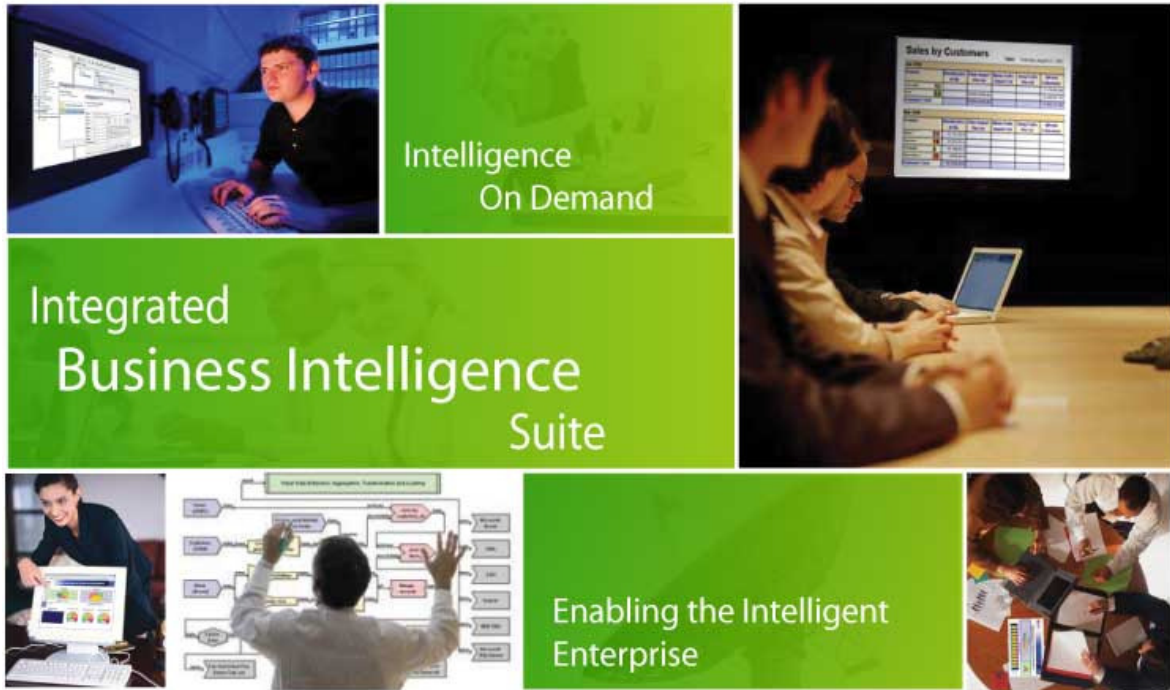




ELIXIR REPERTOIRE **7** *Integrated Business Intelligence Suite*



Elixir Repertoire Server 7x **Connecting via SSH tunneling**

Version 1.0

Table of Contents

Introduction..... 3

Requirements 3

Setting up the PuTTY Connection..... 4

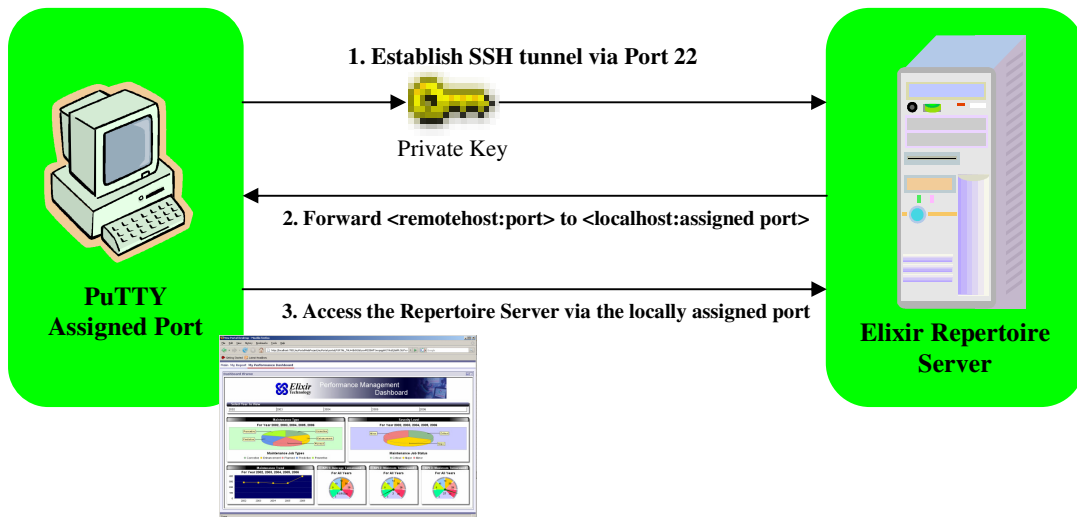
 Port Forwarding 4

 Testing the SSH Connection..... 5

 Testing Web Access..... 6

Introduction

In certain situations, machines hosting the Elixir Repertoire Server may be behind a firewall that has blocked off access to all ports except port 22 which is accessible via Secure Shell (SSH) tunneling.



This document serves as a form of reference for establishing a connection to a Repertoire Server that is behind a firewall. The document provides a walkthrough using Elixir Repertoire Server 7.1.1 and PuTTY as an example.

For earlier versions of Elixir Repertoire Server (6.4 and below), an additional port has to be assigned and forwarded to the local host to enable access to the Java Management Console (JMX).

Requirements

For this example it is assumed that the following has been implemented:

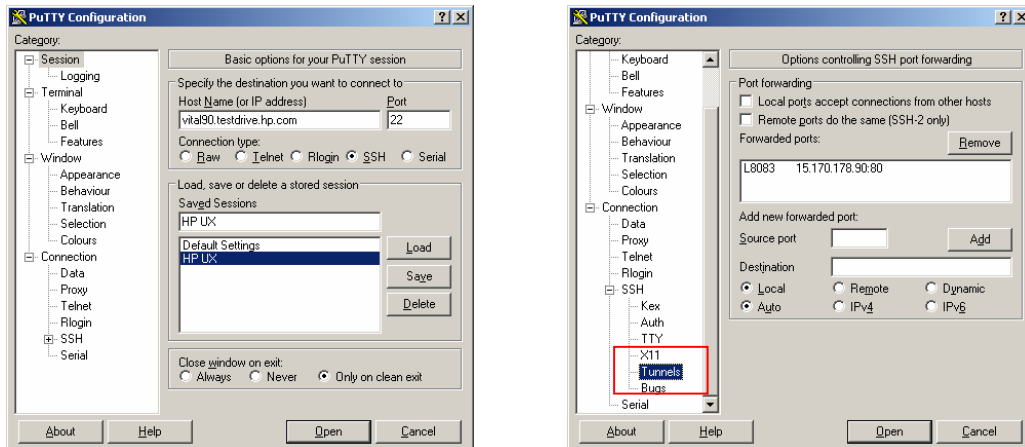
1. Elixir Repertoire Server is installed and running on the remote host
2. The remote host accepts Port 22 (SSH) connections
3. Users accessing the Repertoire Server from their web browsers have been assigned the appropriate permissions and privileges
4. The PuTTY client has been installed on the local host

The PuTTY client can be downloaded from the following URL:

<http://the.earth.li/~sgtatham/putty/0.60/html/doc/Chapter3.html#using-port-forwarding>

Setting up the PuTTY Connection

Once installed, execute the PuTTY client and set up the connection details accordingly based on the required specifications. Under “Session”, select “SSH” as the connection type. PuTTY will assign the default port number when “SSH” is selected.



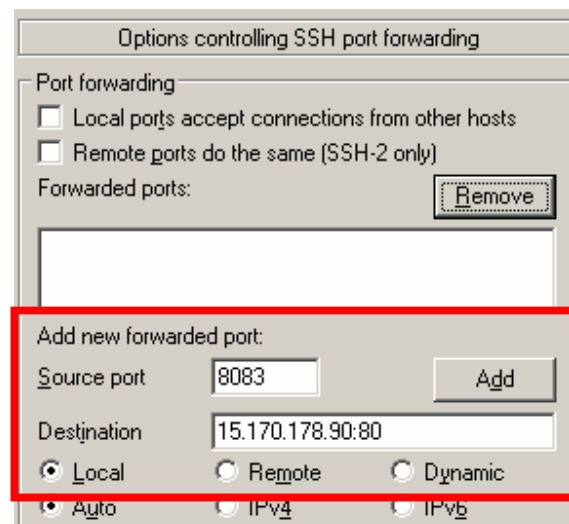
To key in the user name, go to the “Connection” section listed in the Category structure on the left. When done, collapse the “SSH” node and select “Tunnels”.

Port Forwarding

Setting up a tunnel via an SSH connection allows a port on the local host to be bound to a port on the remote system.

When connected, this enables users to connect to a specified port on their local host and have it transparently forwarded to the port on their remote server.

Key in the “Source port” field to assign a port on the local machine for the forwarding process. Enter the IP address plus port number (remotehost:port) in the “Destination” field. Check the “Local” radio button and click on “Add” to the details displayed on the forwarded ports list.



Note: The PuTTY SSH connection to the remote host must be kept open whenever users want to access the Repertoire Server.

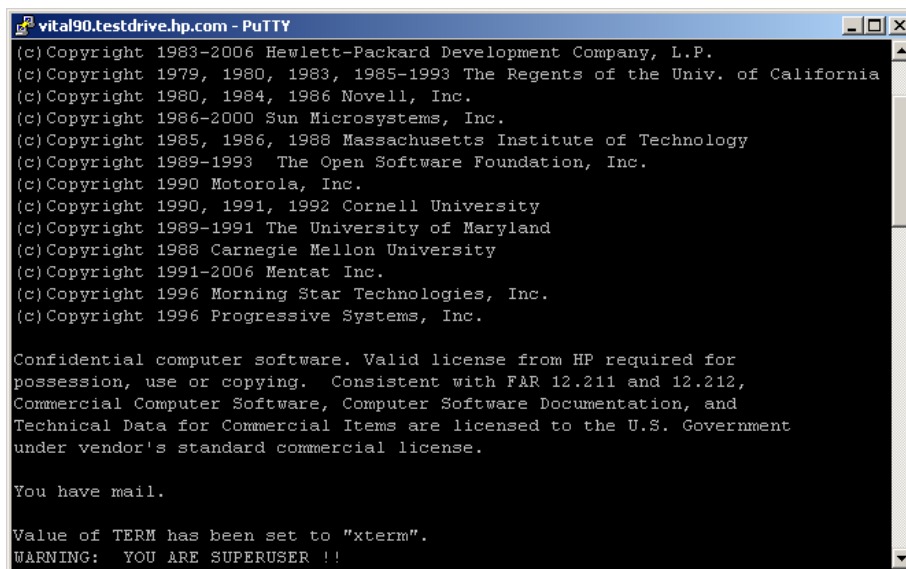
Testing the SSH Connection

Open the connection in PuTTY as well as the event logs to test if the port forwarding is successful. A sample of the event log would look like this:

```

2007-11-02 17:23:56    Looking up host "vital90.testdrive.hp.com"
2007-11-02 17:23:56    Connecting to 15.170.178.90 port 22
2007-11-02 17:23:57    Server version: SSH-2.0-OpenSSH_4.4p1-hpn12v11
2007-11-02 17:23:57    We claim version: SSH-2.0-PuTTY_Release_0.60
2007-11-02 17:23:57    Using SSH protocol version 2
2007-11-02 17:23:57    Doing Diffie-Hellman group exchange
2007-11-02 17:23:58    Doing Diffie-Hellman key exchange with hash SHA-256
2007-11-02 17:23:59    Host key fingerprint is:
2007-11-02 17:23:59    ssh-rsa 2048 b6:6b:78:bf:15:04:31:7f:6d:61:2a:8e:d7:d5:2f:41
2007-11-02 17:23:59    Initialised AES-256 SDCTR client->server encryption
2007-11-02 17:23:59    Initialised HMAC-SHA1 client->server MAC algorithm
2007-11-02 17:23:59    Initialised AES-256 SDCTR server->client encryption
2007-11-02 17:23:59    Initialised HMAC-SHA1 server->client MAC algorithm
2007-11-02 17:23:59    Reading private key file "C:\Documents and Settings\Adrian Song\My
Documents\HP VM\id_rsa_vital90.ppk"
2007-11-02 17:24:01    Writing new session log (raw mode) to file: C:\Documents and Settings\Adrian
Song\My Documents\HP VM\putty.log
2007-11-02 17:24:02    Offered public key
2007-11-02 17:24:02    Offer of public key accepted
2007-11-02 17:24:03    Access granted
2007-11-02 17:24:03    Opened channel for session
2007-11-02 17:24:03    Local port 8083 forwarding to 15.170.178.90:80
2007-11-02 17:24:04    Allocated pty (ospeed 38400bps, ispeed 38400bps)
2007-11-02 17:24:04    Started a shell/command

```



```

vital90.testdrive.hp.com - PuTTY
(c) Copyright 1983-2006 Hewlett-Packard Development Company, L.P.
(c) Copyright 1979, 1980, 1983, 1985-1993 The Regents of the Univ. of California
(c) Copyright 1980, 1984, 1986 Novell, Inc.
(c) Copyright 1986-2000 Sun Microsystems, Inc.
(c) Copyright 1985, 1986, 1988 Massachusetts Institute of Technology
(c) Copyright 1989-1993 The Open Software Foundation, Inc.
(c) Copyright 1990 Motorola, Inc.
(c) Copyright 1990, 1991, 1992 Cornell University
(c) Copyright 1989-1991 The University of Maryland
(c) Copyright 1988 Carnegie Mellon University
(c) Copyright 1991-2006 Mentat Inc.
(c) Copyright 1996 Morning Star Technologies, Inc.
(c) Copyright 1996 Progressive Systems, Inc.

Confidential computer software. Valid license from HP required for
possession, use or copying. Consistent with FAR 12.211 and 12.212,
Commercial Computer Software, Computer Software Documentation, and
Technical Data for Commercial Items are licensed to the U.S. Government
under vendor's standard commercial license.

You have mail.

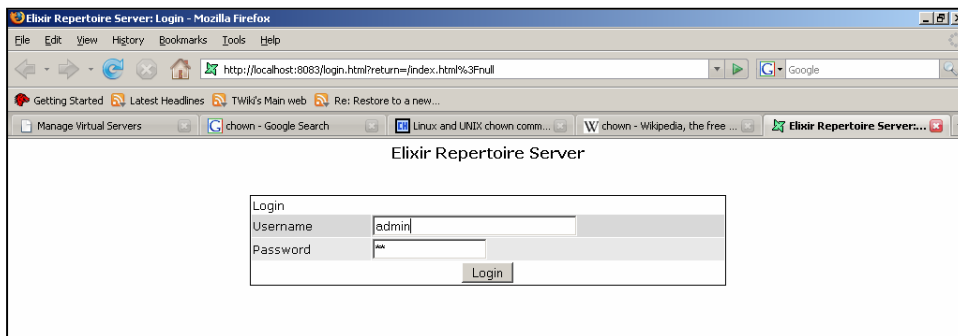
Value of TERM has been set to "xterm".
WARNING: YOU ARE SUPERUSER !!

```

For versions 6.4 and below, users should see an additional local port forwarding line to enable access to the Java Management Console.

Testing Web Access

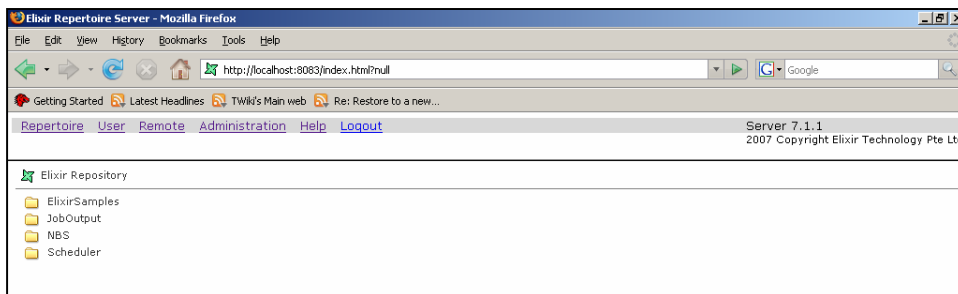
If the abovementioned process have been executed successfully it's now time to test accessibility of the Repertoire Server via the web browser (version 7.x onwards). In the web browser, key in "localhost:<port>" where <port> refers to the "Source Port" number that was specified in PuTTY. Users would be able to see the log in page if correctly set up.



At this point the event log in PuTTY would list the following line entries:

2007-11-02 17:38:20 Opening forwarded connection to 15.170.178.90:80

2007-11-02 17:38:25 Opening forwarded connection to 15.170.178.90:80



The set up would be deemed successful if the following criteria are met:

1. Port forwarding successfully executed
2. Able to login and access Repertoire Server from the web browser
3. Able to download, execute create, retrieve and update the various reporting file formats using the remote designer

Note: The above steps to establishing an SSH connection also applies to users running the remote designer.