

# The case for ATM Preventative Maintenance.



# Top 4 reasons for ATM Preventative Maintenance.

**Prioritising cost reduction, maximising profit margins and increasing workforce productivity are three operational issues which are at the top of every company's list of priorities.**

There is a common misconception that it is easier to react to ATM breakdowns than having a longer term plan in preventing breakdowns happening in the first place.

Businesses often place a larger emphasis on reaping short-term financial benefits rather than investing time and money in techniques and services which, ultimately, can be far more advantageous for the company, their customers and the end user.

When establishing or reviewing your current portfolio of services, it is important to consider areas of the business which can facilitate future growth within the organisation.

As with any investment, changing the way in which your business operates will naturally require financial expenditure and commitment from those involved before a tangible return on investment can be seen.

In the ATM industry, Preventative Maintenance is a service which, if implemented correctly, can have far reaching, substantial benefits for an Independent Service Organisation.

This applies to the level of service which is provided to customers, financial and time efficiencies and improved brand image.





# So, what do we mean by Preventative Maintenance (PM)?

Unlike typical reactive maintenance or repair work, PM is a proactive process performed to reduce the likelihood of future faults occurring and increase the overall uptime of the estate. This is achieved through periodic maintenance work on the machines in the estate in order to extend reliability and life expectancy.

This service can vary greatly based on the ATM's manufacturer, the client, the machine's history and many other variables.

Faults on ATMs are usually caused by a combination of high transaction volumes and operating environment. For example, the presence of dust in an ATM, particularly in urban areas has a detrimental effect on its operation. Dust particles block the smooth running of all moving components.

Delicate parts such as gears, belts and vacuum cups wear out causing avoidable failures. The consequences range from downtime penalties, avoidable additional costs and admin time. As part of PM these issues are reduced through regular servicing.

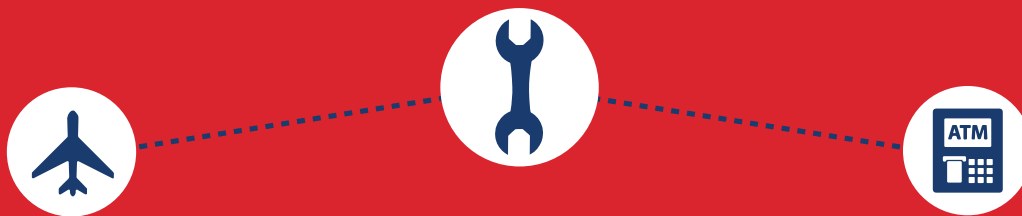




# Airlines and ATMs; The case for PM working

The Future of ATM Longevity is Preventative Maintenance.

If preventative maintenance works for aeroplanes... then why not ATMs?



## Aeroplanes:

**39.5 Million**

Flights per year.



**2**

Air traffic incidents on average per week.



**367,000**

Parts within a Boeing 737 aeroplane.



## ATMs:

**28.8 Billion**

ATM transactions per year.



**Nearly 3 Million**

ATM breakdowns per year.



**1100**

Parts in an ATM.



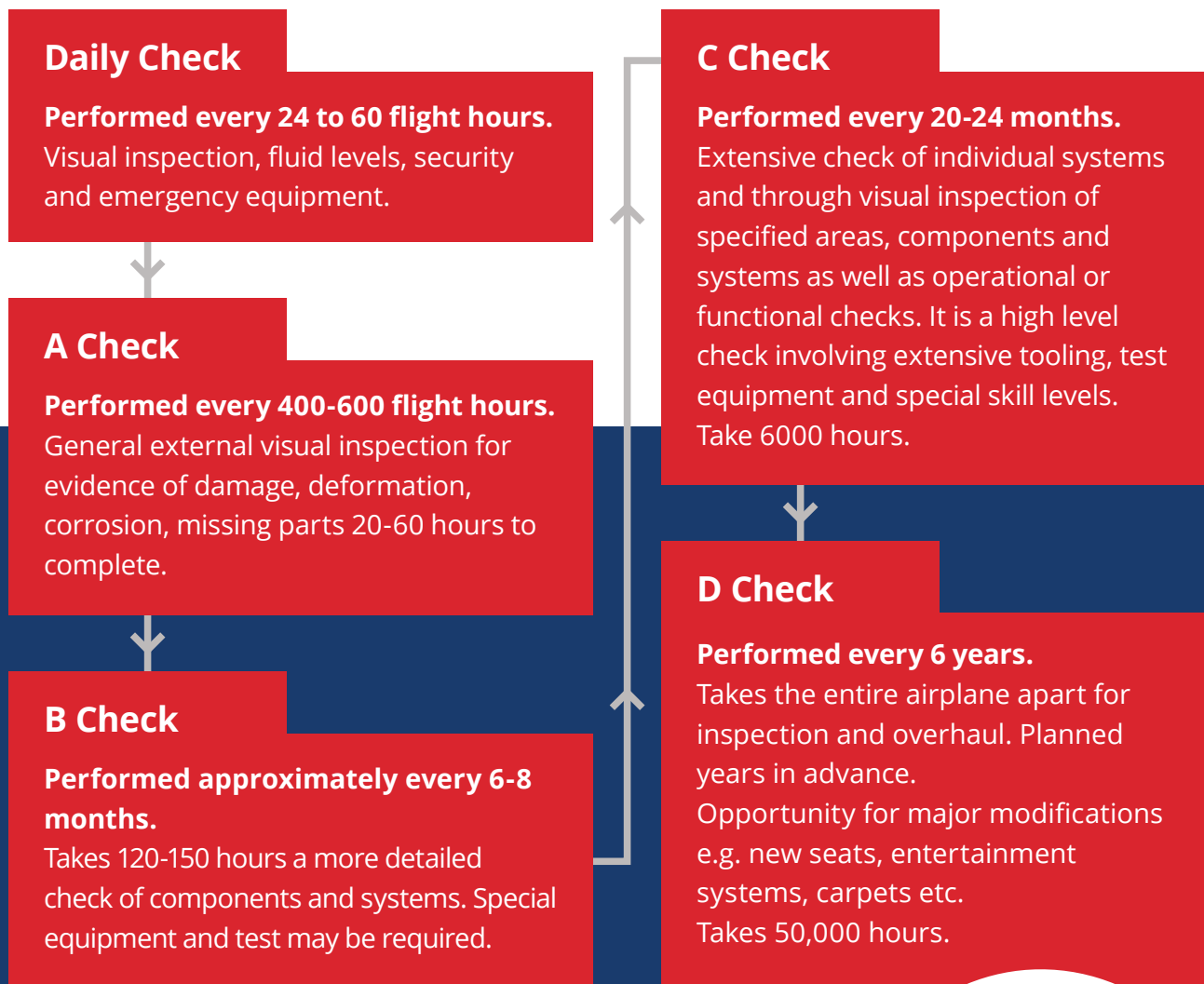
Every company has an objective of decreasing cost, improving efficiencies and above all else offering great customer service. If aeroplanes suffered the breakdowns ATM owners suffer they would be a dangerous transport method and airline companies wouldn't exist.





How do airlines achieve such impressive mean time between failure when there are 367,000 parts used making a Boeing 737. An ATM, on average has 1100 parts.

Here is the difference and it lies in the A-D checks:





# How can Preventative Maintenance benefit your Company and your Customers?

*"Before everything else, getting ready is the secret of success"*

**Henry Ford**

*"To learn something but not to do is really not to learn. To know something not to do is really not to know"*

**Stephen Covey**

*"The key is not to prioritise what is on your schedule, but to schedule your priorities!"*

**Stephen Covey**

Correct implementation of a preventative maintenance system can provide tangible and continuous benefits which can lead to growth over time.

Many financial organisations will require their ATM ISO to achieve up time percentage of 99.7% or downtime of no more than 26 hours annually per ATM. This is the prize. If we scaled this number across an estate of 4000 ATMs there is a potential of 11 years worth of time to be saved in reducing downtime of ATMs.





This degree of service level expectation is a result of high levels of competition within the industry. Meeting SLAs ensures your company will not incur financial penalties associated with contractual non-performance.

Ensuring you can consistently meet and exceed Service Level Agreements is paramount in retaining existing contracts as well as being in a strong position to win new ones.

Preventative Maintenance is often not pursued as a strategy because it is perceived that short term reaction to ATM breakdowns is easier than planning and implementing preventative maintenance. The long term opportunity to take on more contracts with the time created by carrying out preventative maintenance is overlooked.

## Operating a strategy of preventative maintenance has benefits;

**Add value to your business**



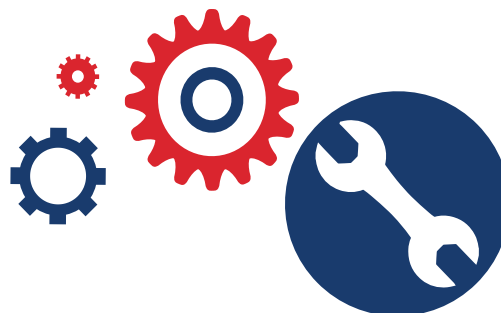
**Take on additional business / reduce labour costs**



**Reduction of unnecessary parts cost**



**Decreased stock requirements**





# Benefit 1:

## Adding value to your business

Operating a Preventative Maintenance service will instantly add value to your company and will help in differentiating it from the competition – something which is becoming increasingly difficult in the current climate.

The value lies in providing customers and prospects with the promise of increased up times, fewer failures to manage and less time fixing problematic parts.

As a result the company is perceived as offering a very high quality service. ATMs are more reliable and less time is spent logging fault calls and waiting for Engineers to fix the problem. This saves customers time which of course drives profitability through enhanced efficiency.

$$\text{Value} = \frac{\text{Uptime} + \text{Quality}}{\text{Downtime} + \text{Failures} + \text{Cost}}$$



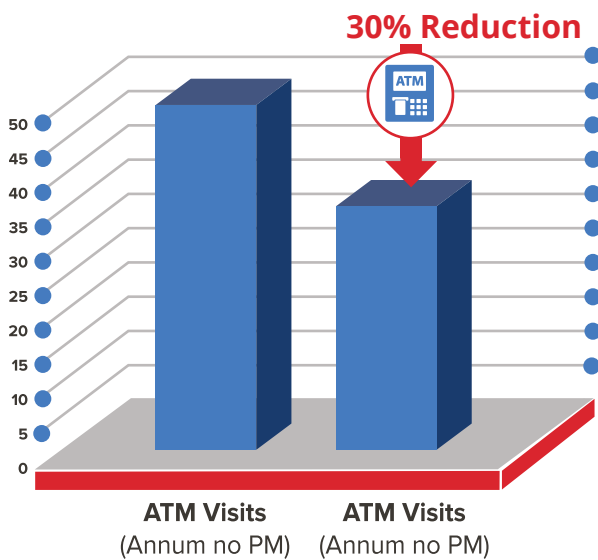




## Benefit 2:

### Take on additional business/reduce labour costs

Up to 30% of reactive calls can be prevented once fully implemented. Sometimes there isn't a fault or there is a very basic malfunction that could have been avoided. A preventative maintenance strategy means there is a reduced requirement for field technical knowledge. This could free up 30% of Engineers time.



Because PM allows for increased reliability and durability, the frequency of defects and failures are greatly reduced which means engineers spend less time repairing and maintaining ATMs over a given period.

The additional time created could be spent on improved delivery on SLAs and, or, improving customer satisfaction, other technical work, training courses and administrative tasks. Maximising the effectiveness of the workforce will help businesses struggling to meet demand and experiencing shortages of engineering staff.

If we take this point to a conclusion the long term effect could be a reduced number of skilled Engineering heads. This would decrease the Salary bill and improve the relationship between cost and output. The reduction in these heads could be offset by the introduction of a lesser skilled field team to deliver preventative maintenance with lower salaries.

A 30% theoretical saving on headcount could equate to a potential increase of 30% in the number of service contracts that could be taken on with the same workforce. TestLink data reveals that for every 1000 ATMS put on to preventative maintenance you could create the opportunity to take on contracts for an additional 310 ATMs per year.





# Benefit 3:

## Decreased Stock Requirements

Committing to an extensive programme of regular preventative maintenance will enable you to hold less stock in your storage facilities whilst still achieving the same, or greater, output.

The very nature of preventative maintenance means that rather than holding entire modules as stock, piece parts are held instead. For example, the volume failure rates are much higher for picks and presenters so rather than the need to hold an entire module, the piece parts themselves are held instead. This reduces the value of the inventory which means cash can be released in to the business and invested elsewhere.

As engineers are no longer required to complete the same level of reactive maintenance work (including entire module replacement), there is no longer an obligation to store the same levels or ranges of parts as was previously required.

Instead, companies can utilise preventative maintenance kits which contain a range of parts needed for a successful PM implementation. These kits have a far smaller footprint than ATM modules and can be easily stored in large quantities without taking up excess space.

This not only allows companies to make more efficient use of their storage facilities but, also, helps to avoid the numerous problems which arise from reactive stock ordering such as lengthy waiting times for scarce parts and failure to meet deadline.

In addition, companies may even decide to downsize their warehouses to provide further cost reductions. This can be especially beneficial for larger organisations who allocate larger portions of their budget for storage and logistics facilities.



Source: Testlink Services Ltd.





# Benefit 4:

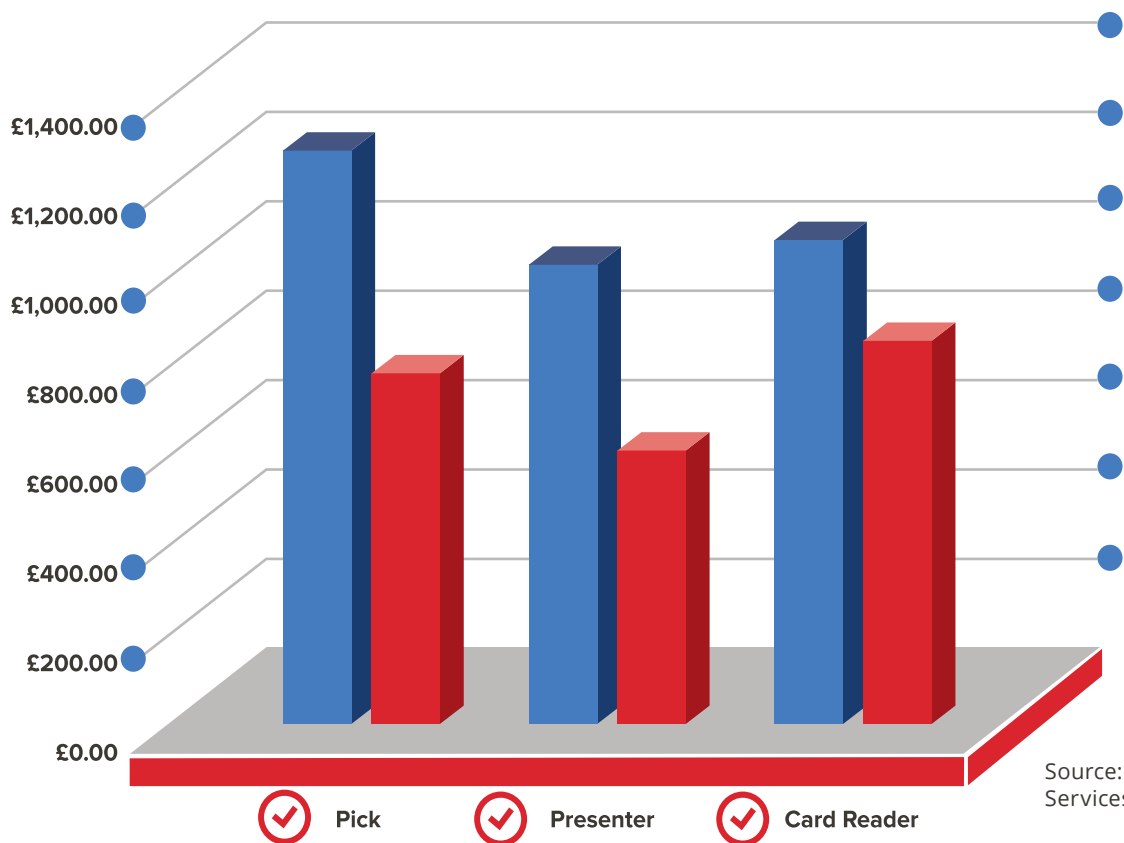
## Reduction of unnecessary parts cost

Many companies may use cheaper parts when repairing ATMs in an effort to reduce engineering overheads. Whilst this may temporarily increase profit margins, these ATMs will be far more susceptible to failure over time which will ultimately cost the company more financially than the initial investment in more durable components.

This means we need to offset the cost of replacement parts under preventative maintenance against the cost of additional calls. The 3 main failing modules are picks, presenters and card readers. The average cost of replacing these items is £83.22. On average an Engineer is on site for 37 minutes at a cost of £63.75 per hour. The cost of the module is also considered. (Source Testlink Data).

### Total cost of module ownership with and without preventative maintenance:

■ Total cost without preventative maintenance      ■ Total cost with preventative maintenance





If we go back to our original airline story it is clear that a regular preventative maintenance system not only reduces planes falling out of the sky, or in our case, ATMs breaking down but also has many other benefits. So, what are the AD Checks in ATMs and how frequently should they be carried out? In our experience and based on data that we have we suggest that AD checks for an ATM in a preventative maintenance programme would look something like this.

## Annual PM Visit

### Replacement

#### Replace worn parts

- Belts
- Vacuum Cups
- Gears
- Bearings
- Lights
- Filters

### Cleaning / Lubrication

- Lubrication
- Fascia Clean
- Module clean
- Remove all dust and grime

### Testing

- Read and clear logs and tallies to identify potential future problems
- Fully test every module using diagnostics available

*"The cost of same is greater than the cost of change."*

CEB

#### Sources of data:

- [planecrashinfo.com](http://planecrashinfo.com)
- [www.garfors.com](http://www.garfors.com)
- [www.quora.com](http://www.quora.com)
- [www.aviationpros.com](http://www.aviationpros.com)
- ATM Industry Association (ATMIA)
- [www.statisticbrain.com](http://www.statisticbrain.com)
- National ATM Council



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# At TestLink we would love to hear what you think on this subject.

Please email your feedback to [sales@testlink.co.uk](mailto:sales@testlink.co.uk)



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