

A product by
Light^Q



Cognitive Process Automation Platform

Creating Multifunctional Cognitive Agents

Enterprise Systems lack cognitive capabilities

Draining Resources
Compromising User Experience

\$77.6 Bn by 2023

Estimated Enterprise Spending: Source : IDC

| The Problem

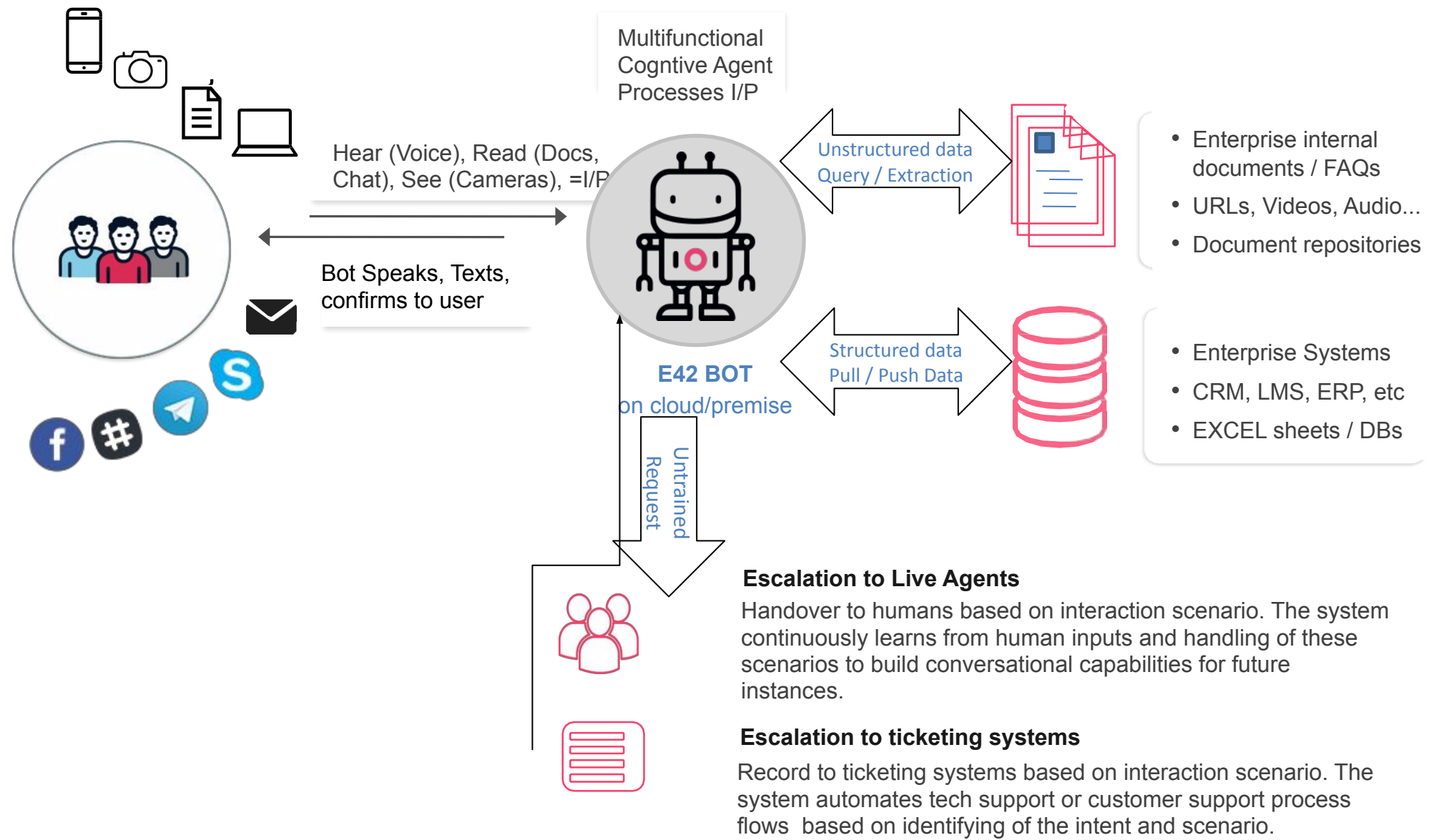


| The Solution - Multifunctional Cognitive Agents (E42)

AI WORKFORCE

- AI Analyst
- AI Finance Executive
- AI Receptionist
- AI Gatekeeper
- AI HR Executive
- AI Legal Assistant
- AI Customer Care Agent
- AI IT services executive
- AI Learning Manager
- AI Pre Sales Executive
- AI Psychologist
- AI Recruiter...





A Typical E42 Bot in Action

Knowledge management

- BOT integration with knowledge management portal i.e. SharePoint, LMS
- Learning portal with access to various information (news, trends, personalized dashboard, advanced search)

Technologies

- Issue Submission and ticketing
- Agent Assist FAQ for standard helpdesk (step by step troubleshooting)
- Outage information support
- Process automation (password reset, remote installation using RPA)



Employee life cycle

- BOT integration with RMS (recruitment management system)
- Resume screening and scoring
- Hiring automation & video interview
- Workforce management (new joiner, attendance, leave management, Salary details)
- Compensation and benefits
- Retire process

Personalization Methodology

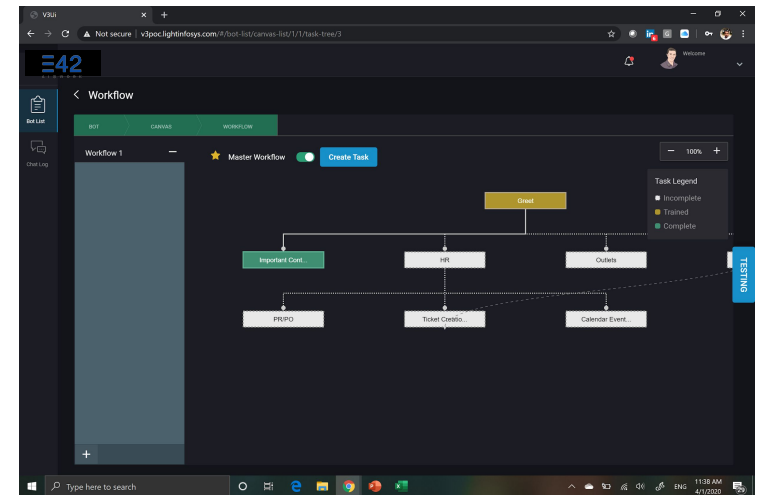
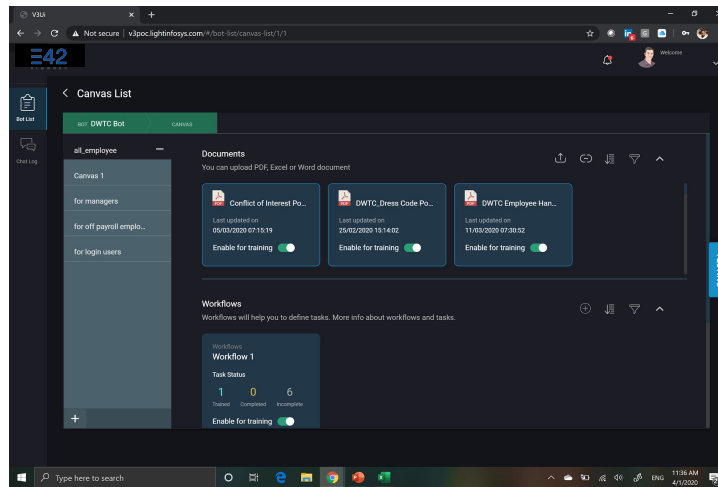
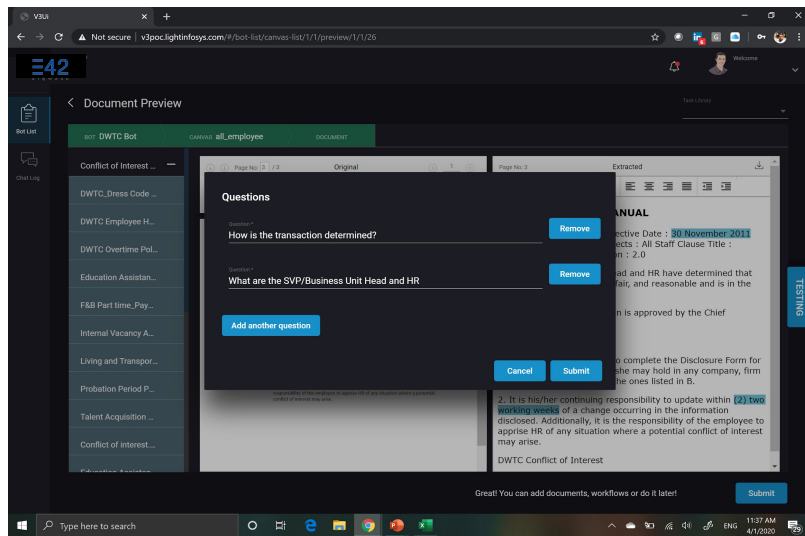
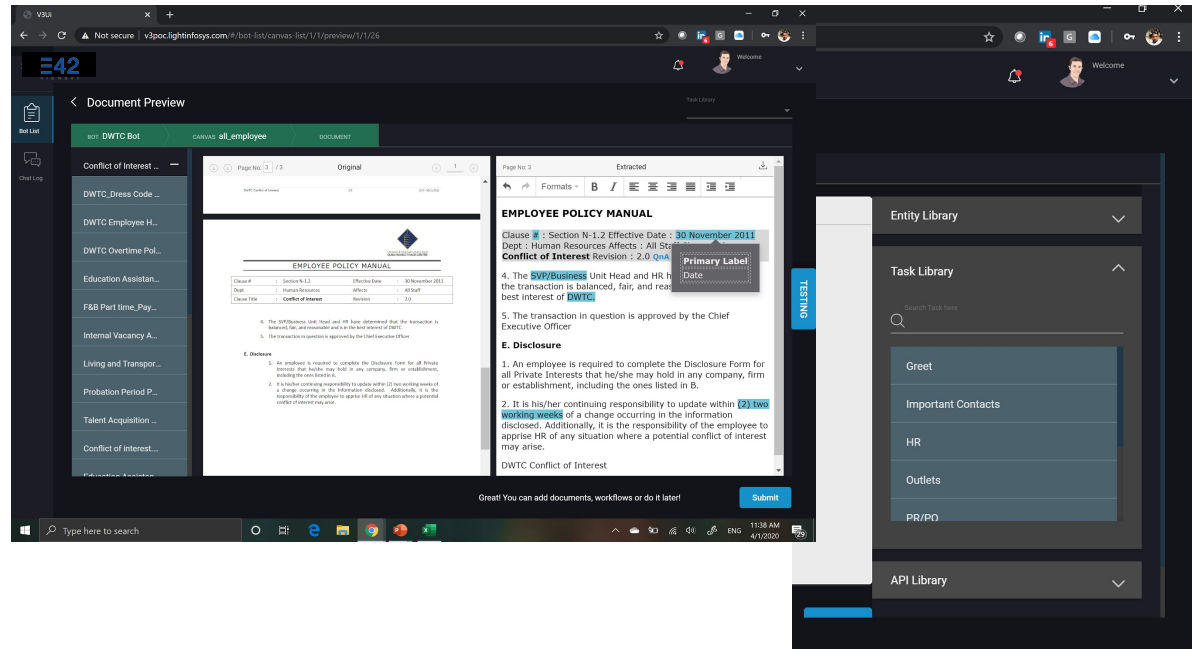
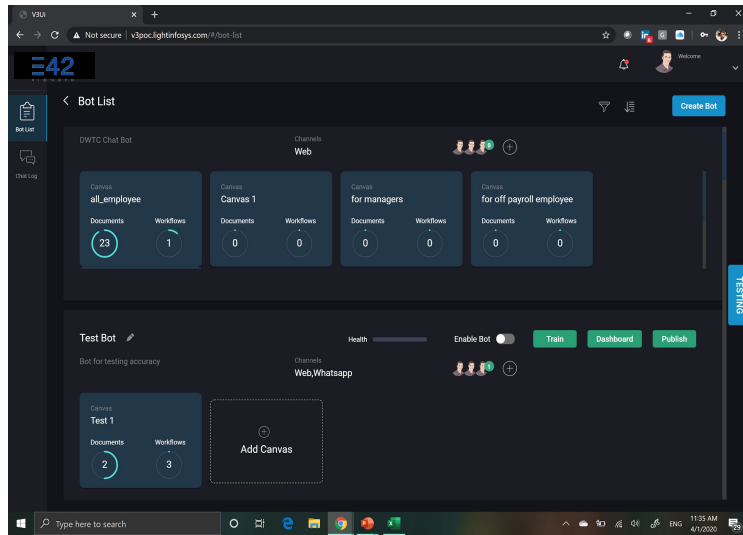
- User personalization for BOT interaction
- @help user specific
- Manage my calendar

Corporate Services

- Claims processing
- Admin facility FAQ and booking
- Insights (marketing, finance, production)
- Integrate IoT (management)
- Organization announcement
- CSAT and survey
- Visitor management

- One Window
- Scale use cases
- Omnichannel

E42-All for One & One for All!



Powerful UI meets Deep tech



Easy to deploy

- Dynamic Corpus selection (Patent Pending)
- No Scripting (Free Flowing conversations)
- Easily create process specific offerings across verticals and Functions.
- Allows any developer / SI to solution and service like Haptik, YellowMessenger Leena.ai etc. does for enterprises



Multifunctional

- Automatic Dynamic Intent Computation (Patent Pending)
- Use Case Variation (unlike Chatbot platforms (Rasa, Wit, etc.)
- Mix unstructured (Voice / Text / Images / PDFs) and Structured data
- Empowers organizations to automate processes with their SME on the platform's cognitive capabilities



Easy to Manage

- Hosted On Prem or any Cloud
- Easy UI configuration for Enterprise integrations.
- AI learning ownership
- Scale Use cases
- Use Learning across use cases
- Google, AWS, Microsoft are only available on their cloud

The **only** full stack Cognitive Process Automation platform



On Cloud

On Premises

Channels

- Desktop (user/employee)
- Telephony
- Web site
- Mobility
- Kiosk
- Email
- Live Chat
- SMS
- Social media

Security

Identity and Security				Platform			
Role Based Access	Intrusion detection	Intrusion Prevention	Firewalls	vmware®	Google Cloud Platform	Windows Azure	ORACLE®
Audit Trail/Log	Encryption	Payment Card DSS	Integration				

NLPBOT Suit

- Powerful DIY UI
- Reading structured & Unstructured data sets
- Natural Language Understanding and Generation
- Workflow and Dialogue management
- Data Modelling
- Auto Intent identification and Disambiguations
- 40+ Proprietary algos and Neural networks

Tools

- AngularJS
- JS
- MySQL
- Linux
- python™
- mongoDB.
- ubuntu+
- php

Integration

API Gateway

- ORACLE®
- Automation ANYWHERE
- PeopleSoft
- bmc
- Microsoft SQL Server
- freshdesk
- salesforce
- SAP
- Selenium
- Payment Gateway

E42 in **Action** Case Studies

Great customer support is defined by being available for customers 24x7, and being able to address and resolve their issues with the minimum of time. E42[®] customer assist bot helped a leading enterprise optimize their customer support processes, delivering a super efficient 24x7 available system that identified users accurately.

The initial focus was to ensure that customers didn't have to adapt to a new way of communicating with the business, instead the system was enabled to read emails and respond to customers automatically, followed by a roll out of an omni channel chat bot.

More than 70% of interactions were automated and more than 50% of agent time being saved, with a marked improvement in CSAT scores observed.



Client Profile

Telecommunications major having a worldwide presence with various product offerings across global connectivity MPLS/SDWAN, hosting, managed services, GSM etc.



Process Issues

- Support was available only during normal business hours
- 5000 Man team to handle the customer chats
- They were looking at increasing the manpower to handle increase in customer interactions
- They wanted 24x7 support for most users, reduced wait times for the customer
- User authentication was taking approximately 5 minutes of agent time.



Old setup

- Customers write to a helpline email ID for issue logging
- The entire email box is handled manually
- Customer service was not available 24x7
- No service option to troubleshoot Single Sign-on

Automated solution

- User Authentication (All users are authenticated by the AI assistant)
- Provide account related information (account balance, tariffs and bolt ons in the account etc.)
- Provide information about tariffs, customer based on request, Renew, Add/Modify tariff to the customers existing account
- Handle grievances, Refund and Complaints
- Integrations with CRM, Egain, Synergy, SMP etc..

RESULTS DELIVERED

- 1 second response time
Customer wait time reduced

- 100% customer authentication
Time saved for the agents

- 70% interactions automated
Conversations on chat & email without manual intervention

RESULTS DELIVERED

- 50% Reduction in tickets
- Improved SLA with quick responses to user queries
- 11,000 sessions increased after coronavirus outbreak
- 60% to 82% Improved user engagement

Business Challenges

Manual Process of information sharing on any payment transactions

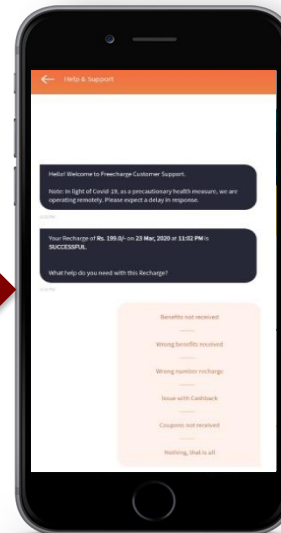
Single channel of customer contact (call the contact centre)

Average processing time: 2 hours

Increase in number of helpdesk tickets

Overall increased TAT for customer query response and ticket closure

TRANSFORMATION ENABLERS



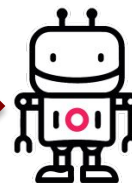
Self help queries

Automated transaction status

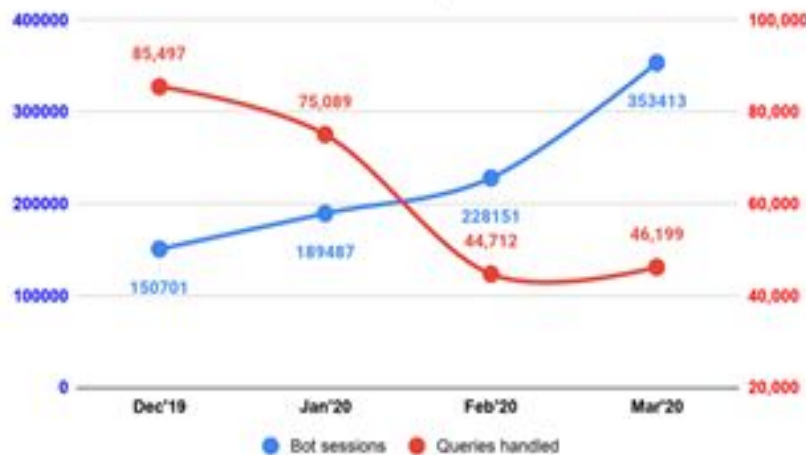
Notifications

FAQ interaction

Ticketing



Bot Visit to Complaint Ratio



Monthly Transactions vs Contacts Trend



CPS



Case Study

RESULTS DELIVERED

- **40%**
reduction in processing time for all process
- **90%**
Enhanced operations & employee experience
- **60%**
Reduction in Manual work in HRD
- **800**
Concurrent users on the BOT

Employee Self help Processes **Automated**

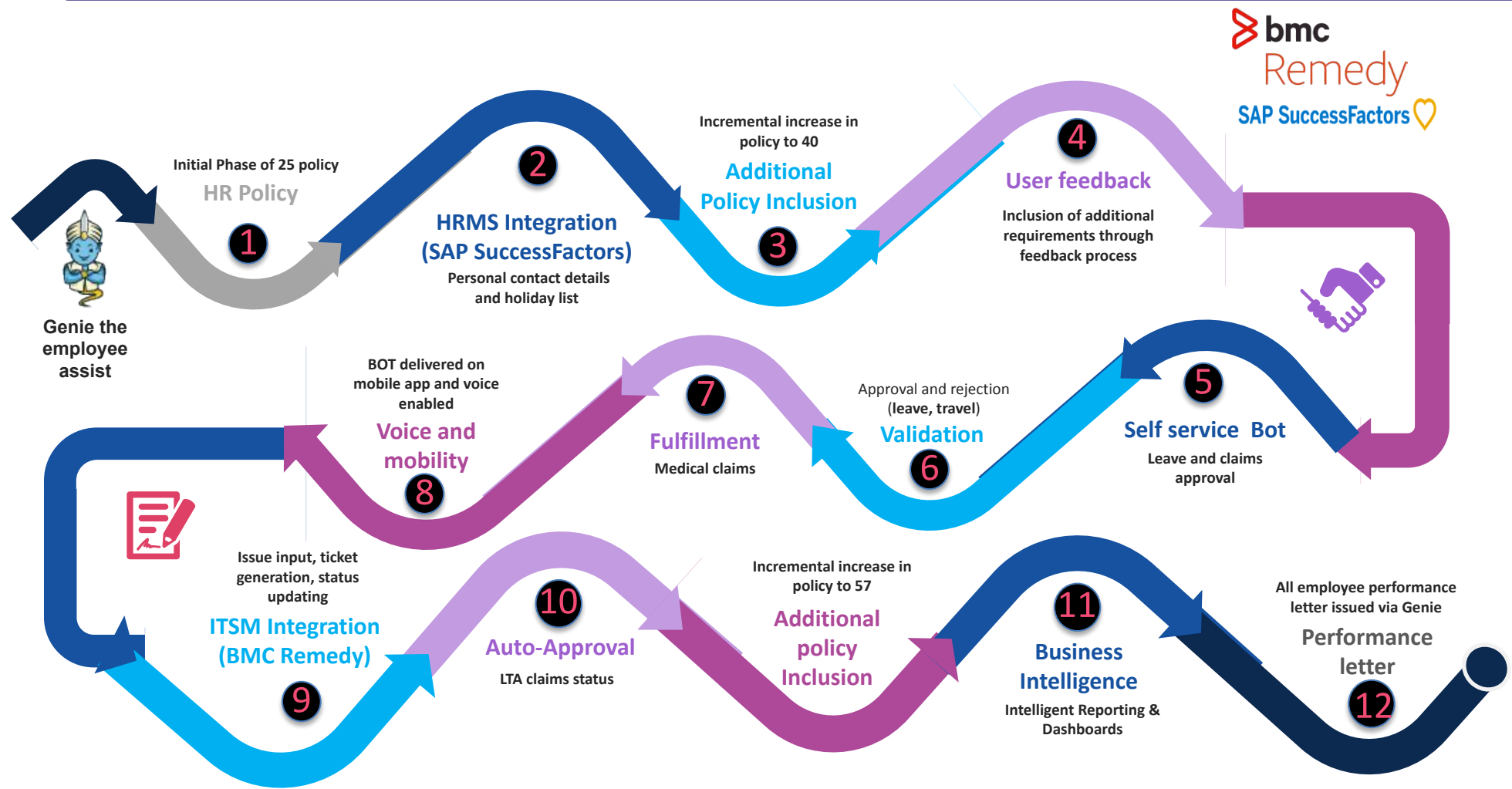


HRD has the challenging task of ensuring the taskforce is able, enabled, and supported at all times, so as to ensure the efficient functioning of the organization. Starting with information services that helps employees navigate policy and compliance guidelines, systems that help individuals plan business related activities such as travel, stay, events, etc., manage personal welfare related activities and transactions, as well as routine remuneration and associated claims, HR systems need to be always available and intuitive to use. E42 integrated with more than 40 policy documents, the internal SAP Successfactors system, BMC Remedy system, and the intranet portal, to deliver an omnichannel experience across desktop and mobile for the entire staff of our large manufacturing client.

The ROI was such that, we are now working extending the bot capabilities by integrating more functional areas such as operations support across organisations and departments such as sales, order processing and infrastructure ops.

FEATURE	ROI
Policies	Easy to access policy details and HR efforts reduced
SAP	Access for claim, travel, salary and other personal information. 45 API on SAP integrated for various transaction types
Ticketing	No more manual ticket allocation, bot can handle tickets as per query topics. BOT is also trained on category allocation on ticket into which queue within the BMC remedy portal
Msolve	Integrated existing bot Genie on same platform, additional VM and support cost reduced
Todo and Notifications	All Todo transaction (Leave, Travel, POA, Benefits, etc) through Genie, so less manual work at HR end.
Performance Letter	Quick access on Genie, User can easily access it from home page. HR efforts reduced
Business intelligence/ Analytic Bot	Integrated Analytic bot in Genie, VM cost reduced and easy access of dashboard to collect all transactions/activity analytics.

“Genie BOT Suite” is a domain specific end-to-end chat BOT automation solution to improve employee experience and reduce turn around time.



One of the largest IT Services companies globally, their BPO business receives approx. 5000 resumes each day. HRD spends a huge chunk of time vetting resumes to ensure candidates are the right fit. The manual interview process made the overall hiring process slow. E42 Hiring assist automated the initial interview with every candidate that applied, running through a set of curated questions that were conversational as well as multi-select, that were randomized. The bot was also trained to handle candidate queries at any point during the interview. Qualified candidates' responses & their specific queries were saved to internal systems for the HRD to undertake further interviews.

RESULTS DELIVERED

- 15000 JDs processed in phase 1 pilot

- 150000 resumes Read until July 2019

- >60% Reduction Candidate 1st interview time

- 500 interviews Each week



Client Profile

IT Services major, with more than 100K people globally. Forward thinking and agile, have advanced IT systems. Needed to setup AI NLP automation for their hiring process in the BPO business.



Process Issues

- Time spent on first contact interviews and shortlist.
- Candidate interactions were not easily tracked/managed.
- No interactive system for candidates to enquire about company policies and eligibility/benefits related to the position offered.
- HRD was spending a lot of time dealing with repetitive interactions.
- Biased hiring process for targeted profiles



Old setup

- Manual interviews of candidates.
- Time taken to validate candidate resumes by speaking with them, and then editing the data was making the overall hiring process inefficient.
- **Systems:** ABACUS ATS standalone with no automation
- Single Sign-on on Candidate portal

Automated solution

- Integrating with clients ABACUS for JD processing.
- Integration with Job portal for resume scanning, matching, scoring and download
- Basis agreed ranking (%Score), Automated process of reaching out to the candidate and conducting the first contact
- Bot Interview to validate candidate data from resume
- Chat interaction to answer candidate queries
- Key tasks for candidate to complete (registration/disclaimer) managed by the bot.
- Update ABACUS on candidate status

Invoice Processing **Automated**

Enterprise operations processes are dependent on data being digitised and made accessible for user onboarding, validation, task completion, compliance, etc. E42 OCR/ICR NLP engine enabled invoice processing and real-time validation, eliminating errors in the process while reducing overall time taken to manage payout to vendors. The system also helped the client deliver a better experience to vendors, with instant status updates on their invoices doing away with the inefficiencies associated with phone calls and email followup.



RESULTS DELIVERED

- **96% accuracy**
Extracted data
- **Template free extraction**
Different file formats supported
- Processing of invoice within few minutes
- Saves vendor time spent on validation and status update on stage of processing



Client Profile

Major automotive manufacturing company with HQ in India and a global presence. Diverse product offering ranging from 2-wheelers, 4 wheelers, Tractors, Trucks, etc. Larger corporate group has a presence in auto components and technology.



Process Issues

- The Account payable process is manual, servicing approximately 600 vendors pan India for various product delivery.
- No check being done on invoices uploaded, data is manually entered.
- Data entry is prone to errors. Bulk upload of invoices sees error ratio increases.
- The processing time for invoice is also high which is an experience issue for their end vendors
- No status update to the vendor on what stage the invoice processing is at.



Old setup

- Customer has setup a portal for vendor invoicing.
- The entire data entry into the system is manual post which the java application installed within all vendor systems extract the entered data and integrated with SAP

Automated solution

- Vendor portal is integrated in the backend to the E42 OCR/ICR engine.
- Data uploaded in various format & file types (PDF, JPEG) is processed on the E42 platform
- The automated extraction of relevant fields from the invoice data is provided as a single view to vendor for validation
- Assisted support is provided using color codes to identify the accuracy of the data that has been extracted, to simplify the checker process of the vendor.
- Integrations with SAP for all validated data for ASN generation.
- Also provides instant invoice processing status update to vendors.

The finance industry, particularly the credit business is heavily dependent on people driven processes for user onboarding, transaction verification, and claims processing. These high volume functions are time consuming and limit the clients ability to scale fast and drive efficiencies. E42 RPA+ engine enabled automated chargeback reconciliation, so that claims could be processed fast, leading to huge savings in time and effort for the client. The client's is now able to process claims faster thereby offering merchants an improved experience on their platform with intelligent application of RPA + NLP AI.



Client Profile

Major credit card chargeback processing company in the USA.



Process Issues

- The merchant chargeback process is manual, with approximately 9800 merchants enrolled on their platform.
- A team of 180 associates log into 6500 Merchant payment gateways manually everyday and fetch charge backs and store into its database.



Old setup

- Customer has setup a portal for merchant's credit card claim filing.
- The fetching of chargeback records from payment gateways is a manual process.

Automated solution

- Using custom Java coding automated process to log into all the Payment gateways every hour and fetch the charge backs raised and store the data in Database.
- Using RPA automated the process to log into CRM System, USPS portal and Payment gateway to get relevant proofs of transaction.
- Stitch all the evidences in an affidavit to file it with the Banks for claims.



RESULTS DELIVERED

• 80%

automation

Gateway manual login effort saved

• 60% reduction

In effort, time taken for filing claims

• 100% fetching of chargebacks

for automated logins

Payment Bank Payment & Validation



Business Challenge

- Manual Process
- Customer call the contact centre


2 Hours


Solution

- Rule based model
- BOT enabled on website and mobile app
- BOT also responds to standard query and ticket generation for specific issue types

Results


- Improved Customer experience
- Reduces Processing Time


4 Mins

Motor Finance Soft Loan validation


Business Challenge

- High Daily Call Volume
- Loan approval cycle is high


Skill Map


Solution

- Digital BOT to give customer soft loan grant using basic parameter check
- Collect documents for further processing



Results

- Reduce overall processing time by half


Efficiency

B2B Insurance NLP on Emails


Business Challenge

- Manual Process of status update
- Identify Irrelevant Cases from Emails

1-2 Hours


Solution

- Salesforce Service Cloud – NLP Bots
- Parsing Historical Data

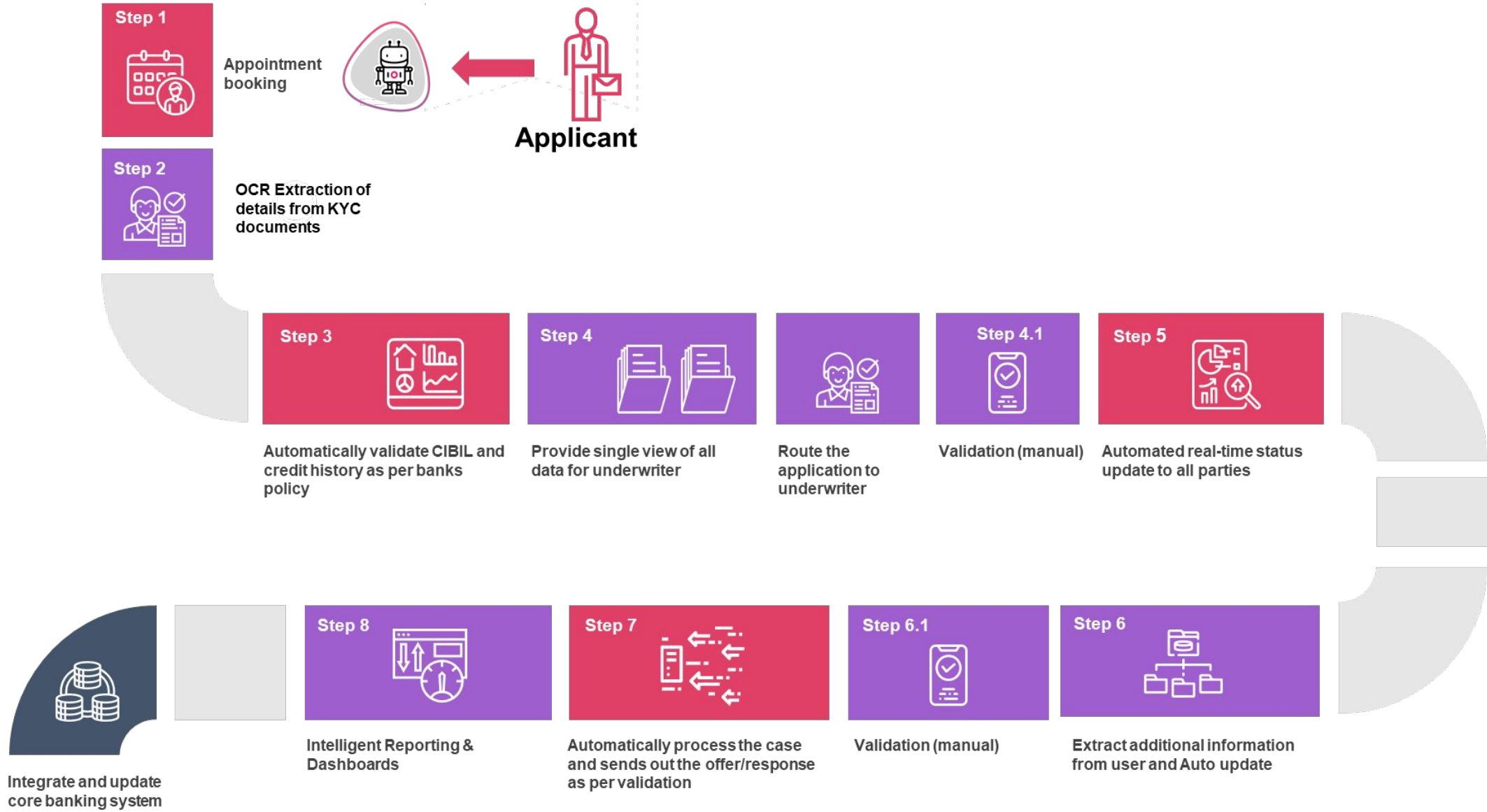


Results

- Save 2 Hrs Overheads
- Increased Productivity


Reduce TAT

Lending Processes **Automated**



Automation using RPA

AI ENGINE

Clients



Major credit card chargeback company in USA

Process Issues



- The merchant chargeback process is manual, and approximately 9800 merchants have enrolled into the platform.
- A team of 180 associates log into 6500 Merchant payment gateways manually everyday and fetch charge backs and store into its database.



Existing setup

- Customer has a portal for merchant's credit card claims filing.
- The entire fetching of charge backs from payment gateways is manual.



Automated Setup

- Using custom Java coding automated process to log into all the Payment gateways every hour and fetch the charge backs raised and store the data in Database.
- Using RPA automated the process to log into CRM System, USPS portal and Payment gateway to get relevant proofs of transaction.
- Stitch all the evidences in an affidavit to file it with the Banks for claims.

Benefits Delivered

- Efforts of the team reduced by 85% logging in to the Payment gateways.
- Auto save of charge backs in database
- The entire process of filing the claims is automated and thus resulting in 65% efforts reduced.



Pharmacovigilance through Web crawling & Insights

Business Challenge

- Manual Process of monitoring for drug and interaction reports/articles online
- Manual validation of content
- Daily routine job



4 Hours

Solution

- Rule based model
- BOT enabled for website crawling
- Content curation and categorization
- Notification through dashboard and email to specific user group

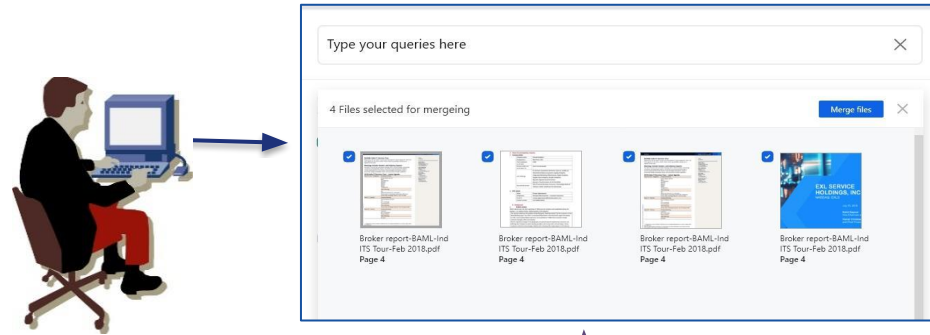


Results

- Improved response time with effective notification methodology
- Reduces Processing Time for action taken by product team



4 Mins



USER



Self Help

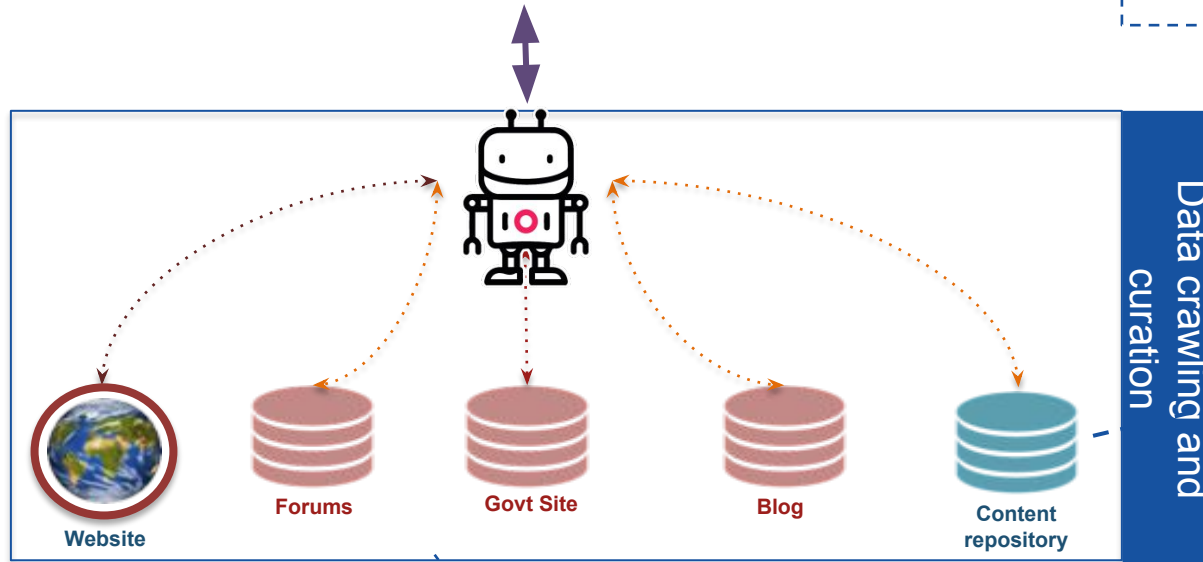
Customer uses the Self Help/ FAQ option to find the required documents/articles for guidance.
(Auto notification triggers can be set as per user preference)

Show results as per search criteria using NLP

Show me latest trends on clinical trials ?
I want to know new procedures on pediatric medicine usage?

The results for possible answers change as per user types.

Algorithms predicts or serve up the "best" answer, personalized, right channel



Data crawling and curation

Crawl data across various sources

Store data and use for dashboard generation and notification



AI learnings when
E42 interact with
each other



Immediate savings
and process
optimizations



Enhanced User
experience



Insights
New revenue
generation with AI

| Tactical & Strategic benefit for the enterprise



50+ Partner network 150+ developers and counting



Diligence - EY



The 3rd V - ...Verified

About Us:

- Enterprise systems lack cognitive processing capabilities, draining resources and compromising user experience. **\$77.6 Bn** estimated spend by 2023 -IDC
- E42 Cognitive process automation (CPA) **platform** to build enterprise **AI workforce**- Proven across verticals and functions
- Proprietary Algorithms, Framework & Bootstrapped and Compounding Data , 2 Patents. **No cloud dependency**
- Most awarded AI NLP platform.

Revenue model

- PaaS Average \$25 K - annual / process

Whom do we compete with:



Market Cap: \$126.8 BN



Funding: \$ 8.6 Mn
(Acquired by google)

FUNDING HISTORY

\$600K Self Funded

\$7.5 Mn

Pavestone, NB Ventures,
BETL & HNI

Who are we:

- **E42** -- Multifunctional Cognitive Agents
- **Light Information Systems** Pioneering the 4th Industrial Revolution
- **Sanjeev Menon** - Founder Netyantra Inc (Exit): Exp. 25 years
- **Animesh Samuel** - Founder KAPS International: Exp: 24 years

Where we are:

- 60 + Clients including 9 fortune 500 Companies
- 70+ platform and ecosystems partners
- 8 OEM's – product partnerships

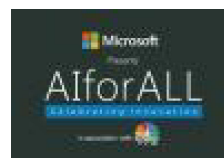
Select Clients & Partners:



E42 Live

Across Marketing, Recruitment, Employee facing, Customer engagement, BI, Sales, Visitor Management, Finance, Legal ++

Abilities Include: Read, Listen, Speak, See, Converse, Touch * Sense* Causation* Reason*





A product by
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