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1.0 GENERAL

1.1 SUMMARY

The Office of Technology Services (OTech) offers a number of different application server technologies under the Application Hosting service offering. This document provides guidance regarding the IBM WebSphere application server.

This technical offering includes product procurement, installation, product maintenance, security administration and system account management. The installed application server also includes a network connection and one Internet Protocol (IP) address. Product maintenance is typically coordinated with Service Transition activities.

There are two offerings available. The basic service is most useful for Customers implementing Commercial-off-the-Shelf applications with resources necessary to administer their WebSphere environment. The premium service is for the Customer with more complex applications or those that may not have the resources to support a WebSphere installation.

OTech supports version(s) of the application server product lines in accordance with the [Software Version Support Policy](#). Application servers are offered on either dedicated hardware or virtual configurations. A virtual configuration may find multiple Customers sharing a single physical host server / computer.

1.2 REFERENCES

Items referenced here are found elsewhere in this document.

	IDENTIFIER	DATE	TITLE
	Web Site	NA	OTech Contact Information
	Web Site	NA	ENews
	04.15.881	2011	Local Area Network Guideline
	04.14.873	2012	WebSphere Application Server Submittal
	Tech 358	02/2011	Security Policy/Standard Exception Form
	3138	2011	OTech System Administrator Access Standard
	4000	2011	Software Version Support Policy
	4000	2011	Software Version Support Procedure

1.3 SUBMITTALS

1.3.1 General

OTech is available to advise and assist Customers in formulating IT designs that will leverage available service offerings. Contact your Account Manager to engage architectural/engineering and design consulting services. Additional charges may be incurred.

Use the following method for work requests:

Item	Request Method
Quotes & Billable Service (new or changes to existing services)	OTech Customer Service System (CSS) Request
Modifications to Existing Systems	Remedy Request
Technical Problems	Remedy Incident

Include the Customer's name, contact information and associated project name on forms, documents, and requests submitted to OTech.

1.3.2 Service Request Criteria

A completed [WebSphere Application Server Submittal](#) is required prior to the start of work. To aid in the preparation of providing this technology, all information must be included in the OTech Service Request [Customer Service System \(CSS\)](#).

This Submittal is to be revised at appropriate intervals providing for expeditious and practicable execution of the Work. Revised submittal(s) must indicate changes.

1.4 EXPECTATIONS

1.4.1 OTech

The OTech manages contract and licensing for system software and serves as liaison between the customer and technology vendor for technical system level issues. The OTech will hold these software licenses.

The OTech will document end-of-support to Customers in E-News notifications. Technology products must be within vendor supported versions to sustain availability and integrity.

The OTech follows change management practices. Change requests are recorded in [OTech Remedy Service Request](#) system, as a Change Request (CRQ). Contact your OTech account managers for current change procedures.

1.4.2 Customer

Customers are expected to:

- Understand product lifecycles and collaborate with OTech on upgrades, testing, and verification of their platform and software technology before the end-of-support date. Failure to migrate off of unsupported versions may incur additional charges. Refer to the [OTech Procedure 4000 – Software Version Support](#) for details.
- Determine and submit technology details required to meet their system needs.
- Identify and lead the resolution of application related Problems.
- Sanitize system transaction information prior to logging, if any.

Customers may identify and report system level incidents to the OTech.

1.5 SCHEDULING

OTech's goal is to provide timely, comprehensive and economical technology service. Customers promote this goal by promptly providing information requested, and by keeping the OTech Account Manager / Project Manager informed of technology project status. Delays in supplying this information could cause an unnecessary inconvenience for the customer.

1.5.1 Change Management Schedule

Change proposal / requests follow the established OTech Change Management process.

Additional charges may be incurred for expedited change requests.

1.6 DEFINITIONS

Term, phrase, abbreviation	Definition
MTBF	Mean Time Between Failures. A metric for measuring and reporting reliability. MTBF is the average time that an IT service or other configuration item can perform its agreed function without interruption. This is measured from when the configuration item starts working, until it next fails.
MTTR	Mean Time To Repair. The average time taken to repair an IT service or other configuration item after a failure. MTTR is measured from when the configuration item fails until it is repaired. MTTR does not include the time required to recover or restore. It is sometimes incorrectly used instead of mean time to restore service.

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MTRS	Mean Time To Restore Service. The average time taken to restore an IT service or other configuration item after a failure. MTRS is measured from when the configuration item fails until it is fully restored and delivering its normal functionality.
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2.0 PRODUCTS

2.1 IBM WebSphere Application Server

2.2 PLATFORM

- IBM AIX
- Redhat Enterprise Linux (RHEL)
- Microsoft Windows

3.0 EXECUTION

3.1 *SECURITY – not used*

3.2 *QUALITY CONTROL*

3.2.1 **OTech Responsibilities (Basic support)**

- Review and approval of submitted information prior to beginning work.
- Notify Customer of submittal flaws, if any.
- Perform scheduled upgrades and patching.
- Perform security scan after installation and configuration. The associated server is scheduled for security scanning every two weeks.
- Open product vendor Problem Management Record(s) (PRM) when necessary.
- Review and recommend optional configuration that may better meet capacity and performance requirements in accordance with 1.3 SUBMITTALS.
- Assist customer in specifying design in accordance with information provided in related SUBMITTALS. Design considerations typically include availability, workload balancing, port requirements, domain name services, certificate requirements, batch process scheduling, and repository considerations.
- Assist customer with design and setup of product backup scheme. Additional charges may be incurred.

3.2.1.1 Premium support

Additional charges may be incurred for OTech execution of the following responsibilities. Each is performed in accordance with information provided in 1.3 SUBMITTALS.

- Retain administrator rights for the product, console, repository, and related features.
- Assist customer with incident resolution subsequent to application configuration changes.
- Assist customer with security incident resolution.
- Consult with customer on Incident or Problem tickets with COTS manufacturer regarding application issues.

3.2.2 **Customer Responsibilities (Basic support)**

- Submittal of complete 1.3 SUBMITTALS information.
- Specifying application server quality characteristics in sufficient detail to allow OTech service delivery. (Example: MTBF, MTTR, MTRS, various resource metrics.)
- Design and implementation shall avoid system use of or dependence upon system administrator privileges.
- Specify Third Party application installation settings, if any, within 1.3 SUBMITTALS

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- Deploy, test, operate and maintain application.
- Design, develop, configure, test, deploy, operate and maintain required application server level scripts.
- Manage and control files related to application execution. Employ measures to control impact of extraneous files.

- Manage and control process scheduling.
- Security incident resolution. Submittal of [Tech 358](#) - Security Policy/Standard Exception Form as needed.
- Product setup and configuration activities, including establishing data sources, JVM settings, review and placement of Customer start/stop scripts, and internal security configurations.
- Notify OTech of Customer application revisions.
- Additional OTech charges for intervention, troubleshooting and correction.
- Testing of new and maintenance software release.
- Test and approval of system software upgrade and patching. Notify OTech of approved test result.
- Only system level information is to be written to the system logs.
- Writing application logging information to:

OPERATING SYSTEM	LOCATION
MS Windows	D:\AppLogs\<<application defined>
UNIX and Linux	/AppLogs/<application defined>

- File transfer operations, if any, shall be via the OTech Secure File Transfer (SFT) Service.

3.3 SUPPORT AVAILABILITY

Core business hours for web technical support are Monday through Friday 0800-1700. State holidays and mandated schedule alterations are observed and may impact staff availability.

3.4 INSTALLATION

Installations must be reviewed and approved by OTech. Installation work will be coordinated with information from 1.3 - SUBMITTALS.

3.4.1 OTech Responsibilities (Basic support)

- Install one WebSphere instance per server.
- Installations are provided by OTech in accordance with OEM product installation procedures and 1.3 - SUBMITTALS information provided. The following settings are provided as a courtesy reference. Actual project settings may vary.
 - User Repository

OPERATING SYSTEM	DIRECTORY
MS Windows	Federated repositories
UNIX / Linux	Local operating system

LDAP repository may be supported. Contact your Account Manager to engage architectural/engineering and design consulting services. Additional charges may be incurred.

- Global Security - enabled.
- Verbose garbage collection - enabled
- Install most recent, validated, product release, unless otherwise noted in 1.3 - SUBMITTALS information provided.
- Administration of application server.
- Administration of approved application server related changes.
- Maintain application server software and configuration.
- Support Java release installed as part of product installation.
- File System Structure:

- Product install directory:

OPERATING SYSTEM	DIRECTORY
MS Windows	D:\<product>\AppServer
UNIX / Linux	/usr/<product>/AppServer

- Application log directory:

OPERATING SYSTEM	DIRECTORY
MS Windows	D:\AppLogs\<application defined>
UNIX / Linux	/AppLogs/<application defined>

- Product User Repository:

OPERATING SYSTEM	REPOSITORY
MS Windows	Federated repositories
UNIX / Linux	Local operating system file system

3.4.1.1 [Premium support](#)

Additional charges may be incurred for OTech execution of the following responsibilities. Each is performed in accordance with information provided in 1.3 SUBMITTALS.

- Retain administrator rights for the product, console, repository, and related features.
- Product setup and configuration activities, including establishing data sources, JVM settings, review and placement of Customer start/stop scripts, and internal security configurations.
- Deployment of Customer application.
- Provide technical support and escalation of issue(s) identified as specifically attributable to WebSphere.
- Installation of customer provided application scripts.
- Placement of customer start/stop scripts.

3.4.2 Customer Responsibilities (Basic support)

- Retention of administrator rights for the product, console, repository, and related features.
- Install Third Party Software and/or Customer application(s), supporting software, components and accessories, if applicable.
- Configure, test and install required application server level scripts, if applicable.
- Orderly control over the deployed application, applications and components and accessories, if any. Orderly control shall address the system schematic structure and dependencies. Scripting, if any shall be included in 1.3 - SUBMITTALS information.
- Install of Third Party Software in support of the system.

3.5 OPERATION

3.5.1 OTech Responsibilities (Basic support)

- Perform scheduled upgrades and patching.
- Recovery of WebSphere specific configuration and settings, if needed.
- Monitoring of product logs.

3.5.1.1 Premium support

Additional charges may be incurred for OTech execution of the following. Each is performed in accordance with information provided in 1.3 SUBMITTALS.

- Monitoring of various application logs and Customer notification of specified events.
- Assist customer with incident resolution subsequent to application configuration changes. Advanced Customer notification of configuration change(s) is required.
- Assist customer with product tuning.
- WebSphere startup and shutdown.
- Deployment of Customer application.
- Maintenance of application specific configurations.
- Recover application specific configuration settings installed/implemented for Customer.
- System monitoring and health checking.

3.5.2 Customer Responsibilities (Basic support)

- WebSphere startup and shutdown.
- Operate and maintain Third Party Software and/or Customer application(s), supporting software, components and accessories.
- Notify OTech of changes to Third Party Software and/or Customer application(s), supporting software, components and accessories.
- Scheduled changes to Third Party Software and/or Customer application(s), supporting software, components and accessories.
- Operate and maintain required application server level scripts.
- Monitoring and management of various application related logs.

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- Monitoring, troubleshooting and reporting status of application execution.

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