



Reducing Storage Costs with F5 ARX

F5® ARX® solutions dramatically reduce capital and operating expenses associated with managing file storage environments. Companies that have deployed ARX solutions have realized significant cost savings in several ways, including through greater use of lower cost storage with storage tiering, reduced backup media consumption from backup optimization, improved resource utilization, and simplified storage administration.

Tiered Storage

With ARX, you can deploy different tiers of storage with Information Lifecycle Management (ILM) policies that automatically and transparently migrate non-critical business data from expensive storage to lower cost alternatives. For example, you can decide to move any files that have not been modified in the past 90 days from primary storage (tier 1) to secondary storage (tier 2). In many businesses, this inactive data is the majority of all data being managed.

“Instead of needing to purchase additional Fibre Channel storage, with ARX tiered storage policies, we were able to invest in less expensive SATA drives at a cost savings of more than 50 percent.”

Reinhard Frumm, Director Distributed IS, Messe Düsseldorf

The example below shows the potential immediate cost savings from implementing a tiered storage infrastructure. Note that there are also significant recurring CapEx savings as the environment grows and more data is placed on tier 2.

Cost savings from tiered storage

Assumptions:

- 25 TB of file data
- 80% of data (20 TB, or 20,000 GB) moved to tier 2
- Cost of storage: tier 1 – \$11/GB; tier 2 – \$2/GB

20,000 GB x \$9/GB = **\$180,000 immediate CapEx savings**

[Learn more about tiered storage](#)

For more information on how other companies have reduced costs through storage tiering, use the search function on [F5.com](#) to find these resources.

Analyst report

[The Economic Impact of File Virtualization](#)

Case studies

[The Colonial Williamsburg Foundation](#)

[Foster and Partners](#)

[Messe Düsseldorf](#)

Learn more about backup savings

For more information on how other companies have reduced backup costs through storage tiering, use the search function on F5.com to find these resources.

Analyst report

[The Economic Impact of File Virtualization](#)

Case studies

[Archive Systems](#)

[John Wiley & Sons](#)

[Leading Financial Institution](#)

Optimized Backups

Storage tiering can also help you reduce backup costs and improve backup and recovery times. Many organizations perform full backups of all of their data on a frequent basis (weekly, monthly, and so on), even though most of it has not changed from the previous backup. By moving inactive data to a separate tier, you can establish different backup policies that take into account the age of the data.

“F5 ARX reduced the size of our backups by 98 percent, which lowered our media costs by 90 percent. Instead of taking 36 hours and using 40 tapes, backups now take just 50 minutes and require only four tapes.”

James Sample, Director of IT Infrastructure, John Wiley & Sons

For example, with an ILM policy that moves data older than 90 days to tier 2, you no longer have to back up data on tier 2 on a weekly basis, but can instead back it up monthly or quarterly. The end result is that you now need much less backup media and much less time to back up your data every week. And, in the event of a disaster, you can restore all of your critical data on tier 1 immediately, and your unused data on tier 2 at a later time.

Cost savings from optimized backups

Assumptions:

- Weekly full backup of tier 1, 5 week retention
- Cost of media: \$.75/GB
- 25 TB x 5 = 125 TB old required capacity
- 5 TB x 5 = 25 TB new required capacity

$(125 \text{ TB} - 25 \text{ TB}) \times \$.75/\text{GB} = \text{\$75,000 savings in backup media}$

Learn more about improved utilization

For more information on how other companies have reduced costs through improved utilization, use the search function on F5.com to find these resources.

Analyst report

[The Economic Impact of File Virtualization](#)

Case study

[Ibis Consulting](#)

Improved Utilization

File storage resources tend to be inefficiently utilized; while there may be some devices that are highly utilized, on aggregate most organizations see low utilization levels. This is, in large part, due to the difficulty and disruptiveness of sharing excess capacity across islands of storage resources. With ARX, you can virtualize or “pool” existing file storage resources to dramatically improve capacity utilization. This means that you can make better use of storage you already have, instead of having to buy more storage.

“Immediately after deploying the ARX switches, we experienced remarkable improvements in operational efficiencies.”

Cliff Dutton, Executive Vice President and Chief Technology Officer, Ibis Consulting

The example below shows potential CapEx savings from improved utilization. Note that there are also significant recurring savings as the storage environment continues to grow.

Cost savings from improved utilization

Assumptions:

- 25 TB of file data, 60% current utilization rate
- 20% increase in utilization rates
- Cost of storage: \$11/GB

25 TB/60% = **41.7 TB old allocated capacity**

25 TB/80% = **31.3 TB new allocated capacity**

$(41.7 \text{ TB} - 31.3 \text{ TB}) \times \$11/\text{GB} = \text{\$115,000 immediate CapEx savings}$

Learn more about simplified management

For more information on how other companies have reduced costs through simplified management, use the search function on F5.com to find these resources.

Analyst report

[The Economic Impact of File Virtualization](#)

Case studies

[Lulu.com](#)

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Simplified Storage Administration

ARX solutions dramatically simplify storage administration for enterprise IT environments. Capacity management, storage provisioning, and data migration tasks can be done offline without user disruption. In addition, any tasks that used to be manual, such as data migration, can be completely automated. This typically has a dramatic effect on OpEx and business operating efficiency.

“Since we implemented ARX our IT staff has been able to reduce the time we spend manually managing our storage environment by 40 percent. This represents a significant cost savings for us.”

Yury Gutgarts, VP of Infrastructure Services, Archive Systems

In real-world deployments, ARX customers have reported an average savings of 20 to 30 percent in reduced storage management overhead, freeing up precious resources to pursue other needed tasks. The example below shows how simplified management translates into significant OpEx savings.

Cost savings from simplified management

Assumptions:

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

$\$80,000 \times 20\% = \mathbf{\$16,000 \text{ increase in business efficiency per admin}}$

$\$16,000 \times 4 = \mathbf{\$64,000 \text{ increase in business efficiency}}$

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