

# AdStringO's File Compression (AFC) Technology

Whitepaper

## 1. Abstract

### World Fastest End-Point Mobile and PC based File Compression Technology

AdStringO's AFC Technology creates a World Class and Fastest End-Point File Compression technology, which can compress the captured image, Audio, Video, PDF, DICOM & Office file either from Scanners or from Mobile Platform up to 70-96% of original size with no change to Quality before extending it to any Business Process Application like DMS, BPM, Portal or Sharing etc.

Thither was a substantial benefit of this modern technology post adoption in Banking, Insurance, Telecom and Logistics vertical. With this modern technology now field executives' now on-board customers with supporting documents from his house or from dealers place.

Also Small Business & Home Users can be benefitted to get a smaller files for easy transmission.

**Truly "Instant" and delivers "Customer Delight" anywhere every time.**

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## 2. Overview

Digitization has enabled steady increase of voluminous data across industries. Mostly, these data exists in various forms like paper, e-mails, forms, or office documents. Therefore, it may not help if they cannot be processed for meaningful information. Businesses earnestly seek for seamless, cost-effective, simple and scalable document capture software that can extract insightful information from various incoming documents and feed it to other enterprise applications that drive their business. The time and efforts lost in searching for the right information is an opportunity cost to the organization in terms of a lost business deal or poor customer servicing. This is high time for organizations to invest in an effective document capturing solution. This would eventually help in converting information from the documents into a more reliable and easily retrievable form.

## 3. AdStringO – Introduction

Presenting adStringO an ultimate File compression technology, it compresses the captured image, Audio, Video, PDF, DICOM & Office files either from Scanners, Desktop or from Mobile Platform upto 70-96% of original size with no change to Quality before extending it to any Business Process Application like DMS, BPM, Portal or File Sharing etc.

AFC technology compresses all image files from 70-96% without zipping without losing character. The Technology sports an intuitive interface and lets you compress the size of your JPG, TIF, BMP, GIF, EMF and PNG picture files without altering the native file format. The Compression is visually lossless preserving the original visual quality of a file at all times. It easily mixes into any Web Browsers, Microsoft.net and run as a desktop widget or into any android/IOS mobiles to compress your captured image files directly before sending. You can easily go around image size limitations and won't choke up your allotted storage space. It Compress your network bandwidth and storage by 70-96% with high quality documents.

## **4. TECHNOLOGY: AdStringO File Compression Technology (AFC)**

### **AdStringO's native file data reduction provide Storage usage & Network Bandwidth reduction through AFC technology**

Our software Compress file data on any storage by 70-96% and service MSME & Enterprises to compress existing storage capacities as well as to flatten the rapid data storage growth without impacting storage and network bandwidth. On the reverse, the native data Compression increases the public presentation of data throughput and network operations. Easy to install and use, our software support any type of DMS, BPM, Scanning Software, There is no necessary changes to your existing infrastructure and Storage.

Our AFC technology is composed of a comprehensive set of content-aware native file Compression algorithms especially developed for any captured or generated files. Our technology scales down the footprint of these files by up to 70-96% while preserving the original file format, pulling in a subsequent rehydration or decompression unnecessary.

### **AdStringO's File Compression technology provides enterprises the following benefits:**

#### **Native data reduction of unstructured files by 70-96%**

- ✓ Performance increase due to smaller file sizes
- ✓ Visually lossless data reduction
- ✓ Significant data reduction on files (represent 70-96% of total primary storage)

#### **Fully transparent**

- ✓ Agnostic to applications, networks, storage
- ✓ No file rehydration necessary
- ✓ Complementary to any scanning, DMS and BPM Software' other storage efficiency technology

## **AdStringO File Compression (AFC) technology.**

### **In a nutshell, AFC plays trick with our human visual system**

The goal is to cut down the size of unstructured files without reducing the optical character of the images (text, texture, color, resolution, depth, hue, contrast, and so forth) of the files

Have a smell at these 2 files. One is compressed with AdStringO's AFC technology and one is un-squeezed. Can you distinguish the dispute?



**Original File : 8.1MB**



**AdStringO File : .8M**

#### **The human visual system is known to be:**

- ✓ Less sensitive to high frequency of color variation
- ✓ More sensitive to brightness than color variation
- ✓ Less sensitive to background color in lower resolution
- ✓ More sensitive to a picture's motion than picture's texture
- ✓









Thus, the eyes perceive an image based on mostly the lowest quality baseline Because AFC is already in its native form, the file does not need to be rehydrated like duped files

The capacity reduction savings is tremendous and because AFC approach is content aware, the benefits translates to higher cost savings in





- ✓ Reduction of power, cooling and floor space
- ✓ Reduction in data management and administration, tasks, especially backup
- ✓ Improved bandwidth and improved disaster recovery
- ✓ Higher performance
- ✓ Delayed storage capacity purchase etc

## 5. AFC Technology Vs. Conventional Compression

AFC technology is uniquely positioned and a truly modern approach to significant primary file data reduction. It is distinctively different from duplication as all of our Compression technology takes place within a single file and not across files. Equally well, it is distinctively different from compression technologies. Whole of our Compression technology preserves the original file format. Detecting and reducing redundancies achieve space reduction and inefficiencies internally within the passed file container such as the one. The original file format is unaltered and no decompression or rehydration is necessary. The resulting files are remaining fully compliant as every compression takes place within the given standard of each supported file format.

Capture Image				
Color	100 dpi	200 dpi	300 dpi	600 dpi
Original				
	163 Kb	529 Kb	1.05 MB	3.33 MB
Adstringo Compress				
	67.5 Kb	74.2 Kb	75.1 Kb	73.5 Kb

## Image File Compression Vs.ZIP or RAR Compression

Color	Original	Scan.zip	Scan.WinRAR	Adstringo Compress
600 dpi				
	3.33 MB	3.29MB	3.26 MB	73.5 Kb

## 6. How AdStringO's AFC Technology works:

The AFC technology uses a comprehensive set of content-aware Compression mechanisms which are both "lossless" and "visually lossless" meaning they are technically "lossy", only in practice deliver compressed files which are visually identical to the original.

The Technology team has carefully developed enhanced file compression coding algorithms that align exactly with the sensibilities of the human optic system to deliver visually lossless results to the exploiter. The techniques applied to reduce single file sizes via AFC include intra-file object duplication, object format Compression, and object slimming, noise reduction, and quantization adjustment, Compression of non-visual information, enhanced image encoding and other methods.

By intelligently reducing single file sizes and allowing them in their compressed state through the whole information Lifecycle, customers using our AFC technology are gaining benefits in bandwidth cost and improved end-user experience, in addition to reducing storage costs and backup data volume.

While with stock compression or workflow the read-back of files requires rehydration, the AFC Algorithm is entirely different: files are compressed but stored in their native file format (for example the image file "SCAN1.jpg" is natively Compressed and stored as "SCAN1.jpg") - a read-back of a Compressed file requires no rehydration.



Original File : Scan1.jpg



AdStringO File : Scan1.jpg

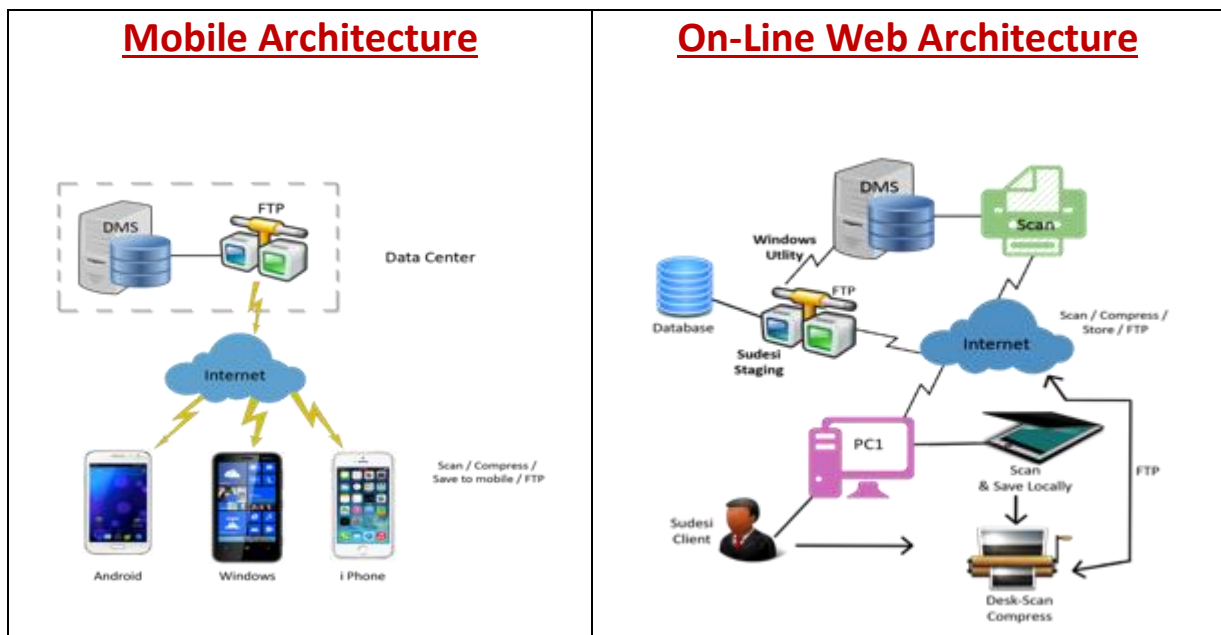
## 7. How to Integrate AdStringO to your Enterprise Application

AdStringO can be easily integrated to your Enterprise in 3 different models

1. Any Android or IOS based Application
2. Offline Mode – Like Desktop Widget or Server Batch mode or API call
3. Online Mode – ActiveX can be called in a button (Upload/Attach/Compress)

The AdStringO file compression technology captures and compress the image, video or PDF either from Mobile phones or Scanner real-time thus transmission even at 2G made easier.

**Integration Architecture for Mobile and On-line is attached**





## 8. UNIQUE FEATURES



- Can operate from Android or Windows OS
- Works well even in 1G & 2G network
- Captures images in original colors
- Resizes without compromising on aspect ratio for easy uploading
- Compress to 1/20\* of the size of original image
- Can be sent/transmitted from the point of origin
- Can work on Batch Mode for multiple images
- Use friendly (intuitive)

## 9. BUSINESS BENEFITS



- Improved Productivity
- Inverse Revenue
- TAT Reduction
- Reduced Operational Cost
- Faster Servicing
- Improved Customer Satisfaction
- High Quality Digital Documents
- Help to Reduce Operational Cost
- Eliminates courier/data entry delay and its associated cost
- Eliminate back office processing time

## 10. Summary

Offers with its File Compression (AFC) technologically the most innovative technology platform for data reduction in the diligence. The ability to control and optimize image, Audio, Video, PDF, DICOM and Office file data at a pixel, DCT, object, sub-object and file format level presents many chances to deliver economically significant, lasting benefits without degrading perceived image quality (visually lossless Compression). The whole AFC process is an intra-file Compression requiring no rehydration or decompression (independent process).

The Compression starts at the root of the file Lifecycle on primary storage saving customers not only on storage capital expenditures and operational expenses for primary storage, but as well on backup and archiving space and on bandwidth and network traffic

- ✓ **Reduction in primary storage consumption by upto 70-96%**
- ✓ **Reduction in backup storage consumption by upto 70-96%**
- ✓ **Reduction in archive storage by 70-96%**
- ✓ **Reduction in distribution bandwidth by 70-90%**
- ✓ **Accelerated backup times by 70-90%**

The power to normalize incoming images to a defined degree of quality as appropriate for a specific application, workflow process and increases further the efficiency of the above

AdStringO delivers the AFC technology as software, tuned for performance and reliability, and supporting policy-based operation to get best high quality image files.

**To buy/try AdStringO**

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**Best Image Quality at lowest File size. Guaranteed every-time**