

Paperless Office – An Organizational Vision



An iGATE White Paper



Contents

Summary.....	0
Paper and Print Service Consumption	0
Reduction in Paper Usage	0
Paperless Office - iGATE Implementation.....	4
▪ Implementation Approach.....	4
▪ Print Utilization - Pre-Implementation.....	5
▪ Project Implementation.....	5
▪ Print Utilization - Post-Implementation.....	7
▪ Achievement – Paper Consumption	7
▪ Achievement – Cost Benefit	8
▪ User Impact	9
▪ Return on Investment (ROI).....	9
Conclusion.....	10
References.....	11



Summary

Going green is the talk of the town currently. Organizations and individuals realize the damage done to the environment and are focusing on changes to make the environment better. There are several ways to contribute towards environmental betterment and a few significant contributions are quoted below:

- **Car Pooling** - Avoiding 10 miles of driving every week would eliminate about 500 pounds of carbon dioxide emissions a year ^[1].
- **Usage of CFL lamps** - Compact fluorescents produce the same amount of light as normal bulbs, but use about a quarter of the electricity and last ten times longer than the normal bulbs ^[2].
- **E-Statements/E-Bills** - Switching over from hard copy statements/bills to e-statements/e-bills will reduce tonnes of paper printed every month.
- **Paperless Office** - On an average an employee uses 10,000 sheets of paper every year ^[3]. Organizations can start transforming towards a paperless office to conserve paper.
- **Afforestation & Reforestation** - For every tree chopped down, multiple trees need to be planted to maintain the ecological balance.

"We can no longer ignore the fact that all companies make an impact - they impact the environment, other companies, local communities and they impact the lives of their employees."^[4]

Companies are realizing their responsibility towards a healthy global environment. They are identifying opportunities to contribute to the environmental betterment by involving their employees in all such opportunities.

As a globally responsible organization, iGATE has identified the need to contribute towards environmental betterment and launched the "Go Green" initiative within its campus. This white paper focuses on a project in iGATE as part of the "Go Green" initiative.



Printing is a key area of unnecessary environmental and financial waste.



Over 40% of wood pulp goes toward the production of paper ^[5].

Paper and Print Service Consumption

Ten years back the global paper consumption rate was very high at an alarming double digit figure. The good news is that consumption rate appears to be under control currently and is expected to come down with some effort. From a business standpoint reducing paper and print services consumption is not only a way of going green but also a means of cutting costs that add directly to the company's bottom line.

The price of paper - Paper procurement represents a significant direct cost for office printing and commercial printing. Document related activities in a company attribute to a significant cost of the overall expenses.

In addition to this paper based offices have multiple other drawbacks -

Paper does not lend itself to efficient Information Management –

Information stored on paper is difficult to manage, store and retrieve. Paper uses up physical space, Searching is highly inefficient. Thus the usage of this information on a day-to-day basis is practically impossible.

Paper is an information security risk– confidential Information on paper is prone to be misused. Such information can easily be duplicated and shared with 'outsiders' with no trace of who has accessed that information.

A quick line about print service costs – every page printed brings along added real and environmental costs and clearly there is a need to limit these costs.



Printer ink costs nearly \$10,000 a gallon! [6]



Paper use is expected to exceed 396 million tons by 2010! [6]

Reduction in Paper Usage

Reduce; reuse and recycle are the three effective policies of efficient environmental management. The maximum benefit though is derived from the reduction of resource use.

There are both individual and organizational initiatives that can be taken to curb paper and printing volumes.

Print when necessary - Print only when you have to. And use both sides of the paper whenever possible.

The organization needs to enable the above by educating employees about the need for an attitudinal change towards printing. Apart from this they need to implement measures such as double side printing, printing limits per user and monitoring of non-essential printing.

In addition to the above organizations need to embrace technology and move to becoming a 'true paperless' office.

As a start organizations can move to a highly digitized environment by using

- **Scanning** - Scanning is the fastest way to deliver hard-copy information to a distribution list thereby avoiding the cost of overnight delivery, fax lines and the associated cost and use of paper. An in order to benefit the most information must enter a scanned form at the earliest possible time in the document lifecycle.
- **Online workflows** - Another key strategy to reduce paper work is to automate internal workflow processes – Leave applications, expense statements etc.



Reducing paper usage reduces greenhouse gases: 40 reams of paper are like 1.5 acres of pine forest absorbing carbon for a year [7].



One tree equals 14 reams of paper.



Paperless Office - iGATE Implementation

After the successful implementation of few environment betterment initiatives - Car Pooling & Usage of CFL lamps, iGATE moved forward with its next initiative "Paperless Office".

As part of our contribution towards environmental betterment, we at iGATE decided to review all possible sources of paper consumption in the organization and emerged with a solution to curb paper consumption via printers. This implementation (Project) was done on a pilot basis in its Bangalore office and later rolled out across all its offices.

Based on the print statistics collected across all the printers it was observed that the high utilization of printer paper was due to lack of awareness about paper conservation amongst employees. Certain cases of non-business related printing, lack of accountability on paper utilization led to evolving a print control mechanism. iGATE evaluated various options of reducing non-business related printing – including educating employees to create awareness, encouraging digitization and designing a continuous control and monitoring system on paper utilization.

The paper utilization across various business groups was thoroughly analyzed and an allocation limit was put in place for each business unit and its members. An appropriate approval process was put in place for an increase in the allocation limit for a business unit or an employee.

■ Implementation Approach

The various solutions examined by iGATE for their print monitoring and control needs were:

Option-1: Usage of HP Jet Admin software to manage all the printers in the office due to vast presence of HP printers. A few drawbacks of this option were:

- The software was not able to manage non-HP printers available in the organization.
- The software did not have the feature of limiting the number of pages a user can print.
- The software was expensive and beyond the planned budget for the project.

Option-2: Usage of Pcounter (AND technologies) software to manage all the printers in the office due to its support for multi-brand printers.

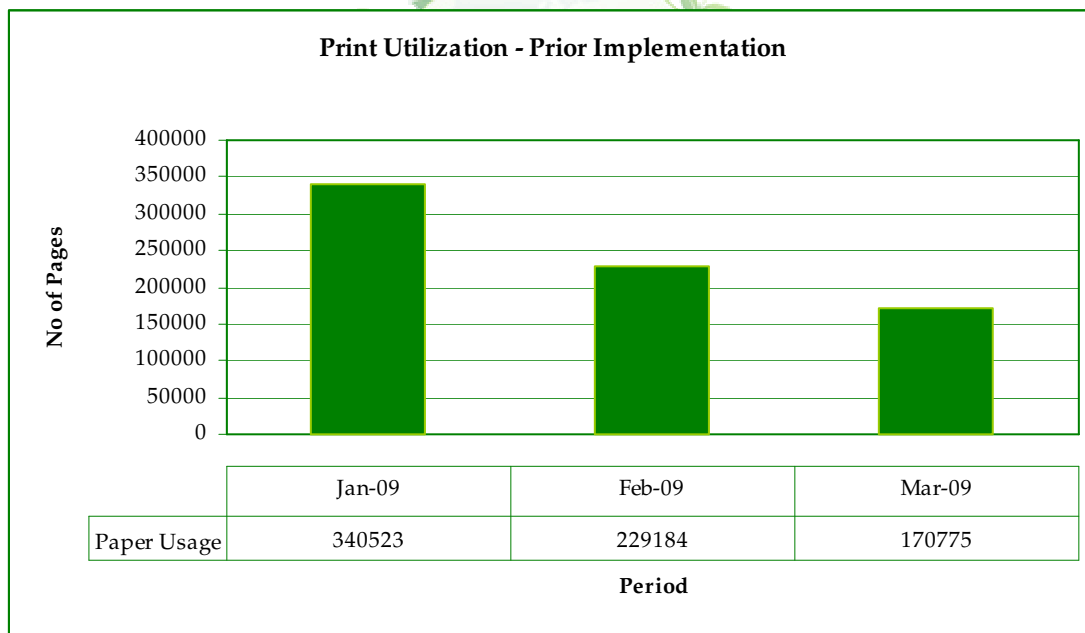
- The software has the advantage of managing all brands of printers and specifically all the printers in the office.
- The software has the feature of limiting the number of pages a user can print.
- The cost of this software was only 15% of Option-1 and well within the planned budget for the project.

On comparing the features and cost benefits of both these solutions, Option-2 was identified as the right solution for the need and this solution was decided to be implemented.

▪ **Print Utilization - Pre-Implementation**

The need for this project was identified in Jan-2009 and print statistics across all printers were collected for a period of three months. The employees were educated on paper conservation in this period. Based on the statistics collected, it was very clear that the print utilization was very high in the period Jan-2009 and started reducing gradually from Feb-2009 due to the awareness created amongst employees. The utilization figures were still higher compared to the post implementation figures. The causes for high print usage prior to project implementation were:

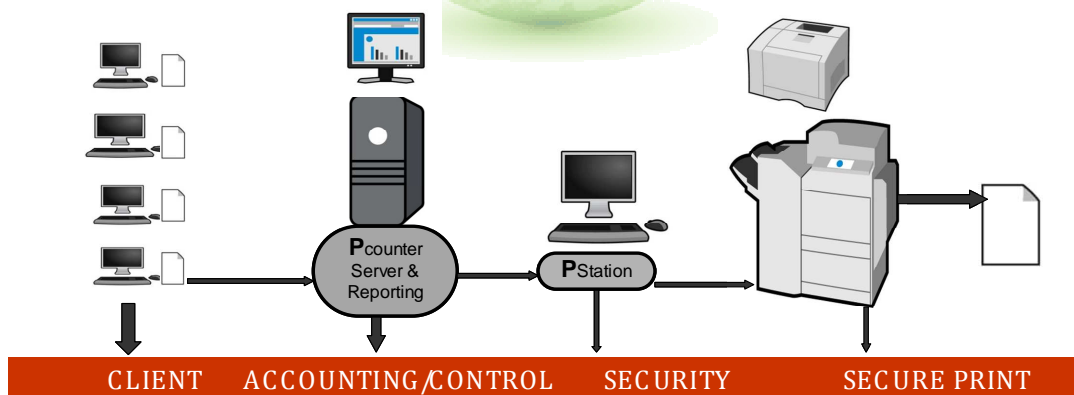
1. Non-business related print jobs issued by employees.
2. Unnecessary business related print jobs issues by the employees. This posed a potential threat of many confidential business documents walking out of the office premises.
3. Administrators had no control over employees print jobs.
4. Print job tracking was not systemized to question users on non business related prints.



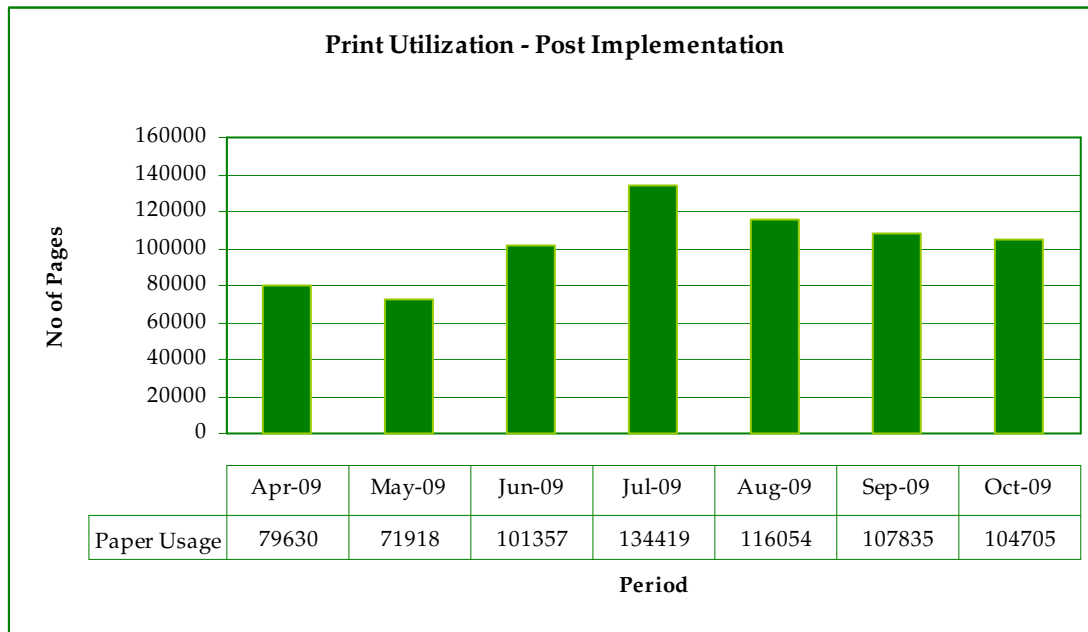
▪ **Project Implementation**

The project was implemented in Apr-2009 by installing Pcounter software on the print servers of the organization to manage the print jobs effectively. The implementation details of the project are:

Software Procured	Pcounter
Software Features	<ol style="list-style-type: none"> 1. Tracks printer usage and provides smart, reliable printing. 2. Enforcement of printing account balances and quota for users. 3. Restrict number of pages in a single print job. 4. Accurate reports generation based on users and provides print histories of users, printers. 5. Custom reports can be generated for document name, application, and number of pages in a job ext. 6. Guarantees security & confidentiality of output. 7. Eliminates waste and unwanted print jobs. 8. Increases productivity – no need to queue by printer.
Implemented In	Apr-2009
Implementation Details	<ol style="list-style-type: none"> 1. Limitation on the number of pages printed by an employee every month was enforced through the software. 2. Awareness mail on daily basis to users who print more than 10 pages per day. 3. Categorization of business & non-business related print jobs. 4. Default setup of double side printing to reduce paper consumption.



▪ **Print Utilization - Post-Implementation**

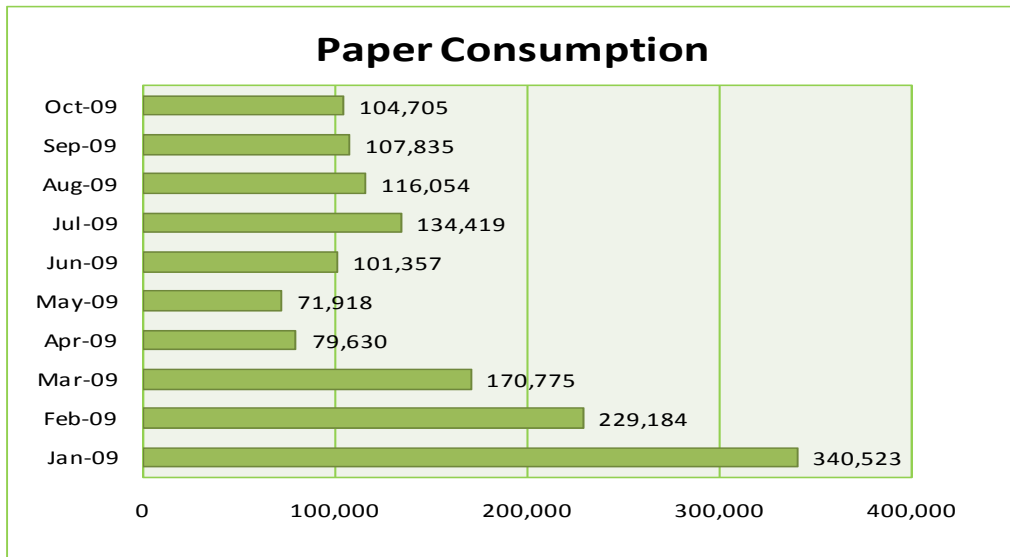


The print utilization was drastically reduced from Apr-2009 post-implementation of the project. The reasons for reduction in print usage are:

1. Increase in employee awareness on paper conservation.
2. Limitation on the number of pages printable by an employee per month.
3. Verification of non business related prints with employees based on print server report.
4. Awareness mail on daily basis to employees who print more than 10 pages per day.

▪ **Achievement – Paper Consumption**

The average number of pages printed every month reduced by 60% after implementation of the project.



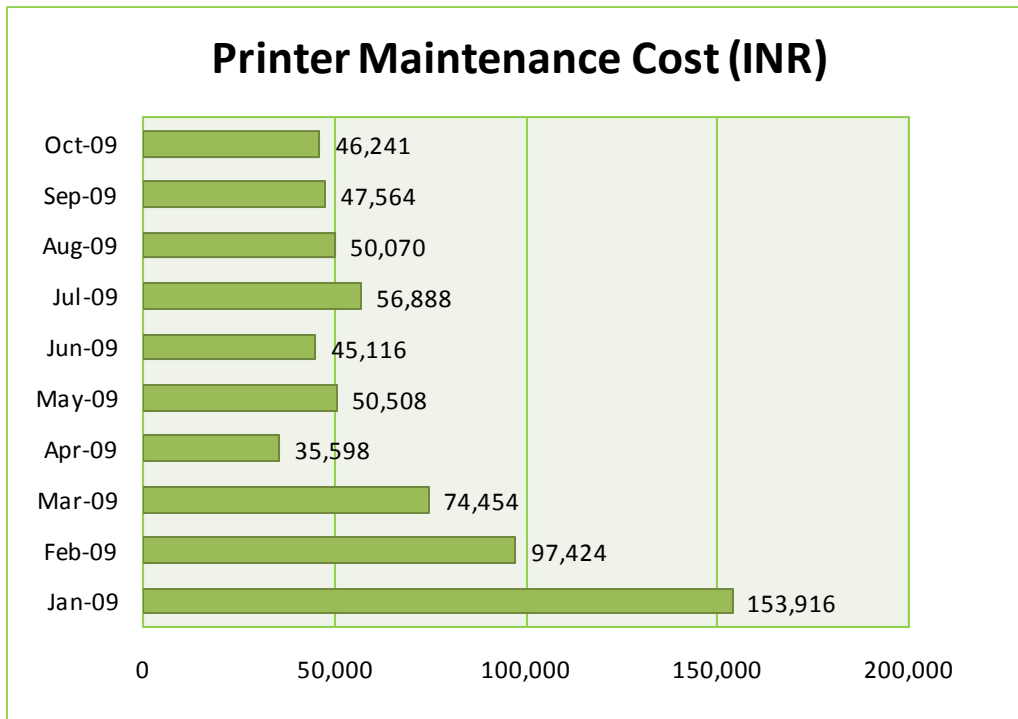
The paper utilization was slightly higher in the period Jul – Aug after the implementation of the project. A few factors that led to the rise in the usage were:

- 1) Project activities in this period demanded high volume of print for testing purposes.
- 2) Income tax return (Form 16) submission across the organization that occurred in Jul-09.
- 3) Increase in requirements from recruitment to print offer letters due to rise in recruitment.

▪ **Achievement – Cost Benefit**

There was an overall cost benefit on implementation of the project and the factors that attributed to the benefit were:

- 1) Reduction in the consumption of paper.
- 2) Reduction in the maintenance cost of printers due to reduced printer usage.



- **User Impact**

The most interesting and surprising part of this project are the acceptance of this implementation by the employees. Most of the employees supported & welcomed this move of the organization and accepted that they also have responsibility in making the environment better.

- **Return on Investment (ROI)**

The trend analysis of paper consumption in the organization shows the success of this project. The goal of the project was achieved within a short time span and ROI within 5 months.

Description	Cost & Other details
Average cost per month before implementation	INR 1,08,598
Average cost per month after implementation	INR 47,426
Cost savings per month after implementation	INR 61,172
Total operational months of the solution	7 Months
Total cost savings	INR 4,28,204
Investment	INR 3,12,000
Return on investment duration	5 Months

Conclusion

The success of the pilot implementation has taken the organization to the next step of moving towards a paperless office. This is just a stepping stone in iGATE's "Go Green" initiative and more such implementations would be rolled out in the next few years to strengthen the organization's commitment towards environmental betterment.

With the shift in the corporate world toward an acute awareness of both environmental impact and cost savings, reducing waste associated with printing provides an opportunity for companies to make significant progress in both areas. It seems more possible now that we may one day find an economically feasible, suitable replacement of the "physical" artifact of a document. But we are not there yet ... and in the meantime, it is necessary for all of us to pursue the very achievable vision of a paperless office.



References

1. <http://www.salesforcefoundation.org/files/Earthforce-WhatYouCanDo.PDF> downloaded on Jan 18th 2010.
2. www.highcountryconservation.org/pdf/Efficient%20Lighting.pdf downloaded on Jan 18th 2010.
3. Copy This! Results of the Citigroup-Environmental Defense Partnership to Improve Office Paper Management (New York: Citigroup and Environmental Defense, November 2004).
4. James C. Hood and Barbara A. Bedard, "Don't ignore corporate social responsibility," New Hampshire Business Review 15 August 2008.
5. http://www.lyriclabs.com/lyric_labs_cut_%20its_paper_consumption.asp downloaded on Jan 18th 2010.
6. <http://www.bgsu.edu/downloads/mc/file74758.pdf> downloaded on Jan 18th 2010.
7. <http://156.98.19.245/paper/index.html> or www.reduce.org downloaded on Jan 18th 2010.

