



iXorg TestFest Fall 2018, November 3rd to 7th

Version 1.4 18 September 2018

iXorg TestFest 2018 continues with the lab infrastructure built for the 2017 TestFest. VMware vSphere will be updated to current, which is 6.7 as of August.

XinuOS will cover the “Definitive 2018” release of SCO operating systems, OpenServer 10, and the GCC compiler.

Presentations and demonstrations will cover Nakivo backup for VMware, FreeNAS, Samba 4 and email Mail Transfer Agent.

Labs will include packet capture with Wireshark and tcpdump, Nakivo backup appliance and configuring an email server.

iXorg, Inc. will hold its Annual General Meeting

1 Topics

1.1 Networking

Install a 10 GB switch using copper, fiber and Direct Access Cables. Create separate VLANs for iSCSI, management, VMs and internet access.

1.2 Lab build

Load ESXi 6.7 on hosts, configure for iSCSI Multipath I/O to a SAN over 10 GB. Install vCenter Server Appliance and join hosts. Deploy guest machines.

1.3 VMware patching

Patch ESXi hosts and vCenter server.

1.4 Backup, business continuity

Configure Nakivo appliance for backups to a local NAS.

1.5 Email Server

Load a Mail Transfer Agent, configure and test for various operation including directly to the destination or through a cloud service or relay. Packet trace the session and walk through the protocol.

1.6 Storage

Build a ZFS based NAS and SAN server. Share a dataset for backup archive, snapshot the dataset and share it read only. Clone the snapshot and mount it read / write. Enable an iSCSI SAN share, test VMware VAAI features.

1.7 Samba 4

Installation and simple configuration of Samba 4.

1.8 Wireshark

Perform a remote capture, retrieve it and set filters to analyze a single connection.

1.9 Fault tolerance cluster

Build a pair of hosts running VMware, load a VM and configure Fault Tolerance. Test by powering down a host.

1.10 Member business discussions and presentations

1.11 AGM

Tuesday afternoon will be iXorg's Annual General Meeting, with the Treasurer's Report, election for positions on the Board of Directors, and all other appropriate business that may come before us.

2 Lab equipment, software and network configuration

2.1 iXorg supplied lab hardware

- iXorg VMware host
- 3 x Supermicro servers E300-SYS-8D
- 2 x 24 port gigabit switches, 1 x 48 port gigabit switch
- 1 x 16 port 10 gigabit switch
- FreeNAS based NAS / SAN server

2.2 Attendee supplied hardware

- A Windows PC or notebook

2.3 Software

The following software will be used during the training and will be available for local download.

- Wireshark 2.6.3
- FreeNAS 11.1 U5
- vSphere 6.7

3 Agenda

Saturday November 3rd

- 8:30 - Coffee and juice
- 9:00 - Set up iXorg server and network
- 10:00 – Opening remarks from Xinuos
- 10:15 - Break
- 10:30 – Xinuos strategy with OpenServer 10
- 11:30 – Update on Definitive products
- 12:00 - Working Lunch (Courtesy of Xinuos)
- 12:30 – Updated Development System for Definitive Releases
- 14:30 – Open Source compiling lab
- 15:30 - Break
- 15:45 – Open Source compiling lab

Sunday November 4th

- 8:30 - Coffee and juice
- 9:00 – iXorg Introductions
- 9:30 - Set up Supermicro SYS-E300-8D servers for use as VMware and Openserver 10 hosts
- 10:30 – Break
- 10:45 – Linux filesystems. EXT 3 / 4, BTRFS, XFS and ZFS
- 11:30 – Load or update VMware hosts to 6.7 and configure
- 12:00 – Working Lunch

- 13:00 – Configure FreeNAS storage server and iSCSI
- 14:00 – Configure VMware Fault Tolerance, test Fault Tolerance fail over
- 15:30 - Break
- 15:45 – Set up performance tests on VMware

- 20:00 - 22:00 Social meeting

Monday November 5th

8:30 - Coffee and Juice

9:00 - iXorg Introductions and Roadmap

9:30 - Load Wireshark, remote capture and tcpdump, using filters and basic TCP/IP decoding

10:00 - SMTP, POP and IMAP protocols

10:30 - Break

10:45 - Email server, SMTP – POP – IMAP, security

12:00 - Lunch

13:00 - Hands on Email Lab

15:30 - Break

15:45 - Email Lab (continued)

Tuesday November 6th

8:30 - Coffee and juice

9:00 - Nakivo backup presentation

10:30 - Break

10:45 - Naviko backup lab

12:00 - Lunch (with support from Nakivo)

13:15 - Annual General Meeting (AGM)

15:45 - Break

16:00 - Business discussions and member presentations

a) Creating storage accounts on Amazon S3, Google Cloud Storage and Wasabi

b) Configuring BackupEDGE resources for cloud storage, use of S3 and FTPS protocol

c) Offsite backup costs and benefits, disaster recovery and business continuity

d) Overview of Remote Monitoring and Management (RMM) tools from SolarWinds

Wednesday November 7th

8:30 - Coffee and juice

9:00 - NAS, rsync and Samba 4 lab

9:30 – Offsite backup storage lab

10:30 - Break

10:45 – Naviko recovery lab

12:00 - Lunch

13:00 - Open lab time

15:00 - Take down

17:00 - Conference ends