Transforming Health Claims
Intelligence, & Automated Claims Assessment Platform

By Layak Singh
Founder & CEO
Founded in early 2017, based out of Bangalore Artivatic is an enterprise AI platform for Insurance, Healthcare & Financial organizations to help them build intelligent solutions seamlessly with scale. We enable functions such as:

- Customer facing
- Operational efficiency
- Underwriting and renewals
- Risk & decisions making

We provide DIY processes to ensure:
Reducing time, cost, risk, fraud, errors & improving efficiency, alternative data, in-depth 360 profiling, automated decisioning, underwriting intelligence, claims management & more.
Insurance companies have a large spectrum of personal insurance products, travel, health, Accidental and others. The current issues are:

Need to enhance **customer experience**. Claims assessment is **manpower intensive**. Low complexity claims need a **faster solution**. **Time Consuming Process**. Risk & Fraud are **High**. **Data driven Risk Alerts & Claims Decisions**. Instant claims **settlement with improving experience**.

**Present claims process**

1. Submission of claims on the website, app or email.
2. This information could be scanned or other type—bills, medical docs, police report, KYC, Bills, Investigation report, travel tickets, photos etc.
3. Claim handler matches the existing data with the claims docs.
4. With defined rules and terms, the handler decides whether claims are payable and the amount payable.

**Offline Process**

Time consumption is high

Process takes between 30 minutes to 120 hours or more depending upon complexity of claims

Manual handling required

No automated assistance available
CHAPTER HEADER

REQUIREMENTS OF CLAIMS PROCESS

▪ Digital technology solutions to improve claims assessment process & productivity.
▪ Automate low & complex claim assessment
▪ Quick solution for complexity claims and better customer experience.
▪ Enabling QC in Realtime with risk & fraud assessment.
▪ Claims settlement instantly.

Expected outcome:
▪ Improved Efficiency
▪ Time reduction
▪ Cost reduction
▪ Minimal Manual labor
▪ Enhanced customer experience.
▪ Reduction in Risk & Fraud
▪ Digital Process & Instant Settlement

Manual Processes Has Multiple Issues

Manual or physical clearance.
Delay in processes.
No fraud & risk analysis.

Error rates are very high.
Leads to high risk.
No learning or analytics.

Inefficient process.
Increase in cost.
Customer dissatisfaction.
Solutions provided by Artivatic to meet the requirements:

- CLAIMS INTIMATION
- EARLY RISK WARNING
- FRAUD ALERTS
- DOCUMENT PROCESS
- EXPERIENCE
- ASSESSMENT
- DECISIONS & SETTLEMENT
- EVOLING & LEARNING

Only 10% human assistance required

- INTIMATION
  Enables your business with Digitakl onboarding in real time

- EXPERIENCE
  Enhances customer experience and onboarding journey

- ASSESSMENT
  In depth assessment of documents to provide risk scoring and intelligence

- DECISIONS
  Utilises past data, current and extracted data to approve claims

- LEARNING
  Learning from each process to improve decision making

End to end solution
Cost and time reduction
Fully digital enabled process
Risk and fraud reduction
Artivatic uses emerging technologies as *Artificial intelligence, Machine Learning, Image Recognition & Neuroscience analogies* to enable smarter claims processing for insurance enterprises.

Claims system involve end to end process including claims intimation, onboarding, assessment, approval & claims amount disbursement with use of technology and enables under **180 seconds with less than 10% manual intervention**.

Claims system has continuous learning based on outcome, past data & current activities to improve **accuracy, process & efficiency**.
Claims Digital Onboarding

Enable your businesses with digital onboarding in real time. Reduce operation cost, processing time and risk with use of technology.
Claims Intimation

Solution:
Using Artivatic’s APIs with existing claims system to intimate claims process by providing unique claims number.

Benefits:
Digital or voice based claims Intimation reduces time & efforts with accurate information for claims processing.

Process:
• Video based or IVR based claims intimation enabled in existing process
• Use Policy Number or unique ID to intimate claims
Digital KYC, Signature & Photo

Solution & Benefits:
• Up to 90% reduction in time processing
• Up to 30% reduction in operational process
• Mobile based digital processing with no traditional system
• Up to 20% in cost reduction
• Up to 30% increase in customer satisfaction
• Reducing errors & risk
• No Manual intervention while buying policy with limited data.

Process:
Use OCR/ICR/Image Recognition based KYC, Photo, Signature Extraction & Validation System through API/SDKs or on-premise.
Upload or Scan Related Documents

Solution:
- Customers take picture of relevant documents using camera or upload required documents on the Website or phone.
- Artivatic’s technology based extraction system extracts required information from the documents.
- Builds KYC & Documents based Digital profile or Claims Forms electronically.
- Process the gathered information for claims processing.

Technology:
Use OCR/ICR/Image Recognition based Extraction from images, pdfs, scans or handwritten documents in real time.

OCR/ICR/Image recognition engine extracts relevant information from these documents for claims processing.

Bills, Invoices, Diagnosis, forms, boarding pass etc. processing using technology in real time.

All required information are captured to further verification and claims automation.
BENCHMARKS

Benchmarks- Artivatic’s solutions resulted in significant business outcome.

- **Increased business efficiency** to their business team as well as their agents.
- **Reduce** their operation cost significantly.
- **Enhanced quality** of data processes.
- **Reduced** multiple check points.
- **Increased customer DIY** process with less time.
- **Reduced** data errors, **enhanced** verifications in real time.
- **Reduced** processing time with quality.
Artivatic's technology enabled solutions will have in-depth assessment from documents to policy terms and provide risk scoring & intelligence for faster claims processing by reducing time, cost, errors & enhancing customer experience with efficiency.
DIGITAL OR EXTERNAL DATA FETCHING

Digital Identity & 360 Profiling

Solution:

- **Email ID or relevant information** is used to gather various information from multiple public networks
- Building **in-depth profiling using** multiple data sources for assessing claims in right way
- Using **past & current data** to ensure right claims process is done
- Seamless digital profiling system with different activities

**Benefits:**

Data Analytics & ML based engine to get more information about customer to assess claims accurately.

**Public data validation & rich profiling for customer to ensure right risk, fraud analysis is done to reduce claims issue.**

**In-depth profiling based on historical, digital, KYC, Documents, Invoices etc. for proper claims assessment.**
**CORE SYSTEM DATA VALIDATION**

**Data Validation with Core System**

**Solution:**
- Using **extracted data from documents**, validating it from core system data using APIs based process
- Using public available data to validate the documents data
- Matching invoice data, bill data, documents data with core system data to ensure proper claims are done
- Claims are assessed then for calculating amount and checking for any inconsistency

**Process:**
Using technology assessing & validating to-the-point information for claims without any error. Highlight if there is any error.
POLICY TERMS VALIDATION

Claim Details Check with Policy Terms & Conditions

Solution:
- Checking policy terms for inclusions or exclusions for claims process
- **Utilizing Key facts & terms** to ensure claims are done to the requisite context
- All available rules are applied while calculating the final claims amount

Process:
Extracting required value for claims based on certain rules to calculate amount.

<table>
<thead>
<tr>
<th>Key Information Sheet (KIS)</th>
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<tbody>
<tr>
<td><strong>Part II of the Schedule</strong></td>
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<td><strong>Part II of the Schedule</strong></td>
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<table>
<thead>
<tr>
<th><strong>Product Name</strong></th>
<th><strong>Description (Description in Illustration and not exhaustive)</strong></th>
<th><strong>Refer to Clause</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Global/Tour Overseas Group Travel Insurance</td>
<td>Insurance expenses for injuries during the trip</td>
<td>Refer to Clause 11.2.</td>
</tr>
<tr>
<td></td>
<td>Expenditure incurred for injuries to natural teeth or teeth during the trip</td>
<td>Refer to Clause 11.5.</td>
</tr>
<tr>
<td></td>
<td>Cost of transportation of patient and family in the event of death during the trip</td>
<td>Refer to Clause 11.9.</td>
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<td></td>
<td>Transportation expenses for medical evacuation with prior approval</td>
<td>Refer to Clause 11.10.</td>
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<td></td>
<td>Accidental injury leading to death/PTSD during the trip</td>
<td>Refer to Clause 11.11.</td>
</tr>
<tr>
<td></td>
<td>Value of Chilled-in Baggage list whilst in custody of common carrier</td>
<td>Refer to Clause 11.12.</td>
</tr>
<tr>
<td></td>
<td>Allowance for the delay of Checked-in Baggage whilst on trip</td>
<td>Refer to Clause 11.13.</td>
</tr>
<tr>
<td></td>
<td>Loss of Handbag whilst on trip periods</td>
<td>Refer to Clause 11.14.</td>
</tr>
<tr>
<td></td>
<td>Bag Drinks are not applicable for this policy</td>
<td>Refer to Clause 11.15.</td>
</tr>
</tbody>
</table>

(Note: The above mentioned is an illustrative listing of the policy coverage which may be applicable under your policy. Please refer to the policy certificate for the exact coverage applicable to you. For details on coverage, please refer policy wording.)

<table>
<thead>
<tr>
<th><strong>General Exclusion Conditions</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Pre-existing Disease or illness which the policy references emergent and/or acute painful conditions provided the same have been opted for under the main policy</td>
<td>Refer to Clause 11.16.</td>
<td></td>
</tr>
<tr>
<td>Cosmetic treatment or Plastic surgery in any form or manner</td>
<td>Refer to Clause 11.17.</td>
<td></td>
</tr>
<tr>
<td>Rehabilitation and/or physiotherapy on the costs of pre-existing/prosthetic/artificial implants</td>
<td>Refer to Clause 11.18.</td>
<td></td>
</tr>
<tr>
<td>Mental or psychosomatic illnesses, conditions</td>
<td>Refer to Clause 11.19.</td>
<td></td>
</tr>
<tr>
<td>Self-inflicted injuries</td>
<td>Refer to Clause 11.20.</td>
<td></td>
</tr>
<tr>
<td>Alcohol or alcohol abuse</td>
<td>Refer to Clause 11.21.</td>
<td></td>
</tr>
<tr>
<td>Partial loss of items is not covered</td>
<td>Refer to Clause 11.22.</td>
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<tr>
<td>Theft of personal effects reported to police within 24 hours</td>
<td>Refer to Clause 11.23.</td>
<td></td>
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<tr>
<td>Any claims arising out of sporting or adventurous activities/aeromart operation</td>
<td>Refer to Clause 11.24.</td>
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</tr>
</tbody>
</table>

(Note: The above mentioned is a partial listing of the policy exclusions. Please refer to the policy wording for the full listing.)

Key Information from Policies for Claims Processing
Enabling faster Claims with reduction in cost & errors.

Artivatic’s claims process can accept all forms of data such as bills, birth certificates, airline letters, photos of damaged luggage, police report, boarding pass etc. to extract, assess the required information in real time and enable faster claims settlement with evolving technology over time. **Voice enabled process can also be integrated in the same solution to make it more local focused.**

**Essence:**
Many customers admit that better experience increase adoption of products or solutions easier.
Enhance hassle free claims experience using technology

- **Easy & seamless system integration** with existing products & channels
- **Customize** as per business need
- **Available for** website software, mobile & devices
- **Connecting to direct data from emails** for finding right information or document for claims processing
- **Utilize in multiple types of insurance claims** with quick customization
Health Claims

Automated AI Health Claims Product
HEALTH CLAIMS
AI enabled technology to process all medical documents, bills, KYC
- Automated document match, signature, hospital details, procedures, bills amount and coverage
- Extraction of pre-auth and other forms and develop digital health profiling
- Timely filing process automatically
- Predictive claims denial engine
- Automatically filling of claims to insurers
- Responding to any errors or issues through system
- End to end real time process without too much manual intervention
- Predictive Decision intelligence system for future claims to FastTrack with less errors and rejections
- Building patient health advisory system based on data to assist hospitals, TPAs and patients
Health Claims Product Screens

Claims Summary

Medical Bills, Reports
Upload to the Claims Engine

Health required documents upload

Claims Processing Summary
Evidence based Claims

Solution:
Using ML & NLP, evidence based claims analysis is done to ensure past information is utilized in proper way and all inclusions or exclusions are utilized.

Benefits:
• Evidence based claims ensures the right claims approval
• Past claims data & rules are followed
• Future learning is done based on predictive analysis

Enables businesses to completely automate the claims processing from customer/agent data entry to final pay-out settlement.
Claims Risk Analysis

Solution:
**Historical data is used** to build risk analysis using Machine Learning technology & data analysis. Risk analysis helps to ensure claims is provided to the appropriate customer in real time.

Benefits:
- Risk assessment helps in analysing the genuine claims form the customer
- Helps in risk propensity to the claim process

Dynamic Pricing: Historical learning enables to control pricing and reduce fraud for claims.
**Solution:**
AI based claims assessment decision engine that empowers insurance businesses to accurately take right claims decisions.

**Benefits:**
Claims processing are done at scale using technology and reduces manual work to large extent.

**For Claim Handler:**
>75% Automated Claims
Claims Risk & Fraud Insights

Solution:
Historical, Current & External data is used to build risk & fraud analysis using Machine Learning technology & data analysis. Risk analysis helps to ensure claims is provided to the appropriate customer in real time.

Benefits:
- Risk assessment helps in analysing the genuine claims form the customer
- Helps in risk propensity to the claim process
- Fraud detection alerts

Claims Settlement: Historical learning enables to control pricing and reduce fraud for claims.
Health Claims Analytics

Solution:
Single Platform for providing health claims insights for claims managers to accurately take right claims decisions.

Benefits:
Claims dashboard will enable to provide all related insights.

For Claim Managers:
Unified Health Claims Analytics Dashboard
Rules Additions & Learning

Artivatic enables via simple interface or API for adding rules to ensure providing product based claims, claims assessment and document verification.
RULE BASED CLAIMS

Adding Claims Rule

Solution:
**Simple interface to add rules** for claims processing to ensure all regulatory guidelines are followed.

Benefits:
Rules are enabled so that claims process are done with right information and accurately.

For Claim Handler:
Helps quick claims assessment.
Reinforcement Learning

Process:
Historical activities or current ML based future learning system to ensure claims are being done with high confidence and accuracy.

Claims settlement in such cases also improves with reduction in fraud as well customer satisfaction. Business revenue increased as well with reduced operational cost.

Benefits:
Both business & customers gets benefits.
Intelligent Claims Assessment Engine

- Claims are processed based on past historical insights
- Uses multiple type of data to ensure in-depth patterns and reduction in risk
- Scales businesses and reduces claim handler burden
ABOUT ARTIVATIC
INTEGRATION IS EASY & QUICK

Single System. Multiple Integration.

Integration can be done through multiple ways for Mobile, Website, Device & others.

- **ON PREMISE**: Fewer Developers Required
- **HYBRID**: Highly Scalable, Faster Execution
- **IN THE CLOUD**: Near Real Time Processing
# Products & Solutions

## Suite for Automated Claims Processing

<table>
<thead>
<tr>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
</tr>
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<tbody>
<tr>
<td><strong>ONBOARDING</strong></td>
<td><strong>ASSESSMENTS</strong></td>
<td><strong>APPROVALS</strong></td>
<td><strong>DECISIONS</strong></td>
<td><strong>LEARNING</strong></td>
</tr>
<tr>
<td>KYC Documents</td>
<td>Historical Data based learning &amp; patterns</td>
<td>In-depth 360 profiling</td>
<td>Claims approval or rejection decisions in real time</td>
<td>Learning from Claims processing data points in for future improvement</td>
</tr>
<tr>
<td>Related Claims Documents Submission</td>
<td>Digital, Social &amp; External Data Gathering &amp; Profiling</td>
<td>Credibility Analysis</td>
<td>ML Based Automated Decision System</td>
<td>Changing static rules to dynamic learning using Machine Learning</td>
</tr>
<tr>
<td>Data Gathering from multiple sources</td>
<td>Predictive &amp; Behavioural Assessment</td>
<td>Risk Assessment</td>
<td>Rules based Decision Engine</td>
<td>Analysing claim handler comments or reviews for future accuracy &amp; rule learning</td>
</tr>
<tr>
<td>Document Digitisation or real time scanning</td>
<td>Documents AML</td>
<td>Fraud Detection</td>
<td>Automated Claims Amount Assessment</td>
<td>Reducing fraud &amp; risk in claims based on feedback learning</td>
</tr>
<tr>
<td>Claims Intimation</td>
<td>Document Validation, Extraction Fact check, matching &amp; verification</td>
<td>Predictive Detection</td>
<td>Predictive claims amount calculations</td>
<td>Automated improvement in decision algorithms based on learning process</td>
</tr>
<tr>
<td>Photo/Video/Scans/ PDF etc. Documents</td>
<td>External Data &amp; Policy Information Check</td>
<td>Predictive Intelligence</td>
<td>Flagging if any key information is missing</td>
<td></td>
</tr>
<tr>
<td>Health, Financial, Travel, Invoice, Bills etc documents</td>
<td>Claims check with policy terms</td>
<td>Financial, KYC, Digital, Health etc. Scoring</td>
<td>Product Based Automated Decisions</td>
<td></td>
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Thank you.
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