

# Real world experiences converting to XAM

By Kevin Crook, Clearpace Software

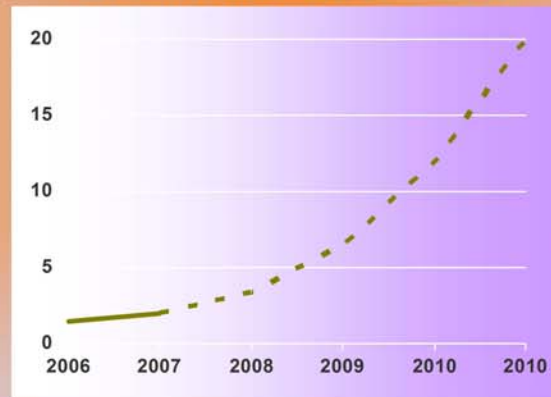
- ❑ What do Cleapace do?
- ❑ Why choose to go to XAM?
- ❑ Key design choices and decisions
- ❑ What does our design look like now?
- ❑ What challenges were there
- ❑ What are our next steps
- ❑ Top 5 tips

# What do Clearpace do?

## KEEP

ALL HISTORICAL INFORMATION  
WHILE RETAINING ALL OF ITS  
STRUCTURE AND CONTENT

### UNREMITTING DATA GROWTH



Source : McKinsey – June 2008

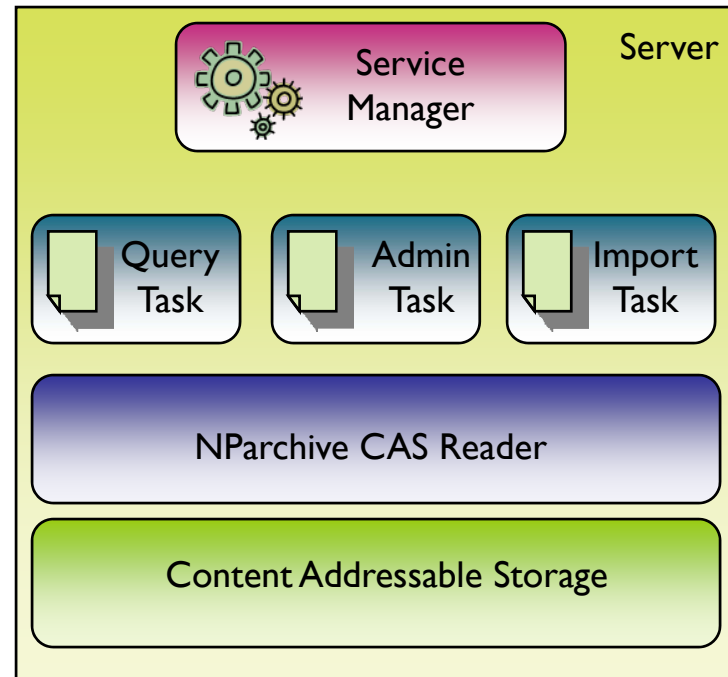
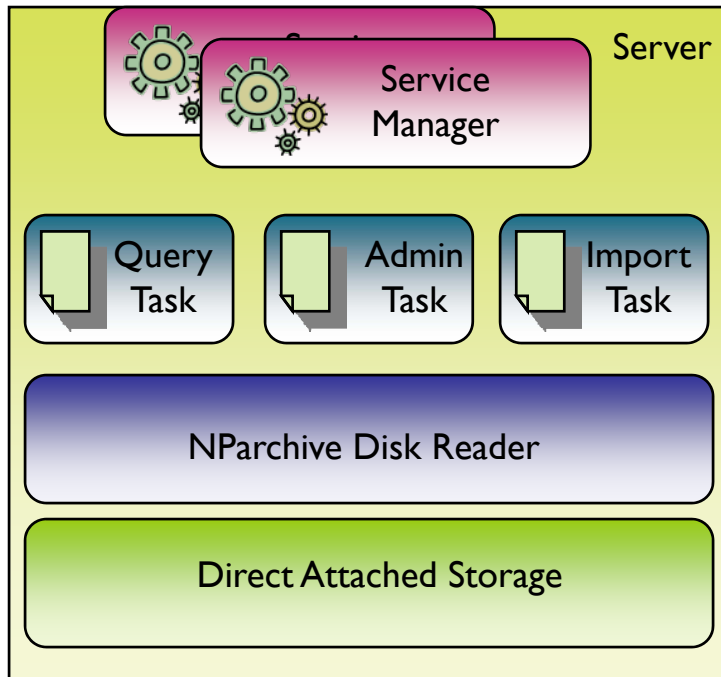
## QUERY

MAINTAIN INFORMATION ONLINE  
AND PROVIDE THE SAME ACCESS  
MECHANISMS THAT EXIST NOW

## COMPLY

MEET BUSINESS & REGULATORY  
DEMANDS AROUND RETENTION,  
SECURITY & IMMUTABILITY

# Multiple builds



# Where would we like to be

## Applications

Import

Query

Export

Admin

Install

## Connection Director

Service Manager 1

...

Service Manager N

## Virtual File System

DAS

NAS

SAN

CAS

Cloud

## NParchive Partitions

P1



P2



...



...



PX



# Why choose to go to XAM?

- ❑ EMC Centera Integration
- ❑ Recommendation from EMC
- ❑ Easy to support other platforms as they add XAM support
- ❑ Standardise for internal test, benchmarks
- ❑ Quick to implement our own limited VIM integrations

# What does our design look like now?

## Applications

Import

Query

Export

Admin

Install

Service Manager 1

...

Service Manager N

## XAM

DAS

NAS

SAN

CAS

Cloud

## NParchive Partitions

P1



P2



...



...



PX



# What does our design look like now?

- ❑ Use EMC Centera supplied XAM vim
- ❑ Added our own limited VIM for WebDAV, Enterprise Vault, S3 and local disk
- ❑ Time to implement new storage target reduced to 5 weeks



# Key design choices and decisions

- ❑ Multiple Xsystems or single Xsystems?
- ❑ How and where to store the XUID ?
- ❑ Which files do we actually need the XUID for?
- ❑ Planning for data mismatch between local and remote system?

# What challenges were there?

- ❑ We seemed to be early adopters
  - ❑ Initial lack of experience and available support
  
- ❑ Access to hardware
  
- ❑ Adding encryption

# What are our next steps?

- ❑ Continue to evaluate need for a gateway to handle multiple connections
- ❑ Review further options for caching

# Top 5 tips

- ❑ Dynamic configuration
- ❑ The local disk vim
- ❑ A standalone utility for querying/reading/writing/deleting
- ❑ Caching made a huge difference for us (re partition elimination)
- ❑ Careful logging and error handling

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