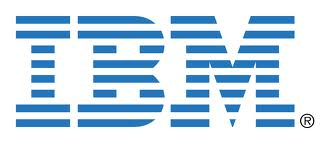
Document of Understanding

IBM WebSphere Automation  
Proof of Concept  
for

Technical Academy

For training purposes only



**Introduction**

Tech-Academy is interested in leveraging the capabilities of WebSphere Automation (WSA) to better manage their existing WebSphere Application Server and Liberty estate and improve operational agility, security, and overall system health. Tech-Academy would like to validate the IBM WebSphere Automation product’s capabilities in facilitating those objectives by engaging in a limited-scope Proof of Concept (PoC).

As such, Tech-Academy and IBM have crafted the following non-binding Document of Understanding (DoU) to articulate the PoC scope, objectives, and success criteria.

**What can IBM WebSphere Automation do for Tech-Academy?**

IBM WebSphere Automation helps organizations gain visibility, operational efficiencies, and cost savings quickly by extending the life of WebSphere investments and giving teams time back to focus on unlocking new value and fixing the imbalance of pure maintenance versus innovation tasks.

* WebSphere operators and administrators save time and embrace DevSecOps by implementing patches more efficiently on virtual and container environments to keep operations compliant and secure.
* Enhance remediation capabilities with insights and recommendations to improve the speed and depth of understanding of outages and anomalies as they occur.
* Augment the operational experience with access to simplified and consolidated information that enables teams to act.

With WebSphere Automation, security, business efficiency and resiliency become standard. IBM can meet you wherever you are in your optimization and automation journeys to help you quickly deliver value and increase ROI, all while laying a solid automation foundation to support future growth.

## Proof of Concept >> Scope, Goals & Objectives

Tech-Academy is seeking an enterprise-grade, container-based solution that:

* Facilitates the monitoring and management of WAS Network Deployment (WAS ND) clusters throughout the organization
* Allows for consolidated reporting of WAS estate version/release levels, as well as a detailed journal of patch history for each server to satisfy “Patching SLAs”
* Provides a user-friendly Dashboard interface which allows WAS administrators to easily review all compatible WAS servers and their most recent status
* Automatically identifies servers with newly discovered security exposures based on the latest IBM-provided CVE dispatches (Common Vulnerabilities & Exposures)
* Recommends WAS APARs, iFixes (Interim Fixes), Fixpacks (Consolidated Fixes), Releases, et cetera based on the latest CVE feeds

## Proof of Concept Software

The IBM team requires the installation of **Red Hat OpenShift Container Platform v4.9, v4.8, v4.7, or v4.6 [** <https://www.openshift.com/> **]** in advance of installing **IBM WebSphere Automation v1.3 [** https://www.ibm.com/cloud/websphere-automation/ **]** for this POC. It is recommended to review the installation prerequisites [ <https://www.ibm.com/docs/en/ws-automation?topic=installation-system-requirements> ] in preparation for the installation of IBM’s WebSphere Automation.

### PoC Checkpoints:

The table below lists the major milestones for completion of the Proof of Concept:

For this limited scope POC for Technical-Academy, it is assumed that the following activities have already been completed, as illustrated in the table below, including the platform and product installations.

In this limited scope PoC for Tech-Academy, you will focus on **Use Cases execution** and **presenting the PoC results through Demonstration**.

| **Milestone** | **Date** | **Status** |
| --- | --- | --- |
| DoU Delivered to Tech-Academy |  | Complete |
| DoU Review Meeting |  | Complete |
| DoU Acceptance by IBM and Tech-Academy |  | Complete |
| Software Evaluation Agreement Accepted by Tech-Academy |  | Complete |
| WSA Software Delivery |  | Complete |
| Project Kickoff, POC overview discussion | Kickoff at Technical Academy Session |  |
| Red Hat OpenShift Installation |  | Complete |
| WSA Software Installation |  | Complete |
| Use Cases executed | During Technical Academy |  |
| Proof of Concept Results Presentation / Demonstration | During Technical Academy |  |

The table below lists durations estimates and level of effort estimates for completing the use cases outlined below.

| **Use Case** | **Level of effort** |
| --- | --- |
| UC1- Airgapped Red Hat OpenShift installation | Out of Scope |
| UC2 – Airgapped Install & Config of IBM WebSphere Automation Product | Out of Scope |
| UC3 - WSA Alert Notifications | Low |
| UC4 - Integration with two WAS Servers (8.5.5.15 and 9.0.5.7) | Medium |
| UC5 – Install WebSphere iFix or Fixpack to resolve a high severity CVE. Show resolved/unresolved CVEs patch history, fies installed | Medium |
| UC7 – Generate/Export Audit Report | Low |
| **Completion Criteria – Demonstrate final solution to the instructors** | Medium |

## Use Cases

**Use Case 1: Airgapped Red Hat OpenShift installation (Out of Scope for training)**

* Complete the airgapped installation of Red Hat OpenShift (RHOS) platform on identified Tech-Academy infrastructure (hardware or VM)
* Network configuration as needed (firewall rules, ingress routes, et cetera)

**Evaluation Criteria:**

* Confirm the platform installation by accessing the RHOS UI and any relevant command line interfaces
* Review general platform functionality and core usage patterns
* Ensure that general OpenShift Container Platform (OCP) operational characteristics are as expected

Online documentation concerning prerequisites and installation details for **Red Hat OpenShift** can be found here:

<https://www.ibm.com/docs/en/cloud-paks/1.0?topic=setting-up-openshift-container-platform-clusters>

**Use Case 2: Airgapped Installation & Config of WebSphere Automation Product ((Out of Scope for training)**

* Complete the airgapped installation of WebSphere Automation within the identified Tech-Academy OpenShift Container Platform (OCP) environment
* Network configuration as needed (firewall rules, ingress routes, et cetera)

**Evaluation Criteria:**

* Confirm the core product installation by utilizing the WSA UI and any relevant command line interfaces
* Review general product functionality and core usage patterns
* Ensure that general WSA operational characteristics are as expected

Online documentation concerning prerequisites and installation details for **IBM WebSphere Automation** can be found here:

<https://www.ibm.com/docs/en/ws-automation?topic=installation-system-requirements>

**Use Case 3: WSA Alert Notifications**

* Configure WSA to use a Tech-Academy-provided SMTP server
* Configure WSA alert notifications to Tech-Academy designated email address(es)

**Evaluation Criteria:**

* Demonstrate email notifications delivered to the designated email address(es) when new CVEs are detected as the two WAS servers are registered with WSA.

**Use Case 4: Integration with WAS ND servers**

* Activate integration with two WAS server (8.5.5.15 and 90.5.7) using WSA connection URL and app secret information

**Evaluation Criteria:**

* Confirm that configured WAS servers are successfully communicating with the WSA system and accurately reporting their application version/release/patch history/ fixpack status and operational posture
* Demonstrate the ease of monitoring multiple WAS server deployments using the WSA User Interface (web client)
* Review detailed patch history of WAS servers to understand when an issue was detected, when it was fixed, and days exposed
* Illustrate that updates/changes to a particular WAS server are reported to the WSA system in real time (or near real time)

**Use Case 5: Install WebSphere iFix or Fixpack to resolve CVE**

* Review unresolved CVEs of WAS servers as reported in WSA dashboard
* Identify a high severity CVE to resolve, and patch one of the two WAS servers (8.5.5.15 or 9.0.5.7)
  + Download the recommended iFIX from IBM Fix Central
  + Using traditional WAS installation manager tool, install the recommended iFIX to resolve a high severity CVE that is detected.
* Illustrate resolved CVEs and patch updates/changes to a particular WAS server are reported to the WSA system in real time (or near real time)

**Evaluation Criteria:**

* Illustrate resolved CVEs and patch updates/changes to a particular WAS server are reported to the WSA system in real time (or near real time)

**Use Case 6: Audit Reporting – Security roles and permissions**

* Configure a new user and user role for permissions to generate/view audit report detailing the current WAS estate inventory and its version/release/fixpack/APAR status

**Evaluation Criteria:**

* Added your [IBMID@us.ibm.com](mailto:IBMID@us.ibm.com) user to WSA
* Added **WebSphere Automation Security** role to your new user
* Login using **OpenShift Authentication** Login for this new user
* Confirm the new non-admin user can view the current state of the WAS servers
* Export generated report to CSV-formatted file

## PoC Assumptions

1. All Use Cases must be validated by instructors during the Proof of Concept training
2. Tech-Academy POC environment will be provisioned and available to prove the use cases
3. Tech-Academy ’s OCP cluster will be deployed in an IBM Cloud environment
4. There will be no special HA/DR configuration for the PoC environment
5. For the PoC, Tech-Academy will use the provided set of non-Production WAS estate to be managed.
6. The following WAS versions must be integrated with WSA:

tWAS 8.5.5.15  
tWAS 9.0.5.7

**Note:** WAS versions prior to 8.5.5.15 and 9.0.0.9 are not supported by WSA

1. Tech-Academy will provide requisite network connectivity from the various WAS server deployments to the WSA OpenShift cluster, including all necessary firewall rule additions/updates and ingress route modifications
2. Tech-Academy will provide the WSA application network access to and authentication credentials for a functional SMTP server capable of dispatching outbound emails to Tech-Academy-designated email addresses
3. The project to be completed under this DoU is intended for Proof of Concept and demonstration purposes only. It is to be conducted using the environment provided specifically for this training.

## Presentation the Proof of Concept Results

The POC team will prepare and deliver an informal walk-though demonstration showcasing the Proof of Concept results to the instructors. During the walk-through, it may not be feasible to demonstrate the Evaluation Criteria for all the Use Cases due to time constraints and/or other restrictions. For those use cases that cannot be actively demonstrated, the POC tea will describe to the instructor how each use case was validated.

**POC Completion Criteria:**

* The PoC project will be considered complete when all Use Cases have been achieved and signed off by the instructor
* To complete this POC, All use cases that are in scope must be demonstrated to Tech Academy instructor, showing completion criteria of the mock POC