Datasheet
Fujitsu AIT Solution

Automated Identification Technology Solution for Maintenance Operations

The Challenge
Automated Identification Technology (AIT) refers to technologies, such as RFID tags and Contact Memory Buttons (CMBs), that automatically identify individual items. AIT offers additional functionality beyond that of bar code technology. Examples include the writing of new digital data on components, not requiring line-of-sight for reading, and the capability to carry significantly more data, and more current data, directly on the component.

AIT enables the maintenance and repair histories of parts to be shared between single and/or multiple players in the aviation industry.

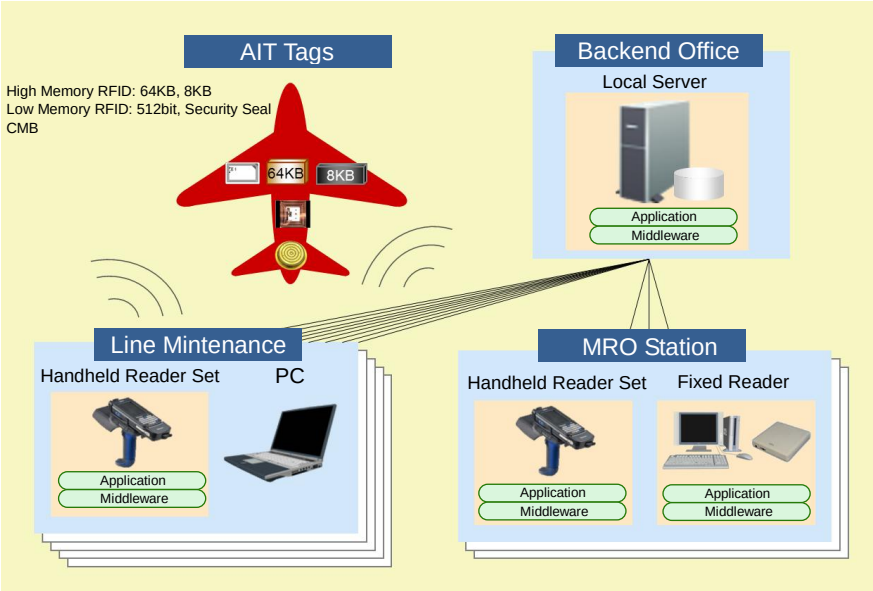
However, it is quite challenging for the aviation industry to introduce AIT technologies as there are so many technologies and providers to choose from in the AIT market space. Using independent technologies and solutions (i.e. RFID tag only, software only, middleware only, etc.) results in fragmented technology deployment, increases costs and inhibits the introduction of AIT.

The Solution
Fujitsu integrates products with software, including various types of RFID tags, readers and applications. Fujitsu is a one-stop AIT solution provider as it verifies and provides these as a complete package for customers.

Fujitsu's AIT Solution enables easy set up and stable operation for airline/MRO and parts suppliers.

Features
The Fujitsu AIT Solution meets the wide-ranging needs required by the aviation industry. It integrates AIT tags, readers, middleware and applications to provide an end-to-end solution.

The Fujitsu AIT Solution complies with industry standards, such as EPCglobal C1G2[1], ATA SPEC 2000 Ch.9[2], and SAE AS5678[3] and is bundled for easy deployment in the industry.



Components

AIT Tags

There are differing requirements for RFID tags (such as size, weight, read range, support for metals, and memory size) based on usage. Tags of various shapes and sizes are required in different situations. Fujitsu provides AIT technologies for all user applications, including Fujitsu's world first 64KB high-memory tag and the 8KB mid-memory tag, low memory tags, washable tags, and CMBs.

FUJITSU 8KB RFID	FUJITSU 64KB RFID
	
User Memory: 8KB	User Memory: 64KB
4.0 g	13.6 g
W: 47mm D: 10mm H: 5mm	W: 47mm D: 10mm H: 5mm

AIT Readers

There are variations in the frequency ranges permitted for AIT by the Radio Regulatory body in each country. For this reason, Fujitsu's AIT Solution supports reader/writer devices from numerous manufacturers so that it can be deployed anywhere in the world.

AIT Middleware

AIT Middleware is a software product that acts as a platform that links readers, writers and AIT tag data to business applications.

In the aviation industry, there is a need for large-capacity AIT tags for tasks such as managing the service logs of aircraft parts. AIT Middleware enables the building of AIT systems for a wide range of scenarios associated with aircraft operation. It provides APIs that conform with ATA SPEC 2000 Ch.9 as well as APIs that support access to large-capacity AIT devices, such as 64KB RFID tags and CMB tags.

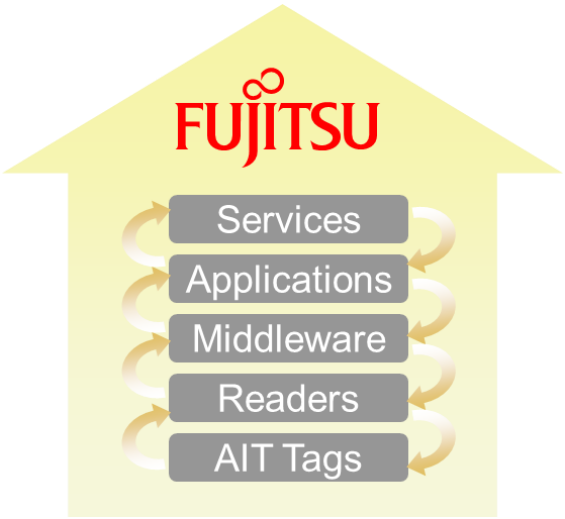
AIT Services

Fujitsu provides worldwide services for comprehensive operations support. These include a Desktop Management Service (DMS), Help Desk and Technical Support.

Fujitsu also provides a consulting service to help you plan step-by-step improvements and implement procedures. We analyze your current systems and workflows in order to determine how this solution should be introduced to your organization. This service helps you put innovation into practice.

Fujitsu can create additional applications for extracting and processing data and linking this to your ERP system.

Fujitsu's AIT Solution enhances the safety and quality of maintenance operations while increasing efficiencies and reducing costs.



Glossary & Notes:

1 EPCglobal: EPCglobal is a non-profit organization established by GS1 (formerly known as EAN International), which promotes the international standardization of barcodes, and GS1 US™ (formerly the Uniform Code Council, Inc.). C1G2 = Class 1 Gen 2

2 ATA SPEC2000: A document that stipulates the standards established by the Air Transport Association (ATA) regarding such matters as the procedures for exchanging and processing information relating to the materials used in aircraft components and their reliability. Chapter 9 specifies comprehensive standards relating to the barcodes, 2D codes and RFID tags that can be attached to components.

3 SAE AS5678: Issued by the Society of Automotive Engineers (SAE) in December 2006, SAE AS5678 is a standard defining environmental specifications and test methods for passive RFID tags used in aviation applications. SAE has categorized and defined environmental specifications for RFID tag use, for the three environmental categories of "Interior," "Exterior" and "Power Plant".

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