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## Channel Data Services

Seeding Backup Data

Partner Only

20/03/2020

## Proprietary Notice

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## Document Change Details

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Document Change Details

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## Introduction

The purpose of this document is to detail the design and usage guidelines for the Node4 transport mechanism for pre-seeding backup data.

The Node4 transport is to be used to ship to customer premises when large file transfers are required back to Node4.

## Environment

### Hardware

Node4 utilises a general-purpose server configured with 45TB of available storage, which supports most client data transfer needs. Larger capacity requirements will require a bespoke Professional Services activity to make available suitable hardware for the transfer.

The hardware specification of the transport server is provided below.

Item	Value
<b>Make</b>	SuperMicro Storage Server
<b>Model</b>	Model X8DT3
<b>CPU</b>	1x 4core Intel E5610 2.4Ghz with hyper threading
<b>RAM</b>	24GB
<b>Storage</b>	215GB RAID1 SSD storage pool 46TB RAID6 SATA storage pool
<b>Network</b>	4x 1Gb RJ45 ports 4x 10Gb (SFP+) ports
<b>IPMI</b>	1x 1Gb IPMI port.
<b>Misc.</b>	Labelled as N029 - Rail kit included

Table 1 – Transport server hardware specification

### ESXi

The Transport hardware has been setup as a standalone ESXi server allow more flexibility to create or rebuild VMs to assist the data migration process, with the primary repository being a NAS server instance.

Item	Value
<b>Hypervisor</b>	ESXi 6.5 Updated 3
<b>IP</b>	Provided during migration project activity
<b>Root Account</b>	Provided during migration project activity
<b>Disk Layout</b>	Datastore1 215GB VMFS6 Datastore2 46TB VMFS6
<b>VMs</b>	2019-NAS-SERVER

Table 2 – ESXi Configuration

The NAS VM is set to auto boot when ESXi boots:

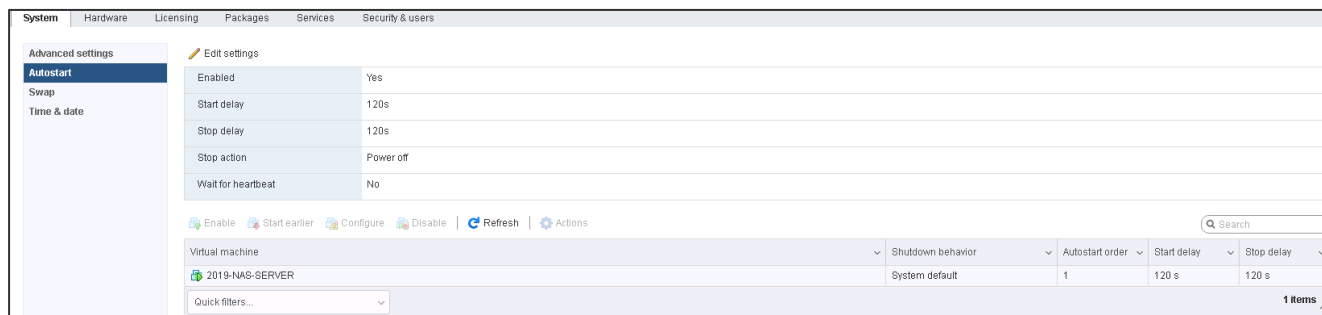


Figure 1 – ESXi Autostart

All available physical network interfaces are added to a single vSwitch, so the customer can choose 1 or many ports to utilize depending on their switching environment. 1Gb or 10Gb ports available. There is no VLAN tagging happening within the ESXi host and upstream ports need to be access/untagged.

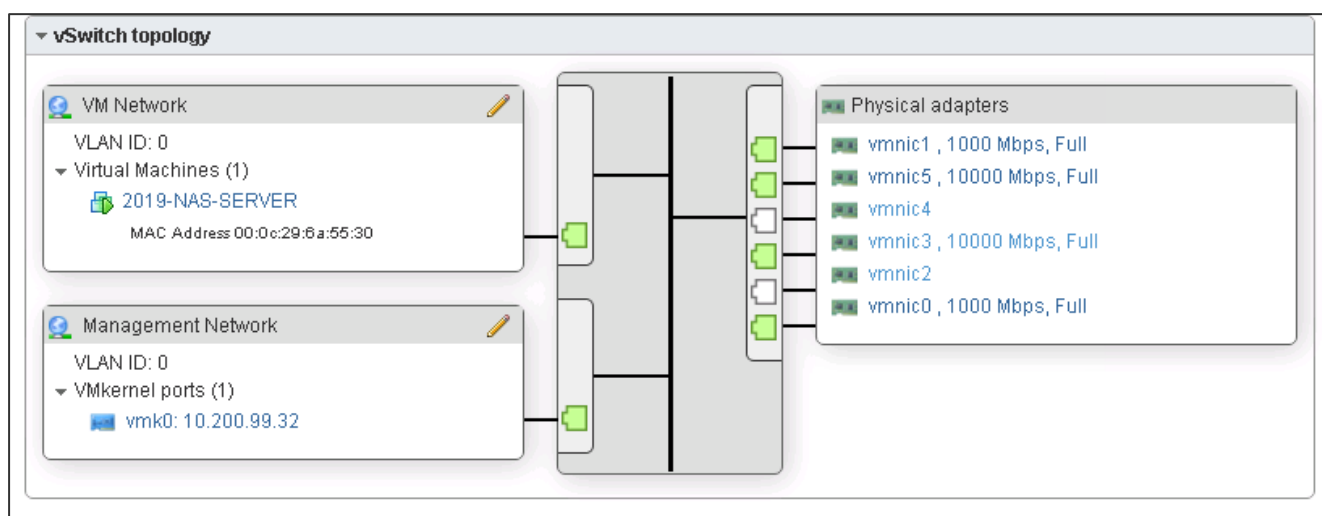


Figure 2 – ESXi vSwitch configuration

## NAS VM

A single NAS VM has been created to act as a basic Windows file server and holds a 45TB data VMDK secured by Bit locker and ESET.

Item	Value
<b>OS</b>	Windows Server 2019 using Node4 key
<b>vCPU</b>	4
<b>vRAM</b>	20GB
<b>Disk Layout</b>	C: drive 60GB (for OS) E: drive 45TB (for customer data)
<b>IP</b>	Customer to configure during migration project activity
<b>Shares</b>	\\<IP address>\Data maps to E:\Data folder
<b>Credentials</b>	A <b>customer</b> account will be provided during migration project activity
<b>Bit locker</b>	Enabled for the data drive (E: ) only.
<b>ESET</b>	Installed and registered to Node4's account with a valid license

Figure 3 – NAS VM configuration

## Usage Guide

### Prior to shipping transport system

1. Customer provides IP address for NAS VM so it can be placed on customer network
2. Node4 assigns IP address to NAS VM

Transport systems ships to customer

### On customer premises

- 1 Customer racks and cables up 1 or more network cables (1Gb RJ45 or 10Gb SFP+)
- 2 Customer powers on Transport system
- 3 The Transport NAS will boot ESXi and this will auto boot the NAS VM
- 4 Customer logs into the VM using customer credentials provided by Node4
- 5 Customer unlocks E: drive using Bit locker credentials provided by Node4
- 6 Customer starts copying to \\<server IP>\data share
- 7 Customer logs in and shuts down NAS VM
- 8 Customer powers off Transport NAS and uncables

Customer returns transport system to Node4 Northampton Data Centre (DC4)

- 1 Node4 rack and plug into ACI ports
- 2 Node4 ingest data where required as defined by migration project Scope of Work