Manual

Overview

This document is meant to serve as a guide.

Vocabulary

Alias	Meaning
STOCKTRADER_HOME	The directory where you check out the source code from SVN Repository to, and should contains sub-directories business_service and order_processor
AS_HOME	The root directory of glassfish server
DOTNET_STOCKTRADER_HOME	The root directory of .NET stocktrader
BS	Bussiness Service
OP	Order Processor

Metro StockTrader Deployment

Prerequisite

- **Update JCE Settings**
  a. Go to: http://java.sun.com/javase/downloads/?intcmp=1281
  b. Download "Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files 6 "
  c. Install the files in %JAVA_HOME%\jre\lib\security directory, overriding the existing files there.
  d. If you use JDK 1.5, you need to install the files for 1.5.

- **Check out StockerTrader source code**
  svn co http://svn.apache.org/repos/asf/incubator/stonehenge/contrib/metro/ {local_directory}

{local_directory} will be STOCKTADER_HOME

- **Add dependent jar files to StockerTrader**
  Follow steps in README.TXT file to put all the dependent jar files in lib folder

- **Install glassfish**
    a. Download glassfish from glassfish.dev.java.net
    b. Install glassfish

       java –jar glassfish.jar
       cd glassfish
       ant –f setup.xml

- **Set environment variables**
    Set AS_HOME=glassfish_root_dir

- **Set the address of Config Service**
    1. Open file % STOCKTADER_HOME % \resources\conf\TradeServiceConfig.properties
    2. Change the value of "`org.apache.stonehenge.stocktrader.TradeConfigService.url`" to the address of config service to be used in the Metro version of StockTrader
       (You could use config service from Metro or .Net)

Optional Prerequisite Setups

- Configure the StockTrader BS database
  Open db.properties under %STOCKTRADER_HOME%\business_service\config\
  Change DB configuration

- Configure the StockTrader OP database
  Open the db.properties under %STOCKTRADER_HOME%\order_processor\config\
  Change DB configuration

- To use MySQL database

  org.apache.stonehenge.stocktrader.database.port=3306
  org.apache.stonehenge.stocktrader.database.type=mysql

- To use MS SQL Server Database

  org.apache.stonehenge.stocktrader.database.port=1433
  org.apache.stonehenge.stocktrader.database.type=mssql

Deployment

- Deploy the StockTrader

In Command Line

%STOCKTRADER_HOME %\> ant deploy

- Start Glassfish Server

  %AS_HOME%\bin\asadmin.bat star-domain

- Stop Glassfish Server

  %AS_HOME%\bin\asadmin.bat start-domain

- Verify Deployment
    a. BS

       Open browser with http://localhost:8090/business_service/TradeServiceWsas?wsdl
    b. OP
        ◆ Secure

           Open browser with http://localhost:8090/order_processor/OrderProcessorSec?wsdl
        ◆ Non-Secure

           Open browser with http://localhost:8090/order_processor/OrderProcessor?wsdl
    c. Config Service

       Open browser with http://localhost:8090/config_service/ConfigService?wsdl
    d. UI Client

       Open browser with http://localhost:8090/trader_client

Metro StockTrader Configuration

The Metro Services are managed through the StockTradeDB database. After you run the .Net
database scripts you will have four new tables (DbConfig, ClientToBs, BsToOps, and Service), which are used to
configure the services for Metro.

Before you change the ClientToBs and BsToOps configuration open the Service tables and verify that the endpoint
addresses are accurate for your environment. For this walk-through you will need to have the following endpoints.

Service Name	Default Value
DOTNET_BS	http://localhost:9000/TradeBusinessService
DOTNET_OPS	http://localhost:8000/TradeOrderProcessor
DOTNET_OPSSEC	http://localhost:8000/TradeOrderProcessor/sec
METRO_BS	http://localhost:8090/business_service/TradeServiceWsas
METRO _OPS	http://localhost:8090/order_processor/OrderProcessor
METRO _OPSSEC	http://localhost:8090/order_processor/OrderProcessorSec
PHP_BS	http://localhost:8080/php_stocktrader/business_service/business_svc.php
PHP_OPS	http://localhost:8080/php_stocktrader/order_processor/order_processor_svc.php
PHP_OPSSEC	http://localhost:8080/php_stocktrader/order_processor/order_processor_svc_msec.php

WSAS_BS	http://localhost:9763/services/TradeServiceWsas
WSAS_OPS	http://localhost:9763/services/OrderProcessor
WSAS_OPSSEC	http://localhost:9763/services/OrderProcessorMsec

Note 1:

For METRO_BS, METRO_OPS and METRO_OPSSEC, you should change the endpoint addresses according to the glassfish development environment, such as the port of glassfish.

Note 2:

In Service table, please insert service names and addresses for WSAS, including WSAS_BS, WSAS_OPS and WSAS_OPSSEC.

To configure the Services of BS and OPS

1. Open the Metro trader client by http://localhost:8090/trader_client.

2. Navigate to Config Service page by clicking the tab 'Config'.

3. Select the corresponding BS and OPS, then click 'set' button.

Test Scenario

a. Login the StockTrader Client UI
b. Click the Quotes/Trade tab from the top menu.
c. Click "buy" link which at the end of one line in the trades
d. Enter a quantity of 112 for the number of shares and Click Buy
e. A submitted for processing message should be received.
f. Click the Account tab on the top menu
g. If the OPS has processed the order a Trade Alert should be received

Test Cases

JSF Client as StockTrader UI to Talk to Specific Version of BS

Set the BS and OPS to the version to be used in Config page.

Metro StockTrader as BS and OP via BasicHttpBinding

Set the BS and OPS as "METRO_BS" and "METRO_OPS"

Metro StockTrader as BS and OP via CustomBinding

Set the BS and OPS as "METRO_BS" and "METRO_OPSSEC"

Metro StockTrader as BS and .NET StockTrader as OP via BasicHttpBinding

Set the BS and OPS as "METRO_BS" and "DOTNET_OPS"

Metro StockTrader as BS and .NET StockTrader as OP via CustomBinding

Set the BS and OPS as "METRO_BS" and "DOTNET_OPSSEC"

Metro StockTrader as BS and WSAS StockTrader as OP via BasicBinding

Set the BS and OPS as "METRO_BS" and "WSAS_OPS"

Metro StockTrader as BS and WSAS StockTrader as OP via CustomBinding

Set the BS and OPS as "METRO_BS" and "WSAS_OPSSEC"

Metro StockTrader as BS and PHP StockTrader as OP via BasicBinding

Set the BS and OPS as "METRO_BS" and "PHP_OPS"

Metro StockTrader as BS and PHP StockTrader as OP via CustomBinding

Set the BS and OPS as "METRO_BS" and "METRO_OPSSEC"

.NET StockTrader as BS and Metro StockTrader as OP via BasicHttpBinding

Set the BS and OPS as "DOTNET_BS" and "METRO_OPS"

.NET StockTrader as BS and Metro StockTrader as OP via CustomBinding

Set the BS and OPS as "DOTNET_BS" and "METRO_OPSSEC"

WSAS StockTrader as BS and Metro StockTrader as OP via BasicHttpBinding

Set the BS and OPS as "WSAS_BS" and "METRO_OPS"

WSAS StockTrader as BS and Metro StockTrader as OP via CustomBinding

Set the BS and OPS as "WSAS_BS" and "METRO_OPSSEC"

PHP StockTrader as BS and Metro StockTrader as OP via BasicHttpBinding

Set the BS and OPS as "PHP_BS" and "METRO_OPS"

PHP StockTrader as BS and Metro StockTrader as OP via CustomBinding

Set the BS and OPS as "PHP_BS" and "METRO_OPSSEC"

.Net StrockTrader use Metro version config service

Set config service endpoint address to metro version config service