1 Managed Standard Application Server Service Description

1.1 Overview of Service

This service provides configuration, monitoring and management of a Managed Standard Application Server on top of supported Operating Systems in NTT's cloud or in the Client's on-premises or colocation data center as specified as in scope in the SOW.

1.2 Client Responsibilities

(a) Management of licenses

(b) Any software, licensing or use rights must be provided to NTT

(c) Any task requiring physical access

(d) Any maintenance agreement must be procured from the OEM with access provided to NTT

(e) Client must provide any NTT required access

(f) Anything specifically not identified as in scope in the SOW

1.3 Service Specific Operations

(a) Monitors

The following monitors can be configured by default, if available based on the hardware and software:

Monitor	Description	Alerts	Performance Info	Resolution
Availability of the Application Server	The Application Server service is up and running	Yes	CPU/RAM/Process count	
Availability of the Application Server ports	Connection established to configured ports to return banner	Yes	N/A	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client if needed
URL content verification	Download of a given URL (with parameters and certificates) to verify its content and response times	Yes	Header Response Time	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client if needed
Performance Counters: . Number of threads . Available memory	Collected data	No	Number of concurrent connections on the server, number of queued requests waiting to be served.	N/A

(b) Service Requests

As part of the Service, the fulfilment of the following types of requests are included, subject to NTT's change management procedure:

Task	Description
Management mod_jk/mod_proxy_ajp	Management of the mod_jk or mod_proxy_ajp parameters for handling connections from the web server to the application server
Management of Virtual Hosts	Creation, change and deletion of virtual hosts, including the management of bindings, application properties, resource limits, changes to mime-types
Management of domains and contexts	Creation, change and deletion of contexts, including setting of permissions, redirections, and security settings
Management of Listeners and Valves	Creation, change and deletion of listeners for different protocols and ports, and valves for the implementation of additional server features
Installation of additional libraries	Installation and configuration of additional .jar files on the shared spaces in the server
Configuration of JNDI connections	Creation, change and deletion of shared data sources, both global at the server level and local at the context level

Installation of SSL certificates	Generation of CSR's, install and import of SSL certificates and intermediate CA's
Deployment of Applications	Deployment and verification of applications using .war files (troubleshooting of custom developed apps will be lead/executed by the customer)
Management of the manager application	Creation of users, changes in permissions, password changes for the manager application
Changes in the transaction/url monitors	Implementation of changes in the monitors associated with the Application Server service, including recreation of the monitors and changes to the content match strings
Management of performance parameters of the server	Implementation of changes to the parameters that affect the performance of the server, including resource limits, threading, memory allocation, etc.
Patching Application	Apply bug fix version upgrades to application server, excluding major application versions which are out of scope

All of the above tasks will be performed according to the Change Management process defined by NTT.

1.4 Supported Technologies

The following technologies are supported:

(a) JBoss 7.x on Linux

(b) WildFly or EAP 8.x on Linux or Windows

(c) Tomcat 9.x or 10.x on Linux or Windows

While these Application Servers are supported on the above OS versions, NTT highly recommends a Linux based OS for better security, operability, and performance.

Only the following configurations are supported:

(d) Standalone Application Server - A single server

(e) Clustered Application Server - Two or more servers clustered using supported clusterware (session replication, single session storage, load balancing)

The specific supported version and technology will be identified as in scope in the SOW.

1.5 Supported Environments

The following environments are supported:

(a) Client premises during transition service phase

(b) Colocation data center

(c) Cloud

1.6 Limitations

The following limitations apply:

(a) When deploying JBoss EAP (Enterprise), the Client must purchase support from the vendor

(b) Any production environment must have a web server in front of the Application Server which redirects requests to the Application Server; the Application Server, therefore, will not be exposed directly to the Internet. The Client must provide this configuration.

(c) Java 32-bit SDK or Runtime are not supported on 64-bit operating systems; using 32-bit Java will limit the Application Server to 2GB of total usable RAM, including the memory used by the OS itself

1.7 Tasks Included in the Standard Transition

As part of the Service, the following tasks are included in the setup fee:

(a) Installation and configuration of the necessary packages (JVM)

(b) Configuration of the necessary operating system parameters (kernel, libraries, limits)

(c) Configuration of the required IIS/Apache parameters (ISAPI filters, mod_jk, mod_proxy_ajp)

(d) Installation of the WildFly/JBoss/Tomcat application server

(e) JBoss/WildFly: Installation of the Tomcat part of the server (contexts, ports)

(f) JBoss/WildFly: Installation and configuration of additional EJB's and Java Libraries

(g) Configuration of service management scripts (start, stop)

(h) Configuration of service parameters (RAM)

(i) Configuration of the security environment/application of the security policy and hardening

(j) Configuration of caching and concurrency (threads) parameters

(k) Configuration of database connections and pools (JDBC drivers)

(l) Configuration of application contexts

(m) Configuration of mail connections

(n) Configuration of additional Java libraries

(o) Configuration of a status worker

(p) Configuration of cluster settings

(q) Tasks Included in the Takeover of a Client's Systems

In addition to the tasks described in the *App Management - Common Functions,* NTT will perform the following for an existing Client Solution:

(i) Perform operational readiness inspection and make changes as needed to the configuration of the security environment/security policy

1.8 Tasks Not Included in the Standard Transition

The following tasks are not included in the standard transition:

(a) Any licensing activity

(b) All software, license and use rights

(c) Any task requiring physical access

(d) Any task not specifically identified as in scope in the SOW