

SWAP-C Solution Using ATCA

A Real World Application

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Artesyn Embedded Technologies, Inc.

CSCI's DASCAN

Dynamically Adaptive Secure Computing Area Network



REQUIREMENTS

Central Switch

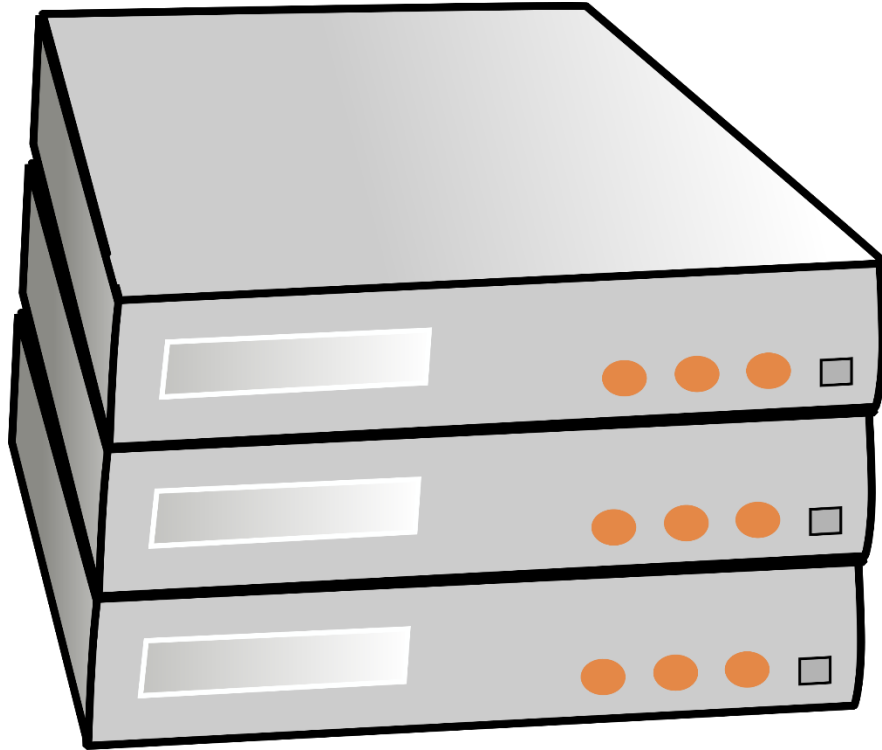
4 Servers – Dual Xeon

NAS Storage for Servers

Two Man Lift

Virtualized

Two Possible Approaches



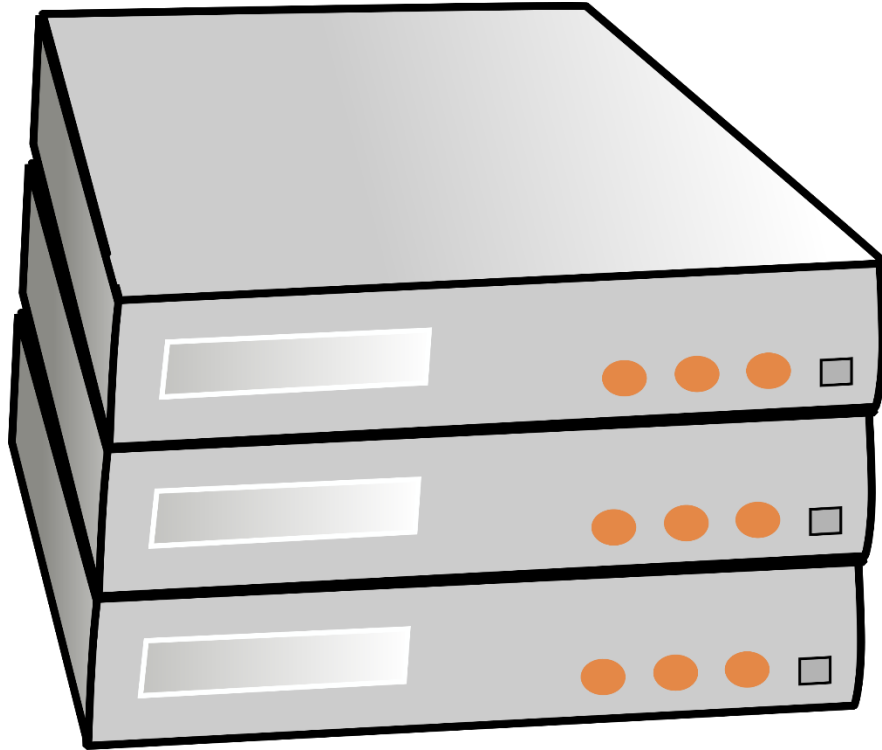
STACK OF SERVERS

Top of Rack Switch

Group of 1U Servers

Integrated RAID/NAS

Stack of Servers Disadvantages



Disadvantages

Server Depth Problematic

Inefficient Power Usage

Difficult Maintenance

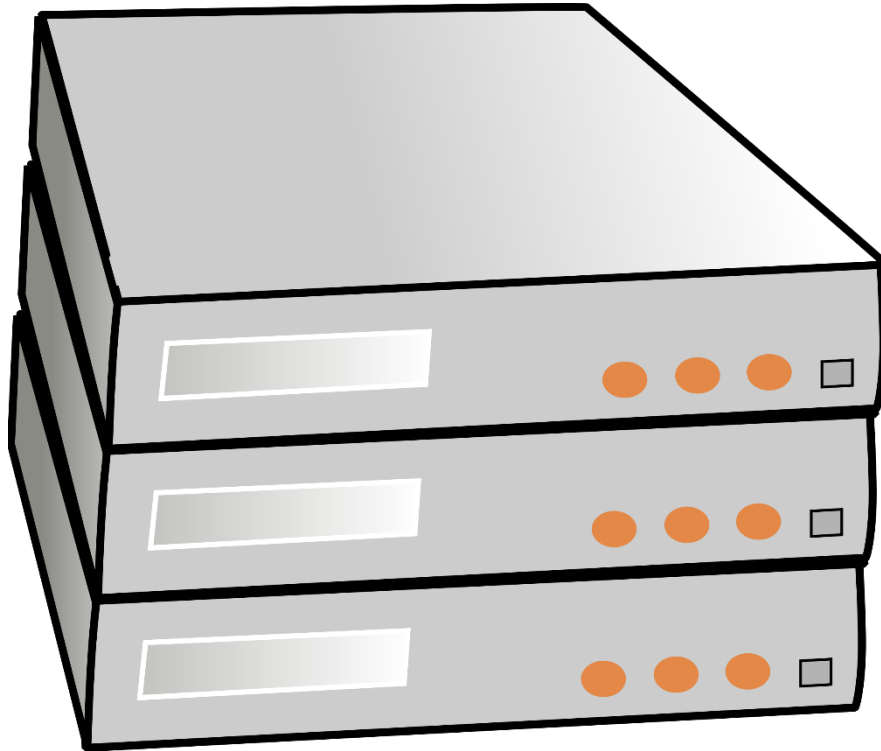
Second Approach
7U 6Slot ATCA

Artesyn ATCA Solution

20" Depth Inherent in the Standard
Integrated Switch and Interconnect
Storage Blade has Integrated NAS
Efficient and Reliable Server Blades
Servicing the System



SWAP-C Comparison



SWAP-C Comparison



Stack of Servers

Size - 6U 

Weight - 85Kg

Power - 1700W

Cost to Operate \$2300/Yr



Artesyn ATCA Solution

Size - 7U 

Weight - 49Kg 

Power - 1240W 

Cost to Operate \$1630/Yr 

Deployed Fuel Cost - \$.15/KWH

SWAP-C Winner!!

