ramco

Infusing Intelligence into
Aviation Enterprise Applications

AI & ML POWERED
MRO SOFTWARE

Airlines Heli Ops MROs Charters Defense OEMs Drones/ eVTOLs

CONNECT TO THE FUTURE WITH RAMCO

Part of $1B Ramco Group

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ERP

Powering **800+** Companies & **150,000+** users globally

With **Next Gen Financials** at the core, we have built ERP flavors to address
- **Logistics & Supply Chain**
- **ERP for Manufacturing**
- **EAM**

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Aviation, Aerospace & Defense

Powering **4000+** aircraft & **24000+** users globally

Ground Up Aviation and A&D Enterprise software centered around
- **Aircraft Maintenance & Engineering**
- **Supply Chain**
- **MRO & Part Sales**
- **Flight Operations**
- **Aviation Finance**

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HCM

Single platform covering the entire **hire to retire process**

Payroll compliant across **60+** countries on Ramco's platform. **100+** countries supported through partners

Empowering **450+** customers worldwide on a unified platform

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Ramco Aviation Overview

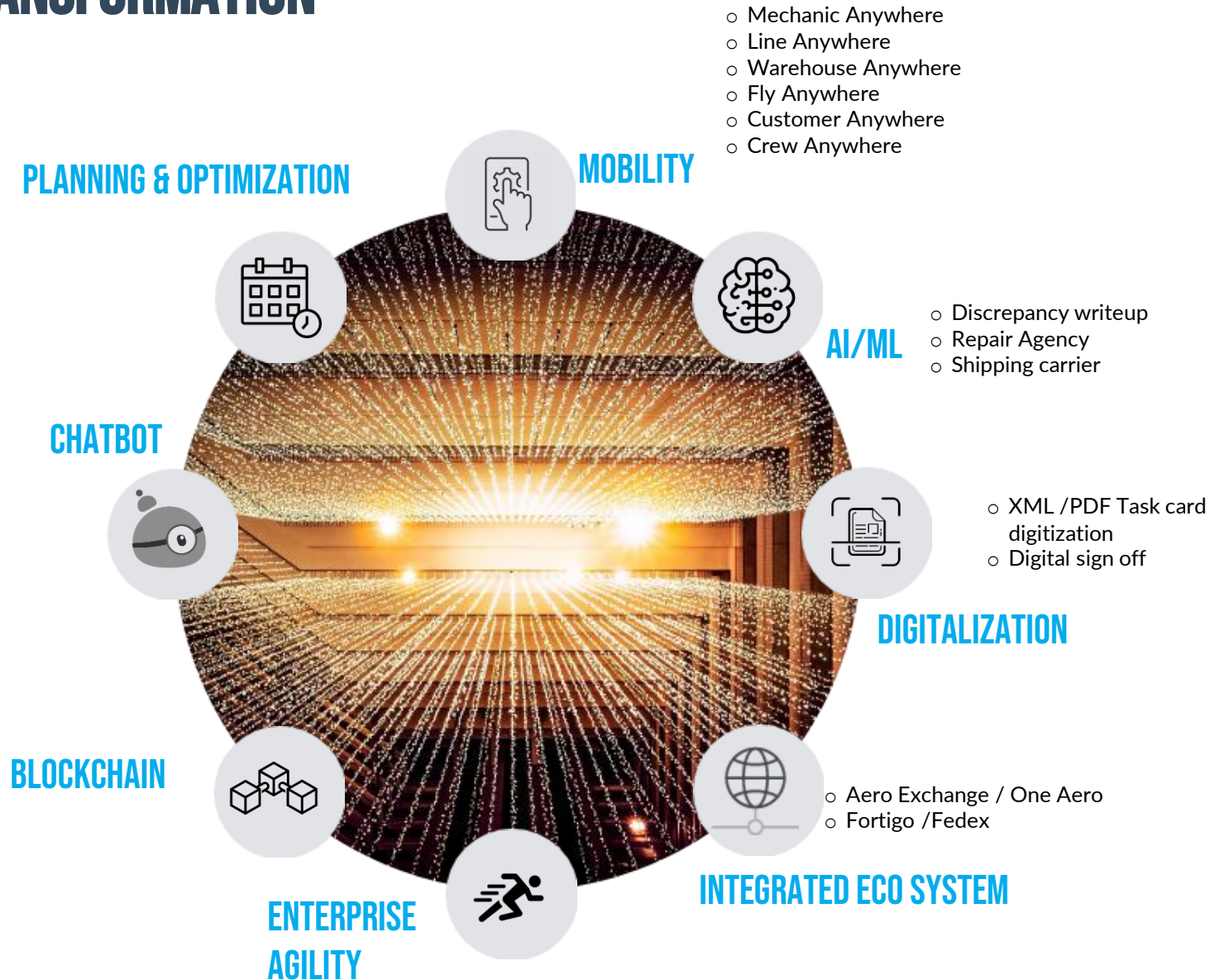over **90** Customers   across **29** Countries   **24** Global offices

4000+ Aircraft

24000+ Users

Serving

Airlines   Heli Ops   MROs   Defense   OEMS   Drones

25+ Years of implementation Experience

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THE GLOBAL PRESENCE IN AVIATION

Ramco Aviation Software

Onboard a Single platform On Cloud / On Premise

Engineering & CAMO	Maintenance	Supply Chain		MRO & Part Sales	Flight Operations	Safety, Quality,Compl.	Manufacturing	Employee Management	Finance & Accounting
Configuration Management	Line Maintenance	Parts Administration	Supplier Management	Customer Management	Journey Log Entry	Compliance Reporting	Product Data Management	Employee Information	Enterprise Setup
Maintenance Program	Hangar Maintenance	Warehouse Management	Procurement Administration	Contract Management	Flight Charter Contracting	Quality Audit Management	Planning and Scheduling	Certifications & Qualification	General Accounting
Technical Records	Engine Maintenance	Material Planning	Repair & Exchange Mgt.	Customer Order Management	Flight Sheet Management	Occurrence Reporting	Manufacturing Execution		Accounts Payable
AD & SB Management	Shop Maintenance	Stock Management	Loan & Borrow	Quotation and Pricing	Crew Scheduling	Standard Reliability	Engineering Change		Accounts Receivable
Maintenance Planning	Tool & GSE Management	Physical Inventory & CC	PBH & Consignment	Part Pooling & Exchanges	EFB Central				Management Accounting
Task Card Management	Dent & Buckle Administration	Inventory Analysis	Claims & Warranty Mgt.	Part Sale Management	Flight Contract Invoice				Fixed Assets
Library Management	Assignments & Time Tracking	Scrap Management	Goods Receipt	MRO Warranty					MRO Invoice
e-Publication	e-Signoff	Shipping							Financial Posting Engine

Enterprise Add-ons

Hubs			Mobility		Platforms		In-memory Planning & Optimization (iPO)		Eco-System	
Work Reporting Hub	Procurement Hub	Customer Order Hub	Warehouse Anywhere	Approval Anywhere	Workflow	Integration Gateway (iRIS)	Resource Optimization	Inventory Optimization	SPEC 2000	FedEx
Shop – Quick Actions Hub	Inventory Hub	Fixed Asset Hub	Mechanic Anywhere	Tool Anywhere	Dashboards	MAIL IT	**Digitization**		Customer Portal	OEM Data Interface
Technical Records Hub	Repair Hub	Accounts Payable Hub	Manage Anywhere	Fly Anywhere (EFB)	AI / ML	BoTs	Digital Task Card			
Engineering Hub	Demand Hub	Financial closure Hub	Line Anywhere (Offline)	Crew Anywhere	Report Writer	I-Extension Development Kit				
Engine Visit Hub	Part Kitting Hub									

KEY TECHNOLOGY DRIVERS OF DIGITAL TRANSFORMATION

o Mechanic Anywhere
o Line Anywhere
o Warehouse Anywhere
o Fly Anywhere
o Customer Anywhere
o Crew Anywhere

PLANNING & OPTIMIZATION

MOBILITY

AI/ML

o Discrepancy writeup
o Repair Agency
o Shipping carrier

CHATBOT

o XML /PDF Task card digitization
o Digital sign off

DIGITALIZATION

BLOCKCHAIN

o Aero Exchange / One Aero
o Fortigo /Fedex

INTEGRATED ECO SYSTEM

ENTERPRISE AGILITY

ENGINE MAINTENANCE

A/F MAINTENANCE

ENGINEERING & TECH RECORDS

MANUFACTURING

EXTERNAL REPAIRS

COMMERCIALS

ADVANCED SCM

FINANCIALS

MOBILE APPS FOR EACH ROLE IN AN MRO ORGANIZATION

ANYWHERE APPS

Warehouse Anywhere	Mechanic Anywhere	Line Anywhere	Crew Anywhere	Customer Anywhere	Approve Anywhere	Tool Anywhere

eSign off

Bar Codes

AI / ML

E Sign

Notifications

Voice

Offline

Facial & Camera

Chats

Multi-language

Maps & Live Tracking

Mobility – Easy task card access for mechanics with OFFLINE capabilities

Mobile Application – Perform Sign-off directly on PDFs in mobile app with electronic signature
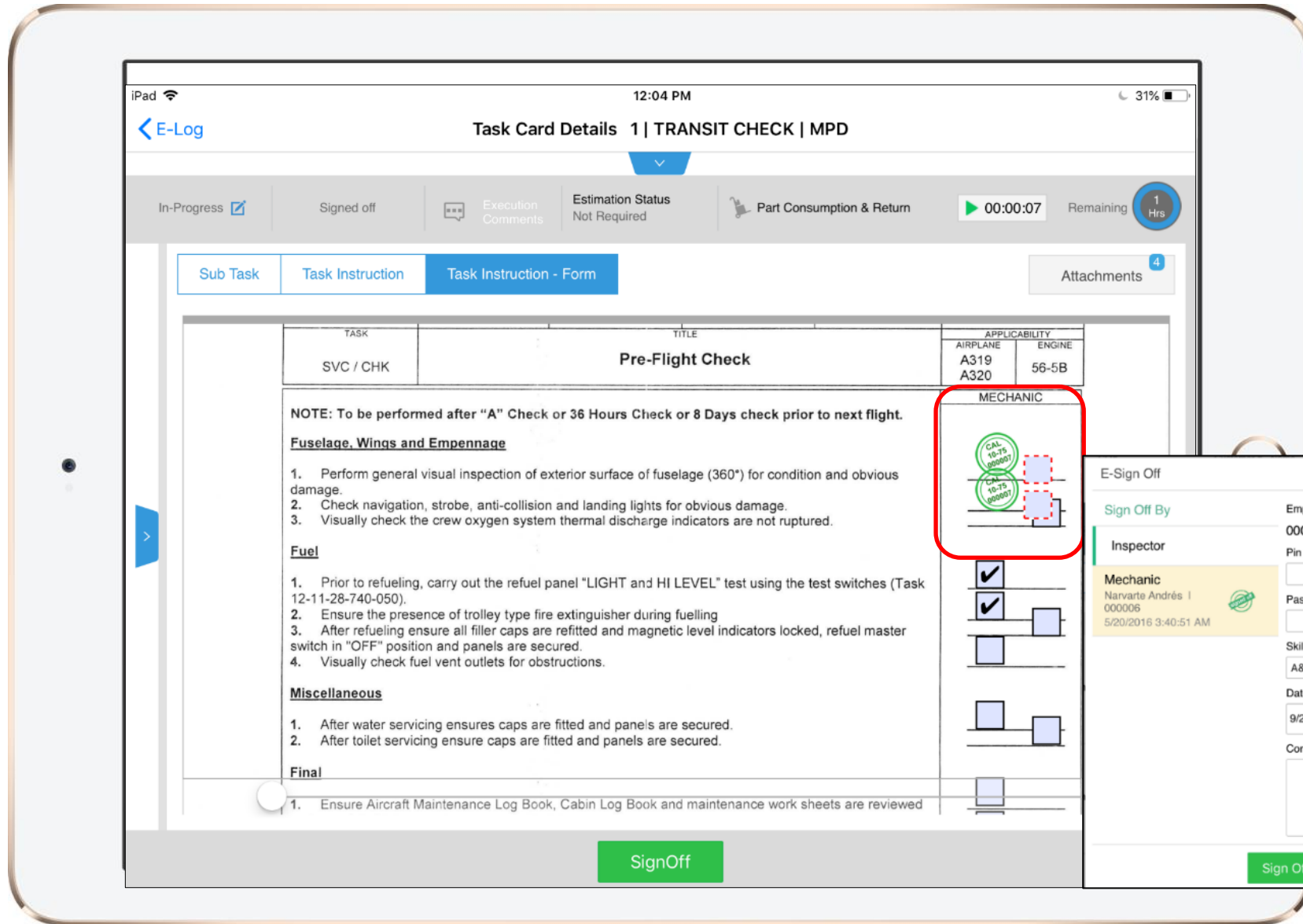
Meets regulatory compliance for Electronic Document Keeping

Mechanic – AI/ML Enabled Discrepancy Reporting
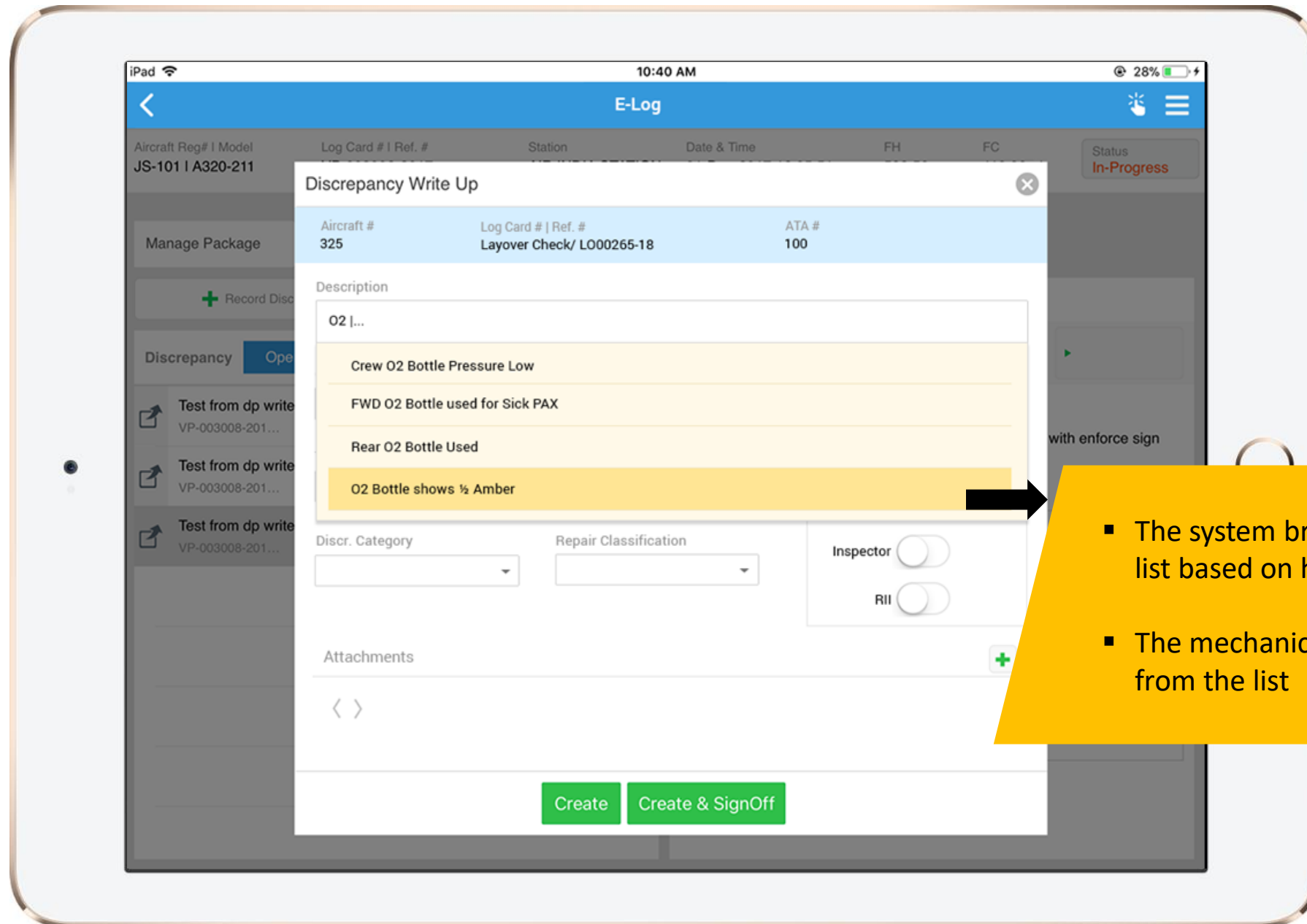
AI/ML enabled capability provides cognitive support for mechanics to report discrepancy and automatically helps in next step of part request and replacement

- The system brings up the probable list based on history & context

- The mechanic simply chooses one from the list
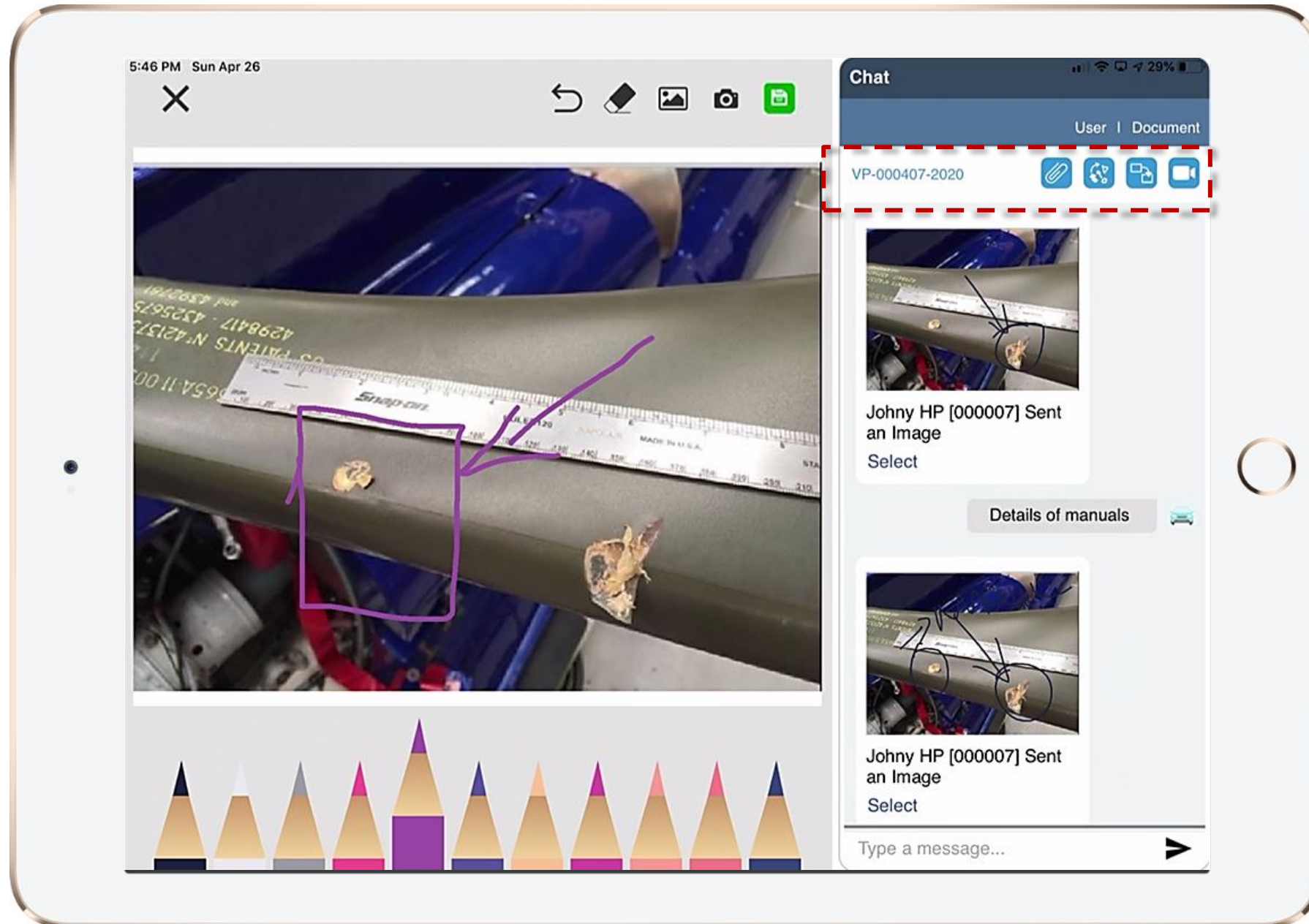
Enables mechanics to

- **Take pictures and annotate**
- **Share screen with supervisors for review**
- **Perform Live Video chat for troubleshooting and training**

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A breath of fresh air in usability – One Role One Screen!

Global Visibility of Inventory

★ 📄 **Inquire Material Count and Location Information**		◄◄ ◄ 1 2 3 4 5 ► ►► ◄ /29		

Part # 🔍 125329D1   ☑ Owned   ☐ Supplier #   ☐ Customer #   Trading Partner # 🔍 [   ]   Get Details

Material Count Summary

125329D1   ACTUATOR   ⊙   Component   ☰   A320   📋   EA   🏭   20806   No Of Alt Part   4   🟩 Serviceable   🟧 Un-Serviceable

◄◄ ◄ 1 - 6 / 6 ► ►►   All ▼

#	Main / Alternate Part #	Total Qty	Stock Value	WH	Due In - Others	Due In - On Orders	Due Out	PR	WH	Due In - Others	Due In - On Orders	Due Out	PR
1	125329D1	776.00	2,453,075.91	672.00	83.00	433.00	317.00	382.00	13.00	8.00	14.00	7.00	0.00
2	10-61286-1	5.00	0.00	4.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10-61359-3	4.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9082-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	R15048	14.00	157,666.70	11.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	TOTAL	799.00	2,610,742.61	691.00	87.00	433.00	317.00	382.00	13.00	8.00	14.00	7.00	0.00

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Part # ALL ▼   ACTUATOR   🏭   20806

Due In / Due Out Summary   **Warehouse Qty Summary**

1 - 17 / 17   All ▼   🔍

Entity	Sub-Entity	Serviceable	Unserviceable
⊟ Due-In-Others			
	Spares Due	0.00	0.00
	In Shop Due	0.00	1.00
	Pending return	21.00	1.00
	Under Return	1.00	3.00
	In Transit	10.00	0.00
	Under Receipt	55.00	3.00
	Quarantined Receipt	0.00	0.00
⊞ Due-In-On Orders			
⊟ Due Out			
	Material Request	317.00	0.00
	Loaned Pending Return	0.00	0.00
	Pending Core - Exchange PO	0.00	7.00

BRINGING CUTTING EDGE TECHNOLOGIES

01

Facial and Thermal recognition & tracking

04

AI/ML driven Intelligence and automation in Aircraft maintenance operations

02

Mixed Reality driven remote support capabilities

03

Multilingual conversational user experience with Chat BOTS and Voice Assistants
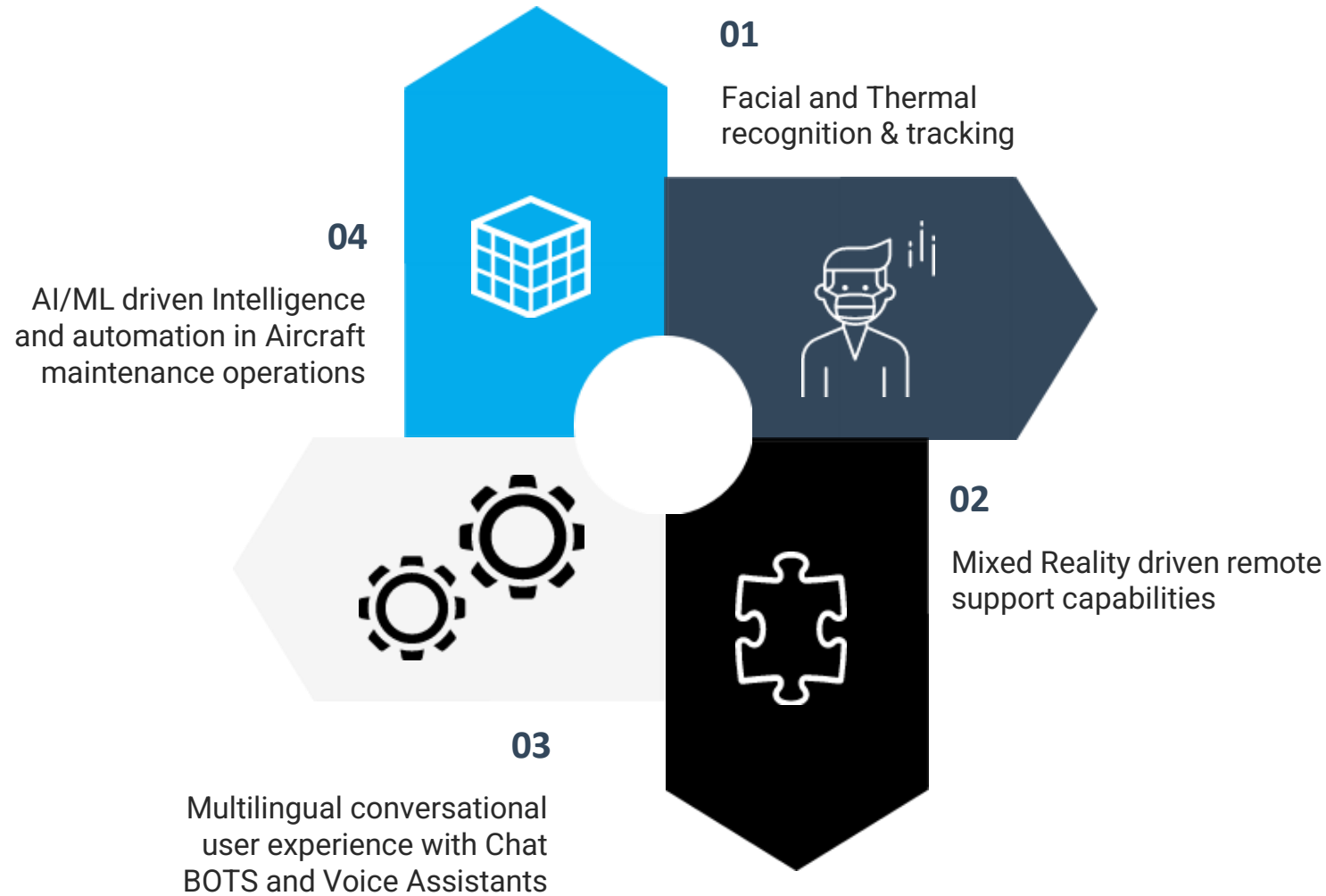
Powered by Today's Technology
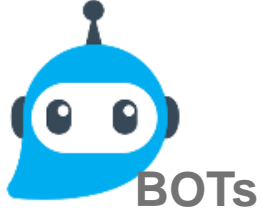
| Platform Tools | UX | Mobility | Cloud Solutions | Wearables And BOTs |
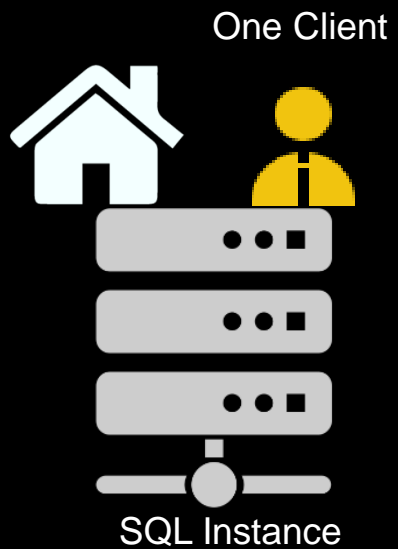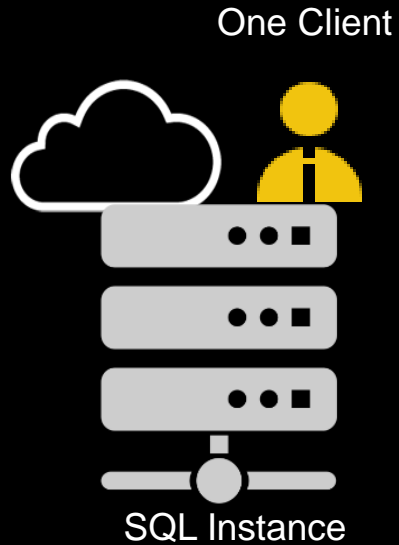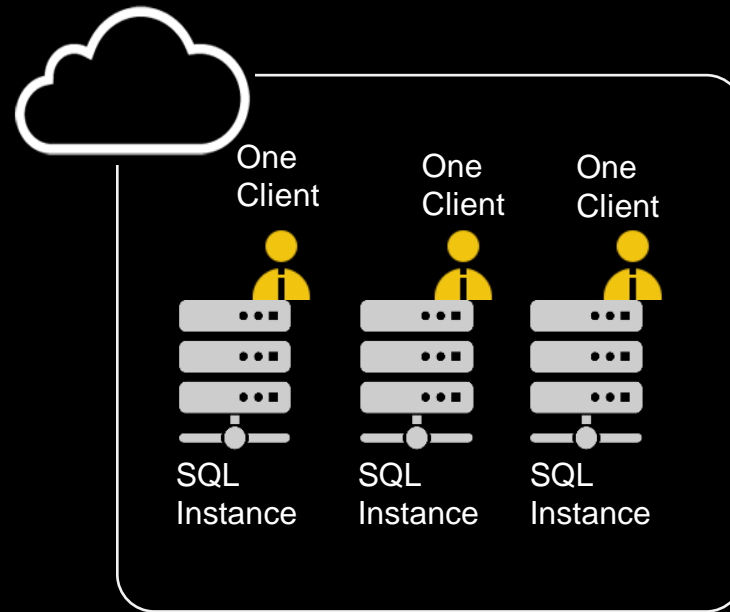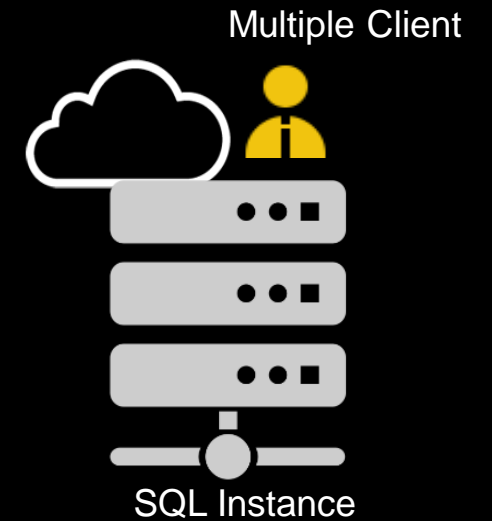
Columbia holds STC for Boeing Chinook and Vertol fleet, and manages end to end defense and commercial operations in Ramco

COLUMBIA HELICOPTERS

- Based in Portland, Oregon, USA
- Over 800 employees
- Fleet of over 30 aircraft
- Conducts precision external load operations
- Authorized repair station for select aircraft models

- **Civil & Military Operations**
- **MRO and Manufacturing for the military**
- **Type Certificate holders for Civil versions of Chinooks & Vertols**

Key Business needs

- To monitor the life of helicopters and the sub assemblies, and optimise their maintenance activities so as to maximize flying time
- To ensure accurate allocation of costs by having visibility over work execution details of task along with parts & resources consumed
- Solution to monitor component life history

Solution offered

- Complete M&E/MRO Solution managing
  - Maintenance
  - Purchase
  - Inventory
  - Ramco Financials
- Columbia also uses Offline Maintenance Management Solution (OFMS)

Key Business benefits

- Increased aircraft availability using the comprehensive preventive and work management features
- Optimum levels of inventory and carrying costs maintained by efficiently tracking over 40,000 components
- Improved effectiveness of maintenance personnel
- Tracking of costs is simple and more accurate.

- Headquartered in Hong Kong

- One of the World's largest MRO service providers in terms of capacity and Manhours

- Over 60 years of excellence in Aircraft services and Component MRO services based in Hong Kong, Xiamen (China) and Jinjiang (China).

- Full spectrum of services including airframe, line, component, landing gear, engine Services, ITM, FTM, cabin solutions, private jet solutions, freighter conversion, parts manufacturing and technical training

Key Business needs

- Integrated Solution to manage end to end Simple and Complex Component Maintenance Solutions
- Reduce overall TAT and eliminate the revenue leakage
- Optimization of the component maintenance, task card digitization, production, inventory and sales functions
- Scalable Solution hosted on cloud to support growing Business Needs

Solution offered

- Configured for Multi instance across four entities
- Integrated Production Planning , Production control , Technical Services, Quality, Procurement, Supplies, Finance, Commercial functions
- 3rd party Integration with AeroXchange , Fedex, Banking and Custom systems
- We Chat based user interactions

Expected Business benefits

- To standardize the shop processes across all 4 entities
- Effectively managing component repair contracts with their customers.
- To optimize the complex process cards by adopting digitized eTaskcard
- To provide seamless integration across all functions and automate the receipt to cash cycle
- To optimize the TAT and customer services through efficient shop process management

Thank You

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