

- jMaki: A framework for creating Ajax web applications

Support for these scripting languages is provided by components that are available through Update Tool.

Web Tier Extensions

Sun GlassFish Enterprise Server v3 Preview supports the web tier of the Java EE specification to enable the deployment of web applications. Enterprise Server implements the following Java EE technology standards:

- Java Persistence API 1.0
- Java Servlet 2.5
- JavaServer™ Faces 1.2
- Java Server Pages™ 2.1 (JSP™ 2.1)
- Java Server Pages Standard Tag Library (JSTL) 1.2
- Streaming API for XML (StAX)

Building on these standards, Enterprise Server v3 Preview provides a number of extensions, including the following:

- Comet and Representation State Transfer (REST): Reduce latency when a server uses hypertext transmission protocol (HTTP) to transmit domain-specific data and eliminate an additional messaging layer such as simple object access protocol (SOAP).
- Ajax (asynchronous JavaScript and XML): Retrieves and displays new data for a portion of a web page without affecting the rest of the page.
- Metro: A web services stack that implements Java Architecture for XML Binding (JAXB) and Java APIs for XML Web Services 2.1 (JAX-WS 2.1).
- Roller: A blog server that runs on any Java EE server using any relational database.
- Grizzly: A framework for building scalable and robust servers using New I/O (NIO) APIs, which make scaling to thousands of users possible. The ability to embed components that support HTTP, Bayeux Protocol, Java Servlet API, and Comet is provided.

HTTP Service to Network Service Changes

In Sun GlassFish Enterprise Server v3 Preview, most HTTP Service settings have been moved into the new Network Service configuration. The dotted name hierarchy for the HTTP Service configuration in the v3 Prelude release is shown below. Elements that are no longer supported are in *italics*. During the upgrade process, these discontinued elements are remapped to the new configuration automatically and then deleted.

```
config
  http-service
    access-log
    request-processing
    keep-alive
```

```

connection-pool
http-protocol
http-file-cache
http-listener
    ssl
    property
virtual-server
    http-access-log
    property
property
thread-pools
    thread-pool

```

The dotted name hierarchy for the new Network Service and HTTP Service configurations is shown below. The `network-config` element and all its children are new except for `ssl`.

```

config
  network-config
    transports
      selection-key-handler
      transport
    protocols
      protocol
        http
          file-cache
          port-unification
          protocol-finder
          protocol-chain-instance-handler
          protocol-chain
          protocol-filter
          ssl
        network-listeners
          network-listener
      http-service
        access-log
        virtual-server
          http-access-log
          property
        property
      thread-pools
        thread-pool

```

For example, here are the ways of setting a listener port for v3 Prelude and Sun GlassFish Enterprise Server v3 Preview compared:

```
asadmin set server-config.http-service.http-listener.http-1.listenerport=4321
```

```
asadmin set server-config.network-config.network-listeners.network-listener.http-1.listenerport=4321
```

To accommodate these changes, the `asadmin create-ssl` command has a new `--type` parameter value, `network-listener`. The `asadmin create-virtual-server` command has a new parameter, `--networklisteners`. The `asadmin create-http-listener` command is unchanged except that it creates a `network-listener` element behind the scenes.

Changes are summarized in more detail in the following sections.

- [“Remapping of HTTP Service Attributes and Properties” on page 10](#)
- [“New Network Service Elements and Attributes” on page 14](#)

Remapping of HTTP Service Attributes and Properties

The following tables describe how attributes and properties in the HTTP Service configuration for v3 Prelude are remapped to attributes in the Network Service configuration for Sun GlassFish Enterprise Server v3 Preview. During the upgrade process, this remapping happens automatically and then discontinued elements are deleted.

TABLE 1-2 `com.sun.grizzly` Property Remapping

<code>com.sun.grizzly</code> Property	New Owning Element	New Attribute Name
<code>selector.timeout</code>	<code>transport</code>	<code>selector-poll-timeout-in-millis</code>
<code>displayConfiguration</code>	<code>transport</code>	<code>display-configuration</code>
<code>enableSnoop</code>	<code>transport</code>	<code>enable-snoop</code>
<code>readTimeout</code>	<code>transport</code>	<code>read-timeout-in-millis</code>
<code>writeTimeout</code>	<code>transport</code>	<code>write-timeout-in-millis</code>

TABLE 1-3 `connection-pool` Attribute Remapping

<code>connection-pool</code> Attribute	New Owning Element	New Attribute Name
<code>queue-size-in-bytes</code>	<code>thread-pool</code>	<code>max-queue-size</code>
<code>max-pending-count</code>	<code>transport</code>	<code>max-connections-count</code>
<code>receive-buffer-size-in-bytes</code>	<code>http</code>	<code>request-body-buffer-size-in-bytes</code>
<code>send-buffer-size-in-bytes</code>	<code>http</code>	<code>send-buffer-size-in-bytes</code>

TABLE 1-4 `http-file-cache` Attribute Remapping

<code>http-file-cache</code> Attribute	New Owning Element	New Attribute Name
<code>file-caching-enabled</code>	<code>file-cache</code>	<code>enabled</code>
<code>max-age-in-seconds</code>	<code>file-cache</code>	<code>max-age-in-seconds</code>

TABLE 1-4 http-file-cache Attribute Remapping *(Continued)*

http-file-cache Attribute	New Owning Element	New Attribute Name
medium-file-space-in-bytes	file-cache	max-cache-size-in-bytes
max-files-count	file-cache	max-files-count
globally-enabled	none	not supported
medium-file-size-limit-in-bytes	none	not supported
small-file-size-limit-in-bytes	none	not supported
small-file-space-in-bytes	none	not supported
file-transmission-enabled	none	not supported
hash-init-size	none	not supported

TABLE 1-5 http-listener Attribute Remapping

http-listener Attribute	New Owning Element	New Attribute Name
id	network-listener	name
address	network-listener	address
port	network-listener	port
enabled	network-listener	enabled
acceptor-threads	transport	acceptor-threads
security-enabled	protocol	security-enabled
default-virtual-server	http	default-virtual-server
server-name	http	server-name
redirect-port	http	redirect-port
xpowered-by	http	xpowered-by
external-port	none	not supported
family	none	not supported
blocking-enabled	none	not supported

TABLE 1-6 http-listener Property Remapping

http-listener Property	New Owning Element	New Attribute Name
maxKeepAliveRequests	http	max-connections
authPassthroughEnabled	http	enable-auth-pass-through

TABLE 1-6 http-listener Property Remapping *(Continued)*

http-listener Property	New Owning Element	New Attribute Name
compression	http	compression
compressableMimeType	http	compressable-mime-type
noCompressionUserAgents	http	no-compression-user-agents
compressionMinSize	http	compression-min-size-in-bytes
restrictedUserAgents	http	restricted-user-agents
rcmSupport	http	enable-rcm-support
cometSupport	http	enable-comet-support
connectionUploadTimeout	http	connection-upload-timeout-in-millis
disableUploadTimeout	http	disable-upload-timeout
chunkingDisabled	http	chunking-disabled
uriEncoding	http	uri-encoding
traceEnabled	http	trace-enabled
crlFile	ssl	crl-file
trustAlgorithm	ssl	trust-algorithm
trustMaxCertLength	ssl	trust-max-cert-length-in-bytes
tcpNoDelay	transport	tcp-no-delay
bufferSize	transport	buffer-size-in-bytes
use-nio-direct-bytebuffer	transport	byte-buffer-type
proxiedProtocols	none	not supported
jkeEnabled	none	not supported

TABLE 1-7 http-protocol Attribute Remapping

http-protocol Attribute	New Owning Element	New Attribute Name
version	http	version
forced-response-type	http	forced-response-type
default-response-type	http	default-response-type
dns-lookup-enabled	none	not supported
ssl-enabled	none	not supported

TABLE 1-8 http-service Property Remapping

http-service Property	New Owning Element	New Attribute Name
accessLoggingEnabled	virtual-server	access-logging-enabled
all other properties	none	not supported

TABLE 1-9 keep-alive Attribute Remapping

keep-alive Attribute	New Owning Element	New Attribute Name
max-connections	http	max-connections
timeout-in-seconds	http	timeout-in-seconds
thread-count	none	not supported

TABLE 1-10 request-processing Attribute Remapping

request-processing Attribute	New Owning Element	New Attribute Name
thread-count	thread-pool	max-thread-pool-size
initial-thread-count	thread-pool	min-thread-pool-size
header-buffer-length-in-bytes	http	header-buffer-length-in-bytes

TABLE 1-11 ssl Attribute Changes

Previous Attribute or Property	Previous Owning Element	New ssl Attribute
none	none	key-store
none	none	trust-store
crlFile property	http-listener	crl-file
trustAlgorithm property	http-listener	trust-algorithm
trustMaxCertLength property	http-listener	trust-max-cert-length-in-bytes
all other ssl attributes	ssl	unchanged

TABLE 1-12 thread-pool Attribute Changes

Previous Attribute	Previous Owning Element	New thread-pool Attribute
none	none	classname
num-work-queues	thread-pool	not supported
thread-increment	thread-pool	not supported

TABLE 1-12 thread-pool Attribute Changes (Continued)

Previous Attribute	Previous Owning Element	New thread-pool Attribute
all other thread-pool attributes	thread-pool	unchanged

TABLE 1-13 virtual-server Attribute Changes

Previous Attribute or Property	Previous Owning Element	New virtual-server Attribute
http-listeners attribute	virtual-server	network-listeners
accessLoggingEnabled property	http-service	access-logging-enabled
docRoot property	virtual-server	doc-root
accessLog property	virtual-server	access-log
sso-enabled property	virtual-server	sso-enabled
all other virtual-server attributes	virtual-server	unchanged
all other virtual-server properties	virtual-server	unchanged, still properties

New Network Service Elements and Attributes

The following tables describe new Network Service elements and attributes. For attributes and properties remapped from discontinued elements to new elements, see [“Remapping of HTTP Service Attributes and Properties” on page 10](#).

The new file-cache element has no new attributes. All of its attributes are remapped from the http-file-cache element. For details, see [Table 1-4](#).

TABLE 1-14 New http Attributes

Attribute	Default	Description
adapter	com.sun.grizzly.tcp.StaticResourcesAdapter	(optional) Specifies the class name of the static resources adapter.
max-post-size-in-bytes	2097152	(optional) Specifies the maximum size of POST actions.
request-timeout-in-seconds	30	(optional) Specifies the request timeout. If the request is not processed before the timeout is reached, the request is ignored.

For remapped http attributes, see [Table 1-3](#), [Table 1-5](#), [Table 1-6](#), [Table 1-7](#), [Table 1-9](#), and [Table 1-10](#).

TABLE 1-15 New network-listener Attributes

Attribute	Default	Description
protocol	http-protocol-1	Specifies the name of the protocol associated with this network-listener. Although this attribute is required, a protocol is automatically created when you use <code>asadmin create-http-listener</code> to create a network-listener.
thread-pool	none	(optional) Specifies the name of the thread-pool associated with this network-listener.
transport	http-transport-1	Specifies the name of the transport associated with this network-listener. Although this attribute is required, a transport is automatically created when you use <code>asadmin create-http-listener</code> to create a network-listener.

For remapped network-listener attributes, see [Table 1-5](#).

TABLE 1-16 New port-unification Attributes

Attribute	Default	Description
name	none	Specifies a unique name for the port-unification.
classname	none	Specifies the class name of the port-unification implementation.

TABLE 1-17 New protocol Attributes

Attribute	Default	Description
name	http-protocol-1	Specifies a unique name for the protocol.

For remapped protocol attributes, see [Table 1-5](#).

TABLE 1-18 New protocol-chain Attributes

Attribute	Default	Description
name	none	Specifies a unique name for the protocol-chain.
classname	none	Specifies the class name of the protocol-chain implementation.
type	STATELESS	Specifies the type of protocol chain.

TABLE 1-19 New protocol-chain-instance-handler Attributes

Attribute	Default	Description
name	none	Specifies a unique name for the protocol-chain-instance-handler.
classname	none	Specifies the class name of the protocol-chain-instance-handler implementation.

TABLE 1-20 New protocol-filter Attributes

Attribute	Default	Description
name	none	Specifies a unique name for the protocol-filter.
classname	none	Specifies the class name of the protocol-filter implementation.

TABLE 1-21 New protocol-finder Attributes

Attribute	Default	Description
name	none	Specifies a unique name for the protocol-finder.
classname	none	Specifies the class name of the protocol-finder implementation.
protocol	none	Specifies the name of the protocol associated with this protocol-finder.

TABLE 1-22 New selection-key-handler Attributes

Attribute	Default	Description
name	none	Specifies a unique name for the selection-key-handler.
classname	none	Specifies the class name of the selection-key-handler implementation.

TABLE 1-23 New ssl Attributes

Attribute	Default	Description
key-store	none	(optional) Specifies a key store.
trust-store	none	(optional) Specifies a trust store.

For remapped ssl attributes, see [Table 1-11](#).

TABLE 1–24 New thread-pool Attributes

Attribute	Default	Description
classname	com.sun.grizzly.http. StatsThreadPool	(optional) Specifies the class name of the thread-pool implementation.

For remapped thread-pool attributes, see [Table 1–3](#), [Table 1–10](#), and [Table 1–12](#).

TABLE 1–25 New transport Attributes

Attribute	Default	Description
name	http-transport-1	Specifies a unique name for the transport.
classname	com.sun.grizzly. TCPSelectorHandler	(optional) Specifies the class name of the transport implementation.
selection-key- handler	none	(optional) Specifies the name of the selection-key-handler associated with this transport.
idle-key-timeout- in-seconds	30	(optional) Specifies the idle key timeout.

For remapped transport attributes, see [Table 1–2](#), [Table 1–3](#), [Table 1–5](#), and [Table 1–6](#).

Hardware and Software Requirements

This section lists the requirements that must be met before installing the Sun GlassFish Enterprise Server v3 Preview product.

- [“Supported Platforms” on page 17](#)
- [“System Virtualization Support” on page 19](#)
- [“Required Disk Space” on page 19](#)
- [“Required Free Ports” on page 19](#)
- [“Important Patch Information” on page 20](#)
- [“Required JDK Version” on page 20](#)
- [“Supported JDBC Drivers and Databases” on page 20](#)
- [“Supported Browsers” on page 21](#)

Supported Platforms

Sun GlassFish Enterprise Server v3 Preview requires a minimum of 200 Mbytes of free disk space to install, and 100 Mbytes of free memory to run.

This following table lists supported operating systems and provides minimum memory, recommended memory, minimum disk space, recommended disk space, and Java virtual machine for each.