Linux in Love
How Natex and Perfect Match Made the Love Connection with Linux
HP World 2000 Presentation 8495

Monir Mamoun
monir@natex.com

Natex Communications, Inc.
86 South Street Suite C3
Morristown, NJ 07960
973-451-1212
fax 973-451-1210

Background:

Perfect Match is the largest video dating service on the east coast. About a year and a half ago the company approached Natex about taking their current system based on video tapes and member profile books and putting it online so members could access it 24 hours per day.

Natex Communications, Inc. created a complete extranet system for Perfect Match, the nation's most progressive video dating service. Natex worked with Perfect Match to custom-design a members-only web site (using Cold Fusion), an administrative application for managing member profiles on the web (using Delphi), and powered the system on the back end using the newly open-sourced Interbase database.

Natex also designed and implemented a complete extranet system that tied together various Perfect Match branch offices using a variety of T1 dedicated lines and DSL virtual private network (VPN) connections to the Natex head office.

I am going to outline the solution architecture and provide an overview of the tricks and traps that the company discovered in moving from concept stage to the stable production system that has been in place for over a year.

What you will learn in this presentation is:

1. How to implement a high availability solution using the open-source Interbase database on Linux

2. Common tricks and traps involved in created a distributed database system using Linux

3. How to use a Linux database on the back end to power both an end-user web application and a client-server Windows administrative application on the front end

Presentation Notes (accompanied by handout):

- How to get Interbase
- Interbase web site, version 6.
- Show command line download on projector screen along with URL

How to install
- Unpacking the file using **gunzip** utility
- Installing the database
    1. TRAP: You have to manually install the ksh shell since the installation script uses ksh instead of standard bash shell! This is not well documented.
        1. show how to download latest ksh shell from RedHat
        2. show how to install the ksh shell RPM file
    - installing the keys
        1. show how to add Interbase keys for function access

Verify installation:
- make sure that appropriate gds server TCP packages are set in /etc/services
- make sure that gds server is listed in the /etc/inetd.conf configuration file

Connecting to the database using the Windows adminstration tool
- show process of installation of Interbase client using brief screenshot
    1. TRAP: every client must be able to access the server using a HOSTNAME, because the client will not accept IP addresses
        1. Show how to manually map hostnames in Windows 95 and Windows NT environments using the hosts and hosts.sam files
        2. Demonstrate by rebooting Windows machine and verifying that you are able to ping database server by name on command line

Database Administration Utility
- demonstrate creating a new database
- demonstrate a simple database DDL (data definition language) script to create tables in new database

Setting up the ISQL Utility
- demonstrate how to connect to the new database using username and password

- demonstrate SQL insert, commit, and select to retrieve information inserted

Finally, create an ODBC driver connection to the new database from Windows.
- inserting the username and password
- connect to database using Cold Fusion application server to demonstrate fully working distributed database. Show examples of database queries using Perfect Match system.

Database administration:
- daily backups are REQUIRED
  1. TRAP: Interbase corrupts information if left unattended!
      1. Interbase has demonstrated sweep problem – you may experience period regular corruption, as we did every two weeks.
      2. Sweep problem can be fixed by compressing database and unpacking
      3. Automate this process for success
          1. Demonstrate automatic hourly and daily backup script
          2. Give URL for free utility download from Natex web site
          3. Show how to recover from failure
          4. Show how to monitor diskspace usage to keep server from locking up

THE END – QUESTIONS AND ANSWERS