DS Developer Studio

COBOL-IT

COBOL-IT Web Services Solutions

Development and Deployment Solutions

COBOL-IT Web Services Solutions

- Overview
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- Using Apache
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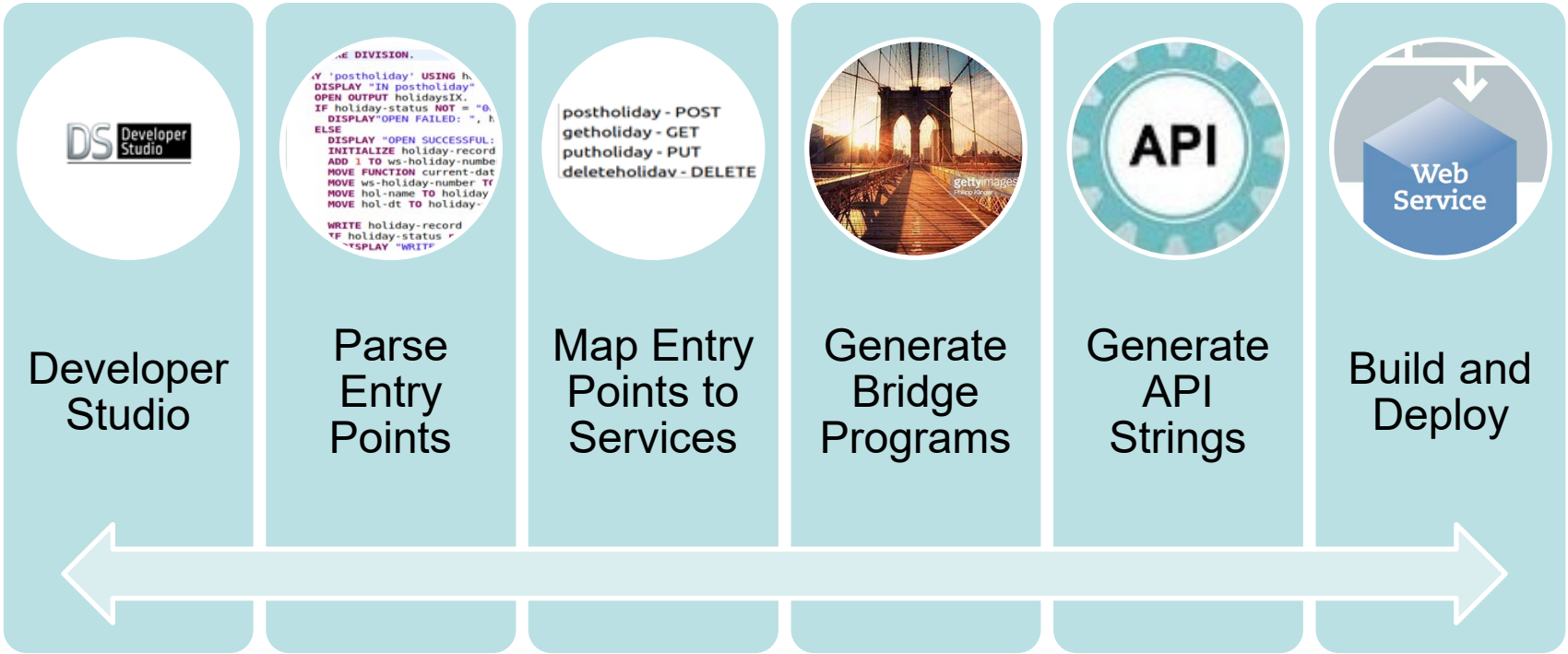
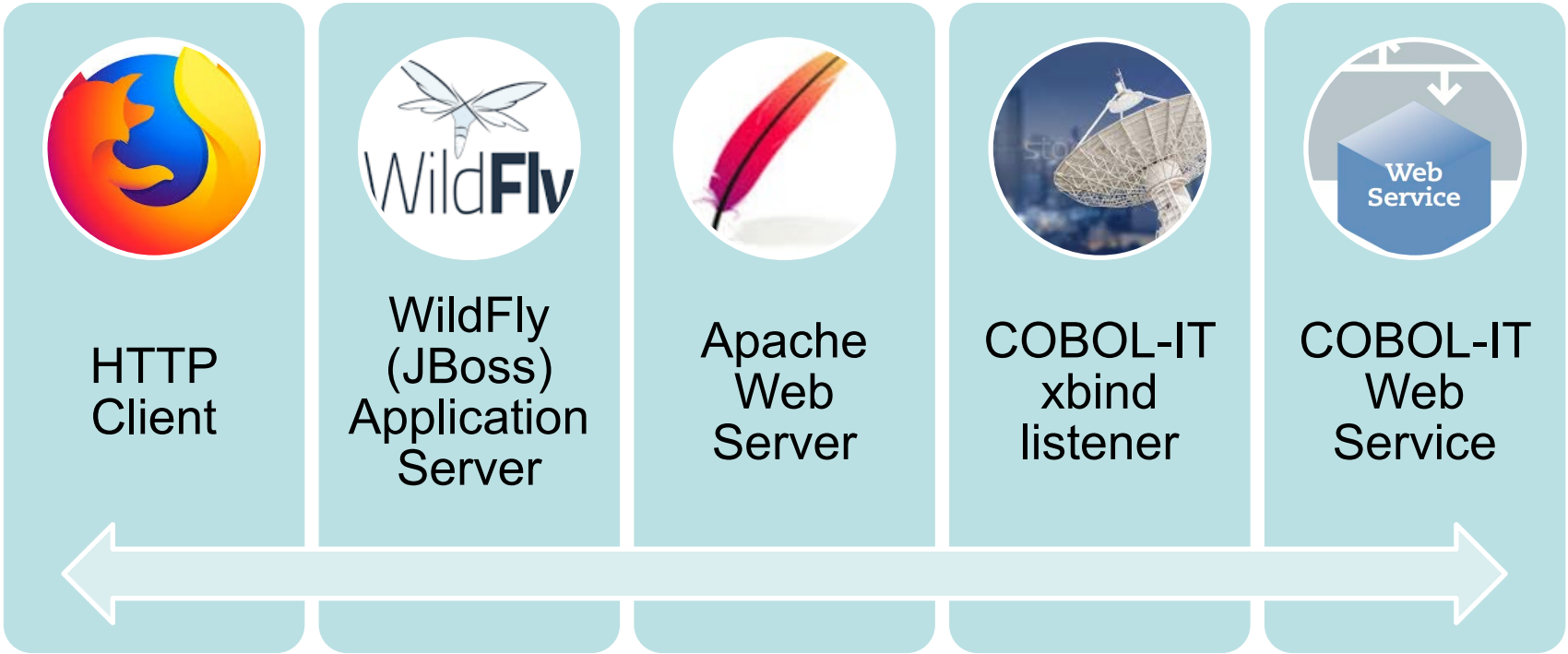
COBOL-IT Web Services Solutions Overview

- The COBOL-IT Web Services Solution allows new or existing COBOL programs with Entry Points to be accessed as Web Services by any Client.
- The COBOL-IT Web Services Perspective
  - Maps HTTP Methods POST, GET, PUT and DELETE to Entry Points in the COBOL Source
  - Generates API strings for use by the Client
  - Generates bridge programs from customizable templates that can receive the API message, and consume the appropriate COBOL-IT Web Service

COBOL-IT Web Services Solutions
The Development View



COBOL-IT Web Services Solutions
The Deployment View



COBOL-IT Web Services Solutions
The Deployment View

Requires traffic on port 8080

Requires traffic on port 80

Requires traffic on port 9735

COBOL-IT Web Services Solutions Using WildFly

Command	Description
$ sudo systemctl start wildfly	Starts the WildFly service
$ sudo systemctl status wildfly	Check the output for a status of active (running)
$ sudo systemctl enable wildfly	Enables the service to be automatically started at boot time
$ sudo ufw allow 8080/tcp	Allows traffic on port 8080
$ sudo /opt/wildfly/bin/add-user.sh	Create a user who will be able to connect using the administration console. When prompted, select a for Management User. Then follow prompts to create a user-name and password.
$ http://< your domain or ip address >:8080	Opens the default WildFly page
http://206.189.67.46:9990/console/index.html	The WildFly administration console. Sign in using the user-name and password you have created.
$ sudo systemctl restart wildfly	Restart the wildfly service if you have made changes to wildfly.service, wildfly.conf or launch.sh files. See documentation for details.

COBOL-IT Web Services Solutions Using WildFly

- Note: The sample program has a hard-coded path to, and name of the shell script that is designed to run the xholidays executable.
- Copy run.sh into the /vagrant/cobol/webservices/xholidays folder
  - >chmod 755 run.sh
  - >cp run.sh /vagrant/cobol/webservices/xholidays
- Upload and deploy `spring-resteasy.war` to the WildFly server, as described in the documentation at `http://www.mastertheboss.com/jboss-server/jboss-deploy/deploying-applications-on-wildfly-using-the-web-console-and-the-cli`

COBOL-IT Web Services Solutions Using Apache

Command	Description
$ sudo ufw app list	Lists applications that have registered their profiles with UFW upon installation. Verify that OpenSSH is listed as an Available application.
$ sudo ufw allow OpenSSH	Allow SSH connections
$ sudo ufw enable	Enable the firewall. Type “y” at the prompt.
$ sudo ufw status	Verify that OpenSSH is ALLOWed from Anywhere
$ sudo ufw allow OpenSSH	Allow SSH connections
$ sudo ufw enable	Enable the firewall. Type “y” at the prompt.
$ sudo ufw status	Verify that OpenSSH is ALLOWed from Anywhere
$ sudo apt-get update	Updates the local package to reflect the latest changes.
$ sudo apt-get install apache2	Install Apache and all required dependencies
$ sudo ufw app list	List existing application profiles. The goal is to enable access to Apache through the firewall.
$ sudo ufw allow ‘Apache Full’	Allow incoming traffic for the Apache Full profile

COBOL-IT Web Services Solutions Using Apache

Command	Description
$ sudo ufw status	Verify that Apache Full ALLOWs HTTP traffic from Anywhere
$ sudo systemctl status apache2	Verify that Apache is running

$ http://your-servers-public-IP-address
Enter your IP address into your browser's address bar. You should see the default Apache web page.
	Request a page from Apache. If you don't know it:
	$ sudo apt-get install curl
	$ curl -4 icanhazip.com

$ sudo systemctl stop apache2	Stops the web server
$ sudo systemctl start apache2	Starts the web server when it is stopped
$ sudo systemctl restart apache2	Stop and then start the web server
$ apache2 -v	Version information on apache Ex: Server version Apache/2.4.18 (Ubuntu)
$ curl http://127.0.0.1	Output in HTML printed on screen

COBOL-IT Web Services Solutions Using Apache

- Note: The sample program has a hard-coded path to, and name of the shell script that is designed to run the xholidays executable.
- Copy run.sh into cgi-bin folder of the Apache Web Server
  - >chmod 755 run.sh
  - >cp run.sh /usr/lib/cgi-bin

COBOL-IT Web Services Solutions
Using xbind

- Copy xbind into the COBOL-IT bin folder
  - >cp xbind /opt/cobol-it4-64/bin
- Copy run.sh into the project folder
  - >chmod 755 run.sh

COBOL-IT Web Services Solutions
Installing and Configuring WildFly and Apache

- For Installing WildFly on Linux platforms:
  - https://vitux.com/install-and-configure-wildfly-jboss-on-ubuntu
- For Deploying a WAR file in the WildFly Console
  - http://www.mastertheboss.com/jboss-server/jboss-deploy/deploying-applications-on-wildfly-using-the-web-console-and-the-cli
- For Installing Apache on Linux platforms:
  - https://vitux.com/how-to-install-and-configure-apache-web-server-on-ubuntu/

Thank You!