



## A Closer Look at the Financial Benefits of Intelligent File Virtualization

F5 Acopia products virtualize existing file storage resources for dramatically reduced storage costs, improved resource utilization and simplified storage administration. As expected, there are normally significant capital expense (CapEx) and operation expense (OpEx) savings associated with the use of Acopia's products, with six major areas that typically contribute to the ROI. This document will summarize each potential area and outline the basic ROI calculations.

### Tiered Storage

Acopia solutions enable storage managers to deploy tiers of file storage with adaptive ILM policies that match the business value of data with the cost of storage. With F5 Acopia, customers can automatically and transparently migrate non-critical business data off of expensive storage resources to lower cost alternatives. For example, a customer could decide to migrate all data that has not been accessed in the last six months from the primary storage to Tier 2. As the following example shows, this can result in dramatic immediate and recurring long-term CapEx savings.

#### CapEx Savings from Efficient Tiering

##### Assumptions:

- 10TB NAS environment
- 80% of data (8TB, or 8000GB) moved to Tier 2
- Cost of storage: Tier 1 - \$20/GB; Tier 2 - \$10/GB

$8000\text{GB} * \$10 = \mathbf{\$80,000}$  immediate CapEx savings

##### Assumptions:

- 2TB new storage purchased each year
- Efficient storage tiering requires that 80% (1600GB) of new storage can be Tier 2

$1600\text{GB} * \$10 = \mathbf{\$16,000}$  recurring CapEx savings

### Tiered Storage-Enabled Backup Savings

Customers that deploy tiered storage environments can create different backup policies for the primary and secondary storage tiers, which can result in further savings. For example, primary storage can still be backed up normally (daily incrementals and weekly full backups) but Tier 2 can now be backed up much less frequently (weekly, monthly, etc.). Not only does this simplify backup processes and reduce media costs, but it also dramatically improves backup windows.

#### Reduction in Backup Window

##### Assumptions:

- 10TB NAS environment
- 80% of data (8TB, or 8000GB) moved to Tier 2
- 4 tape drives
- 30MB/s tape speed

$10000\text{GB} / (4 * 30\text{MB/s}) = \mathbf{23.1}$  hr current full backup window

$2000\text{GB} / (4 * 30\text{MB/s}) = \mathbf{4.6}$  hr new full backup window

$23.1\text{ hr} - 4.6\text{ hr} = \mathbf{18.5}$  hr reduction in full backup window

### Improved Utilization

File storage resources tend to be inefficiently utilized. While there may be some devices that are highly utilized, on aggregate most customers see low utilization levels of just 30-40%. This is, in large part, due to the difficulty and disruptiveness of sharing excess capacity across islands of storage resources. Acopia products allow IT managers to virtualize or "pool" their existing file storage resources for dramatically improved storage capacity utilization. This means that, instead of having to buy more storage, customers can make better use of what they already have. The ROI comes from improved utilization levels of existing storage capacity.

#### Savings from Increased Utilization

##### Assumptions:

- 10TB NAS environment
- 20% increase (2TB, or 2000GB) in utilization rates
- Storage costs: \$20/GB

$\$20 * 2000\text{GB} = \mathbf{\$40,000}$  immediate savings

##### Assumptions:

- Capacity requirements increase 2TB (2000GB) each year
- Storage capacity costs: \$15/GB

$20\% * 2000\text{GB} = \mathbf{400\text{GB}}$  additional capacity each year

$\$15 * 400\text{GB} = \mathbf{\$6,000}$  additional savings each year



## Transparent Storage Administration

Acopia solutions dramatically simplify storage administration for enterprise IT environments. Capacity management, storage provisioning and data migration tasks can now be done online without user disruption. In addition, many tasks that used to be manual, like data migration, can now be completely automated. This typically has a dramatic effect on OpEx and business operating efficiency. In real-world deployments, F5 Acopia customers have reported an average savings of 20%- 30% in reduced storage management overhead, freeing up precious resources to pursue other needed tasks. What does this mean to you?

### OpEx Savings from Improved Management

#### Assumptions:

- \$80,000 average FTE Storage Administrator salary
- 20% reduction in management workload
- 4 full-time administrators on staff

$\$80,000 \times 20\% = \$16,000$  increase in efficiency per admin

$\$16,000 \times 4 = \$64,000$  increase in business efficiency

## Increased Business Workflow

F5 Acopia products allow customers to distribute application load from critical business applications across multiple file systems and across multiple file servers. This typically results in dramatically improved aggregate throughput and increased application performance, which translates into real business value like faster time to market, better customer service or increased revenues. Warner Music Group (WMG) experienced these benefits firsthand: By utilizing the F5 Acopia products to load balance their application work load, WMG was able to increase their business workflow by over 560%.

## Reduce Data Replication Costs

F5 Acopia products also help reduce the cost of disaster recovery, allowing customers to replicate data sets from a primary data center to a disaster recovery site, without requiring additional expensive software licenses and maintenance fees. Equally important, F5 Acopia products can be configured to replicate based on file policy. Customers can choose to replicate all files or only files essential to their business, thereby reducing network bandwidth costs. Acopia solutions can also replicate data between heterogeneous file storage, which enables customers to use more cost-effective storage options (potentially from multiple vendors) to support their disaster recovery objectives.

As a result, F5 Acopia can significantly reduce the CapEx associated with data replication software licenses and disaster recovery storage, making disaster recovery protection more financially feasible for customers. The actual savings in this area depends on the specific replication software, licensing fees, and associated network and storage costs.

## F5 Acopia Products in Action

*"We are managing resources supporting multiple business groups on a 24 X 7 basis. Application downtime is business downtime, which is not an option for us. Acopia products allowed us to perform a multi-terabyte data migration, on-line, without disrupting our users' access to data, in a fraction of the time and cost to do it manually."*

— Leon Roberge, Director of Information Systems, Toshiba America

*"F5 Acopia automated data lifecycle management policies have allowed us to reduce our back-up times from 2.5 days to less than 2 hours, an overall reduction of over 90%. In addition, since we implemented the Acopia products our IT staff has been able to reduce the time we spend manually managing our storage environment by 40%. This represents a significant cost savings for us."*

— Yury Gutgarts, VP of Infrastructure Services, Archive Systems

*"Just six weeks after implementing the solution, we increased our business workflow over 560% and reduced the overhead associated with storage management by 20%."*

— Mike Streb, Vice President of Global Infrastructure, Warner Music Group



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