



NetApp™

Go further, faster

NetApp Integrated Storage Efficiency

May 2010

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Moore's Law and the Definition of Insanity

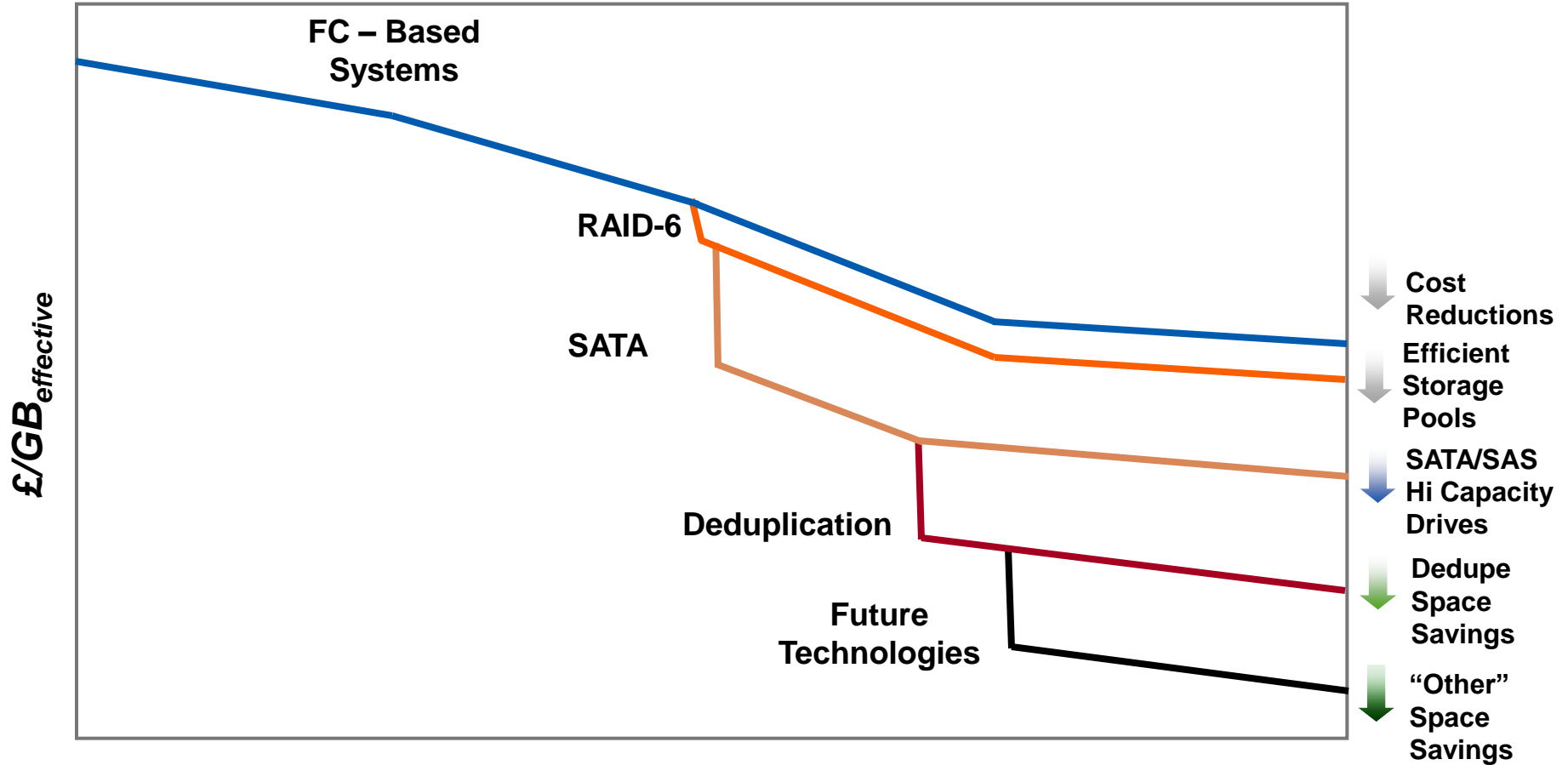


220,000x Larger
~23x Faster



Why Deduplication?

Reduced Storage Costs





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SNIA Definitions – Deduplication

<http://www.snia.org/education/dictionary/d/>

data deduplication

The replacement of multiple copies of data - at variable levels of granularity - with references to a shared copy in order to save storage space and/or bandwidth



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delta-based data deduplication

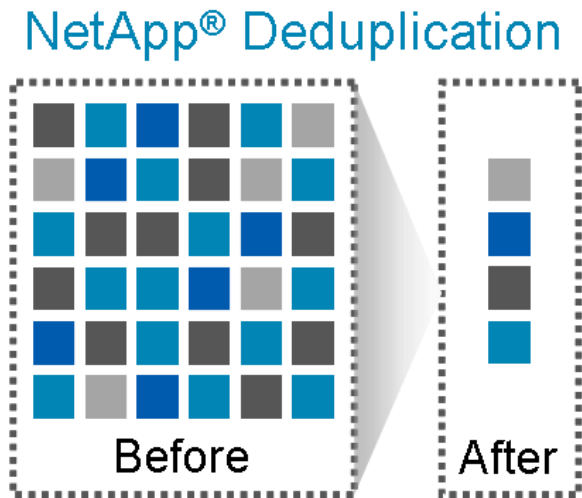
A method of performing data deduplication by storing or transmitting data in the form of differences from a baseline point in time copy

“Dedupable” Data Set...?



NetApp Deduplication

<http://www.netapp.com/us/company/news/news-rel-20100511.html>



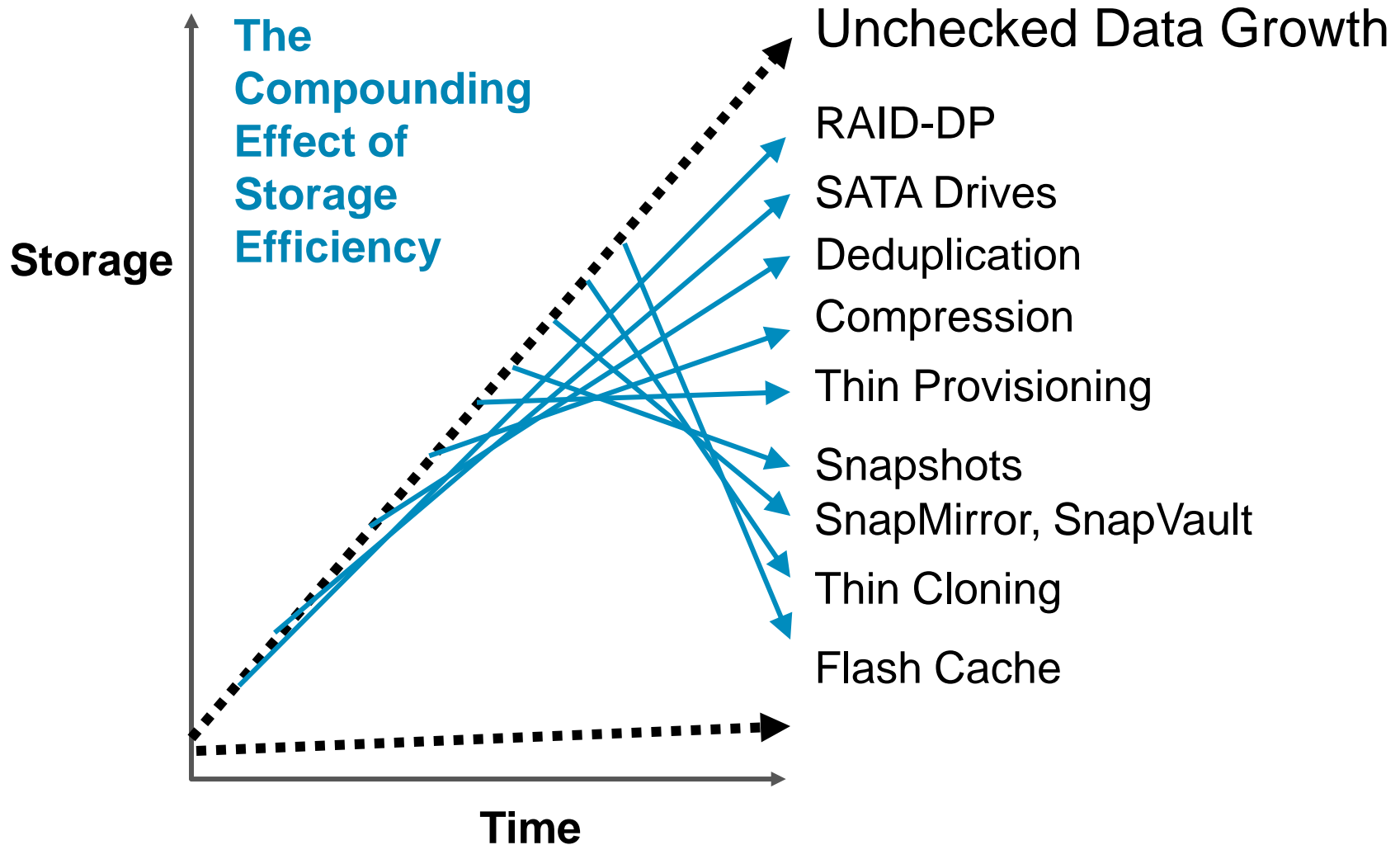
- Over **87,000** systems utilize NetApp deduplication today
- Over **1 Exabyte** usable capacity
- Deduplication removes redundant data blocks from volumes, regardless of application or protocol
- With deduplication, users can recoup 50% of their capacity on average and up to 95% for some data sets and environments

Only NetApp offers deduplication for primary, secondary, and archival storage tiers



Storage Efficiency – The NetApp Way

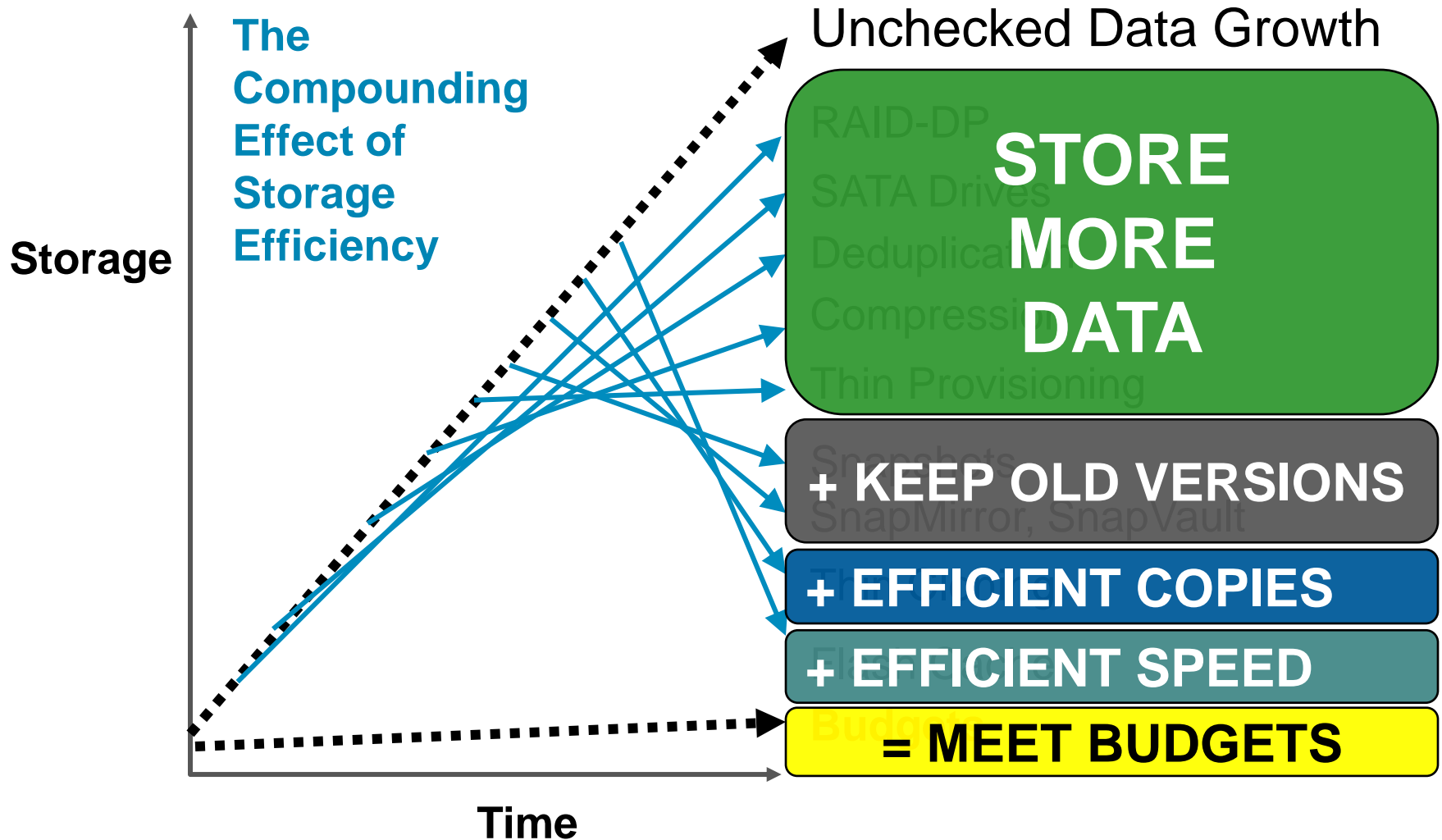
Both Dedupe & “No-Dupe” Techniques Available



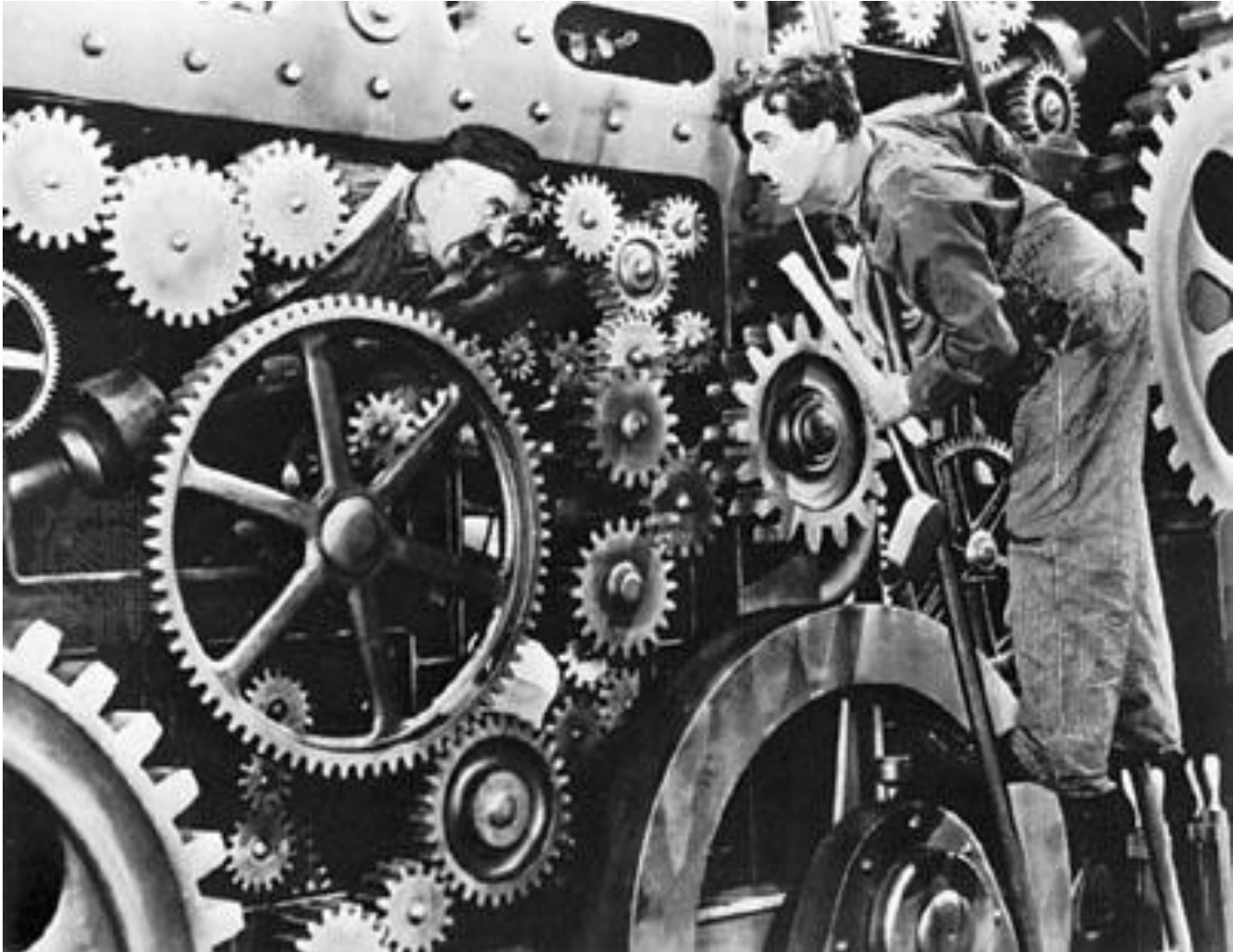


Storage Efficiency – The NetApp Way

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How It Works





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Nottinghamshire Healthcare Trust

CUSTOMER PROFILE

- Nottinghamshire Healthcare, a NHS Trust
- 7,000 staff, 100 sites

THEIR CHALLENGE

- Consolidate storage to complement virtual infrastructure, ensure 24x7 availability of client services, and reduce administrative burden.

OUR SOLUTION

- Storage Efficiency – reclaimed over 50% storage
- 75% less rack space; 67% lower cooling load
- Provision servers/storage in 10 minutes
- Manage 145TB with 0.5 FTE – reduced from 4 FTE; Reduced admin by >60%
- Storage Efficiency paid for DR
 - SnapMirror: achieved <2-hr RTO, <30-min RPO

Nottinghamshire Healthcare NHS Trust
Positive about mental health and learning disability



“Before we implemented the VMware-on-NetApp infrastructure, our IT staff spent 70% of their time on backup & recovery processes, routine server and storage administration, and firefighting. Now it averages just 10%”

“NetApp deduplication contributes a very high percentage toward paying for our mirroring”

Steve Wilkes
Corporate IT, Health Informatics Service,
Nottinghamshire Healthcare, NHS Trust



Where Else to Look ?

- Dr Dedupe Blog <http://blogs.netapp.com/drdedupe>
- Technical Report 3505 – *Deduplication Bible*
<http://www.netapp.com/us/library/technical-reports/tr-3505.html>
- Storage Efficiency Blog:
<http://blogs.netapp.com/efficiency>
- Technology Community
http://communities.netapp.com/community/products_and_solutions/deduplication



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Questions ?

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85 Backup slides to follow.... 😊

