , Corporate Head Office: MTB Centre, 26 Gulshan Avenue, Gulshan 1, Dhaka 1212
3	Social Islami Bank Ltd.	Supply, installation, testing and commissioning of Document Management System (DMS) solution, Document Scanner and scanning of existing documents	Md. Sultan Badsha Senior Executive Vice president Social Islami Bank Ltd. City Center, 103, Motijheel C/A, Dhaka-1000, Phone: +8802 09612001122
4	Southeast Bank Limited	Supply. Installation, Testing and Commissioning of Electronic Document Management System (EDMS), Workflow Module. ADC Module OCR/OCR software) and Hardware(Document Scanner) along with related Support Service	Md. Abdus Sabur Khan Senior Vice President & Head of Cards Southeast Bank Limited Eunoos Trade Centre 52-53, Dilkusha CIA, (Level # 2,3,4,6 & 16) Dhaka-1000, Bangladesh
5	Dhaka Bank Limited	Work Order for Electronic Document Management System (EDMS) Workflow Application Solution for Dhaka Bank Limited	A M M Moyen Uddin SEVP & Head, IT INFORMATION TECHNOLOGY DIVISION: SARA TOWER, 11/A, TOYENBEE CIRCULAR ROAD, MOTIJHEEL CIA, DHAKA -1000
6	Prime Bank Limited	Work Order for Deployment of Docudex EDMS with Workflow Application V3.4.11 for Prime Bank Limited	Asif Ibne Sattar Vice President, Prime Bank Limited Liability Operations Department Head Office, Adamjee Court Annex Building 2 (Level-6) 119-120 Motijheel C/A, Dhaka-1000, Bangladesh Tel: +880 (2) 9587277 (Direct)   Cell: +880 1708149521   Fax: +880 (2) 9587277 <a href="mailto:asif.sattar@primebank.com.bd">asif.sattar@primebank.com.bd</a>   <a href="http://www.primebank.com.bd">www.primebank.com.bd</a>
7	Grameen Bank	Electronic Document Management System and Master Archive	Grameen Bank, Head Office, Mirpur-2, Dhaka

8	Bank Asia Limited	Apps based 'Self on Boarding eKYC Account Opening System' of Bank Asia Limited under Android, IOS and browser based platforms	Mahbub A Alam VP & Head of SOM Corporate Office: Rangs Tower, 68 Purana Paltan, Dhaka-1000, Bangladesh Email: <a href="mailto:mahbub.alam@bankasia-bd.com">mahbub.alam@bankasia-bd.com</a> Cell: +8801714166008 Tel : +88 02 9515106, +88029515128, +88 02 47115881 , +88 02 47110247
9	bKash Limited	KYC Management Solution	S.M Saklainul Haque Rummon Manager, Supply Chain & Procurement bKash Limited Cell: +8801712116572 Email: <a href="mailto:saklainul.rummon@bkash.com">saklainul.rummon@bkash.com</a>
10	Brac IT Services Limited	Supply, Installation, Testing and Implementation of Electronic Document Management Software (EDMS), Scanning, Data Entry and Archiving of HR documents	Atiun Amin Chief Operating Officer (COO) BRAC IT SERVICES LIMITED House 115, Road 5, Block B, Niketan Society, Gulshan 1, Dhaka 1212, Bangladesh Phone +88028836303, <a href="http://www.bracits.com">www.bracits.com</a>
11	Infrastructure Development Company Ltd. (IDCOL)	IDCOL Digitization Project, (Package No.: S-27 under REREDPII)	S M Monirul Islam, CFO and Head of Operations, IDCOL, UTC Building, Level-17, 8, Panthopath, Kawran BAzar, Dhaka-1215 Ph: 9102171-8 Ext: 23, Email: <a href="mailto:mislam@idcol.org">mislam@idcol.org</a>
12	IIDFC	Digital Archiving Software "DocuDex EDMS"	Sami Huda, SVP & Head of IT, Contact No. +88 01914583477 Chamber Building (6th & 7th floor), 122-124 Motijheel CIA, Dhaka-1000
13	Bangladesh Bank	Electronic Management Information System	Nurunnahar Executive Director Cell No. +88 01712841020 Bangladesh Bank Motijheel Commercial Area, Dhaka
14	Union Capital Ltd.	Providing Electronic Document Management System (EDMS) with Scanner	Shah Mohammad Julker Nine Sarker Senior Manager, Information and Communication Technology Noor Tower, 5th Floor, 1/F, Free School Street, 73 Shonargaon Road, Dhaka Tel: 9662888
15	IPDC	Electronic Document Management Solution (EDMS)	Md. Mazba Uddin, Asst-Executive – Admin IPDC Finance Limited House Centre 4th floor 106 Gulshan Avenue, Dhaka-1212 16519, +88 09612885533 <a href="mailto:email@ipdcbd.com">email@ipdcbd.com</a>

16	bKash Limited	Electronic Document Management Solution (EDMS)	Faisal Bin Raihan Supply Chain & Procurement bKash Limited Cell: +8801610002120 Email: <a href="mailto:faisal.raihan@bkash.com">faisal.raihan@bkash.com</a>
17	Jamuna Bank Limited	Image scan service for credit card files	Adnan Mahmud Ashraf Uz Zaman VP & Head of Cards Jamuana Bank Limited, Head Office: Hadi Mansion, 2 Dilkusha C/A, Dhaka-1000 Bangladesh, Tel: 9570912, 9555141, Fax: 88-02-9566762 E-mail: <a href="mailto:info@jamunabank.com.bd">info@jamunabank.com.bd</a> Web: <a href="http://www.jamunabankbd.com">www.jamunabankbd.com</a>
18	Dhaka University Library	Digitization of Handwritten Manuscripts, Old Newspapers and Rare Collection of Dhaka University Library, Dhaka University Library	Prof. Dr. S. M. Zabed Ahmed Sub-Project Manager (CP- 3274) & Librarian (Acting), Dhaka University Library
19	Department of Land Records & Surveys (DLRS)	Preservation, Reprint and quick delivery of the Existing Mouza Map sheets through digitization programme	Tanmaya Das Programme Director & Deputy Director (admin), Department of Land Records & Surveys (DLRS), Tejgaon, Dhaka-1207
20	Dhaka University Library	Scanning of microfilms and microfiches with OCR and integration with existing library documentation system	Prof. Dr. S. M. Zabed Ahmed Sub-Project Manager (CP- 3274) & Librarian (Acting), Dhaka University Library
21	Directorate of Land Records & Surveys (DLRS)	Providing Web based Mouza Map archiving software. Scanning of 1,15,000 Mouza Maps.	Mr. KongKham Nilmani Singha, Project Director & Deputy Director (Admin), Department of Land Records & Surveys (DLRS), Tejgaon, dhaka, Ph: 8113280, Web: <a href="http://www.dlrs.gov.bd">www.dlrs.gov.bd</a>
22	Rajdhani Unnayan Kartipakkha (RAJUK)	Digital archiving of files of plots of Gulshan, Banani and Baridhara model town. Scanning, indexing and digitizing of 9 lac documents including 9000+ maps (map size 23"/36"). Data entry of plot and flat owner's summary data. Development and deployment of web enabled application software for digital archiving	Kazi Mohammad Mahabubul Hoque System Analyst & Project Manager (MIS), Rajuk Cell: 01730013920 Email: <a href="mailto:shajal81@yahoo.com">shajal81@yahoo.com</a>
23	Public Library, Dhaka	Digitization of old Newspaper. Development of web enabled application software for searching, viewing and retrieving of the scanned pages.	Maksudur Rahman Maintenance Engineer Dept. of Public Library Tel: 8610422 Email: <a href="mailto:mmrahman_dpl@yahoo.com">mmrahman_dpl@yahoo.com</a>

24	Economic Relations Division (ministry of Finance)	Development of web-based Document Management software for K4DM project	S. M. Morshed Phd National Communication Consultant Block#3, Room# 34(2 <sup>nd</sup> floor) Economic Relations Division Sher-e-Bangla Nagar, Dhaka, Bangladesh
25	Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine and Metabolic Disorder (BIRDEM)	Web based archiving software, Scanning, Data Entry and Archiving of Patient Records	Siraj-Ud-Dowla Chowdhury Joint Director & Head of the Department (F&A)
26	Bangladesh Armed Services Board	Establishment of BASB Automation System  ERP for Bangladesh Armed Services Board (BASB)	Deputy Director (Coordination) Name : Mohammad Shimul Mahmud Bhuyan, psc BA No : BA-5888 Rank : Major Tel : 88-02-58311056 Mob : 01769010303 E-Mail : ao@basb.gov.bd Fax : 88-02-9353828
			Establishment of BASB Automation System, Bangladesh Armed Services Board (BASB), 160, Kakrail, Dhaka
27	Access to Information (A2i)	Developing Digital Land Record (Khotian) System	Kabir Bin Anwar Director General, A2i & Project Director +8802 9144848 Mustafizur Rahman, Director, A2i +8801715448311
28	Modernization of Bangladesh National Library, Directorate of Archives & Libraries	Digital Library Information Service (System) Management and Development Software using (following) Open Source Digital Library Software of UNESCO  Development of Website and Digital Library Information Service. URL: <a href="http://www.nlb.gov.bd">www.nlb.gov.bd</a>	Wadudul Bari Chowdhury Director (Joint Secretary), Directorate of Archives & Libraries Sher-e- Bangle Nagar, Agargaon ,Dhaka-1207
29	Banglalink Digital Communication Ltd.	Software development for NID based SIM registration process	Amirul Islam Enterprise Systems & Development, Technology, Banglalink, Mobile : +880 01924 400752 Email: <a href="mailto:amirislam@banglalinkgsm.com">amirislam@banglalinkgsm.com</a>

30	British Council	Subject-based teachers' blog under the connecting classrooms project <a href="https://www.teachers.gov.bd/">https://www.teachers.gov.bd/</a>	Ahsanul Azad   Project Manager - Connecting Classrooms British Council , 5 Fuller Road , Dhaka 1000 British Council, Bangladesh
31	World Intellectual Property Organization (WIPO) under Ministry of Industry	Data Capture Project for the Department of Patents, Designs and Trademarks of Bangladesh	Mr. Jaime Sevilla Director, Procurement and Contracts Division World Intellectual Property Organization 34, chemin des Colombettes, CH-1211 Geneva 20, Switzerland, Tel: +41 22 338 94 22 Fax: +41 22 338 82 10 World Intellectual Property Organization (WIPO), Geneva, Switzerland
32	East West University	Development & deployment of Electronic Document Management System and providing archiving services Providing Result processing solution	Ishfaq Ilahi Choudhury Registrar East West University Plot# A/2, Jahurul Islam City, Aftabnagar Main Road Dhaka Tel: 09666775577
33	BRAC University	Development and deployment of web based Electronic Document Management System. Scanning and indexing of Registrar's office documents. Data entry of students information (55,00 students) Data entry, indexing and processing of .25 million students records.	Mr. Mohammad Shamim Azad Assistant Registrar, Admission BRAC University 66 Mohakhali, Dhaka 1212 Telephone: 04478444022/5027 Email: shamim@bracu.ac.bd
34	BRAC	Development and deployment of web based Electronic Document Management System with workflow. Scanning & Data entry of Employees information (85,000 employees) of 2.3 million human resource documents.	Shahana Sayed Deputy Manager Share Unit BRAC Centre, 75 Mohakhali Dhaka, Bangladesh Tel: +8801729071545
35	Banglalink Digital Communication Ltd.	Software Version Upgrade of Electronic Document Management System (EMC Documentum) from 6.5 SP2 to 7.1	Ashraful Islam Siddique IT Division Cell: 01916100041 Moinuddin Islam, Procurement Division Email: moinislam@banglalinkgsm.com
36	Micro Credit Regulatory Authority (MRA)	• Web based Electronic Document Management Software. •Software Customization for incorporating 18 digit Coding as per Government requirement	Md. Nure Alom Mahadi Deputy Director Contact No.+88 02 9559672 62/3, Purana Paltan, NSC Tower (11th Floor) Dhaka- 1000 Microcredit Regulatory Authority
37	The Daily Prothom Alo	Archiving Solution & Service	Matiur Rahman Editor

			Contact No.+ 88 02 8180078-81, 9121419 CA Bhaban, 100 Kazi Nairul Islam Avenue. New Building: 19 Karwan Bazar, Dhaka 1215, Bangladesh
<b>38</b>	IL&FS Technologies Limited, India	Cluster 2 & 3 of DLMS-ICB-01 Scanning of Mouza Map and Khatian of Pabna, Rajshahi, Jamalpur and Sherpur DLMS project of DLRS	Mr. Sandeep Gupta COO, IL&FS Technologies Ltd., India, Email: <a href="mailto:sandeep.gupta@ilfstechnologies.com">sandeep.gupta@ilfstechnologies.com</a> <a href="mailto:jagmohan.baswal@ilfstechnologies.com">jagmohan.baswal@ilfstechnologies.com</a> Cell: +8801626880600 Zillur Rahman, ndc Joint Secretary & Project Director, DLMS Project, Department of Land Records and Surveys (DLRS) Ph: +8801711700574
<b>39</b>	Transparency Internal Bangladesh (TIB)	Human Resource Management System [Supply, Customization, Deployment, Integration, Maintenance and Support]	Dr. Iftekharuzzaman, Executive Director, Transparency Internal Bangladesh (TIB), MIDAS Centre (level 4 & 5), House 5, Road 16 (new) and 27 (old), Dhanmondi, Dhaka-1209 Email: <a href="mailto:info@ti-bangladesh.org">info@ti-bangladesh.org</a>
<b>40</b>	Bangladesh Small & Cottage Industries Corporation (BSCIC)	Development of Online GIS Based Application & Database Management System and a Web Portal for Small and Cottage Industries	Md. Mansur Reza Chowdhury Director (Finance), BSCIC Tel: +88029565613 137-138, Motijheel Commercial Area, Dhaka -1000, Bangladesh
<b>41</b>	Bangladesh Bureau of Statistics	ICR Compatible Tally Sheet Scanning, Data Capturing and Editing of the Agriculture (Corps, Fisheries & Livestock) Census 2018 Project	Project Director Agriculture (Corps, Fisheries & Livestock) Census 2018 Project, Bangladesh Bureau of Statistics, Parishankhan Bhaban, Agargaon, Dhaka
<b>42</b>	Bangladesh Bureau of Statistics	Census of the Undocumented Myanmar Nationals Staying in Bangladesh 2015 Project	Md. Alamgir Hossen Project Director Census of the Undocumented Myanmar Nationals Staying in Bangladesh 2015 Project Bangladesh Bureau of Statistics Parishankhyan Bhaban E-27/A Agargaon, Dhaka-1207 Bangladesh
<b>43</b>	Dhaka Stock Exchange Ltd.	Digitization of Annual Reports of Listed companies of DSE from 2007 to 2012 Digitization of various documents of DSE from 1984 to 2014 Supply of document scanner	Md. Afzalur Rahaman Sr. Executive Research & Information Department Dhaka Stock Exchange Stock Exchange Building 9/F, Motijheel C/A, Dhaka

			Ph: +88029564602 Contact: 01730022799 email: <a href="mailto:afzal@dsebd.org">afzal@dsebd.org</a>
<b>44</b>	Keraniganj UNO Office	Database management of government Lands (Khas, Vested Property, Abandoned, Acquired & other Government) and Keraniganj Upozila and upload it to the upazila web portal for searching out these lands through web portal & Mobile Apps.	Abul Bashar Md. Fakhruzzaman Upazila Nirbahi Officer (UNO) Office of the Upazila Nirbahi Officer Keraniganj, Dhaka
<b>45</b>	NRB Global Bank Limited	Work Order for supply & installation of "Document Management System".	Ziaur Rahman, FAVP, GSD Saiham Tower, House-34, Road-136, Block # S.E (C-1) Gulshan Model Town, Dhaka - 1212, Bangladesh. Phone: +88 09617176037, Fax: +88 02 9860598
<b>46</b>	Orascom Telecom Bangladesh Ltd. (Banglalink)	Scanning & Data entry of Subscription Agreement Form	Md. Alauddin, Head of Credit Risk Management, Customer Care Orascom Telecom Bangladesh Ltd. Cell: 01911310600 Email: <a href="mailto:malauddin@banglalinkgsm.com">malauddin@banglalinkgsm.com</a>
<b>47</b>	Grameenphon e Limited	QUALITY CHECK & SCANNING OF NEW SALE DOCUMENTS (SAF) PER MSISDN	GPHOUSE, Baridhara, Bashundhara Dhaka
<b>48</b>	Robi	Scanning and Digitization of Subscriber Application Form	Shosoma Chowdhury Market Operation Buying   Finance Robi Axiata Limited 53 Gulshan South Avenue Gulshan-1   Dhaka-1212
<b>49</b>	ICDDR,B	HDSS & Library Documents Archiving & Providing EDMS (Electronic Document Management System)	
<b>50</b>	Plan International Bangladesh	Document digitization Service-Solution	Plan International Bangladesh Country Office, Road # 35, House # 14, Gulshan # 2 Dhaka # 1212
<b>51</b>	Infrastructure Development Company Ltd. (IDCOL)	Providing web enabled digital archiving software Scanning & Indexing of 15,000 files of various departments.	S M Monirul Islam, General Manager (Accounts & Administration), UTC Building, Level-17, 8, Panthopath, Kawran Bazar, Dhaka-1215, Ph: 9102171-8 Ext: 23 Email: <a href="mailto:mislam@idcol.org">mislam@idcol.org</a>
<b>52</b>	Bangladesh Energy regulatory Commission (BERC)	Development and deployment of customized web enabled digital archiving software.	A R Khan, Chairman (State Minister) TCB Building (3 <sup>rd</sup> floor), 1, Kawran Bazar, Dhaka-1215 Ph: 8159062 Email: <a href="mailto:berc2003@gmail.com">berc2003@gmail.com</a>

53	Directorate General of Health Services (DGHS)	Development and deployment of customized web enabled digital archiving software. Digitization of staff information.	Prof. Dr. Abul Kalam Azad ADG Planning & development & Director, MIS, Directorate General of Health Services Ph:8816459 Fax: 8813875 Email: info@dghs.gov.bd
54	BANBEIS	Electronic Document Management System (EDMS)	Kabir Ahmed Director, BANBEIS & Project Director UITRCE Project (Deputy Secretary) Ph: 9665457, 9664516 Fax: 9665457
55	Mutual Trust Bank	Supply & Installation of Document Management System (DMS) For Implementation Of Centralized International Trade Operations And Central Remittance & Foreign Currency Account Operations For MTB	AMITAV KAISER, EVP & HoMID Email: <a href="mailto:amitav.kaiser@mutualtrustbank.com">amitav.kaiser@mutualtrustbank.com</a> Corporate Head Office: MTB Centre, 26 Gulshan Avenue, Gulshan 1, Dhaka 1212
56	bKash Limited	Channel KYC Automation and On-boarding	S.M Saklainul Haque Rummon Manager, Supply Chain & Procurement bKash Limited Cell: +8801712116572 Email: saklainul.rummon@bkash.com
57	Buro Bangladesh	Web Based Document Management Software and Digital document conversion, Imaging & Archiving Service for On-Site Archiving Approx. 7,50,000 images HR documents of Buro Bangtadesh	Coordinator Administration BURO Bangladesh House No: 12/A, Block No. CEN(F), Road No. 104, Gulshan-2, Dhaka-1212 Phone: 88-02-55059860,88-02-55059861,88-02-55059862 Email: <a href="mailto:buro@burobd.org">buro@burobd.org</a>
58	Bangladesh Institute of International and Strategic Studies (BIISS)	Supply, Installation Digital Scanning Archiving Service and Document Management System and Digital Archiving Service BISS Document, BISS Books, Journal Page and Bangladesh Foreign Policy Survey.	Mr. Md. Nazmul Huq Madal Major Director General 1/46, Old Elephant Road Eskaton Dhaka-1000 E-mail: <a href="mailto:info@biiss.org">info@biiss.org</a> Phone: +880-2-48315808, 222223808
59	Bangladesh Police	Digital Archiving and Preservation System Software for Document Management of Bangladesh Police	Md. Saidul Hasan, ppm AIG (ICT-2) Bangladesh Police Police Headquarters 6, Phoenix Road, Fulbaria Dhaka – 1000 Email: <a href="mailto:oic_opsqr@police.gov.bd">oic_opsqr@police.gov.bd</a> Phone: +880-2-223381967 +880-2-223383515



## Conclusion

In the midst of increasingly fierce business competition, you must be able to keep up with the ever-changing technological trends. Running your business with manual or outdated methods will only get your business left behind. BANK ASIA being the leading bank of the country needs to ensure risk mitigation, increase operational efficiency, cost optimization through archiving of its legacy documents.

Devnet as a long-term partner of Bank Asia and the most experienced ECM company of the country is willing to serve Bank Asia in achieving its objective of digital transform and going paperless.