



Go further, faster®

# Netapp – uniwersalne macierze dla IT w administracji publicznej

Łukasz Bajer  
Arrow ECS

Październik 2013  
Ciechocinek

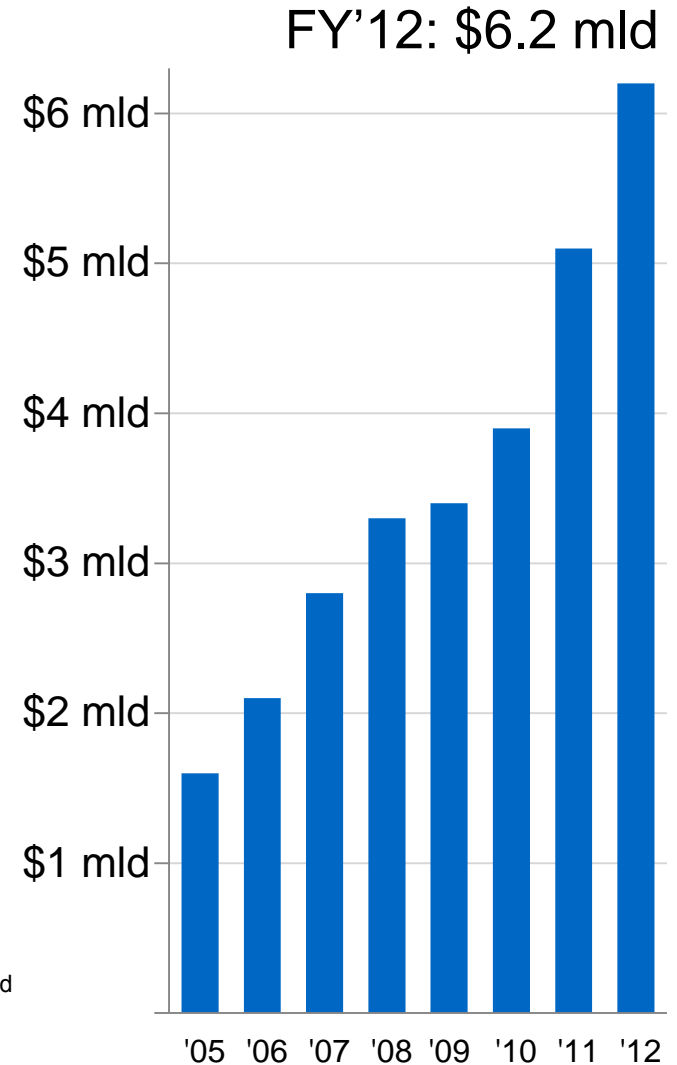




# NetApp

- NetApp na liście FORTUNE 500<sup>®\*</sup>
- 12000 pracowników, 150 biur
- Szerokie portfolio rozwiązań
- Sojusze z wiodącymi dostawcami rozwiązań IT
- Globalne wsparcie

\*From FORTUNE Magazine, May 21, 2012. © 2012 Time Inc. FORTUNE is a registered trademark of Time Inc. and is used under License. FORTUNE and Time Inc. and Time Inc. are not affiliated with, and do not endorse products or services of, Licensee."



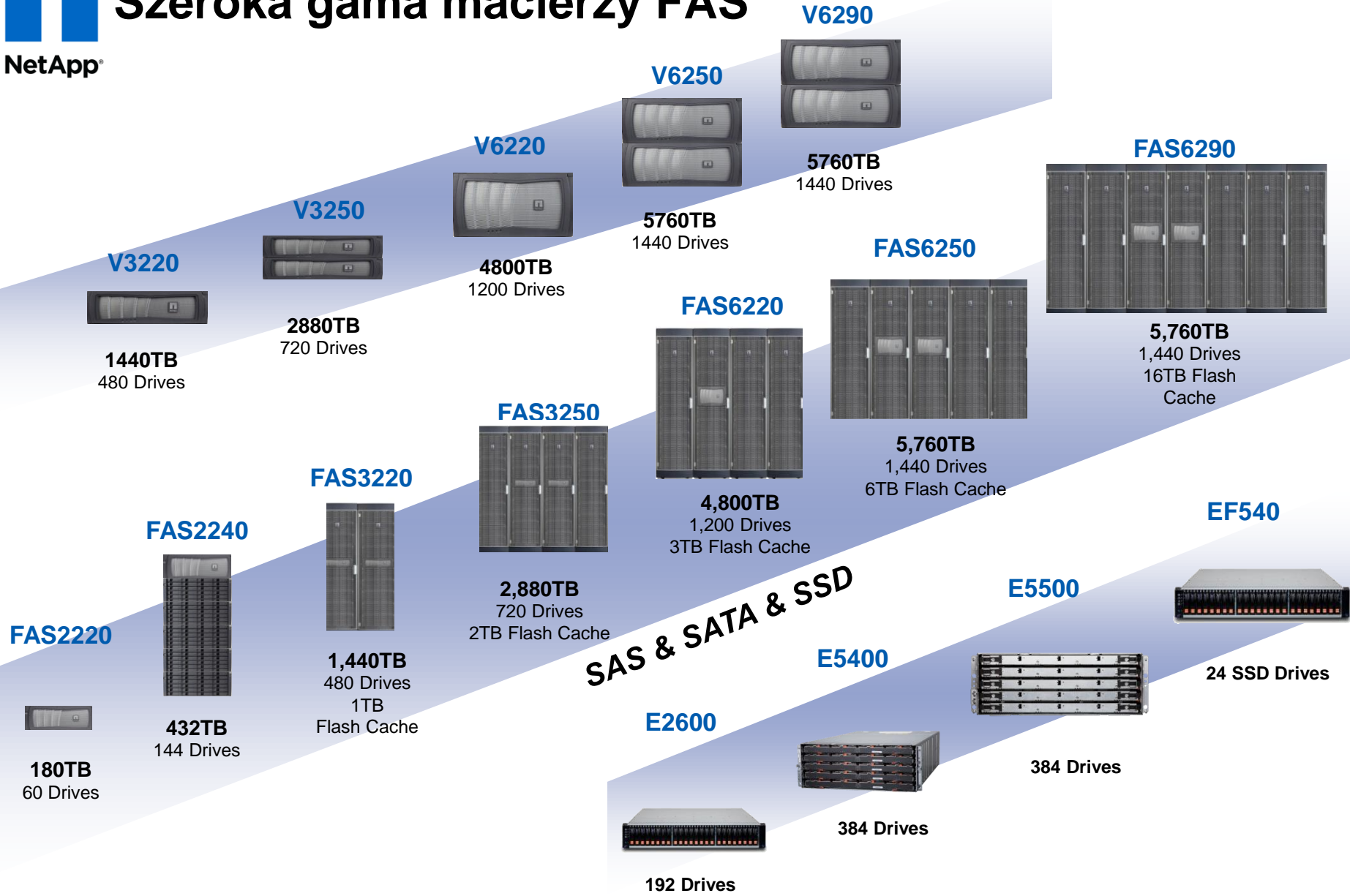


# Klienci firmy NetApp

Energy	Financial	Tech	Government
Healthcare	Information	Telco	Hosted Services



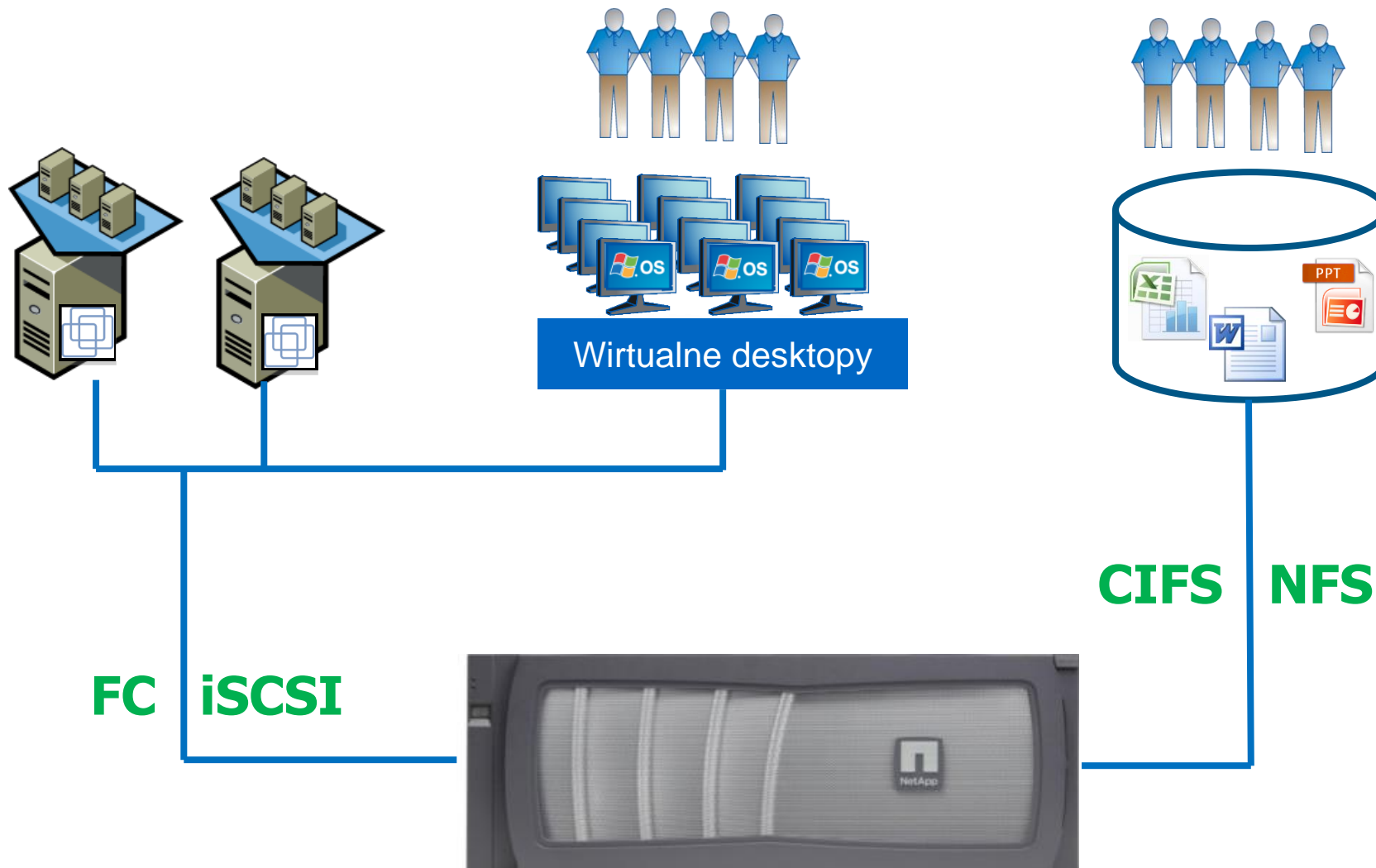
# Szeroka gama macierzy FAS





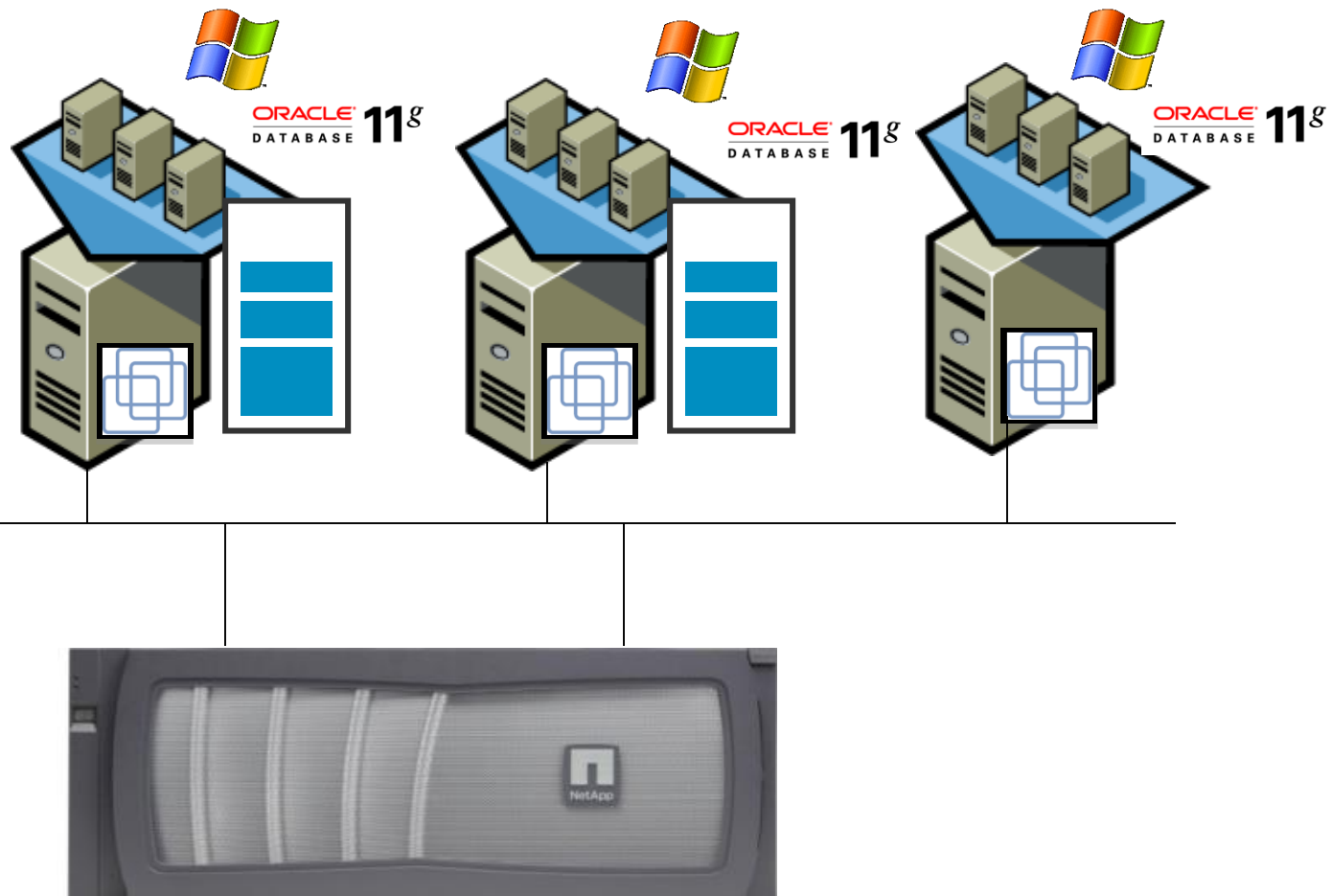
# Uniwersalność

## Protokoły plikowe i blokowe



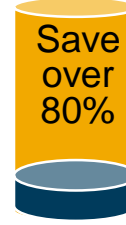


# Bezpiecznie RAID DP, HA





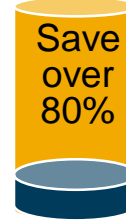
Thin Provisioning  
(FlexVol®)



Snapshot™ Copies



Thin Replication  
(SnapVault® and SnapMirror®)



Virtual Copies  
(FlexClone®)



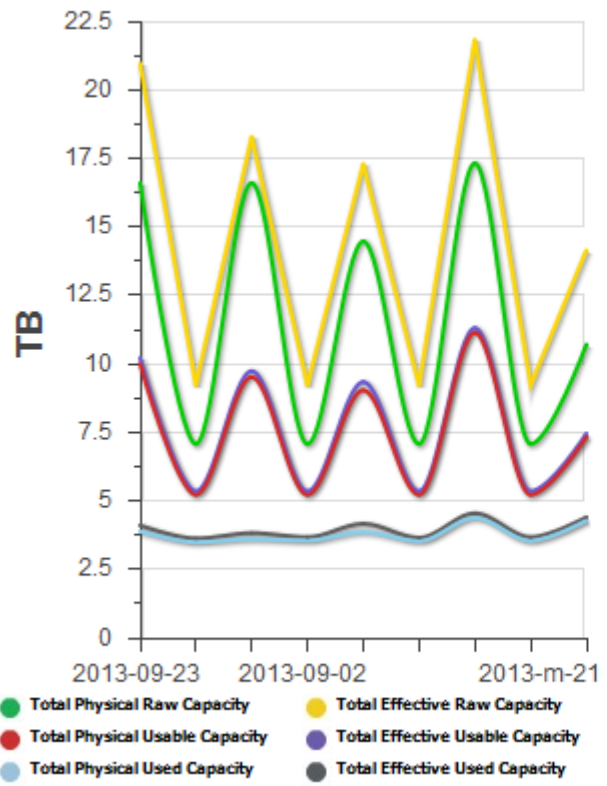
Deduplication & Compression



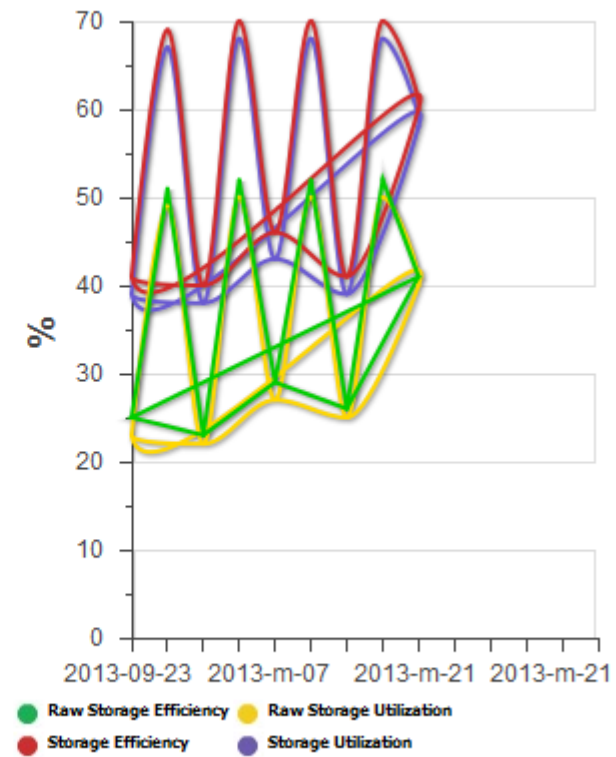
# Mniej obowiązków Autosupport

Fitness Dashboard
Configuration
Storage Efficiency
Storage Efficiency 2.0
Performance
<b>Health Summary</b>
Upgrade Advisor
Transition Advisor
Visualization
My Reports
AutoSupport Alerts
Config Compare

### 60 Days Capacity Trending Chart



### 60 Days Efficiency Trending Chart

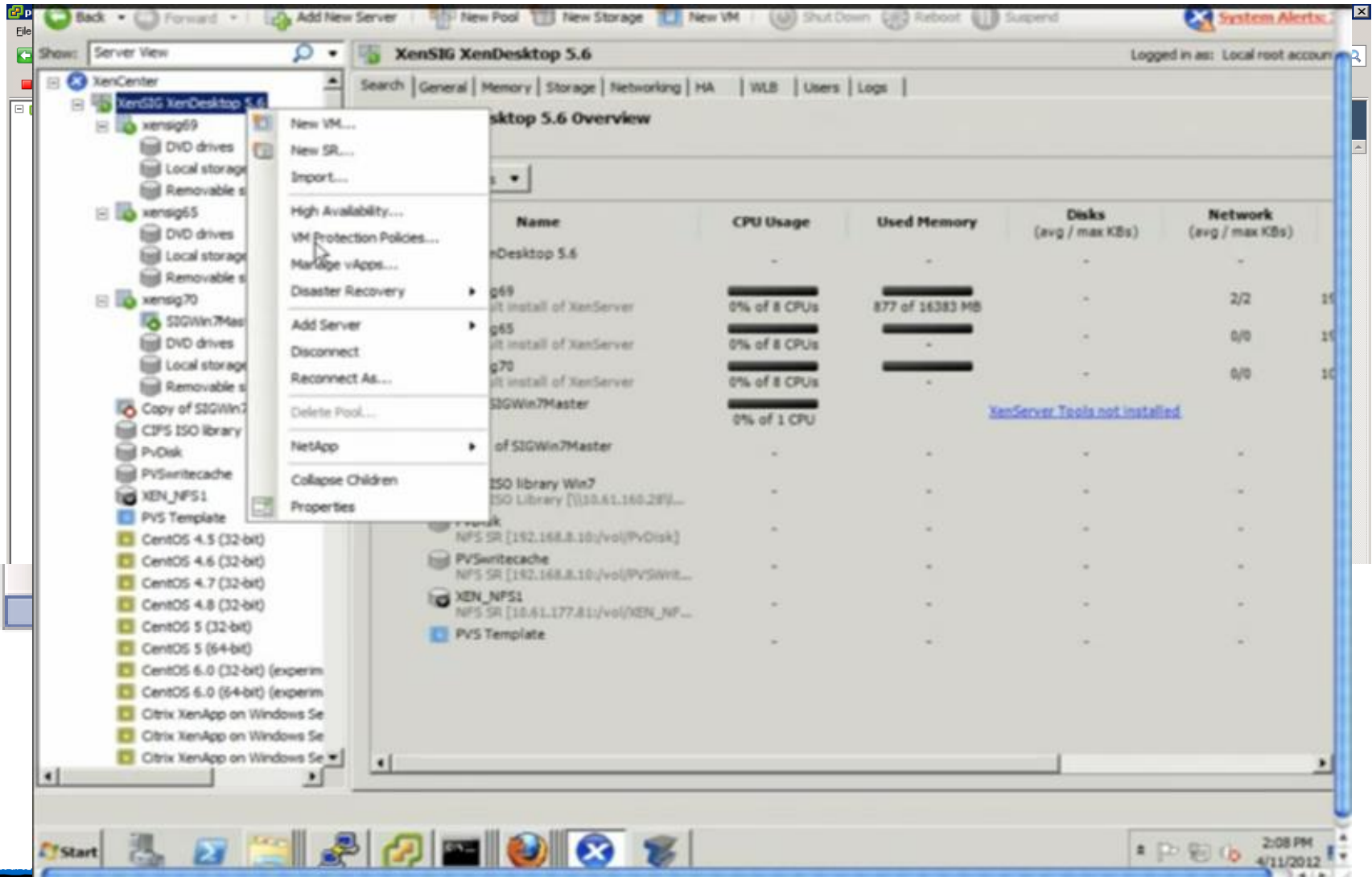


Raw Storage Efficiency: 18%

Sp Zoo ▶ DNS Polska Sp zoo

Systems	Corrective Action
	<a href="#">Bug 374232</a>
	<a href="#">Action Plan: HA Guide</a>
	<a href="#">Shelf Firmware Download</a> <a href="#">Data ONTAP Upgrade Guide</a> <a href="#">KB ID: 1010762</a>
	<a href="#">Bug 726807</a> <a href="#">KB ID: 7010084</a>





The screenshot shows the XenCenter management console. A context menu is open over the 'XenSIG XenDesktop 5.6' pool, listing actions such as 'New VM...', 'New SR...', 'Import...', 'High Availability...', 'VM Protection Policies...', 'Merge vApps...', 'Disaster Recovery', 'Add Server', 'Disconnect', 'Reconnect As...', 'Delete Pool...', 'NetApp', 'Collapse Children', and 'Properties'. The 'NetApp' option is highlighted. The background shows a table of VMs with columns for Name, CPU Usage, Used Memory, Disks, and Network.

Name	CPU Usage	Used Memory	Disks (avg / max KBs)	Network (avg / max KBs)
XenDesktop 5.6	-	-	-	-
g69	0% of 8 CPUs	877 of 16383 MB	-	2/2
g65	0% of 8 CPUs	-	-	0/0
g70	0% of 8 CPUs	-	-	0/0
SIQWin7Master	0% of 1 CPU	-	-	-













# Podsumowanie - Solidny fundament



**Data Protection and High Availability**

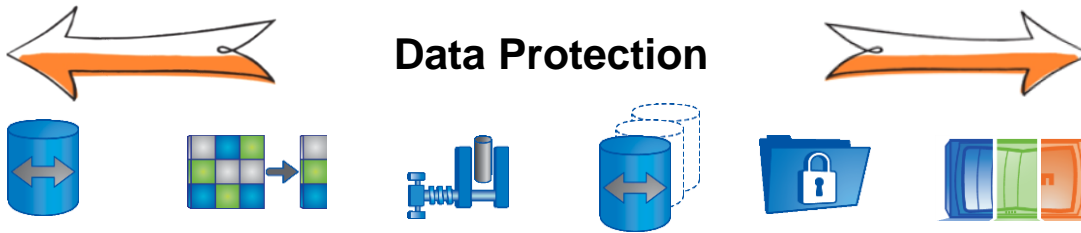


## Data ONTAP on all systems

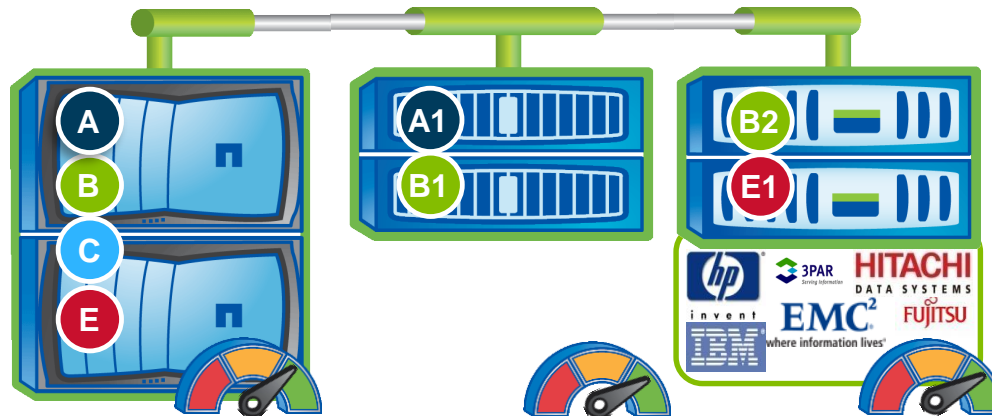
		
High-end SSD	SAN:	Primary
		
Midrange SAS /FC	iSCSI/FCP/FCoE	Secondary
		
Low-end SATA	NAS:	Backup
		
Virtualization	CIFS/NFS	Compliance



# Podsumowanie - Solidny fundament



## Data ONTAP on all systems



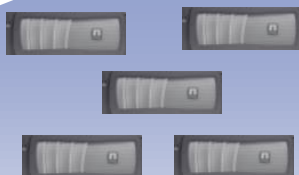
1x V3240



FAS3210



FAS2240



2x E5400



1x EF540



**W tym na infrastrukturze pokazowej: 3x FAS2040, 2x FAS2050, FAS3050, FAS3170 = 17 szt.**

*Thank you*

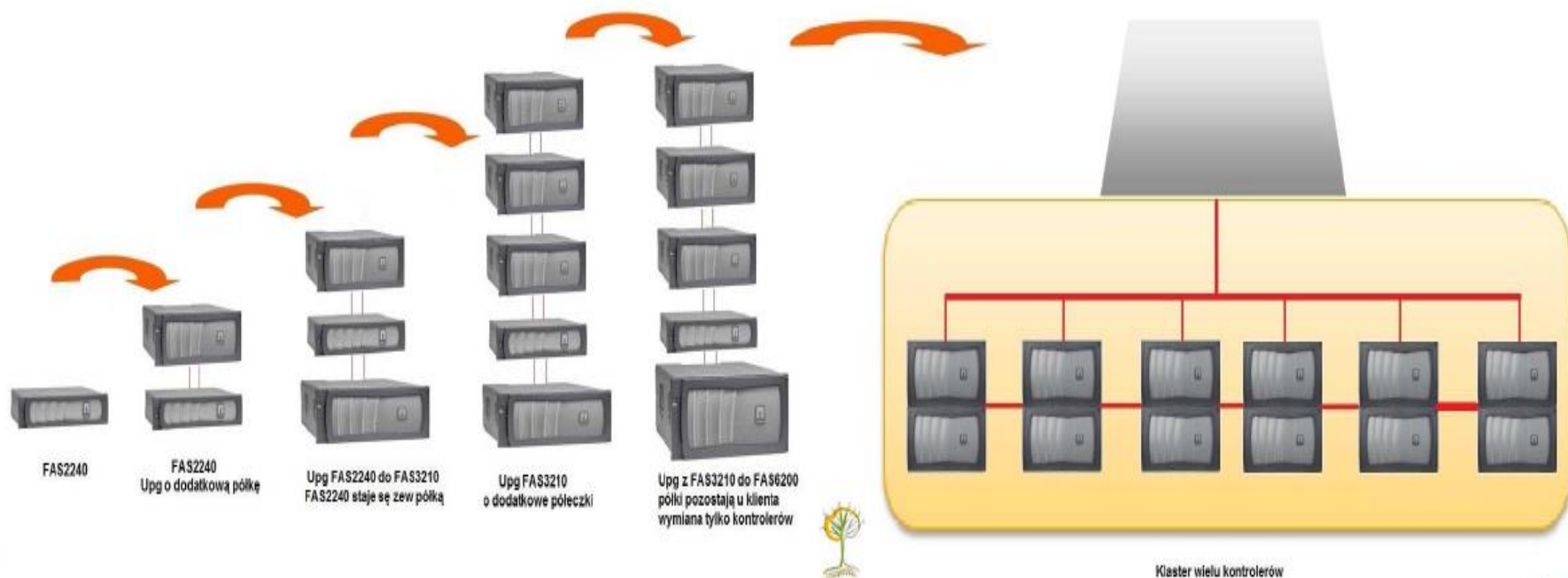


**NetApp@arrowecs.pl**

# Prosta ścieżka upgrade

- Prosta ścieżka upgrade z FAS2240 do Cluster-Mode

Ścieżka upgrade w NetApp



Eliminuj koszty upgrade oraz migracji danych

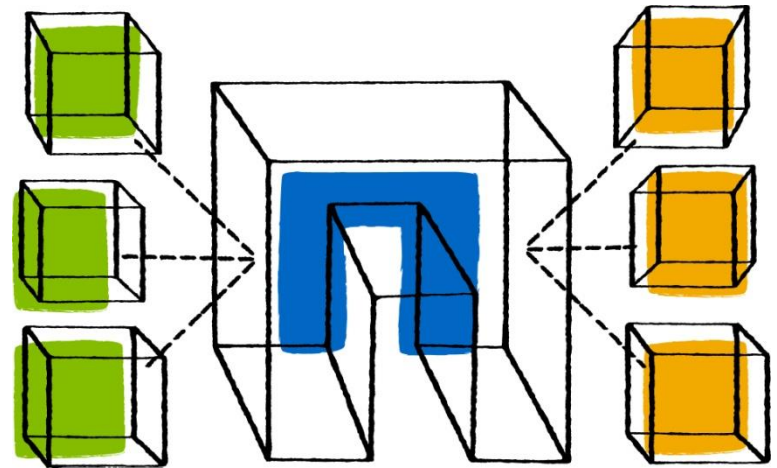
Dobry Początek

Pierwszy rok

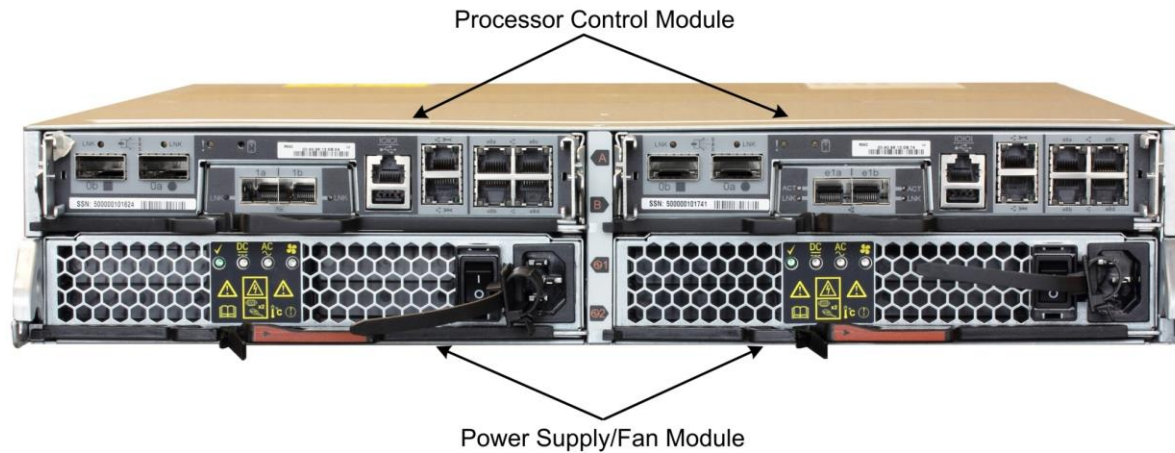
Drugi Rok

Przyszłość

# Hardware



# Rzut okiem na modele z serii FAS2200





## FAS22XX Series

FC, iSCSI, NFS, CIFS

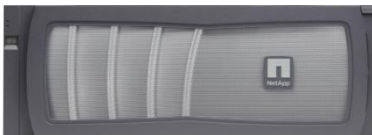
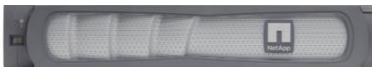
### Data ONTAP Essentials:

Oprogramowanie w  
cenie macierzy

Oprogramowanie zarządzające  
Deduplikacja  
ThinProvisionig

Multistore  
Snapshoty  
Kompresja

Oprogramowanie  
dodatkowe



### Dodatkowe opcje S/W:

SnapRestore®

FlexClone®

SnapMirror®

SnapManager® Suite

SnapVault®

SnapLock C/E

Complete Bundle