

January 2024

RapidCAPTURE Showcase

Alithya Solutions

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alithya.com

RapidCAPTURE

- / Introduction to Alithya
- / Overview
- / Highlights
- / Recent Milestones
- / Case Studies
- / Why RapidCAPTURE

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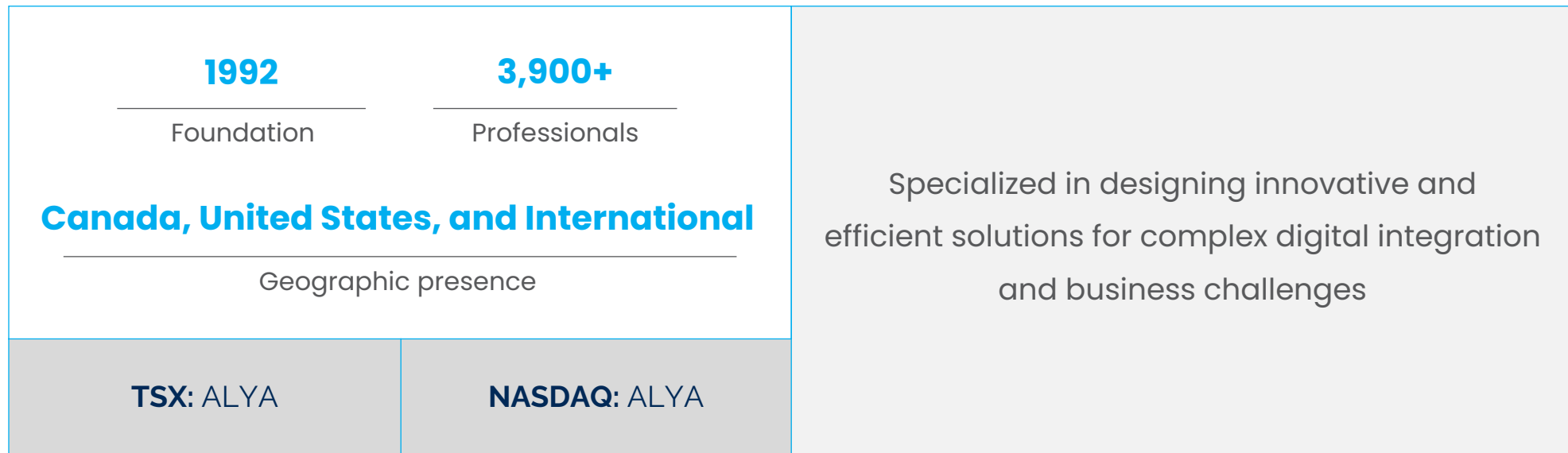
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Alithya Today

TRUSTED ADVISOR IN STRATEGY & DIGITAL TRANSFORMATION

/"June 8, 2023 – Revenues increased 19.4% to \$522.7 million, compared to \$437.9 million last year."

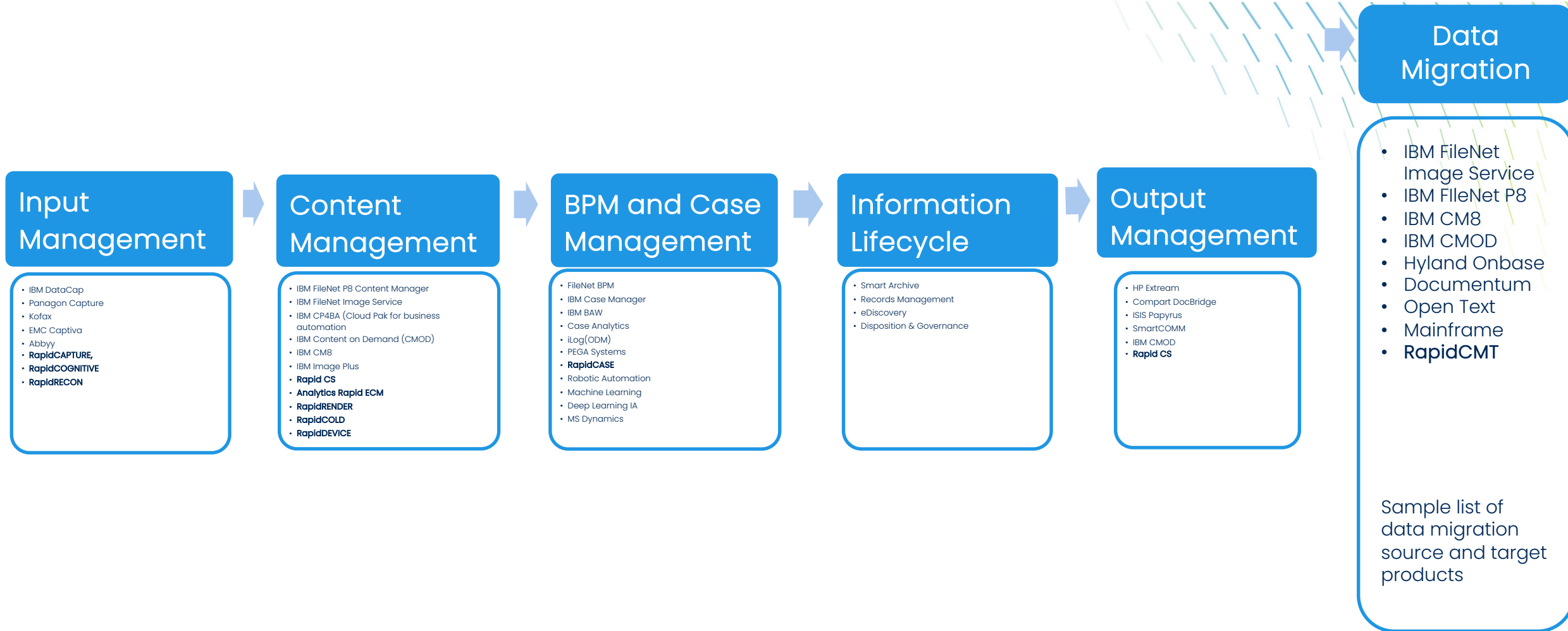


Summary Solution Focus Areas

- > **Oracle ERP, EPM, HCM**
- > **Microsoft**
 - > Dynamics, ERP, CRM, BI
 - > e-Learning
 - > US Based Help Desk
 - > Power Platform
- > **Enterprise Content Management**
 - > Intelligent Document Processing
 - > Content Management
 - > Content to Cloud Migrations

- > **Application & Data Modernization**
 - > Applications and Data to Cloud
 - > Significant AWS Partnership
 - > RPA
 - > Salesforce
 - > IBM
 - > Pegasystems
 - > SnowFlake, Data Bricks
 - > Informatica, Talend
 - > Tableau, PowerBI

Alithya Content Management Solutions Practice



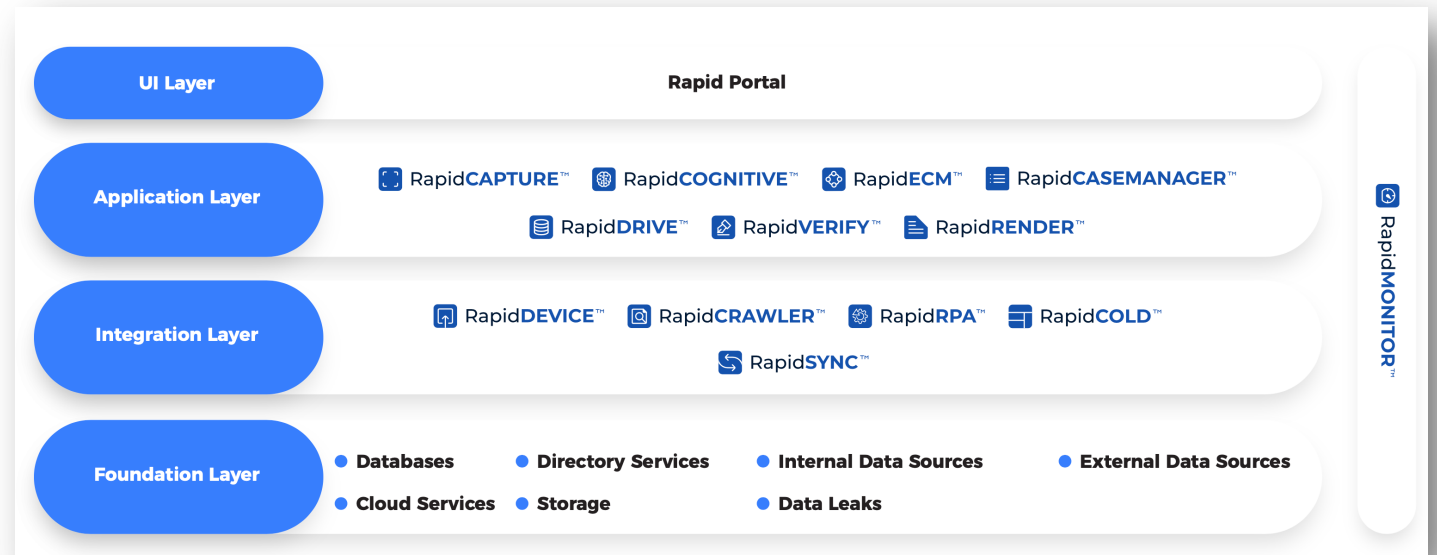
Introduction to RapidSUITE

RapidSUITE

Content Digitization and Automation

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- / A portfolio of content automation services
- / Standalone or Fit-for-Purpose Solutions



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Office Digitization

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Back Scan Paper Archives

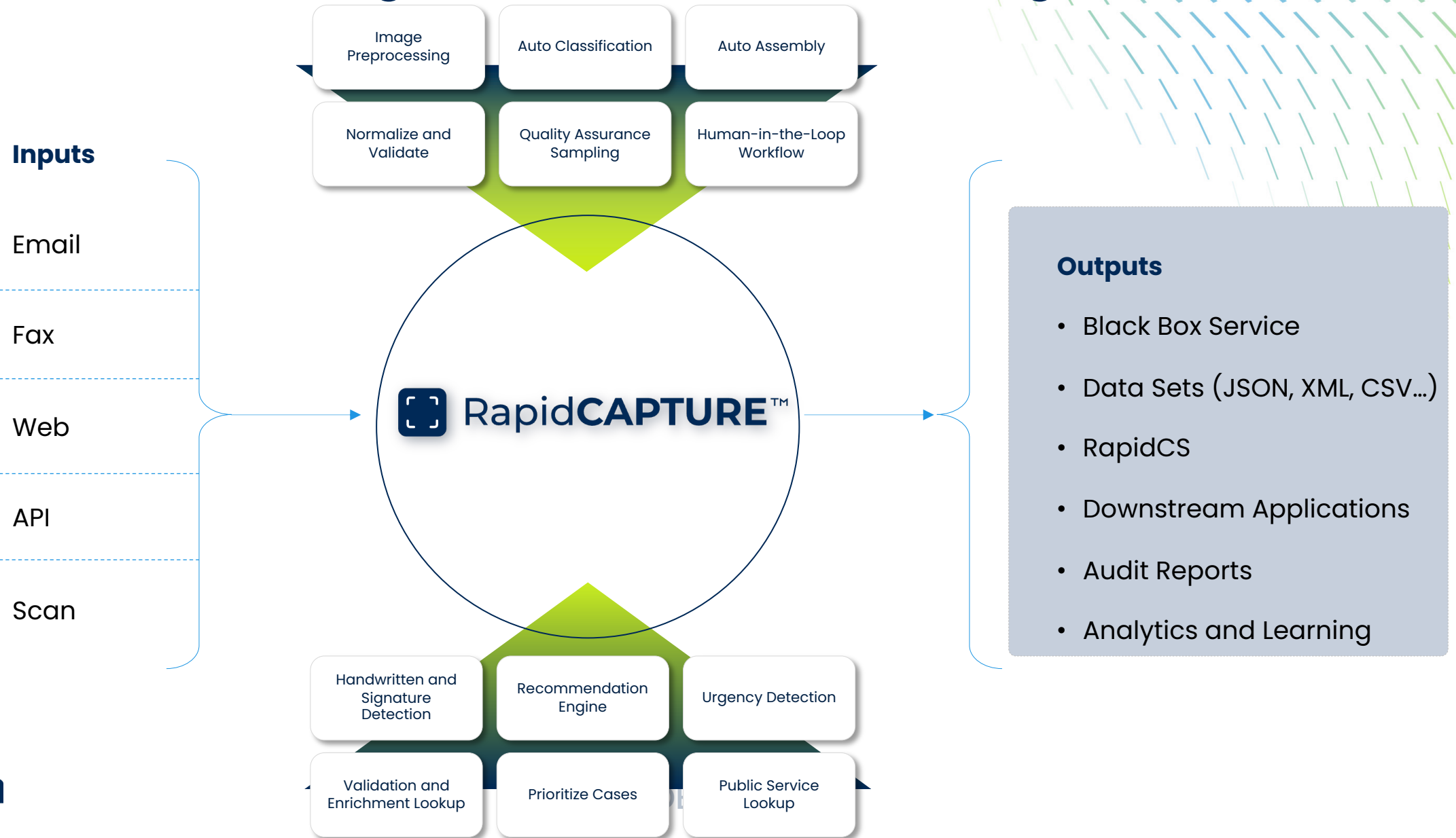
Machine Learning Correspondence
Processing

Machine and Handwritten Data
Extraction

Robotic Process Automation

Cognitive Hyperautomation

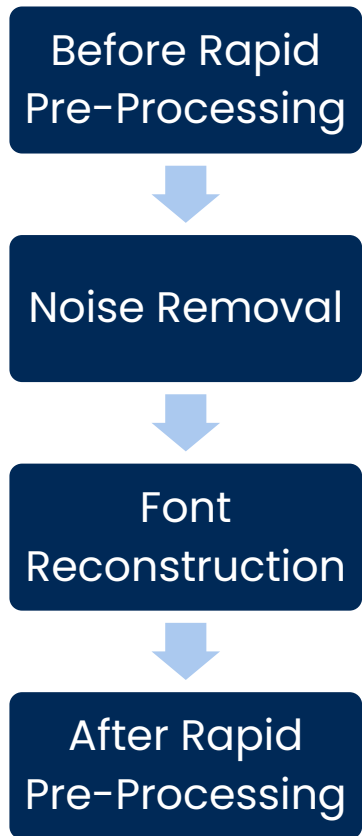
RapidCAPTURE Intelligent Document Processing



Feature Highlighting

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Dynamic Image Pre-Processing



| Admission Date | Admission Type | Admitting Provider |
|----------------|-----------------------|-----------------------|
| 7/11/19 | Urgent | Majumder, Mosumi, MD |
| Discharge Date | Discharge Disposition | Discharge Destination |

| Admission Date | Admission Type | Admitting Provider |
|----------------|-----------------------|-----------------------|
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| Discharge Date | Discharge Disposition | Discharge Destination |

| | | |
|---------|--------|----------------------|
| e ae | ss oe | E |
| 7/11/19 | Urgent | Majumder, Mosumi, MD |
| e | Sehee | Dischsree |

| | | |
|----------------|-----------------------|-----------------------|
| Admission Date | Admission Type | Admitting Provider |
| 7/11/19 | Urgent | Majumder, Mosumi, MD |
| Discharge Date | Discharge Disposition | Discharge Destination |

Auto Classification and Assembly



Miscellaneous Documents



Correspondence



Precertification



Clinical



Notice of Admission



Report



Referral



Trash

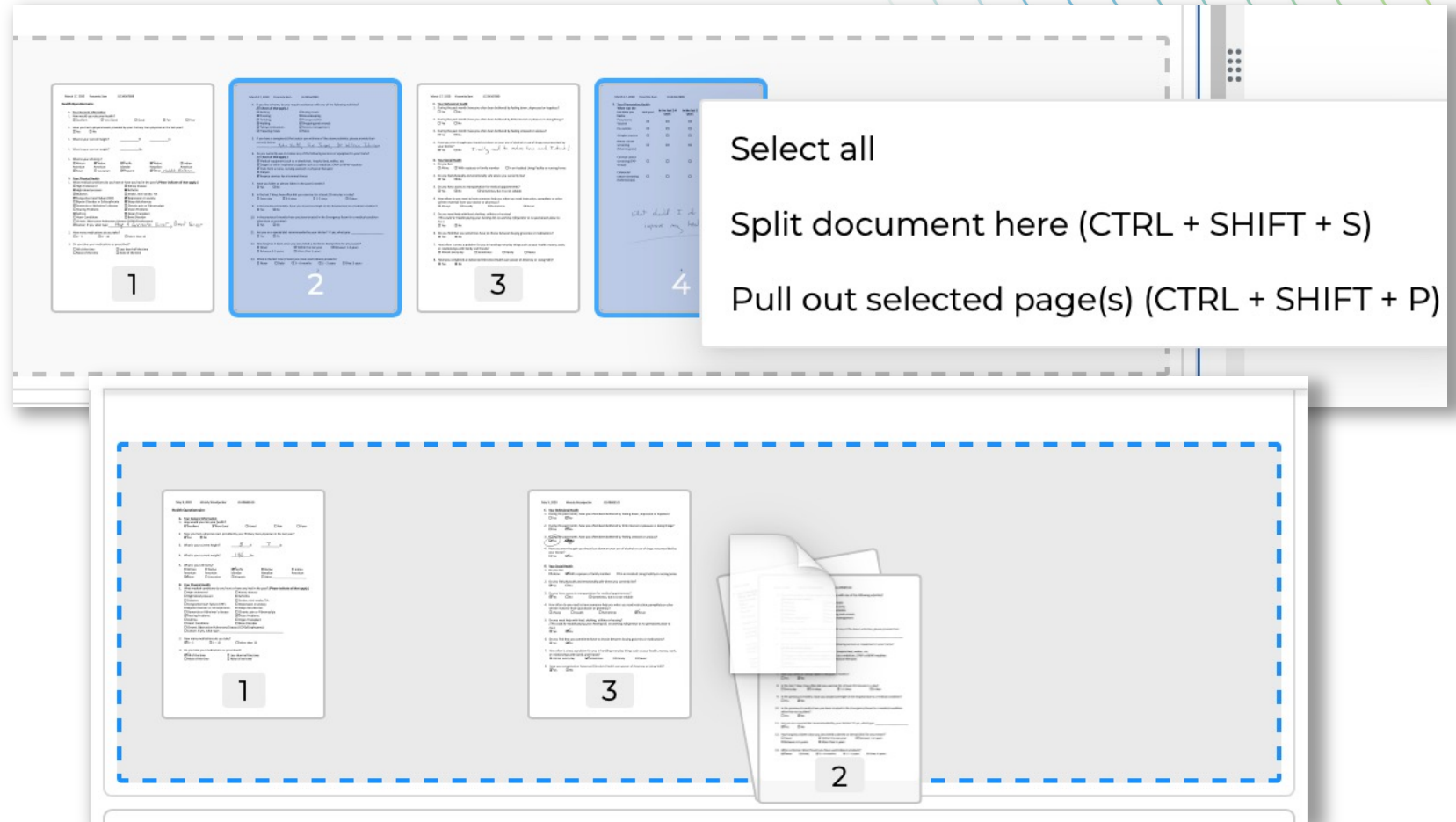
Using multiple techniques, auto-classification can be achieved at a high rate even with similar types of documents:

- **Text Analytics:**
Data Dictionaries, Caption Proximity, Phrases and Key Terms
- **Machine Learning:**
Image Cleanup, Resizing, Deskew, Font Reconstruction and Data Localization
- **Ontological Model:**
Provides a mechanism for manually and automatically tuning classification algorithms

Robust Assembly Capabilities

When needed, processors can easily manipulate batch and document structures:

- **Classification:**
Re-classify content,
- **On-Demand Re-Processing:**
Re-attempt auto-indexing at any time in the batch lifecycle
- **Batch Editing:**
Merge and split documents using keyboard shortcuts or drag and drop visualizations



Structured Form Extraction

For predictable form variations and consistent field locations:

- **Image Cleanup:** Color Dropouts and line removal.
- **Calculated Validations:** Preconfigured validations and immediate notification for correction
- **Repeatable Table Sets:** Renders tabular data in an aesthetically readable way for exception handling.

Document (0/1 finished) Claim-UB-HealthCare - Document 1

Claim-UB-HealthCare

Filters: All relevant fields Search fields by Name

Fields

3b Med Rec No ✓ 5 Fed Tax No !
6624746 5222185841

6 Stmt To Date ! 10 Pat DOB ✓
9 01011900

11 Pat Sex ! 12 Admit Date !
3-

15 Source ! 16 DHR ✓
 3

17 Stat !
11

Values

| 42 Rev Cd | 43 NDC Code | 43 NDC Qual/Qty | 44 HCPCS /Rates | 45 Serv Date |
|-----------|-------------|-----------------|-----------------|--------------|
| | | | | |
| | | | | |
| | | | | |

Document page 1 39% Auto Fit Show all areas < Prev Next >

GEORGETOWN UNIVERSITY HO 3800 RESERVOIR RD NW WASHINGTON DC 200072113 4709322424 2027845306

7728543062 6624746 0131

522218584 060519 060519

PATIENT NAME: DONALD DUCK PATIENT ADDRESS: 123 LYNN LANE CHATTANOOGA TN 12345

01011900 M 3 1 01 09

11 060519 19 010109
18 010105

MAGELLAN COMPLETE CA 1 CAMERON HILL CIRCL SUITE 52 CHATTANOOGA, TN 37402

| 42 REV CD | 43 DESCRIPTION | 44 HCPCS RATE /HCPCS CODE | 45 SERV DATE | 46 SERV UNITS | 47 TOTAL CHARGES | 48 NON-COVERED CHARGES | 49 |
|-----------|----------------|---------------------------|--------------|---------------|------------------|------------------------|----|
| 0301 | LAB/CHEMISTRY | 80069 | 060519 | 1 | 110 61 | | |
| 0301 | LAB/CHEMISTRY | 82043 | 060519 | 1 | 174 05 | | |
| 0301 | LAB/CHEMISTRY | 82570 | 060519 | 2 | 139 30 | | |
| 0301 | LAB/CHEMISTRY | 83516 | 060519 | 2 | 355 28 | | |
| 0301 | LAB/CHEMISTRY | 83970 | 060519 | 1 | 449 85 | | |
| 0301 | LAB/CHEMISTRY | 84156 | 060519 | 1 | 87 77 | | |
| 0301 | LAB/CHEMISTRY | 84550 | 060519 | 1 | 83 53 | | |
| 0302 | LAB/IMMUNOLOGY | 86140 | 060519 | 1 | 104 40 | | |
| 0302 | LAB/IMMUNOLOGY | 86160 | 060519 | 2 | 403 24 | | |
| 0302 | LAB/IMMUNOLOGY | 86255 | 060519 | 1 | 131 35 | | |
| 0305 | LAB/HEMATOLOGY | 85651 | 060519 | 1 | 42 25 | | |
| 0307 | LAB/UROLOGY | 81001 | 060519 | 1 | 34 44 | | |

EOB ATTACHED

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Semi-Structured Form Extraction

Moderate Consistency in Data Values but Variable Presentation Formats

- **Text Analytics:**
Dynamic localization of target data elements
- **Location and Confidence Scores:**
Every value comes with coordinates and confidence scoring
- **Auto-Separation on Key Value:**
Recognizes when the context of a series of pages changes from one subject (i.e. Member) to another

Fields

| | |
|---------------------------------------|--------------------------|
| Today's Date ✓ | Member's ID Number ✓ |
| SEPTEMBER 23 1994 | 1733367860 |
| Member's Group Number (Optional) ✓ | Member's First Name ✓ |
| | ANDY DUFRESNE |
| Member's Last Name ✓ | Member's Date of Birth ✓ |
| | OCTOBER 16 1958 |
| Provider Name ✓ | Provider Number/NPI ✓ |
| ELLIS REDDING | 1742974265 |
| Provider Group Name (if applicable) ✓ | Office Contact ✓ |
| SHAWSHANK CLINIC | BYRON HADLEY |
| Street ✓ | City ✓ |
| | |
| State ✓ | Zip ✓ |
| | |

the following three reasons: (1) coding/bundling denials, (2) services not considered medically necessary or, (3) inpatient administrative denials. Level One Provider Appeals should be accompanied by any supporting documentation. Please complete the form in its entirety.


| | | |
|-------------------------------------|---------------------|----------------------------------|
| Today's Date | Member's ID Number | Member's Group Number (Optional) |
| SEPTEMBER 23 1994 | 1733367860 | |
| Member's First Name | Member's Last Name | Member's Date of Birth |
| ANDY DUFRESNE | | OCTOBER 16 1958 |
| Provider Name | Provider Number/NPI | |
| ELLIS REDDING | 1742974265 | |
| Provider Group Name (if applicable) | Office Contact | Contact Mailing Address |
| SHAWSHANK CLINIC | BYRON HADLEY | |
| Contact Phone Number | Contact Fax Number | Contact Email Address (optional) |
| 632-145-8978 | 632-145-8977 | |

Un-Structured Form Extraction

Provider Dispute


Highly variable content in which natural language and textual analytics are necessary to classify the content.

- **Differing Layouts:** Normalization services look past the way a document is formatted and focus on the content.
- **Ranked Scoring:** Potential data field matches are compared to one another and additional criteria to "vote" on the most likely match.

 Provider Dispute Letter - Document 1

Fields

| | |
|---|--|
| Date ✓ 12/13/2017 | Provider Institution ✓ GreenTree Health Services Group |
| Provider Name ✓ Dr. Steven Paul | Provider Number ✓ 98989898 |
| Claim Number ✓ 23083001 | Amount ✓ \$ 3,249.56 |




12/13/2017

> Anthem Provider Services

> **GreenTree** Health Services Group
Lake Blvd Suite 3A
Bowling Green, KY 42101

We are in-network provider for Anthem BCBS. We are currently waiting on payment for a claim submitted on 10/31/2017. We received a partial payment. Could you please review and get back to our billing department as quickly as possible?

 Member Dispute Letter - Document 1

| | |
|------------------------------------|--|
| Member Name ✓ John Smith | Member ID ✓ AN333111 |
| Number ✓ 333 | Date Of Service ✓ November 5th, 2017 |
| Amount ✓ 6 | |

12/3/2017

Dear Mrs. Jones,

Per my call to you about may denied claim, I'm writing this to dispute the denial. Below is the information you said I needed to provide.

John Smith
888 Elm Street
Denver, CO

Member Dispute

Checkboxes and Handwriting

Aside from Machine Print recognition, RapidCAPTURE brings a series of other toolsets that take data extraction and enrichment to another level,

- **Checkboxes:**
Intuitive checkbox location and identification
- **Handwriting:**
Preconfigured validations and immediate notification for correction
- **Signature Confirmation:**
Locate and confirm the presence of a signature.

5. What is your ethnicity? ✓

- african american
- native american
- pacific islander
- native hawaiian
- indian american
- asian
- caucasian
- hispanic
- other

5. Other ethnicity ✓

Middle Eastern

The screenshot shows a medical form with a dark header bar containing navigation icons and the text "39%", "Auto Fit", "Show all areas", and "< Prev". The form content includes a section titled "Information" with a question "How would you rate your health?" and four radio button options: "Very Good", "Good", "Fair", and "Poor". Below this is another question: "When was your last physical exam provided by your Primary Care physician in the last year?". Further down, there are input fields for "Patient height?" (with "ft" and "in" units) and "Patient weight?" (with "lbs" unit). At the bottom, there is a question "5. What is your ethnicity?" with a grid of checkboxes for "African American", "Native American", "Pacific Islander", "Native Hawaiian", "Indian American", "Asian", "Caucasian", "Hispanic", and "Other". The "Other" checkbox is checked, and the text "Middle Eastern" is handwritten next to it.

Beyond Text Recognition



MEMBER DEMOGRAPHICS

Seven dimensions of pre-trained target Member Fields.



PROVIDER DEMOGRAPHICS

Twenty-five dimensions of pre-trained target Provider Fields.



MEDICAL CODING

Lookup-assisted, pre-trained extraction of multiple code sets.



CASE / AUTHORIZATION

Pre-set analysis for identify medical case and authorization information.



CONTEXTUAL INTUITION

Extracted values evaluated in context of desired model.



COMMERCIAL AND GOVERNMENT

Algorithms that are tailored to different business dynamics.

Advanced Capture Design Studio

The screenshot displays the 'Advanced Capture Design Studio' interface, divided into three main sections:

- Left Panel (Extraction definitions):** Shows the 'Edit element Maturity_Date' configuration. It includes tabs for 'Parameters', 'Details', and 'Relations'. The 'Value' field contains 'Maturity Date'. Below this are settings for 'Distance Unit' (CHAR_COUNT), 'Distance Threshold' (0), 'Allowed Inter Word Space' (10000), and 'Allowed Inter Line Space' (10000). At the bottom, there are four toggle switches: 'Allow Missing Words', 'Ignore Punctuation', 'Ignore Case', and 'Whole Words Only', all of which are currently turned on.
- Center Panel (Groups and Simple Elements):** A toolbar containing various capture group types. Under 'Groups', there are 'Simple', 'Repeatable', 'Cascade', and 'Check box'. Under 'Simple Elements', there are 'Term', 'Label', 'RegEx', 'Date', and 'Relative rectangle'. Under 'Separators', there are 'Horizontal', 'Vertical', and 'Line'.
- Right Panel (Configuration):** Shows the configuration for the 'Maturity_Date' element. It includes a 'Name' field (Maturity_Date), a 'Description' field, and an 'Is output node' checkbox. The 'Required' section contains five radio button options: 'Anywhere In Document', 'On First Page', 'On Last Page', 'Not Required' (which is selected), and 'Prohibited'. At the bottom, there is a 'Max. no. of surviving hypothesis' field set to 0 and an 'Allow result filtering' checkbox.

Streamlined Export Formats

Supports multiple export formats that compliment most downstream processing needs.

- Text-Searchable PDFs:** Increases Productivity for Content Reviews downstream and broader Analytics initiatives.
- JSON Payloads:** Comprehensive data about data contained within a consistent JSON structure.
- 837 EDI Formats:** Updated for currency with CMS requirements.

```

ISA*00*      *00*      *ZZ*X12
*200729*1730*^*00501*000078997
GS*HC*X12*BLUEZZ*20200729*173
ST*837*78993*005010X222A1~
BHT*0019*00*268619416*2020072
NMI*41*2*DSCM*****46*X12~
PER*IC*JACOB JONES*TE*800833
NMI*40*2*HLTHC*****46*HLTHC~
HL*1**20*1~|
NMI*85*2*WASHINGTON IMAGING
N3*DATA NOT SUPPLIED*DATA N
N4*INDIANAPOLIS*IN*462064352~
REF*EI*208617259~
NMI*87*2~
N3*PO BOX 4352~
N4*INDIANAPOLIS*IN*462064352~
HL*2*1*22*0~
SBR*P*18*DATA NOT SUPPLIED*****BL~
NMI*IL*1*DOE*JANE****MI*ABCD41158241~
N3*DATA NOT SUPPLIED*DATA NOT SUPPLIED~
N4*ABLETOWN*VA*20121~
DMG*D8*19970307*M~
NMI*PR*2*Data Not Supplied****PI*999999999~
N4*BATESVILLE*VA*374020002~
CLM*T55AB222*288***23:B:1*Y*A*W*Y~
REF*9F*ROBERT BOSWELL~~~
HI*ABK:R7989*ABF:R0602~
NMI*DN*1*ROBERT BOSWELL*****XX*1265845283~
NMI*77*2*ABLETOWN REGIONAL MED CT*****XX*1445593542~
N3*142 WEST 5TH STREET~
N4*ABLETOWN*VA*201211760~
LX*1~
SV1*HC:71275:26*288*UN*1,0*23**1:2~
DTP*472*RD8*20191130-20191130~
NMI*82*1*CARTER*PERRY****XX*9814654121~
SE*34*78993~
GE*1*78994~
IEA*1*000078997~
  
```

The screenshot displays a patient record interface. At the top, it shows the patient's name 'At Home Nursing Service' and address '14-134 Flinders Street, Saratoga Springs, NY 12866 (518) 555-1234'. Below this, there are sections for 'PATIENT NAME', 'PATIENT ADDRESS', and 'CONDITION CODES'. A search bar at the top right contains the text 'hemodialysis' and shows 'EXACT MATCHES hemodialysis (1)'. A JSON view of the data is shown in the bottom right, with the following structure:

```

object { fieldGroups { 0 { fields { 0 { values { 0 { value { Intervallo fieldConfidence : 1 } } } } } } } }
  
```

Industry Accelerators and Case Studies

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Healthcare Specialization

Medical Form Definitions



100s of Metadata Definitions



Capture Algorithms



| | | | |
|---------------------------|-------------------------------------|---------------------------------|--------------------------|
| CMS/UB Claims | Dental Claims | Enrollment Applications | Provider Appeals |
| Health Risk Assessment | Maternity Surveys | Medical Record Review and Audit | Mental Health Assessment |
| Benefits Change Forms | EOB (Explanation of Benefits) | Subrogation Questionnaire | Prior Authorization |
| General Pre-Determination | General Authorization-Certification | ADHD Prior Review/Certification | Lookup Validations |

Case Study – Health Care BPO Claims

INDUSTRY

Healthcare

COUNTRY

United States

CUSTOMER PROFILE

Business Process Management services provider for 7 of 10 ten Healthcare payers

MAJOR AREAS SERVED

Health Care BPO Claims

Solution Overview:

Leading Business Process Management services provider for 7 of the top 10 Healthcare payers. Powered by their world-class solutions and talent, they deliver transformative business outcomes for their clients and frictionless experiences for their end Customers.

Selected Alithya **RapidCAPTURE** technology for Intelligent Document processing of their Healthcare Client Claims, Explanation of Benefits, and Attachment documents. This includes current RapidCAPTURE production Claims workload for multiple Healthcare Clients approaching 5–6 million pages annually.

Significant additional growth in number of Clients and pages processed is planned in the short term.

This solution has been implemented on the Alithya RapidCAPTURE SaaS cloud powered by AWS.

WHY RapidCAPTURE ?

Industry Focused Time to Value, Beyond OCR



CLOUD NATIVE DEPLOYMENT

Leverage the power of Cloud Native platforms go beyond traditional VMs



PROVEN SUCCESS

70-80% Zero Touch for Clinical Correspondence
98% Automation Accuracy for Claims



MICROSERVICES ARCHITECTURE

Each service is fit for purpose and this architecture supports maximum agility in CI/CD.



END-TO-END CAPTURE

Capture as a Service and/or Interactive Capture Solutions



INDUSTRY ACCELERATORS

Premade, industry-specific capture lifecycles and augmentations.



LOW CODE / NO CODE DESIGN STUDIO

Powerful editing tools for Citizen Developers to produce or augment powerful Document Processing Solutions.

Our expertise and experience

Business Strategy

- / Strategic Consulting
- / Digital Transformation
- / Employee experience and transformative change enablement (Vitalyst)
- / Organizational Performance
- / Enterprise Architecture

Application Services

- / Digital Applications Development
- / Legacy Systems Modernization
- / Control/Software Engineering
- / Cybersecurity
- / Cloud and Infrastructure

Enterprise Cloud Solutions

- / Enterprise Resource Planning (ERP)
- / Corporate Performance Management (CPM/EPM)
- / Customer Relationship Management (CRM/CXM)
- / Human Capital Management (HCM)

Data & Analytics

- / Business Intelligence
- / Data Management
- / Artificial Intelligence and Machine Learning
- / Internet of Things (IoT)

Digital Skilling and Change Enablement

Thank You!

Alithya