

JEUS SNMP 안내서



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매뉴얼에 대해서

매뉴얼의 대상

본 매뉴얼은 JEUS 시스템 관리자와 SNMP 를 사용하여 JEUS 를 모니터링 하려는 네트워크 관리자 및 개발자를 대상으로 한다.

매뉴얼의 전제 조건

이 매뉴얼을 읽기 전에 두 가지 전제 조건이 있다.

1. 첫째, JEUS Server 안내서를 읽고 이해해야 한다.
2. 둘째, 일반적인 SNMP 애플리케이션을 개발에 대해 알고 있어야 한다. 그렇지 못하다면 우선 SNMP 스펙에 대한 자료([http:// java.sun.com](http://java.sun.com) 또는 <http://www.ietf.org/rfc.html> 참조)나 관련 서적을 참조하기 바란다.

참조: 본 매뉴얼은 J2EE 나 SNMP 에 대한 기본적인 내용에 대해서는 설명하지 않는다.

문서 구조

이 매뉴얼은 다음과 같이 7 장의 본문과 2 장의 부록으로 구성되어있다.

본문:

1. 소개: 인사말과 개요
2. 따라하기: 예제를 가지고 단계별로 시작하기
3. **JEUS SNMP Agent** 의 개요: JEUS SNMP agent 의 기본적인 개념과 구성
4. **SNMP Agent** 의 설정: SNMP Agent 구성

5. **JEUS SNMP 프로그래밍**: SNMP manager 애플리케이션의 개발
6. **JEUS SNMP MIB**: JEUS 에서 사용하는 SNMP MIB 소개.
7. 결론

부록:

A JEUS SNMP MIB 참조: MIB 파일에 대한 설명.

B JEUSMain.xml 의 XML 환경 설정 레퍼런스: JEUSMain.xml 의 환경파일을 참조하여 완성.

관련 문서들

관련 문서들:

- 2EE 1.4 스펙.
- J2EE management 1.0 스펙.
- SNMP 스펙.
- JEUS JMX 안내서.

일러두기

표기 예	내용
텍스트	본문, 12 포인트, 바탕체 Times New Roman
<i>텍스트</i>	본문 강조
CTRL+C	Ctrl 와 동시에 C 를 누름
<pre>public class myClass { }</pre>	Java 코드

표기 예

내용

<system-config>

XML 문서

참조: / 주의:

참조 사항과 주의할 사항

Configuration 메뉴를 연다

GUI 의 버튼 같은 컴포넌트

JEUS_HOME

JEUS 가 실제로 설치된 디렉토리

예) c:\jeus5

jeusadmin nodename

콘솔 명령어와 문법

[command argument]

옵션 파라미터

< xyz >

‘<’와 ‘>’ 사이의 내용이 실제 값으로 변경됨

|

선택 사항. 예) A|B: A 나 B 중 하나

...

파라미터 등이 반복되어서 나옴

?, +, *

보통 XML 문서에 각각 “없거나, 한번”, “한 번 이상”, “없거나, 여러 번”을 나타낸다.

...

XML 이나 코드등의 생략

<<FileName.ext>>

코드의 파일명

Figure 1.

그림 이름 또는 표 이름

OS 에 대해서

본 문서는 모든 예제와 환경 구성을 Microsoft Windows™의 스타일을 따랐다. 유닉스와 같은 다른 환경에서 작업하는 사람은 몇가지 사항만 고려하면 별 무리없이 사용할 수 있다. 대표적인 것이 디렉토리 구분자인데, Windows 스타일인 “\”를 유닉스 스타일인 “/”로 바꿔서 사용하면 무리가 없다. 이외에 환경 변수도 유닉스 스타일로 변경해서 사용하면 된다.

그러나 Java 표준을 고려해서 문서를 작성했기 때문에, 대부분의 내용은 동일하게 적용된다.

용어 설명

다음에 소개되는 용어는 본 문서 전체에 걸쳐서 사용되는 용어이다. 용어가 이해하기 어렵거나 명확하지 않을 때는 아래 정의를 참조하기 바란다.

용어	정의
MIB	Management Information Base 의 약어.
OID	MIB 에 의해서 정의된 대상 식별자
SNMP	Simple Network Management Protocol 의 약어.
SNMP agent	SNMP manager 로부터 메시지를 받고 그것의 OID 에 대한 정보를 보내는 서버.
SNMP manager	SNMP 로 시스템을 관리하는 애플리케이션.

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1 소개

Sun Microsystems J2EE 1.4 의 JMX 1.2 스펙은, SNMP 를 지원하는 프로토콜 어댑터를 제공한다. 그리고 J2EE management 1.0 스펙은 인터넷 통신에 있어 네트워크나 시스템 관리 프로토콜을 사용하기 위한 Management Information Base(MIB) 를 정의하고 있다.

Tmax Soft 의 JEUS 제품군 중에서 JEUS SNMP agent 는 WAS 의 관리 프로토콜로 SNMP 를 사용하기 위해서 JEUS JMX mbean 서버와 통신하며 SNMP 관리 애플리케이션을 지원한다. JEUS SNMP agent 는 SNMPv1, SNMPv2 및 SNMPv3 프로토콜을 제공한다.

이 메뉴얼은 JEUS SNMP agent 모듈을 사용하기 위한 모든 것에 대해서 설명한다. 우선은 전체적인 모듈에 대한 간략한 설명부터 시작한다(2 장 따라하기). 다음으로 각각의 서브모듈을 면밀히 살펴보고, 모듈의 설정과 관리를 어떻게 하는지(3 장 JEUS SNMP agent 의 개요), 그리고 JEUS 를 모니터링하는 Java 애플리케이션을 어떻게 개발 하는지 (5 장 JEUS SNMP 프로그래밍)에 대해서 설명한다.

2 따라하기

이 장은 JEUS SNMP Agent 를 시작하고 중지하는 것과, 예제를 실행하는 기본적인 내용에 대해서 설명한다.

JEUS WAS 제품을 설치한 후에 다음의 과정을 따라 실행한다. 만일 JEUS 를 아직 설치하지 않았다면 JEUS 설치 안내서를 참조해서 제우스를 설치한다.

1. ‘java’ 명령을 실행하려면 ‘JAVA_HOME’ 이 세팅되어야 한다. 만일 Windows 플랫폼에서 java.exe 가 C:\lang\j2sdk1.4.0\bin 에 존재한다면, JAVA_HOME 은 다음과 같이 ‘C:\lang\j2sdk1.4.0’ 으로 세팅한다.

```
C: \>set JAVA_HOME=C: \l ang\j 2sdk1. 4. 0
```

2. ‘jeus’ 명령을 실행하려면 ‘JEUS_HOME’ 이 세팅되어야 한다. 만일 Windows 플랫폼에서 c:\jeus5\bin 에 jeus.bat 가 있다면, JEUS_HOME 은 다음과 같이 ‘C:\jeus5’ 로 세팅한다.

```
C: \>set JEUS_HOME=C: \j eus5
```

3. ‘JEUS_BASEPORT’, ‘EJB_HOME’, ‘CLIENT_HOME’, ‘WEBTODIR’ 같은 환경변수는 위에서 설명한 방법과 같이 세팅 한다.

참조: JEUS 를 정상적으로 설치했다면, JEUS_HOME\bin 디렉토리에 있는 jeus.properties 에 위 내용이 모두 적용되어 있다. 그러므로 위 단계를 실행하지 않아도 무방하다.

4. ‘JEUSMain.xml’ 내의 ‘jmx-manager’ 태그에 다음과 같이 “snmp-adaptor-port” 태그를 포함시킨다.

<<JEUSMain.xml>>

```
<node>
  <engine-container>
    ...
  </engine-container>
  ...
  <jmx-manager>
    <html-adaptor-port>7070</html-adaptor-port>
```

```

        <jmx-connector>
            <jmxmp-connector>
                <jmxmp-connector-port>5001</jmxmp-connector-
port>

            </jmxmp-connector>
        </jmx-connector>

        <snmp-adaptor>
            <snmp-adaptor-port>9999</snmp-adaptor-port>
            <snmp-version>2</snmp-version>
            <snmp-max-packet-size>4096</snmp-max-packet-size>
            <snmp-security>false</snmp-security>
        </snmp-adaptor>
    </jmx-manager>
    ...
</node>

```

참조: 'JEUSMain.xml' 파일은 'JEUS_HOME\config\<node name>'라는 디렉토리에 위치한다. JEUS Sever 안내서의 JEUS Server 디렉토리 구조를 참조한다.

5. JEUS_HOME\bin 디렉토리에서 'jeus' 명령 스크립트를 실행한다.

```
C: \j eus5\bi n>j eus
```

```
[2005. 01. 11 16: 21: 39][0] [j ohan -10] [MGR-0411]
virtual host name of thi s manager : j ohan
```

```
[2005. 01. 11 16: 21: 46][0] [j ohan -10] [SNMP-0004] SNMP
AGENT is ready on port: 9999
```

```
[2005. 01. 11 16: 21: 46][0] [j ohan -10] [MGR-0241]
JeusServer is Ready
```

6. 터미널/콘솔 창을 열고서 'jeusadmin'을 입력하고 그 뒤에 컴퓨터 이름을 입력한다(예 'jeusadmin johan'). 윈도우즈에서는 'hostname' 명령, 유닉스에서는 'uname -a' 명령을 통해서 컴퓨터 이름을 확인할 수 있다.

```
C: \j eus5\bi n>hostname
```

```
j ohan
```



```
C: \j eus5\bi n>j eusadmi n j ohan
```

```
Logi n name>
```

주의: 이 매뉴얼에서는 JEUS 노드 이름을 'johan'으로 가정한다. 실제로는 사용자의 컴퓨터 이름을 사용한다.

7. 프롬프트에 JEUS 사용자 이름과 패스워드를 입력한다.
8. jeusadmin 프롬프트가 나타나면 boot 를 입력하고 엔터키를 친다. 다음의 예제를 참조한다:

```
C: \j eus5\bi n>j eusadmi n j ohan
```

```
Logi n name>j eus
```

```
Password>
```

```
JEUS 5.0 Jeus Manager Control l er
```

```
j ohan>boot
```

```
j ohan boot done
```

```
j ohan_contai ner1
```

```
j ohan>
```

9. 잠시 후 콘솔 창에 다시 프롬프트가 나타난다. 이것은 현재 JEUS 서버가 부트가 되어서 다른 명령을 받아들일 준비가 되어 있다는 것을 의미한다. 아래와 같이 'allenglist' 명령을 실행해서 엔진이 부트가 되었는지를 확인한다.

```
JEUS 5.0 Jeus Manager Control l er
```

```
j ohan>boot
```

```
j ohan boot done
```

```
j ohan_contai ner1
```

```
j ohan>al l engl i st
```

```
=====
```

```
engines in the container johan_container1
```

```
johan_servlet_engine1
```

```
johan_ejb_engine1
```

```
johan_jms_engine1
```

```
=====
```

```
johan>
```

10. 터미널/콘솔 창을 열고서 ‘compile’을 실행 한 후에 ‘snmpclient.bat’ 을 실행한다. 이 명령을 실행할때 시스템 패스에 ‘JEUS_HOME\samples\manual_examples\snmp\bin’ 이 포함되어 있다고 가정한다. 이것은 클라이언트 프로그램이 JEUS 로 부터 모니터링 정보를 얻기 위해서 필요하다. 다음같이 터미널 /콘솔 창을 실행한다:

```
C:\jeus5\samples\ manual _examples\snmp\bin>snmpcli ent
```

```
1. 3. 6. 1. 4. 1. 14586. 100. 77. 1
```

```
PORT : 9999
```

```
IP : 127.0.0.1
```

```
OID : 1. 3. 6. 1. 4. 1. 14586. 100. 77. 1
```

```
Sending ...
```

```
Reply :
```

```
PDU type : GET_RSP_MSG
```

```
error status : 0
```

```
error index : 0
```

```
1. 3. 6. 1. 4. 1. 14586. 100. 77. 1. 0: [JEUS
```

```
4. 2: JMXManager=eghost,j2eeType=JeusService,j
```

```
eusType=JeusManager, name=eghost]
```

참조: 'JEUS_HOME\samples\ manual_examples\snmp\classes' 디렉토리에 'snmpclient.bat' 에 필요한 모든 필요한 클래스들을 포함하고 있다. 만일 정상적으로 실행되지 않는다면, 필요한 클래스들이 그 디렉토리에 존재하는지 확인한다. 애플리케이션의 소스는 'JEUS_HOME\samples\ manual_examples\snmp\src' 디렉토리에 있으며, snmp 클라이언트 파라미터는 JEUS SNMP OID 이다 (예: 1.3.6.1.4.1.14586.100.77.1)

이 장에서는 JEUS SNMP agent 를 기동시키는 방법과 SNMP 클라이언트 애플리케이션이 JEUS 로부터 모니터링 정보를 어떻게 가져오는지에 대해서 간략하게 설명을 하였다.

다음 장은 JEUS SNMP agent 의 개요에 대해서 설명한다.

3 JEUS SNMP Agent 의 개요

3.1 소개

SNMP 는 Simple Network Management Protocol 의 약자로, 네트워크 상의 여러 하드웨어 및 소프트웨어를 모니터링 하기 위한 표준 프로토콜이다. JEUS SNMP agent 모듈은 SNMP 를 통해 JEUS 시스템을 관리할 때 유용한 컴포넌트이다.

JEUS SNMP agent 는 JEUS JMX 와 완전히 통합된다. JEUS SNMP agent 가 검색할 수 있는 모든 정보는 JEUS JMX API 를 통해서 가능하다. 예를들어, JMX mbean 은 EJB 엔진에 디플로이된 모든 모듈에 대한 정보를 관리하고, SNMP manager 는 이 정보를 EJB 엔진에 해당하는 JEUS SNMP OID(Object ID) 를 SNMP agent 에 보냄으로써 디플로이된 모듈을 알 수 있다.

다음 절은 JEUS SNMP agent 의 기술적인 세부 사항을 살펴보기 전에 JEUS SNMP agent 에 대한 간략한 소개를 한다.

- JEUS SNMP Agent 특성.
- JEUS SNMP Agent 컴포넌트.
- JEUS SNMP Agent 아키텍처.
- JEUS SNMP Agent.
- SNMP Manager 애플리케이션.

참조: 본 매뉴얼에서는 J2EE 나 J2EE management 1.0 의 기본적인 기술지식이 필요하지만 내용을 설명하지 않는다. 이 매뉴얼을 보기 전에 이와 관련된 내용의 책이나 스펙을 우선 읽어 보길 권한다.

3.2 JEUS SNMP Agent 특성

현재 JEUS SNMP agent 는 J2EE 의 컴포넌트 뿐만 아니라 엔터프라이즈 메시지 미들웨어의 특징을 가지고 있다. 주목할 만한 특성은 다음과 같다:

- JMX management 1.0 스펙 완전 제공
- NMS 프로토콜로 일반적으로 사용되는 SNMPv1 와 SNMPv2 를 제공. SNMPv1 와 SNMPv2 를 사용하는 모든 SNMP manager 들은 agent 를 통해서 JEUS 내부 정보들을 알아 올 수 있다.
- SNMP agent 와 보안 통신을 하기 위한 SNMPv3 제공. 안정적으로 SNMP agent 와 통신하기 위해서 SNMP manager 가 필요하다. SNMPv3 를 사용하는 모든 SNMP manager 들은 안전하게 정보를 가져올 수 있다.
- JEUS SNMP agent 들은 각각의 JEUS JVM (JEUS manager 와 모든 Engine Container)에서 실행할 수 있다.

3.3 JEUS SNMP Agent 컴포넌트

이 절에서는 JEUS SNMP agent 가 동작하는데 필요한 컴포넌트에 대해서 설명한다.

Main 컴포넌트

1. **JEUS SNMP agent** 는 JMX mbean 서버와 통신을 하며, 논리적으로 JEUS 서버의 manager 또는 엔진 컨테이너 내에 위치한다.

참조: JEUS 서버와 세부적인 엔진 컨테이너 구조에 대해서는 JEUS Server 안내서를 참조한다.

2. **MIB**(Management Information Base)는 JEUS management 정보 구조를 제공한다. MIB 파일의 이름은 TMAX-JEUS5.0-MIB.mib 이다.
3. **SNMP manager** 는 메시지를 주고 받는다.

JEUS SNMP agent 는 JEUS 를 관리하기 위한 기반 구조를 제공하며, J2EE 1.4 와 J2EE management 1.0 을 구현했다.

SNMP manager 애플리케이션이 SNMP 메시지를 보낼때, SNMP agent 는 설정한 포트를 listen 하고 있다. 해당 포트로 요청이 들어오면 먼저 MIB-tree 에서 OID 를 찾고, 그것의 PDU 타입을 알아내서 JEUS JMX mbean 서버를 호출한다. 정보를 찾아내면 SNMP manager 애플리케이션에 그 값을 리턴해 준다.

3.4 JEUS SNMP Agent 아키텍처

[그림 1]은 JEUS SNMP Agent 와 관련 아키텍처를 표현하였다. 동작 방식은 앞 절에서 설명하였다.

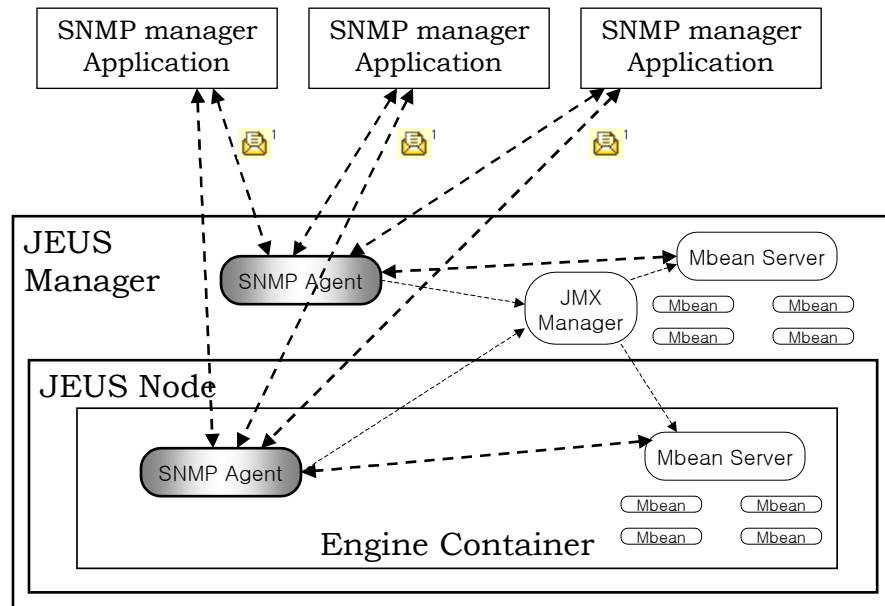


그림 1. JEUS SNMP Agent 아키텍처

3.5 SNMP Agent

SNMP agent 는 JEUS management system 의 Second-Level 서비스 컴포넌트로 JEUS JMX API 를 사용한다. 각각의 JEUS SNMP Agent 는 JEUS system 의 JEUS Manager 와 Engine Container 같은 JVM 들 중의 하나와 연관되어 있다.

SNMP Agent 인스턴스는 JEUS JMX 의 프로토콜 어댑터로서 운영되며, SNMP manager 애플리케이션으로부터 SNMP 패킷을 받아 처리한다. 이것은 특정 포트를 계속 리스하고 있으면서 SNMP manager 의 요청을 기다리고 있다. 이 리스 포트는 JEUSMain.xml 파일에서 세팅된다. 세팅을 하지 않으면, 동작하지 않는다.

모든 agent 인스턴스들은 같은 방법으로 작용한다. 그러므로, 각각의 Agent 는 JEUS management system 의 모든 정보를 얻을 수 있다. 만일 하나 이상의 agent 인스턴스가 한 머신에서 부트가 되려면, 포트 넘버가 달라야 한다.

참조: JEUS SNMP Agent 를 운영하려면, SNMP 어댑터 포트를 반드시 설정해야만 한다.

3.6 SNMP Manager 애플리케이션

일반적으로, “SNMP manager”는 시스템, 특히 통신 장비를 관리하는 애플리케이션을 나타낸다. J2EE 에서 “SNMP manager”는 엔터프라이즈 애플리케이션, 특히 Web Application Server(WAS)와 같은 미들웨어를 관리한다.

SNMP manager 애플리케이션은 MIB 를 참조하여 SNMP agent 에서 관리 정보를 요청한다. 애플리케이션은 MIB 파일을 파싱해서 정보의 구조를 알아야 한다. 그리고, 관리자가 읽고 관리하기 쉽도록 관리한다.

3.7 결론

JEUS SNMP 의 아키텍처에 대한 소개를 마친다.

이 장에서 JEUS SNMP Agent 가 JEUS 시스템 전체와 어떻게 관계되며, JEUS JMX 와는 어떤 관계인지, 그리고 J2EE management system 을 구현하기 위해서 어떻게 동작하는지에 대해서 보았다. 그리고, SNMP agent 에 메시지를 보내고 받는 SNMP Manager 애플리케이션에 대해서 간단하게 살펴 보았다.

다음 장에서는 JEUS SNMP Agent 의 설정에 대해서 살펴 본다.

4 SNMP Agent 의 설정

SNMP Agent 설정은 JEUSMain.xml 의 <jmx-manager> 태그 아래에서 이루어진다. 다음과 같은 설정 항목이 있다.

- **Snmp adaptor port** 설정은 snmp 서버가 listen 하고 있는 포트를 설정한다. Snmp manager 는 이 port 를 통해 management 정보를 요청할 수 있다.
- **Snmp version** 은 agent 가 사용할 SNMP 버전을 명시한다. 1, 2, 3 의 정수 값을 쓴다.
- **Snmp max packet size** 설정은 SNMP 패킷에 대한 최대값을 설정하며 최소 256 바이트부터 설정 할 수 있다.
- **Snmp security** 설정은 보안을 적용시킬 것 인지를 설정한다. 보안은 SNMP 버전 3 에서만 지정이 가능 하다.
- **Trap daemon** 설정은 장애 상황 발생시 TRAP 메시지를 보낼 서버를 설정한다. 여러 개 설정이 가능하며 설정된 모든 ip, address 로 메시지를 보낸다. 현재는 JEUS 의 TRAP 정보가 등록되지 않아서 설정해도 아무런 메시지가 가지 않으며 이는 향후 5.1 버전에서 지원될 예정이다.
- **Pooling** : SNMP agent 로 많은 요청이 동시에 들어오는 경우, Thread Pool 을 사용하여 처리하도록 할 수 있다. min, max 는 Worker Thread 의 최소, 최대 개수이고 period 는 thread 체크 주기이다. 이는 JEUS 의 여러 다른 컴포넌트에서 공유하는 설정이므로 Thread Pool 의 동작에 대해서는 자세히 설명하지 않는다.

다음은 JEUSMain.xml 의 snmp adaptor 를 설정한 예제이다.

<<JEUSMain.xml>>

```

<node>
  <engine-container>
    ...
  </engine-container>
  ...
  <jmx-manager>
    <html-adaptor-port>7070</html-adaptor-port>
    <jmx-connector>
      <jmxmp-connector>
        <jmxmp-connector-port>5001</jmxmp-connector-port>
      </jmxmp-connector>
    </jmx-connector>
    <snmp-adaptor>
      <snmp-adaptor-port>9999</snmp-adaptor-port>
      <snmp-version>2</snmp-version>
      <snmp-max-packet-size>4096</snmp-max-packet-size>
      <snmp-security>false</snmp-security>
      <pooling>
        <min>1</min>
        <max>10</max>
        <period>30000</period>
      </pooling>
    </snmp-adaptor>
  </jmx-manager>
  ...
</node>

```

SNMP agent 의 설정은 JMX 설정의 한 부분으로 스키마에 관련된 것은 JEUS JMX 안내서의 환경 설정을 참조하기 바란다.

5 JEUS SNMP 프로그래밍

5.1 소개

이번 장에서는 JEUS SNMP manager 애플리케이션을 개발하는 방법과 설정하는 방법에 대해서 설명한다. 앞서도 언급했듯이 SNMP 와 MIB 에 대한 배경 지식을 가지고 있다고 가정한다. SNMP (SNMPv1, SNMPv2, SNMPv3) 표준을 준수하는 SNMP manager 들은 JEUS SNMP 와 함께 동작할 수 있다. JEUS SNMP 만의 프로그래밍 모델과 추천 사항이 존재한다.

다음 절에서 SNMP manager 애플리케이션에 좀 더 정확하게 이해하기 위해서 간단한 SNMP 클라이언트 프로그램을 살펴보겠다.

참조: 위에서 언급한 SNMP 에 대해서 자세한 설명은 SNMP Management Framework 관련 스펙을 참조하기 바란다 (J2EE management 1.0 스펙 참조). MIB 에 대한 자세한 설명은 다음 6 장 “JEUS SNMP MIB ”와 부록 A JEUS SNMP MIB 참조” 를 살펴보길 바란다.

5.2 간단한 SNMP 클라이언트 프로그램

어플리케이션의 형태는 필요에 따라 다양한 형태를 가지지만, 이 절에서는 JEUS SNMP 클라이언트의 일반적인 형태를 제시한다.

SNMP 클라이언트 애플리케이션은 다음 단계를 수행해야 한다.

- 단계 1 : SNMP 메시지 객체를 생성한다.
- 단계 2 : Protocol Data Unit 을 세팅한다.
- 단계 3 : 메시지를 전송한다.
- 단계 4 : 응답을 수신한다.

위 단계를 밟기 전에 우선 접속하려는 SNMP agent 의 IP 주소와 Port 번호를 지정하고, 데이터를 가져올 OID 를 정해야 한다.

단계 1, 2 는 특정 OID 와 SNMP 버전을 위한 SNMP 메시지를 만드는 단계이고, 단계 3, 4 는 메시지를 보내고 받는 단계이다. 단계 4 이후부터 응답 메시지를 처리해서 모니터링하거나 통계 처리를 하는 단계이다.

<< *SnmpClientSample1.java* >>

```
import java.io.*;
import java.net.*;
import java.util.*;
import jeus.management.snmp.core.*;

public class SnmpClientSample {
    static SnmpMessage snmpMessage;
    static SnmpGetSetPdu getSetPdu;

    static int defaultPort = 161;
    static String defaultIP = "127.0.0.1";
    static String defaultOID = "1.3.6.1.4.1.14586.100.77.1";

    static void testGet(String oid) throws java.io.IOException
    {
        // Step 1. Create SNMP message object. It may contain
        one of the following
        // protocol data unit : GET, SET, TRAP, GET-NEXT.
        snmpMessage = new SnmpMessage ();

        // Step 2. Create a Set Protocol Data Unit.
        getSetPdu = new SnmpGetSetPdu ();
        getSetPdu.setMsgType (AsnObject.GET_REQ_MSG );
        getSetPdu.setReqId (2);
        snmpMessage.setPdu (getSetPdu);
        snmpMessage.setSnmpVersion (2);
        getSetPdu.addNameValuePair (new AsnNameValuePair (oid,
        new AsnNull()));

        // Step 3. Send message
        System.out.println ("Sending ... ");
        SnmpClient client = new SnmpClient ();
        client.sendSnmpMessage (defaultIP, defaultPort,
        snmpMessage);
    }
}
```

```
// Step 4. Receive reply
System.out.println ("Reply : ");
SnmpGetSetPdu reply = (SnmpGetSetPdu)
snmpMessage.getPdu ();
System.out.println(" PDU type : " +
reply.getMsgTypeName());
System.out.println(" error status : " +
reply.getErrorStatus());
System.out.println(" error index : " +
reply.getErrorIndex());
for (int i=0; i<reply.getValueSize(); i++) {
System.out.println(reply.getNameValuePair(i).toString());
}
}

public static void main(String[] args) throws
java.io.IOException {
// get the SNMP port number
if (args.length > 0) {
defaultPort = Integer.parseInt (args[0]);
}
System.out.println ("PORT : " + defaultPort);

// get the ip address of the machine that the SNMP
agent runs on
if (args.length > 1) {
defaultIP = args[1];
}
System.out.println ("IP : " + defaultIP);

// get the OID number that you want to get the value of
if (args.length > 2) {
defaultOID = args[2];
}

System.out.println ("OID : " + defaultOID);

try {
testGet(defaultOID);
}
}
```

```

        catch (Exception ex) {
            System.out.println ("ex *** : " + ex);
            ex.printStackTrace ();
        }
    }
}

```

JEUS SNMP 어댑터는 SNMPv3(보안)를 제공한다. 만일 JEUS 를 안전하게 모니터링 하려면, SNMP security 를 true 로 세팅한다. 이런 경우에는 SNMP 클라이언트 프로그램은 SNMP 메시지 객체에 대해서 User Name 과 Password 을 세팅해야 한다. SnmpClientSample2.java 의 단계 2 에서 설명하고 있다.

<< SnmpClientSample2.java >>

```

import java.io.*;
import java.net.*;
import java.util.*;
import jeus.management.snmp.core.*;

public class SnmpClientSample {
    static SnmpMessage snmpMessage;
    static SnmpGetSetPdu getSetPdu;

    static int defaultPort = 161;
    static String defaultIP = "127.0.0.1";
    static String defaultOID = "1.3.6.1.4.1.14586.100.77.1";

    static void testGet(String oid) throws java.io.IOException
    {
        // Step 1. Create SNMP message object. It may contain
        one of the following
        // protocol data unit : GET, SET, TRAP, GET-NEXT.
        snmpMessage = new SnmpMessage ();

        // Step 2. Create a Set Protocol Data Unit.
        getSetPdu = new SnmpGetSetPdu ();
        getSetPdu.setMsgType (AsnObject.GET_REQ_MSG );
        getSetPdu.setReqId (1);
        snmpMessage.setPdu (getSetPdu);
        snmpMessage.setSnmpVersion (3);
    }
}

```

```
snmpMessage.setUserName ("administrator".getBytes());
snmpMessage.setAuthMode (true);
snmpMessage.setAuthAlgorithm (SecurityInterface.SHA);
snmpMessage.setAuthPassword ("jeusadmin".getBytes ());
getSetPdu.addNameValuePair (new AsnNameValuePair (oid, new
AsnNull()));

// Step 3. Send message
System.out.println ("Sending ... ");
SnmpClient client = new SnmpClient ();
client.sendSnmpMessage (defaultIP, defaultPort,
snmpMessage);

// Step 4. Receive reply
System.out.println ("Reply : ");
SnmpGetSetPdu reply = (SnmpGetSetPdu)
snmpMessage.getPdu ();
System.out.println(" PDU type : " +
reply.getMsgTypeName());
System.out.println(" error status : " +
reply.getErrorStatus());
System.out.println(" error index : " +
reply.getErrorIndex());
for (int i=0; i<reply.getValueSize(); i++) {
System.out.println(reply.getNameValuePair(i).toString());
}

}

public static void main(String[] args) throws
java.io.IOException {
// get the SNMP port number
if (args.length > 0) {
defaultPort = Integer.parseInt (args[0]);
}
System.out.println ("PORT : " + defaultPort);
```

```
// get the ip address of the machine that the SNMP
agent runs on
if (args.length > 1) {
    defaultIP = args[1];
}
System.out.println ("IP : " + defaultIP);

// get the OID number that you want to get the value of
if (args.length > 2) {
    defaultOID = args[2];
}
System.out.println ("OID : " + defaultOID);

try {
    testGet(defaultOID);
}
catch (Exception ex) {
    System.out.println ("ex *** : " + ex);
    ex.printStackTrace ();
}
}
```

이 예제에서, 리소스의 어떤 부분이든 초기화가 실패하면 어플리케이션이 멈추게 된다. 실제 애플리케이션은 예외 처리를 하고 실패 상황에 대해서 관리해줘야 한다.

참조: SNMP API 는 JEUS SNMP agent 만을 위한 것이 아니라, SNMPv1, SNMPv2, SNMPv3 를 제공하는 모든 SNMP agent 를 위한 것이다. 그리고 사용자가 JEUS SNMP agent 로부터 정보를 얻기 위해서 SNMP 라이브러리를 사용할 수도 있다.

5.3 결론

이상으로 JEUS SNMP manager 어플리케이션 개발에 대한 설명을 마친다.

6 JEUS SNMP MIB

6.1 소개

사용자는 모든 JEUS 서버의 속성에 접근할 수 있는데, 이것들은 JEUS MIB 에 정의되어 있다. MIB 는 표준 SNMP 의 한부분이다. MIB 에 대한 내용은 www.ietf.org 사이트를 참조한다.

다음과 같은 순서로 JEUS MIB 를 소개한다.

- MIB 브라우징
- Object Identifiers(OID)
- JEUS SNMP 의 OID 접미어

6.2 MIB 브라우징

JEUS MIB 파일은 TMAX-JEUS5.0-MIB.mib 라는 파일에 정의되어 있으며, %JEUS_HOME%\lib\system 디렉토리에 존재한다. 직접적으로 MIB 파일을 볼 수 있으며, 부록 A JEUS SNMP MIB 참조 에서는 oid 속성값의 매핑을 볼수 있다. 그리고 3rd-Party MIB browser 를 사용할 수 있다. JEUS 에서는 MIB browser 는 제공하지는 않지만, SNMP 유틸리티 벤더 대부분에서 MIB browser 를 제공한다.

6.3 객체 식별(OID)

OID 는 관리되는 객체를 구별하기 위한 정수를 나열한 것으로, OID 트리 구조를 사용해서 객체의 경로를 정의한다. OID 는 MIB 파일에서 정의된다.

각 OID 는 JEUS mbean 의 각 속성과 매핑 된다. JEUS SNMP agent 로 특정한 OID 값을 가진 SNMP packet 을 보내면 OID 와 일치하는 정보를 얻을 수 있다.

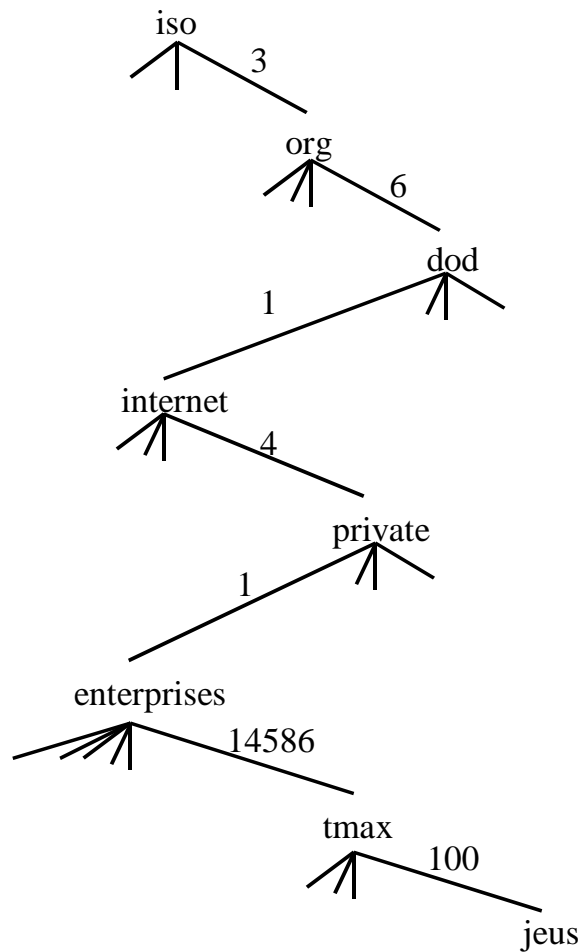


그림 2. JEUS MIB 의 OID

위의 [그림 2] 는 JEUS MIB 의 OID 트리를 나타낸다. Tmax Soft 의 enterprise OID 는 1.3.6.1.4.1.14586 이다. 모든 JEUS 속성값의 접두어는 1.3.6.1.4.1.14586.100 이 된다. 예를 들어, JEUSManager 의 서버 버전 속성값의 OID 는 1.3.6.1.4.1.14586.100.77.2 이다.

6.4 JEUS SNMP OID 접미어

객체열을 가져오는 표준 접미어가 있다. 모든 객체를 가져오는 접미어는 “0”이다. “1”을 접미어로 사용하면 전체 객체 중에서 첫번째 객체만 가져온다. 예를 들어, 1.3.6.1.4.1.14586.100.9.1 은 EJBModule 의 객체이름의 속성을 의미하고, 1.3.6.1.4.1.14586.100.9.1.1 은 첫번째 EJBModule 의 객체 이름을 의미한다.

게다가 JEUS SNMP agent 는 객체들의 개수를 알아오는 틀벽한 OID 접미어인 "9999" 를 제공한다. 예를 들어, GET 1.3.6.1.4.1.14586.100.9.1.9999 라고 했을 때, JEUS 에 10 개의 EJB 가 deploy 되어 있다면 10 을 리턴한다.

참조: 모든 접미어가 OID 트리에 있는 것이 아니므로, 실제 OID 만 탐색할 수 있다. 그러므로 GET_NEXT 1.3.6.1.4.1.14586.100.9.1 을 사용하면 1.3.6.1.4.1.14586.100.9.1.1 의 결과가 아닌 1.3.6.1.4.1.14586.100.9.2 의 값이 리턴된다.

7 결론

지금까지 SNMP Manager 애플리케이션을 개발하기 위해서 모든 필요한 내용을 설명하였다. JEUS SNMP agent 에 대한 설명을 하였고, 설정 방법과 SNMP Manager 애플리케이션 개발에 대한 것을 알아보았다.

A JEUS SNMP MIB 참조

A.1 소개

이 부록에서는 JEUS SNMP MIB 를 세부적으로 살펴본다.

A.2 목적

SNMP manager 개발자는 개발하면서 참조할 MIB 파일이 필요하다. JEUS 의 MIB 파일인 TMAX-JEUS5.0-MIB.MIB 파일은 %JEUS_HOME%\lib\system 디렉토리에 있다. 이 파일을 보면 JEUS SNMP MIB 파일의 내부적인 부분과 그것들의 속성값 그리고 OID 의 매핑을 살펴볼 수 있다.

A.3 OID 와 속성값의 매핑

TMAX-JEUS-MIB 를 더 쉽게 이해할 수 있도록 하기 위해서 간단한 OID 와 속성값의 테이블을 제공한다. MIB 는 다음 절에 소개되어 있으며 이 매핑을 보면 각 OID 에 대해서 세부적인 설명을 살펴볼 수 있다.

Tmax Soft 의 엔터프라이즈 넘버는 14586 이고 JEUS 제품의 넘버는 100 이다. 그리고 매핑의 포맷은 다음과 같다. JEUS 4.X 버전과 달라진 점은 속성 이름의 앞에 그룹 이름이 들어간다는 것이다. 이는 Mib 파일에서 중복되는 mib object 이름이 생기는 것을 방지하기 위함이다.

포맷은 [OID] [속성] 이고 모든 OID 의 공통적인 prefix 로 들어가는 “1.3.6.1.4.1.14586.100.”은 생략하였다.

2.1	j2EEDomainobjectName
2.2	j2EEDomainservers
2.3	j2EEDomaintroubles
2.4	j2EEDomainownTroubles
3.1	j2EEServerobjectName
3.2	j2EEServerserverVersion
3.3	j2EEServerserverVendor

- 3.4 j2EESeverjavaVMs
- 3.5 j2EESeverdeployedObjects
- 3.6 j2EESeverresources
- 3.8 j2EESeverjeusServices
- 3.9 j2EESeverengines
- 3.10 j2EESeverenginesFromDescriptor
- 3.15 j2EESeverdistributedModules
- 3.17 j2EESevernodeName
- 3.18 j2EESeverappPaths
- 3.19 j2EESevertroubles
- 3.20 j2EESeverownTroubles
- 4.1 jVMobjectName
- 4.2 jVMjavaVersion
- 4.3 jVMjavaVendor
- 4.4 jVMnode
- 4.6 jVMoSName
- 4.7 jVMoSVersion
- 4.8 jVMallProperties
- 4.9 jVMtroubles
- 4.10 jVMownTroubles
- 4.101 jVMheapSize-upperBound
- 4.102 jVMheapSize-lowerBound
- 4.103 jVMheapSize-highWaterMark
- 4.104 jVMheapSize-lowWaterMark
- 4.105 jVMheapSize-current
- 4.111 jVMupTime-count
- 4.121 jVMtotalSize-highWaterMark
- 4.122 jVMtotalSize-lowWaterMark
- 4.123 jVMtotalSize-current
- 6.1 j2EEApplicationobjectName
- 6.2 j2EEApplicationdeploymentDescriptor
- 6.3 j2EEApplicationserver
- 6.4 j2EEApplicationmodules
- 6.5 j2EEApplicationmoduleType
- 6.6 j2EEApplicationapplicationType
- 6.7 j2EEApplicationjeusDeploymentPlan
- 6.8 j2EEApplicationtargetModuleID
- 6.9 j2EEApplicationtroubles
- 6.10 j2EEApplicationownTroubles


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8.1 appClientModuleobjectName
8.2 appClientModuledeploymentDescriptor
8.3 appClientModuleserver
8.4 appClientModulejavaVMs
8.5 appClientModuleapplicationType
8.6 appClientModulemoduleType
8.7 appClientModulejeusDeploymentPlan
8.8 appClientModuletargetModuleID
8.9 appClientModuletroubles
8.10 appClientModuleownTroubles
9.1 eJBModuleobjectName
9.2 eJBModuledeploymentDescriptor
9.3 eJBModuleserver
9.4 eJBModulejavaVMs
9.5 eJBModuleejbs
9.6 eJBModuleejbCount
9.7 eJBModuleclientViewPath
9.8 eJBModulejeusDeploymentPlan
9.9 eJBModuletargetModuleID
9.10 eJBModulemoduleType
9.11 eJBModuleapplicationType
9.12 eJBModuletroubles
9.13 eJBModuleownTroubles
11.1 messageDrivenBeanobjectName
11.2 messageDrivenBeantroubles
11.3 messageDrivenBeanownTroubles
11.101 messageDrivenBeancreateCount-count
11.111 messageDrivenBeanremoveCount-count
11.121 messageDrivenBeanrequestCount-count
11.131 messageDrivenBeancommittedCount-count
11.141 messageDrivenBeanrolledbackCount-count
11.151 messageDrivenBeantimeoutRolledbackCount-count
11.161 messageDrivenBeanmessageCount-count
11.171 messageDrivenBeanactiveEJBBeanCount-highWaterMark
11.172 messageDrivenBeanactiveEJBBeanCount-lowWaterMark
11.173 messageDrivenBeanactiveEJBBeanCount-current
11.181 messageDrivenBeantotalEJBBeanCount-highWaterMark
11.182 messageDrivenBeantotalEJBBeanCount-lowWaterMark
11.183 messageDrivenBeantotalEJBBeanCount-current
```

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12.1 entityBeanobjectName
12.2 entityBeantroubles
12.3 entityBeanownTroubles
12.101 entityBeancreateCount-count
12.111 entityBeanremoveCount-count
12.121 entityBeanrequestCount-count
12.131 entityBeancommittedCount-count
12.141 entityBeanrolledbackCount-count
12.151 entityBeantimeoutRolledbackCount-count
12.161 entityBeanreadyCount-highWaterMark
12.162 entityBeanreadyCount-lowWaterMark
12.163 entityBeanreadyCount-current
12.171 entityBeanpooledCount-highWaterMark
12.172 entityBeanpooledCount-lowWaterMark
12.173 entityBeanpooledCount-current
12.181 entityBeanautoRemovedEJBObjectCount-count
12.191 entityBeantotalEJBBeanCount-highWaterMark
12.192 entityBeantotalEJBBeanCount-lowWaterMark
12.193 entityBeantotalEJBBeanCount-current
12.201 entityBeanactiveEJBBeanCount-highWaterMark
12.202 entityBeanactiveEJBBeanCount-lowWaterMark
12.203 entityBeanactiveEJBBeanCount-current
12.211 entityBeantotalThreadCount-highWaterMark
12.212 entityBeantotalThreadCount-lowWaterMark
12.213 entityBeantotalThreadCount-current
12.221 entityBeanactiveThreadCount-highWaterMark
12.222 entityBeanactiveThreadCount-lowWaterMark
12.223 entityBeanactiveThreadCount-current
12.231 entityBeantotalEJBObjectCount-highWaterMark
12.232 entityBeantotalEJBObjectCount-lowWaterMark
12.233 entityBeantotalEJBObjectCount-current
12.241 entityBeanactiveEJBObjectCount-highWaterMark
12.242 entityBeanactiveEJBObjectCount-lowWaterMark
12.243 entityBeanactiveEJBObjectCount-current
12.251 entityBeanpassiveCount-highWaterMark
12.252 entityBeanpassiveCount-lowWaterMark
12.253 entityBeanpassiveCount-current
14.1 statefulSessionBeanobjectName
14.2 statefulSessionBeantroubles

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14.3 statefulSessionBeanownTroubles
14.101 statefulSessionBeancreateCount-count
14.111 statefulSessionBeanremoveCount-count
14.121 statefulSessionBeanrequestCount-count
14.131 statefulSessionBeancommittedCount-count
14.141 statefulSessionBeanrolledbackCount-count
14.151 statefulSessionBeantimeoutRolledbackCount-count
14.161 statefulSessionBeanmethodReadyCount-highWaterMark
14.162 statefulSessionBeanmethodReadyCount-lowWaterMark
14.163 statefulSessionBeanmethodReadyCount-current
14.171 statefulSessionBeanpassiveCount-highWaterMark
14.172 statefulSessionBeanpassiveCount-lowWaterMark
14.173 statefulSessionBeanpassiveCount-current
14.181 statefulSessionBeanautoRemovedEJBObjectCount-count
14.191 statefulSessionBeantotalEJBBeanCount-highWaterMark
14.192 statefulSessionBeantotalEJBBeanCount-lowWaterMark
14.193 statefulSessionBeantotalEJBBeanCount-current
14.201 statefulSessionBeanactiveEJBBeanCount-highWaterMark
14.202 statefulSessionBeanactiveEJBBeanCount-lowWaterMark
14.203 statefulSessionBeanactiveEJBBeanCount-current
14.211 statefulSessionBeantotalThreadCount-highWaterMark
14.212 statefulSessionBeantotalThreadCount-lowWaterMark
14.213 statefulSessionBeantotalThreadCount-current
14.221 statefulSessionBeanactiveThreadCount-highWaterMark
14.222 statefulSessionBeanactiveThreadCount-lowWaterMark
14.223 statefulSessionBeanactiveThreadCount-current
14.231 statefulSessionBeantotalEJBObjectCount-highWaterMark
14.232 statefulSessionBeantotalEJBObjectCount-lowWaterMark
14.233 statefulSessionBeantotalEJBObjectCount-current
14.241 statefulSessionBeanactiveEJBObjectCount-highWaterMark
14.242 statefulSessionBeanactiveEJBObjectCount-lowWaterMark
14.243 statefulSessionBeanactiveEJBObjectCount-current
14.251 statefulSessionBeanfileDBSizeCount-highWaterMark
14.252 statefulSessionBeanfileDBSizeCount-lowWaterMark
14.253 statefulSessionBeanfileDBSizeCount-current
15.1 statelessSessionBeanobjectName
15.2 statelessSessionBeantroubles
15.3 statelessSessionBeanownTroubles
15.101 statelessSessionBeancreateCount-count
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15.111 statelessSessionBeanremoveCount-count
15.121 statelessSessionBeanrequestCount-count
15.131 statelessSessionBeancommittedCount-count
15.141 statelessSessionBeanrolledbackCount-count
15.151 statelessSessionBeantimeoutRolledbackCount-count
15.161 statelessSessionBeanmethodReadyCount-highWaterMark
15.162 statelessSessionBeanmethodReadyCount-lowWaterMark
15.163 statelessSessionBeanmethodReadyCount-current
15.171 statelessSessionBeantotalEJBBeanCount-highWaterMark
15.172 statelessSessionBeantotalEJBBeanCount-lowWaterMark
15.173 statelessSessionBeantotalEJBBeanCount-current
15.181 statelessSessionBeanactiveEJBBeanCount-highWaterMark
15.182 statelessSessionBeanactiveEJBBeanCount-lowWaterMark
15.183 statelessSessionBeanactiveEJBBeanCount-current
15.191 statelessSessionBeantotalThreadCount-highWaterMark
15.192 statelessSessionBeantotalThreadCount-lowWaterMark
15.193 statelessSessionBeantotalThreadCount-current
15.201 statelessSessionBeanactiveThreadCount-highWaterMark
15.202 statelessSessionBeanactiveThreadCount-lowWaterMark
15.203 statelessSessionBeanactiveThreadCount-current
16.1 webModuleobjectName
16.2 webModuledeploymentDescriptor
16.3 webModuleserver
16.4 webModulejavaVMs
16.5 webModuleservlets
16.6 webModulecontextGroupName
16.7 webModulecontextGroup
16.8 webModulerealDocBase
16.9 webModulejeusDeploymentPlan
16.10 webModuletargetModuleID
16.11 webModulemoduleType
16.12 webModuleapplicationType
16.13 webModuleautoReload
16.14 webModuletroubles
16.15 webModuleownTroubles
16.101 webModulerequestCount-count
16.111 webModuleallSessionsSize-count
16.121 webModuleactiveSessionsSize-count
16.131 webModulepassivateSessionsSize-count

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16.141 webModulelocalSessionsSize-count
16.151 webModuleprocessingTime-count
17.1 servletobjectName
17.2 servletservletInfo
17.3 servletaverageExecutionTime
17.4 servlettroubles
17.5 servletownTroubles
17.101 servletserviceTime-count
17.102 servletserviceTime-maxTime
17.103 servletserviceTime-minTime
17.104 servletserviceTime-totalTime
18.1 resourceAdapterModuleobjectName
18.2 resourceAdapterModuledeploymentDescriptor
18.3 resourceAdapterModuleserver
18.4 resourceAdapterModulejavaVMs
18.6 resourceAdapterModulemoduleType
18.7 resourceAdapterModuleapplicationType
18.8 resourceAdapterModulejeusDeploymentPlan
18.9 resourceAdapterModuletargetModuleID
18.10 resourceAdapterModulemin
18.11 resourceAdapterModulemax
18.12 resourceAdapterModulestep
18.13 resourceAdapterModulekeepAliveTime
18.14 resourceAdapterModulereleaseTimeout
18.15 resourceAdapterModulerejectTimeout
18.16 resourceAdapterModuletroubles
18.17 resourceAdapterModuleownTroubles
19.1 resourceAdapterobjectName
19.2 resourceAdaptertroubles
19.3 resourceAdapterownTroubles
21.1 javaMailResourceobjectName
21.2 javaMailResourceproperty
21.3 javaMailResourcetroubles
21.4 javaMailResourceownTroubles
22.1 jCAResourceobjectName
22.4 jCAResourcecMInfo
22.5 jCAResourcetroubles
22.6 jCAResourceownTroubles
23.1 jCAConnectionFactoryobjectName

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23.2 jCAConnectionFactorycMInfo
23.3 jCAConnectionFactorymin
23.4 jCAConnectionFactorymax
23.5 jCAConnectionFactorymaxWaiter
23.6 jCAConnectionFactorymaxDisposableCount
23.7 jCAConnectionFactorywaitTrial
23.8 jCAConnectionFactorywaitingTime
23.9 jCAConnectionFactorypooledTimeout
23.10 jCAConnectionFactorydissociationtimeout
23.11 jCAConnectionFactoryinvalidationtimeout
23.13 jCAConnectionFactoryskipMatching
23.14 jCAConnectionFactoryuseWrapper
23.15 jCAConnectionFactorytroubles
23.16 jCAConnectionFactoryownTroubles
24.1 jCAManagedConnectionFactoryobjectName
24.2 jCAManagedConnectionFactorytroubles
24.3 jCAManagedConnectionFactoryownTroubles
25.1 jDBCResourceobjectName
25.2 jDBCResourcejdbcDataSources
25.3 jDBCResourcecPInfo
25.4 jDBCResourcetroubles
25.5 jDBCResourceownTroubles
25.101 jDBCResourceconnectionPools-createCount-count
25.111 jDBCResourceconnectionPools-closeCount-count
25.121 jDBCResourceconnectionPools-poolSize-upperBound
25.122 jDBCResourceconnectionPools-poolSize-lowerBound
25.123 jDBCResourceconnectionPools-poolSize-highWaterMark
25.124 jDBCResourceconnectionPools-poolSize-lowWaterMark
25.125 jDBCResourceconnectionPools-poolSize-current
25.131 jDBCResourceconnectionPools-freePoolSize-upperBound
25.132 jDBCResourceconnectionPools-freePoolSize-lowerBound
25.133 jDBCResourceconnectionPools-freePoolSize-highWaterMark
25.134 jDBCResourceconnectionPools-freePoolSize-lowWaterMark
25.135 jDBCResourceconnectionPools-freePoolSize-current
25.141 jDBCResourceconnectionPools-waitingThreadCount-
highWaterMark
25.142 jDBCResourceconnectionPools-waitingThreadCount-
lowWaterMark
25.143 jDBCResourceconnectionPools-waitingThreadCount-current

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25.161 jdbcResourceconnectionPools-waitTime-count
25.162 jdbcResourceconnectionPools-waitTime-maxTime
25.163 jdbcResourceconnectionPools-waitTime-minTime
25.164 jdbcResourceconnectionPools-waitTime-totalTime
25.171 jdbcResourceconnectionPools-useTime-count
25.172 jdbcResourceconnectionPools-useTime-maxTime
25.173 jdbcResourceconnectionPools-useTime-minTime
25.174 jdbcResourceconnectionPools-useTime-totalTime
25.181 jdbcResourceconnectionPools-jdbcDataSource
26.1 jdbcDataSourceObjectName
26.2 jdbcDataSourcejdbcDriver
26.3 jdbcDataSourceconfig
26.4 jdbcDataSourcecpInfo
26.6 jdbcDataSourcetroubles
26.7 jdbcDataSourceownTroubles
26.101 jdbcDataSourcecreateCount-count
26.111 jdbcDataSourcecloseCount-count
26.121 jdbcDataSourcepoolSize-upperBound
26.122 jdbcDataSourcepoolSize-lowerBound
26.123 jdbcDataSourcepoolSize-highWaterMark
26.124 jdbcDataSourcepoolSize-lowWaterMark
26.125 jdbcDataSourcepoolSize-current
26.131 jdbcDataSourcefreePoolSize-upperBound
26.132 jdbcDataSourcefreePoolSize-lowerBound
26.133 jdbcDataSourcefreePoolSize-highWaterMark
26.134 jdbcDataSourcefreePoolSize-lowWaterMark
26.135 jdbcDataSourcefreePoolSize-current
26.141 jdbcDataSourcewaitingThreadCount-highWaterMark
26.142 jdbcDataSourcewaitingThreadCount-lowWaterMark
26.143 jdbcDataSourcewaitingThreadCount-current
26.151 jdbcDataSourceereConnectCount-count
26.161 jdbcDataSourcewaitTime-count
26.162 jdbcDataSourcewaitTime-maxTime
26.163 jdbcDataSourcewaitTime-minTime
26.164 jdbcDataSourcewaitTime-totalTime
26.171 jdbcDataSourceuseTime-count
26.172 jdbcDataSourceuseTime-maxTime
26.173 jdbcDataSourceuseTime-minTime
26.174 jdbcDataSourceuseTime-totalTime

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27.1 jDBCDriverobjectName
27.2 jDBCDrivertroubles
27.3 jDBCDriverownTroubles
28.1 jMSResourceobjectName
28.3 jMSResourceclusterInfo
28.5 jMSResourcejMSConnectionFactoryResourceNames
28.6 jMSResourcejMSDestinationResourceNames
28.7 jMSResourcejMSClientResourceNames
28.9 jMSResourcefreeMemory
28.10 jMSResourcetotalMemory
28.11 jMSResourcejMSConnectionFactoryResources
28.12 jMSResourcetroubles
28.13 jMSResourceownTroubles
28.101 jMSResourceconnections-sessions-messageCount-count
28.111 jMSResourceconnections-sessions-pendingMessageCount-count
28.121 jMSResourceconnections-sessions-expiredMessageCount-count
28.131 jMSResourceconnections-sessions-messageWaitTime-count
28.132 jMSResourceconnections-sessions-messageWaitTime-maxTime
28.133 jMSResourceconnections-sessions-messageWaitTime-minTime
28.134 jMSResourceconnections-sessions-messageWaitTime-totalTime
28.141 jMSResourceconnections-sessions-durableSubscriptionCount-
count
28.151 jMSResourceconnections-sessions-producers-destination
28.161 jMSResourceconnections-sessions-producers-messageCount-
count
28.171 jMSResourceconnections-sessions-producers-
pendingMessageCount-count
28.181 jMSResourceconnections-sessions-producers-
expiredMessageCount-count
28.191 jMSResourceconnections-sessions-producers-messageWaitTime-
count
28.192 jMSResourceconnections-sessions-producers-messageWaitTime-
maxTime
28.193 jMSResourceconnections-sessions-producers-messageWaitTime-
minTime
28.194 jMSResourceconnections-sessions-producers-messageWaitTime-
totalTime
28.201 jMSResourceconnections-sessions-consumers-origin

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28.211 jMSResourceconnections-sessions-consumers-messageCount-count
28.221 jMSResourceconnections-sessions-consumers-pendingMessageCount-count
28.231 jMSResourceconnections-sessions-consumers-expiredMessageCount-count
28.241 jMSResourceconnections-sessions-consumers-messageWaitTime-count
28.242 jMSResourceconnections-sessions-consumers-messageWaitTime-maxTime
28.243 jMSResourceconnections-sessions-consumers-messageWaitTime-minTime
28.244 jMSResourceconnections-sessions-consumers-messageWaitTime-totalTime
29.1 jNDIResourceobjectName
29.2 jNDIResourcetroubles
29.3 jNDIResourceownTroubles
30.1 jTAResourceobjectName
30.2 jTAResourceaverageExecutionTime
30.3 jTAResourceactiveTimeout
30.4 jTAResourceprepareTimeout
30.5 jTAResourcepreparedTimeout
30.6 jTAResourcecommitTimeout
30.7 jTAResource recoveryTimeout
30.8 jTAResourceuncompletedTimeout
30.9 jTAResourceheuristicRollback
30.10 jTAResource resolution
30.11 jTAResource threadPool
30.12 jTAResource troubles
30.13 jTAResource ownTroubles
30.101 jTAResource activeCount-count
30.111 jTAResource committedCount-count
30.121 jTAResource rolledbackCount-count
30.131 jTAResource timeoutCount-count
30.141 jTAResource timeoutRolledbackCount-count
30.151 jTAResource activeTimeoutCount-count
30.161 jTAResource prepareTimeoutCount-count
30.171 jTAResource preparedTimeoutCount-count
30.181 jTAResource commitTimeoutCount-count

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30.191 jTAResourceheuristicRolledbackCount-count
30.201 jTAResourceexecutionTime-count
30.202 jTAResourceexecutionTime-maxTime
30.203 jTAResourceexecutionTime-minTime
30.204 jTAResourceexecutionTime-totalTime
32.1 uRLResourceobjectName
32.2 uRLResourceuRLInfo
32.3 uRLResourcetroubles
32.4 uRLResourceownTroubles
33.1 jMSConnectionResourceobjectName
33.2 jMSConnectionResourcejMSSessionResourceNames
33.3 jMSConnectionResourcetroubles
33.4 jMSConnectionResourceownTroubles
33.101 jMSConnectionResourcesessions-messageCount-count
33.111 jMSConnectionResourcesessions-pendingMessageCount-count
33.121 jMSConnectionResourcesessions-expiredMessageCount-count
33.131 jMSConnectionResourcesessions-messageWaitTime-count
33.132 jMSConnectionResourcesessions-messageWaitTime-maxTime
33.133 jMSConnectionResourcesessions-messageWaitTime-minTime
33.134 jMSConnectionResourcesessions-messageWaitTime-totalTime
33.141 jMSConnectionResourcesessions-durableSubscriptionCount-
count
33.151 jMSConnectionResourcesessions-producers-destination
33.161 jMSConnectionResourcesessions-producers-messageCount-count
33.171 jMSConnectionResourcesessions-producers-
pendingMessageCount-count
33.181 jMSConnectionResourcesessions-producers-
expiredMessageCount-count
33.191 jMSConnectionResourcesessions-producers-messageWaitTime-
count
33.192 jMSConnectionResourcesessions-producers-messageWaitTime-
maxTime
33.193 jMSConnectionResourcesessions-producers-messageWaitTime-
minTime
33.194 jMSConnectionResourcesessions-producers-messageWaitTime-
totalTime
33.201 jMSConnectionResourcesessions-consumers-origin
33.211 jMSConnectionResourcesessions-consumers-messageCount-count

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33.221 jMSConnectionResourcesessions-consumers-
pendingMessageCount-count

33.231 jMSConnectionResourcesessions-consumers-
expiredMessageCount-count

33.241 jMSConnectionResourcesessions-consumers-messageWaitTime-
count

33.242 jMSConnectionResourcesessions-consumers-messageWaitTime-
maxTime

33.243 jMSConnectionResourcesessions-consumers-messageWaitTime-
minTime

33.244 jMSConnectionResourcesessions-consumers-messageWaitTime-
totalTime

33.251 jMSConnectionResourcesessionCount-count

33.261 jMSConnectionResourceconnectionConsumerCount-count

33.271 jMSConnectionResourceconnectionConsumers-origin

33.281 jMSConnectionResourceconnectionConsumers-messageCount-
count

33.291 jMSConnectionResourceconnectionConsumers-
pendingMessageCount-count

33.301 jMSConnectionResourceconnectionConsumers-
expiredMessageCount-count

33.401 jMSConnectionResourceconnectionConsumers-messageWaitTime-
count

33.402 jMSConnectionResourceconnectionConsumers-messageWaitTime-
maxTime

33.403 jMSConnectionResourceconnectionConsumers-messageWaitTime-
minTime

33.404 jMSConnectionResourceconnectionConsumers-messageWaitTime-
totalTime

34.1 jMSConsumerResourceobjectName

34.2 jMSConsumerResourcedestination

34.3 jMSConsumerResourcedestinationResourceObjectName

34.4 jMSConsumerResource durableSubscriberResourceObjectName

34.5 jMSConsumerResourcesendTimeAvg

34.6 jMSConsumerResource troubles

34.7 jMSConsumerResourceownTroubles

34.101 jMSConsumerResourceorigin

34.111 jMSConsumerResource messageCount-count

34.121 jMSConsumerResource pendingMessageCount-count

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34.131 jMSConsumerResourceexpiredMessageCount-count
34.141 jMSConsumerResourcemessageWaitTime-count
34.142 jMSConsumerResourcemessageWaitTime-maxTime
34.143 jMSConsumerResourcemessageWaitTime-minTime
34.144 jMSConsumerResourcemessageWaitTime-totalTime
34.151 jMSConsumerResourcesendTime-count
34.152 jMSConsumerResourcesendTime-maxTime
34.153 jMSConsumerResourcesendTime-minTime
34.154 jMSConsumerResourcesendTime-totalTime
35.1 jMSProducerResourceobjectName
35.3 jMSProducerResourcedestinationResourceObjectName
35.4 jMSProducerResourceDurableSubscriberResourceObjectName
35.5 jMSProducerResourcesendTimeAvg
35.6 jMSProducerResourcedestination
35.7 jMSProducerResourcectroubles
35.8 jMSProducerResourceownTroubles
35.111 jMSProducerResourcemessageCount-count
35.121 jMSProducerResourcependingMessageCount-count
35.131 jMSProducerResourceexpiredMessageCount-count
35.141 jMSProducerResourcemessageWaitTime-count
35.142 jMSProducerResourcemessageWaitTime-maxTime
35.143 jMSProducerResourcemessageWaitTime-minTime
35.144 jMSProducerResourcemessageWaitTime-totalTime
35.151 jMSProducerResourcesendTime-count
35.152 jMSProducerResourcesendTime-maxTime
35.153 jMSProducerResourcesendTime-minTime
35.154 jMSProducerResourcesendTime-totalTime
36.1 jMSSessionResourceobjectName
36.2 jMSSessionResourcejMSEndPointConsumerNames
36.3 jMSSessionResourcectroubles
36.4 jMSSessionResourceownTroubles
36.101 jMSSessionResourcemessageCount-count
36.111 jMSSessionResourcependingMessageCount-count
36.121 jMSSessionResourceexpiredMessageCount-count
36.131 jMSSessionResourcemessageWaitTime-count
36.132 jMSSessionResourcemessageWaitTime-maxTime
36.133 jMSSessionResourcemessageWaitTime-minTime
36.134 jMSSessionResourcemessageWaitTime-totalTime
36.141 jMSSessionResourceDurableSubscriptionCount-count

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36.151 jMSSessionResourceproducers-destination
36.161 jMSSessionResourceproducers-messageCount-count
36.171 jMSSessionResourceproducers-pendingMessageCount-count
36.181 jMSSessionResourceproducers-expiredMessageCount-count
36.191 jMSSessionResourceproducers-messageWaitTime-count
36.192 jMSSessionResourceproducers-messageWaitTime-maxTime
36.193 jMSSessionResourceproducers-messageWaitTime-minTime
36.194 jMSSessionResourceproducers-messageWaitTime-totalTime
36.201 jMSSessionResourceconsumers-origin
36.211 jMSSessionResourceconsumers-messageCount-count
36.221 jMSSessionResourceconsumers-pendingMessageCount-count
36.231 jMSSessionResourceconsumers-expiredMessageCount-count
36.241 jMSSessionResourceconsumers-messageWaitTime-count
36.242 jMSSessionResourceconsumers-messageWaitTime-maxTime
36.243 jMSSessionResourceconsumers-messageWaitTime-minTime
36.244 jMSSessionResourceconsumers-messageWaitTime-totalTime
36.251 jMSSessionResourcesendTime-count
36.252 jMSSessionResourcesendTime-maxTime
36.253 jMSSessionResourcesendTime-minTime
36.254 jMSSessionResourcesendTime-totalTime
36.261 jMSSessionResourcecommitCount-count
36.271 jMSSessionResourcerollbackCount-count
36.281 jMSSessionResourcetransactionCount-count
41.1 eJBEngineMoobjectName
41.2 eJBEngineMoblockThreadCount
41.3 eJBEngineMostats
41.4 eJBEngineMotroubles
41.5 eJBEngineMoownTroubles
51.1 contextGroupMoobjectName
51.2 contextGroupMowebModules
51.3 contextGroupMowebListeners
51.4 contextGroupMosessionContainer
51.5 contextGroupMosessionTimeout
51.6 contextGroupMotroubles
51.7 contextGroupMoownTroubles
52.1 dBConnectionPoolMoobjectName
52.2 dBConnectionPoolMoblockDuration
52.3 dBConnectionPoolModBConnectionPoolInfo-dBConnectionInfo
52.4 dBConnectionPoolModBConnectionPoolInfo-currentPoolSize

52.5 dBConnectionPoolModBConnectionPoolInfo-freeConnectionNum
 52.6 dBConnectionPoolModBConnectionPoolInfo-activeConnectionNum
 52.7 dBConnectionPoolModBConnectionPoolInfo-connectionPoolID
 52.8 dBConnectionPoolModBConnectionPoolInfo-connectionPoolingRule
 52.9 dBConnectionPoolModBConnectionPoolInfo-connectionUrl
 52.10 dBConnectionPoolModBConnectionPoolInfo-driverClassName
 52.11 dBConnectionPoolModBConnectionPoolInfo-connectionArgs
 52.12 dBConnectionPoolModBConnectionPoolInfo-initCapacity
 52.13 dBConnectionPoolModBConnectionPoolInfo-maxCapacity
 52.14 dBConnectionPoolModBConnectionPoolInfo-incrementRate
 52.15 dBConnectionPoolModBConnectionPoolInfo-maxIdleTime
 52.17 dBConnectionPoolModBConnectionPoolInfo-dynamicIncrement
 52.18 dBConnectionPoolModBConnectionPoolInfo-connectionTimeOut
 52.19 dBConnectionPoolModBConnectionPoolInfo-loginDelay
 52.20 dBConnectionPoolModBConnectionPoolInfo-closeDelay
 52.21 dBConnectionPoolModBConnectionPoolInfo-
 closeLongActiveConnection
 52.22 dBConnectionPoolModBConnectionPoolInfo-maxActiveTime
 52.23 dBConnectionPoolModBConnectionPoolInfo-maxUseCount
 52.24 dBConnectionPoolModBConnectionPoolInfo-checkQuery
 52.26 dBConnectionPoolMomin
 52.28 dBConnectionPoolMomax
 52.30 dBConnectionPoolMostep
 52.31 dBConnectionPoolModBConnectionPoolInfo-maxAliveTime
 52.33 dBConnectionPoolMomaxIdleTime
 52.35 dBConnectionPoolMomaxAliveTime
 52.37 dBConnectionPoolModynamicIncrement
 52.38 dBConnectionPoolMogetConnectionTimeout
 52.39 dBConnectionPoolMocloseLongActiveConnection
 52.40 dBConnectionPoolMomaxActiveTime
 52.42 dBConnectionPoolMomaxUseCount
 52.43 dBConnectionPoolMotroubles
 52.44 dBConnectionPoolMoownTroubles
 52.101 dBConnectionPoolMoactiveThreadCount-count
 52.111 dBConnectionPoolMoblockThreadCount-count
 52.121 dBConnectionPoolMoallThreadCount-count
 53.1 threadPoolMoobjectName
 53.3 threadPoolMomin
 53.5 threadPoolMomax

53.7 threadPoolMostep
53.9 threadPoolMomaxIdleTime
53.11 threadPoolMomaxQueue
53.13 threadPoolMomaxWaitQueue
53.14 threadPoolMomaxThreadActiveTime
53.15 threadPoolMonotifyThreshold
53.16 threadPoolMorestartThreshold
53.17 threadPoolMotroubles
53.18 threadPoolMoownTroubles
53.101 threadPoolMoactiveThreadCount-count
53.111 threadPoolMoblockThreadCount-count
53.121 threadPoolMoallThreadCount-count
53.131 threadPoolMomaxThreadCount-count
53.141 threadPoolMowaitQueueCount-count
54.1 webEngineMoobjectName
54.2 webEngineMocontextGroups
54.3 webEngineMoconfigInfo
54.4 webEngineMoserverStatus
54.5 webEngineModBConnectionPool
54.6 webEngineMocontextGroupNames
54.7 webEngineMosessionContainer
54.8 webEngineMowebtConnectionGroup
54.9 webEngineMoconfiguration
54.11 webEngineMocheckThreadPool
54.13 webEngineMocheckClassReload
54.15 webEngineMocheckSession
54.17 webEngineMocheckDbConnectionPool
54.18 webEngineMotroubles
54.19 webEngineMoownTroubles
54.101 webEngineMofreeMemory-count
54.111 webEngineMototalMemory-count
55.1 webListenerMoobjectName
55.2 webListenerMothreadPools
55.3 webListenerMotype
55.4 webListenerMoport
55.6 webListenerMoreadTimeout
55.8 webListenerMoreconnectTimeout
55.10 webListenerMopostdataReadTimeout
55.11 webListenerMotroubles

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55.12 webListenerMoownTroubles
56.1 webtConnectionGroupMoobjectName
56.2 webtConnectionGroupMotroubles
56.3 webtConnectionGroupMoownTroubles
56.101 webtConnectionGroupMototalConnectionCount-count
56.111 webtConnectionGroupMofreeConnectionCount-count
56.121 webtConnectionGroupMousedConnectionCount-count
61.1 jMSClientResourceobjectName
61.2 jMSClientResourcehostAddress
61.3 jMSClientResourceport
61.4 jMSClientResourcejMSConnectionResourceNames
61.6 jMSClientResourceNamePartString
61.7 jMSClientResourcectroubles
61.8 jMSClientResourceownTroubles
61.101 jMSClientResourceconnectionCount-count
62.1 jMSQueueConnectionFactoryResourceobjectName
62.3 jMSQueueConnectionFactoryResourceName
62.4 jMSQueueConnectionFactoryResourcectroubles
62.5 jMSQueueConnectionFactoryResourceownTroubles
63.1 jMSQueueDestinationResourceobjectName
63.2 jMSQueueDestinationResourceName
63.3 jMSQueueDestinationResourceexportName
63.4 jMSQueueDestinationResourcectype
63.8 jMSQueueDestinationResourcedestination
63.9 jMSQueueDestinationResourcejMSConsumerResourceNames
63.10 jMSQueueDestinationResourceremainingMessages
63.11 jMSQueueDestinationResourcectroubles
63.12 jMSQueueDestinationResourceownTroubles
63.101 jMSQueueDestinationResourcemessageCount-count
63.111 jMSQueueDestinationResourcependingMessageCount-count
63.121 jMSQueueDestinationResourceexpiredMessageCount-count
63.122 jMSQueueDestinationResourcemessageWaitTime-count
63.123 jMSQueueDestinationResourcemessageWaitTime-maxTime
63.124 jMSQueueDestinationResourcemessageWaitTime-minTime
63.125 jMSQueueDestinationResourcemessageWaitTime-totalTime
63.131 jMSQueueDestinationResourcesendTime-count
63.132 jMSQueueDestinationResourcesendTime-maxTime
63.133 jMSQueueDestinationResourcesendTime-minTime
63.134 jMSQueueDestinationResourcesendTime-totalTime

```


64.1 jMSDurableSubscriberResourceobjectName
64.2 jMSDurableSubscriberResourceName
64.3 jMSDurableSubscriberResourceclientID
64.5 jMSDurableSubscriberResourceremainingMessages
64.6 jMSDurableSubscriberResourceselector
64.7 jMSDurableSubscriberResourcejMSConsumerResourceName
64.8 jMSDurableSubscriberResourcetroubles
64.9 jMSDurableSubscriberResourceownTroubles
65.1 jMSTopicConnectionFactoryResourceobjectName
65.3 jMSTopicConnectionFactoryResourceName
65.4 jMSTopicConnectionFactoryResourcetroubles
65.5 jMSTopicConnectionFactoryResourceownTroubles
66.1 jMSTopicDestinationResourceobjectName
66.2 jMSTopicDestinationResourceName
66.3 jMSTopicDestinationResourceexportName
66.4 jMSTopicDestinationResourceType
66.6 jMSTopicDestinationResourcejMSDurableSubscriberResourceNames
66.8 jMSTopicDestinationResourcedestination
66.9 jMSTopicDestinationResourcejMSConsumerResourceNames
66.10 jMSTopicDestinationResourcetroubles
66.11 jMSTopicDestinationResourceownTroubles
66.101 jMSTopicDestinationResourcemessageCount-count
66.111 jMSTopicDestinationResourcependingMessageCount-count
66.121 jMSTopicDestinationResourceexpiredMessageCount-count
66.122 jMSTopicDestinationResourcemessageWaitTime-count
66.123 jMSTopicDestinationResourcemessageWaitTime-maxTime
66.124 jMSTopicDestinationResourcemessageWaitTime-minTime
66.125 jMSTopicDestinationResourcemessageWaitTime-totalTime
66.131 jMSTopicDestinationResourcesendTime-count
66.132 jMSTopicDestinationResourcesendTime-maxTime
66.133 jMSTopicDestinationResourcesendTime-minTime
66.134 jMSTopicDestinationResourcesendTime-totalTime
71.1 threadPoolobjectName
71.2 threadPoolthreadOperationInfo
71.4 threadPoolmax
71.6 threadPoolperiod
71.7 threadPooltroubles
71.8 threadPoolownTroubles
77.1 jEUSManagerobjectName

```
77.2 jEUSManagerserverVersion
77.3 jEUSManagerserverVendor
77.4 jEUSManagerjavaVMs
77.5 jEUSManagerjeusServices
77.6 jEUSManagerj2eeServers
77.9 jEUSManagernodesFromDescriptor
77.10 jEUSManageraliveNodeNames
77.11 jEUSManagerjeusHome
77.12 jEUSManagerpID
77.13 jEUSManagertroubles
77.14 jEUSManagerownTroubles
77.15 jEUSManagerj2eeServerNames
81.1 webServerInfoobjectName
81.2 webServerInfonodeInfo
81.3 webServerInfosvrAllInfo
81.4 webServerInfotroubles
81.5 webServerInfoownTroubles
81.101 webServerInfosvrCount-count
81.111 webServerInfoexecCount-count
81.121 webServerInfoavgTime-count
81.122 webServerInfoavgTime-maxTime
81.123 webServerInfoavgTime-minTime
81.124 webServerInfoavgTime-totalTime
92.1 externalWebtDataSourceobjectName
92.2 externalWebtDataSourceetype
92.3 externalWebtDataSourceport
92.4 externalWebtDataSourcewebtProperties
92.5 externalWebtDataSourceexportName
92.6 externalWebtDataSourcehostAddr
92.8 externalWebtDataSourcelevel
92.9 externalWebtDataSourceetroubles
92.10 externalWebtDataSourceownTroubles
92.101 externalWebtDataSourcecreateCount-count
92.111 externalWebtDataSourcecloseCount-count
92.121 externalWebtDataSourcepoolSize-upperBound
92.122 externalWebtDataSourcepoolSize-lowerBound
92.123 externalWebtDataSourcepoolSize-highWaterMark
92.124 externalWebtDataSourcepoolSize-lowWaterMark
92.125 externalWebtDataSourcepoolSize-current
```

92.131 externalWebtDataSourcefreePoolSize-upperBound
92.132 externalWebtDataSourcefreePoolSize-lowerBound
92.133 externalWebtDataSourcefreePoolSize-highWaterMark
92.134 externalWebtDataSourcefreePoolSize-lowWaterMark
92.135 externalWebtDataSourcefreePoolSize-current
92.141 externalWebtDataSourcewaitingThreadCount-highWaterMark
92.142 externalWebtDataSourcewaitingThreadCount-lowWaterMark
92.143 externalWebtDataSourcewaitingThreadCount-current
92.151 externalWebtDataSourcereConnectCount-count
92.161 externalWebtDataSourcetotalConnectionCount-count
92.171 externalWebtDataSourcefreeConnectionCount-count
92.181 externalWebtDataSourceactiveConnectionCount-count
101.1 subjectMoobjectName
101.2 subjectMosubjectNames
101.3 subjectMotroubles
101.4 subjectMoownTroubles
102.1 securityDomainMoobjectName
102.2 securityDomainModomainName
102.3 securityDomainMopolicys
102.4 securityDomainMosubjects
102.5 securityDomainMotroubles
102.6 securityDomainMoownTroubles
102.7 securityDomainModescription
103.1 policyMoobjectName
103.2 policyMopolicyIds
103.3 policyMotroubles
103.4 policyMoownTroubles
104.1 securityMoobjectName
104.2 securityMocurrentDomain
104.3 securityMosecurityDomains
104.4 securityMotroubles
104.5 securityMoownTroubles
105.1 jMSEngineMojMSResource
105.2 jMSEngineMoengineName
105.3 jMSEngineMoobjectName
105.4 jMSEngineMotroubles
105.5 jMSEngineMoownTroubles

A.4 TMAX-JEUS5.0-MIB.mib

```

TMAX-JEUS-MIB DEFINITIONS ::= BEGIN
IMPORTS

    enterprises, Counter
        FROM RFC1155-SMI
    OBJECT-TYPE
        FROM RFC-1212
    DisplayString
        FROM RFC1213-MIB
    TRAP-TYPE
        FROM RFC-1215;

tmax OBJECT IDENTIFIER ::= { enterprises 14586 }

jeus OBJECT IDENTIFIER ::= { tmax 100 }

-----

-- SNMP monitoring objects in each MBeans
-----

-----

-- j2EEDomain
-----

j2EEDomain OBJECT IDENTIFIER
    ::= { jeus 2 }

j2EEDomainobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { j2EEDomain 1 }

j2EEDomainservers OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only

```

```

        STATUS mandatory
        DESCRIPTION
            "JMX-standard object names of the J2EE Servers that this
domain includes"
        ::= { j2EEDomain 2 }
j2EEDomaintroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { j2EEDomain 3 }
j2EEDomainownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { j2EEDomain 4 }

-----
-- j2EEServer
-----

j2EEServer OBJECT IDENTIFIER
    ::= { jeus 3 }

j2EEServerobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
        ::= { j2EEServer 1 }
j2EEServerserverVersion OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "the version of JEUS that is being used"
 ::= { j2EEServer 2 }
j2EEServerserverVendor OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the J2EE platform vendor of this J2EE Server"
 ::= { j2EEServer 3 }
j2EEServerjavaVMs OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard object names of the JVMs on which J2EE
Server is running"
 ::= { j2EEServer 4 }
j2EEServerdeployedObjects OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard object names of the J2EE Modules that are
deployed on this J2EE Server"
 ::= { j2EEServer 5 }
j2EEServerresources OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard object names of the J2EE Resources that can
be used in this J2EE Server"
 ::= { j2EEServer 6 }
j2EEServerjeusServices OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
```

```

 ::= { j2EEServer 8 }
j2EEServerengines OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { j2EEServer 9 }
j2EEServerenginesFromDescriptor OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { j2EEServer 10 }
j2EEServerdistributedModules OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { j2EEServer 15 }
j2EEServernodeName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { j2EEServer 17 }
j2EEServerappPaths OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { j2EEServer 18 }
j2EEServertroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only

```

```

        STATUS mandatory
        DESCRIPTION
            " "
        ::= { j2EEServer 19 }
j2EEServerownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { j2EEServer 20 }

-----
-- jVM
-----

jVM OBJECT IDENTIFIER
    ::= { jeus 4 }

jVMObjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { jVM 1 }
jVMjavaVersion OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the system property value of java.version"
    ::= { jVM 2 }
jVMjavaVendor OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the system property value of java.vendor"

```



```
 ::= { jVM 3 }
jVMnode      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the host name and ip address of the machine on which
this JVM is running"
 ::= { jVM 4 }
jVMoSName    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the system property value of os.name"
 ::= { jVM 6 }
jVMoSVersion OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the system property value of os.version"
 ::= { jVM 7 }
jVMallProperties OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the all system property values"
 ::= { jVM 8 }
jVMtroubles OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
 ::= { jVM 9 }
jVMownTroubles OBJECT-TYPE
    SYNTAX  DisplayString
```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { jVM 10 }
jVMheapSize-upperBound OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { jVM 101 }
jVMheapSize-lowerBound OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { jVM 102 }
jVMheapSize-highWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { jVM 103 }
jVMheapSize-lowWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { jVM 104 }
jVMheapSize-current OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
```

```

::= { jVM 105 }
jVMupTime-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
::= { jVM 111 }
jVMtotalSize-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
::= { jVM 121 }
jVMtotalSize-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
::= { jVM 122 }
jVMtotalSize-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
::= { jVM 123 }

-----
-- j2EEApplication
-----

j2EEApplication OBJECT IDENTIFIER
    ::= { jeus 6 }

j2EEApplicationobjectName    OBJECT-TYPE
    SYNTAX  DisplayString

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { j2EEApplication 1 }
j2EEApplicationdeploymentDescriptor OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { j2EEApplication 2 }
j2EEApplicationserver OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { j2EEApplication 3 }
j2EEApplicationmodules OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { j2EEApplication 4 }
j2EEApplicationmoduleType OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { j2EEApplication 5 }
j2EEApplicationapplicationType OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

```

```

    ::= { j2EEApplication 6 }
j2EEApplicationjeusDeploymentPlan OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { j2EEApplication 7 }
j2EEApplicationtargetModuleID OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { j2EEApplication 8 }
j2EEApplicationtroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { j2EEApplication 9 }
j2EEApplicationownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { j2EEApplication 10 }

-----
-- appClientModule
-----

appClientModule OBJECT IDENTIFIER
    ::= { jeus 8 }

appClientModuleobjectName OBJECT-TYPE
    SYNTAX DisplayString

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { appClientModule 1 }
appClientModuledeploymentDescriptor OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { appClientModule 2 }
appClientModuleserver OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { appClientModule 3 }
appClientModulejavaVMs OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { appClientModule 4 }
appClientModuleapplicationType OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { appClientModule 5 }
appClientModulemoduleType OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

```

```

    ::= { appClientModule 6 }
appClientModulejeusDeploymentPlan OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { appClientModule 7 }
appClientModuletargetModuleID OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { appClientModule 8 }
appClientModuletroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { appClientModule 9 }
appClientModuleownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { appClientModule 10 }

-----
-- eJBModule
-----

eJBModule OBJECT IDENTIFIER
    ::= { jeus 9 }

eJBModuleobjectName OBJECT-TYPE
    SYNTAX DisplayString

```

```

ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "JMX-standard MBean object name"
::= { eJBModule 1 }
eJBModuledeploymentDescriptor OBJECT-TYPE
SYNTAX    DisplayString
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "XML deployment descriptor of this module"
::= { eJBModule 2 }
eJBModuleserver OBJECT-TYPE
SYNTAX    DisplayString
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "the name of the J2EE Server(JEUS container) on which
this module is deployed"
::= { eJBModule 3 }
eJBModulejavaVMs OBJECT-TYPE
SYNTAX    SEQUENCE OF DisplayString
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "JMX-standard object names of the JVMs on which this
module is running"
::= { eJBModule 4 }
eJBModuleejbs OBJECT-TYPE
SYNTAX    SEQUENCE OF DisplayString
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "JMX-standard object names of the ejb
components(EntityBean, StatefullSessionBean, or
StatelessSessionBean) that this EJB Module includes"
::= { eJBModule 5 }
eJBModuleejbCount OBJECT-TYPE
SYNTAX    DisplayString

```



```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { eJBModule 6 }
eJBModuleclientViewPath OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { eJBModule 7 }
eJBModulejeusDeploymentPlan OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { eJBModule 8 }
eJBModuletargetModuleID OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { eJBModule 9 }
eJBModulemoduleType OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { eJBModule 10 }
eJBModuleapplicationType OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

```

```

    ::= { eJBModule 11 }
eJBModuletroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { eJBModule 12 }
eJBModuleownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { eJBModule 13 }

-----
-- messageDrivenBean
-----

messageDrivenBean OBJECT IDENTIFIER
    ::= { jeus 11 }

messageDrivenBeanobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { messageDrivenBean 1 }
messageDrivenBeantroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { messageDrivenBean 2 }
messageDrivenBeanownTroubles OBJECT-TYPE
    SYNTAX DisplayString

```

```
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { messageDrivenBean 3 }
messageDrivenBeancreateCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { messageDrivenBean 101 }
messageDrivenBeanremoveCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { messageDrivenBean 111 }
messageDrivenBeanrequestCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { messageDrivenBean 121 }
messageDrivenBeancommittedCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { messageDrivenBean 131 }
messageDrivenBeanrolledbackCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""
```

```

    ::= { messageDrivenBean 141 }
messageDrivenBeantimeoutRolledbackCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { messageDrivenBean 151 }
messageDrivenBeanmessageCount-count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { messageDrivenBean 161 }
messageDrivenBeanactiveEJBBeanCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { messageDrivenBean 171 }
messageDrivenBeanactiveEJBBeanCount-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { messageDrivenBean 172 }
messageDrivenBeanactiveEJBBeanCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { messageDrivenBean 173 }
messageDrivenBeantotalEJBBeanCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only

```

```

STATUS mandatory
DESCRIPTION
    " "

::= { messageDrivenBean 181 }
messageDrivenBeantotalEJBBeanCount-lowWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { messageDrivenBean 182 }
messageDrivenBeantotalEJBBeanCount-current OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { messageDrivenBean 183 }

-----
-- entityBean
-----

entityBean OBJECT IDENTIFIER
::= { jeus 12 }

entityBeanobjectName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard MBean object name"
::= { entityBean 1 }
entityBeantroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

```

```

    ::= { entityBean 2 }
entityBeanownTroubles    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { entityBean 3 }
entityBeancreateCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the beans that is created by create()
method"
    ::= { entityBean 101 }
entityBeanremoveCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the beans that is removed by remove()
method"
    ::= { entityBean 111 }
entityBeanrequestCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the requests on this bean"
    ::= { entityBean 121 }
entityBeancommittedCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the transactions that is committed"
    ::= { entityBean 131 }
entityBeanrolledbackCount-count    OBJECT-TYPE

```

```
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the transactions that is rollbacked"
::= { entityBean 141 }
entityBeantimeoutRolledbackCount-count    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the transactions that is rollbacked by
timeout"
::= { entityBean 151 }
entityBeanreadyCount-highWaterMark    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the highest number of the bean instances that are READY
state"
::= { entityBean 161 }
entityBeanreadyCount-lowWaterMark    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the lowest number of the bean instances that are READY
state"
::= { entityBean 162 }
entityBeanreadyCount-current    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the current number of the bean instances that are READY
state"
::= { entityBean 163 }
entityBeanpooledCount-highWaterMark    OBJECT-TYPE
```

```

SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the highest number of the bean instances that are POOLED
state"
 ::= {   entityBean 171   }
entityBeanpooledCount-lowWaterMark  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the lowest number of the bean instances that are POOLED
state"
 ::= {   entityBean 172   }
entityBeanpooledCount-current  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the current number of the bean instances that are POOLED
state"
 ::= {   entityBean 173   }
entityBeanautoRemovedEJBObjectCount-count  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the number of the bean instances that are removed
automatically when they are passivated"
 ::= {   entityBean 181   }
entityBeantotalEJBBeanCount-highWaterMark  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the highest number of the bean instances that are in the
bean pool of this bean"
 ::= {   entityBean 191   }

```



```
entityBeantotalEJBBeanCount-lowWaterMark OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the lowest number of the bean instances that are in the
bean pool of this bean"
    ::= { entityBean 192 }
entityBeantotalEJBBeanCount-current OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the current number of the bean instances that are in the
bean pool of this bean"
    ::= { entityBean 193 }
entityBeanactiveEJBBeanCount-highWaterMark OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the highest number of the bean instances that are ACTIVE
state"
    ::= { entityBean 201 }
entityBeanactiveEJBBeanCount-lowWaterMark OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the lowest number of the bean instances that are ACTIVE
state"
    ::= { entityBean 202 }
entityBeanactiveEJBBeanCount-current OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the current number of the bean instances that are ACTIVE
state"
```

```

 ::= { entityBean 203 }
entityBeantotalThreadCount-highWaterMark  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the threads that are in thread
pool of this bean"
 ::= { entityBean 211 }
entityBeantotalThreadCount-lowWaterMark  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the threads that are in thread pool
of this bean"
 ::= { entityBean 212 }
entityBeantotalThreadCount-current  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the threads that are in thread
pool of this bean"
 ::= { entityBean 213 }
entityBeanactiveThreadCount-highWaterMark  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the threads that are being used in
thread pool of this bean"
 ::= { entityBean 221 }
entityBeanactiveThreadCount-lowWaterMark  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        "the lowest number of the threads that are being used in
thread pool of this bean"
        ::= { entityBean 222 }
entityBeanactiveThreadCount-current OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the current number of the threads that are being used in
thread pool of this bean"
        ::= { entityBean 223 }
entityBeantotalEJBObjectCount-highWaterMark OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the highest number of the objects that are in connection
pool of this bean"
        ::= { entityBean 231 }
entityBeantotalEJBObjectCount-lowWaterMark OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the lowest number of the objects that are in connection
pool of this bean"
        ::= { entityBean 232 }
entityBeantotalEJBObjectCount-current OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the current number of the objects that are in connection
pool of this bean"
        ::= { entityBean 233 }
entityBeanactiveEJBObjectCount-highWaterMark OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory

```

```

        DESCRIPTION
            "the highest number of the objects that are being useed
in connection pool of this bean"
        ::= { entityBean 241 }
entityBeanactiveEJBObjectCount-lowWaterMark      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the objects that are being used in
connection pool of this bean"
        ::= { entityBean 242 }
entityBeanactiveEJBObjectCount-current      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the objects that are being useed
in connection pool of this bean"
        ::= { entityBean 243 }
entityBeanpassiveCount-highWaterMark      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the bean instances that are
passivated"
        ::= { entityBean 251 }
entityBeanpassiveCount-lowWaterMark OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the bean instances that are
passivated"
        ::= { entityBean 252 }
entityBeanpassiveCount-current      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only

```

```

        STATUS mandatory
        DESCRIPTION
            "the current number of the bean instances that are
passivated"
        ::= { entityBean 253 }

-----
-- statefulSessionBean
-----

statefulSessionBean OBJECT IDENTIFIER
    ::= { jeus 14 }

statefulSessionBeanobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { statefulSessionBean 1 }

statefulSessionBeantroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { statefulSessionBean 2 }

statefulSessionBeanownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { statefulSessionBean 3 }

statefulSessionBeancreateCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "the number of the beans that is created by create()
method"
        ::= { statefulSessionBean 101 }
statefulSessionBeanremoveCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the beans that is removed by remove()
method"
        ::= { statefulSessionBean 111 }
statefulSessionBeanrequestCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the requests on this bean"
        ::= { statefulSessionBean 121 }
statefulSessionBeancommittedCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the transactions that is committed"
        ::= { statefulSessionBean 131 }
statefulSessionBeanrolledbackCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the transactions that is rollbacked"
        ::= { statefulSessionBean 141 }
statefulSessionBeantimeoutRolledbackCount-count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the transactions that is rollbacked by
timeout"

```

```

 ::= { statefulSessionBean 151 }
statefulSessionBeanmethodReadyCount-highWaterMark      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the beans that are METHOD-READY
state"
 ::= { statefulSessionBean 161 }
statefulSessionBeanmethodReadyCount-lowWaterMark      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the beans that are METHOD-READY
state"
 ::= { statefulSessionBean 162 }
statefulSessionBeanmethodReadyCount-current      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the beans that are METHOD-READY
state"
 ::= { statefulSessionBean 163 }
statefulSessionBeanpassiveCount-highWaterMark      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the bean instances that are
passivated"
 ::= { statefulSessionBean 171 }
statefulSessionBeanpassiveCount-lowWaterMark      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        "the lowest number of the bean instances that are
passivated"
        ::= { statefulSessionBean 172 }
statefulSessionBeanpassiveCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the bean instances that are
passivated"
        ::= { statefulSessionBean 173 }
statefulSessionBeanautoRemovedEJBObjectCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the bean instances that are removed
automatically when they are passivated"
        ::= { statefulSessionBean 181 }
statefulSessionBeantotalEJBBeanCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the bean instances that are in the
bean pool of this bean"
        ::= { statefulSessionBean 191 }
statefulSessionBeantotalEJBBeanCount-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the bean instances that are in the
bean pool of this bean"
        ::= { statefulSessionBean 192 }
statefulSessionBeantotalEJBBeanCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory

```



```

DESCRIPTION
    "the current number of the bean instances that are in the
bean pool of this bean"
    ::= { statefulSessionBean 193 }
statefulSessionBeanactiveEJBBeanCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
DESCRIPTION
    "the highest number of the bean instances that are ACTIVE
state"
    ::= { statefulSessionBean 201 }
statefulSessionBeanactiveEJBBeanCount-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
DESCRIPTION
    "the lowest number of the bean instances that are ACTIVE
state"
    ::= { statefulSessionBean 202 }
statefulSessionBeanactiveEJBBeanCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
DESCRIPTION
    "the current number of the bean instances that are ACTIVE
state"
    ::= { statefulSessionBean 203 }
statefulSessionBeantotalThreadCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
DESCRIPTION
    "the highest number of the threads that are in thread
pool of this bean"
    ::= { statefulSessionBean 211 }
statefulSessionBeantotalThreadCount-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only

```

```

        STATUS  mandatory
        DESCRIPTION
            "the lowest number of the threads that are in thread pool
of this bean"
        ::= {   statefulSessionBean 212   }
statefulSessionBeantotalThreadCount-current      OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the current number of the threads that are in thread
pool of this bean"
        ::= {   statefulSessionBean 213   }
statefulSessionBeanactiveThreadCount-highWaterMark  OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the highest number of the threads that are being used in
thread pool of this bean"
        ::= {   statefulSessionBean 221   }
statefulSessionBeanactiveThreadCount-lowWaterMark  OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the lowest number of the threads that are being used in
thread pool of this bean"
        ::= {   statefulSessionBean 222   }
statefulSessionBeanactiveThreadCount-current      OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the current number of the threads that are being used in
thread pool of this bean"
        ::= {   statefulSessionBean 223   }
statefulSessionBeantotalEJBObjectCount-highWaterMark  OBJECT-TYPE
        SYNTAX  DisplayString

```

```
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the highest number of the objects that are in connection
pool of this bean"
::= { statefulSessionBean 231 }
statefulSessionBeantotalEJBObjectCount-lowWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the lowest number of the objects that are in connection
pool of this bean"
::= { statefulSessionBean 232 }
statefulSessionBeantotalEJBObjectCount-current OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the current number of the objects that are in connection
pool of this bean"
::= { statefulSessionBean 233 }
statefulSessionBeanactiveEJBObjectCount-highWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the highest number of the objects that are being used
in connection pool of this bean"
::= { statefulSessionBean 241 }
statefulSessionBeanactiveEJBObjectCount-lowWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the lowest number of the objects that are being used in
connection pool of this bean"
::= { statefulSessionBean 242 }
statefulSessionBeanactiveEJBObjectCount-current OBJECT-TYPE
```

```

SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the current number of the objects that are being used
in connection pool of this bean"
 ::= {   statefulSessionBean 243   }
statefulSessionBeanfileDBSizeCount-highWaterMark      OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the biggest size of the file that contains the beans
that is passivated"
 ::= {   statefulSessionBean 251   }
statefulSessionBeanfileDBSizeCount-lowWaterMark OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the smallest size of the file that contains the beans
that is passivated"
 ::= {   statefulSessionBean 252   }
statefulSessionBeanfileDBSizeCount-current      OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the current size of the file that contains the beans
that is passivated"
 ::= {   statefulSessionBean 253   }

-----
-- statelessSessionBean
-----

statelessSessionBean OBJECT IDENTIFIER
 ::= {   jeus   15   }

```

```

statelessSessionBeanObjectName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { statelessSessionBean 1 }
statelessSessionBeantroubles OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { statelessSessionBean 2 }
statelessSessionBeanownTroubles      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { statelessSessionBean 3 }
statelessSessionBeancreateCount-count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the beans that is created by create()
method"
    ::= { statelessSessionBean 101 }
statelessSessionBeanremoveCount-count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the beans that is removed by remove()
method"
    ::= { statelessSessionBean 111 }
statelessSessionBeanrequestCount-count OBJECT-TYPE
    SYNTAX  DisplayString

```

```

ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the number of the requests on this bean"
    ::= { statelessSessionBean 121 }
statelessSessionBeancommittedCount-count    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the number of the transactions that is committed"
    ::= { statelessSessionBean 131 }
statelessSessionBeanrolledbackCount-count    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the number of the transactions that is rollbacked"
    ::= { statelessSessionBean 141 }
statelessSessionBeantimeoutRolledbackCount-count    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the number of the transactions that is rollbacked by
timeout"
    ::= { statelessSessionBean 151 }
statelessSessionBeanmethodReadyCount-highWaterMark    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the highest number of the beans that are METHOD-READY
state"
    ::= { statelessSessionBean 161 }
statelessSessionBeanmethodReadyCount-lowWaterMark    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory

```

```

DESCRIPTION
    "the lowest number of the beans that are METHOD-READY
state"
    ::= { statelessSessionBean 162 }
statelessSessionBeanmethodReadyCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the beans that are METHOD-READY
state"
    ::= { statelessSessionBean 163 }
statelessSessionBeantotalEJBBeanCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the bean instances that are in the
bean pool of this bean"
    ::= { statelessSessionBean 171 }
statelessSessionBeantotalEJBBeanCount-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the bean instances that are in the
bean pool of this bean"
    ::= { statelessSessionBean 172 }
statelessSessionBeantotalEJBBeanCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the bean instances that are in the
bean pool of this bean"
    ::= { statelessSessionBean 173 }
statelessSessionBeanactiveEJBBeanCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only

```

```

        STATUS    mandatory
        DESCRIPTION
            "the highest number of the bean instances that are ACTIVE
state"
        ::= { statelessSessionBean 181 }
statelessSessionBeanactiveEJBBeanCount-lowWaterMark    OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the lowest number of the bean instances that are ACTIVE
state"
        ::= { statelessSessionBean 182 }
statelessSessionBeanactiveEJBBeanCount-current    OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the current number of the bean instances that are ACTIVE
state"
        ::= { statelessSessionBean 183 }
statelessSessionBeantotalThreadCount-highWaterMark    OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the highest number of the threads that are in thread
pool of this bean"
        ::= { statelessSessionBean 191 }
statelessSessionBeantotalThreadCount-lowWaterMark    OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the lowest number of the threads that are in thread pool
of this bean"
        ::= { statelessSessionBean 192 }
statelessSessionBeantotalThreadCount-current    OBJECT-TYPE
        SYNTAX    DisplayString

```



```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the current number of the threads that are in thread
pool of this bean"
::= { statelessSessionBean 193 }
statelessSessionBeanactiveThreadCount-highWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the highest number of the threads that are being used in
thread pool of this bean"
::= { statelessSessionBean 201 }
statelessSessionBeanactiveThreadCount-lowWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the lowest number of the threads that are being used in
thread pool of this bean"
::= { statelessSessionBean 202 }
statelessSessionBeanactiveThreadCount-current OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the current number of the threads that are being used in
thread pool of this bean"
::= { statelessSessionBean 203 }

-----
-- webModule
-----

webModule OBJECT IDENTIFIER
::= { jeus 16 }

webModuleobjectName OBJECT-TYPE

```

```

SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "JMX-standard MBean object name"
 ::= {   webModule 1   }
webModuledeploymentDescriptor OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "XML deployment descriptor of this module"
 ::= {   webModule 2   }
webModuleserver OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the name of the J2EE Server(JEUS container) on which
this module is deployed"
 ::= {   webModule 3   }
webModulejavaVMs OBJECT-TYPE
SYNTAX   SEQUENCE OF DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "JMX-standard object names of the JVMs on which this
module is running"
 ::= {   webModule 4   }
webModuleservlets OBJECT-TYPE
SYNTAX   SEQUENCE OF DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "JMX-standard object names of the Servlets that this Web
Module includes"
 ::= {   webModule 5   }
webModulecontextGroupName OBJECT-TYPE
SYNTAX   DisplayString

```

```
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard object names of the context group on which
this Web Module is deployed"
 ::= { webModule 6 }
webModulecontextGroup OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the names of the context group on which this Web Module
is deployed"
 ::= { webModule 7 }
webModulerealDocBase OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { webModule 8 }
webModulejeusDeploymentPlan OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { webModule 9 }
webModuletargetModuleID OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { webModule 10 }
webModulemoduleType OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
```

```

DESCRIPTION
    " "

 ::= { webModule 11 }
webModuleapplicationType      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

 ::= { webModule 12 }
webModuleautoReload          OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

 ::= { webModule 13 }
webModuletroubles OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

 ::= { webModule 14 }
webModuleownTroubles        OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

 ::= { webModule 15 }
webModulerequestCount-count  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the requests on this web module"

 ::= { webModule 101 }
webModuleallSessionsSize-count OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the all sessions that is registered on the
session server that this Web Module is using"
 ::= { webModule 111 }
webModuleactiveSessionsSize-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the active sessions that is registered on
the session server that this Web Module is using"
 ::= { webModule 121 }
webModulepassivateSessionsSize-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the passivated sessions that is registered
on the session server that this Web Module is using"
 ::= { webModule 131 }
webModulelocalSessionsSize-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the local sessions that is not related to
the session server that this Web Module is using"
 ::= { webModule 141 }
webModuleprocessingTime-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { webModule 151 }

```

```

-----
-- servlet
-----

servlet OBJECT IDENTIFIER
    ::= { jeus 17 }

servletObjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { servlet 1 }

servletServletInfo OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the general information of the servlets that is
deployed"
    ::= { servlet 2 }

servletAverageExecutionTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the average execution time of the servlets that is
deplyed in milliseconds"
    ::= { servlet 3 }

servletTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { servlet 4 }

servletTownTroubles OBJECT-TYPE
    SYNTAX DisplayString

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""
 ::= { servlet 5 }
servletserviceTime-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of times that Servlet serves"
 ::= { servlet 101 }
servletserviceTime-maxTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the longest time that Servlet serves"
 ::= { servlet 102 }
servletserviceTime-minTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the shortest time that Servlet serves"
 ::= { servlet 103 }
servletserviceTime-totalTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total time that Servlet serves"
 ::= { servlet 104 }

-----
-- resourceAdapterModule
-----

resourceAdapterModule OBJECT IDENTIFIER

```

```

 ::= { jeus 18 }

resourceAdapterModuleobjectName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
 ::= { resourceAdapterModule 1  }
resourceAdapterModuledeploymentDescriptor OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
 ::= { resourceAdapterModule 2  }
resourceAdapterModuleserver      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
 ::= { resourceAdapterModule 3  }
resourceAdapterModulejavaVMs      OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
 ::= { resourceAdapterModule 4  }
resourceAdapterModulemoduleType      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
 ::= { resourceAdapterModule 6  }
resourceAdapterModuleapplicationType      OBJECT-TYPE
    SYNTAX  DisplayString

```



```
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

::= { resourceAdapterModule 7 }
resourceAdapterModulejeusDeploymentPlan OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        ""

::= { resourceAdapterModule 8 }
resourceAdapterModuletargetModuleID OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        ""

::= { resourceAdapterModule 9 }
resourceAdapterModulemin OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""

::= { resourceAdapterModule 10 }
resourceAdapterModulemax OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""

::= { resourceAdapterModule 11 }
resourceAdapterModulestep OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""
```

```

    ::= { resourceAdapterModule 12 }
resourceAdapterModulekeepAliveTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { resourceAdapterModule 13 }
resourceAdapterModulereleaseTimeout OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { resourceAdapterModule 14 }
resourceAdapterModulerejectTimeout OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { resourceAdapterModule 15 }
resourceAdapterModuletroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { resourceAdapterModule 16 }
resourceAdapterModuleownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { resourceAdapterModule 17 }

-----
-- resourceAdapter

```

```
-----

resourceAdapter OBJECT IDENTIFIER
    ::= { jeus 19 }

resourceAdapterobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { resourceAdapter 1 }
resourceAdaptertroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { resourceAdapter 2 }
resourceAdapterrownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { resourceAdapter 3 }

-----
-- javaMailResource
-----

javaMailResource OBJECT IDENTIFIER
    ::= { jeus 21 }

javaMailResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
```

```

        " "
        ::= { javaMailResource 1 }
javaMailResourceproperty      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
        ::= { javaMailResource 2 }
javaMailResourcetroubles      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
        ::= { javaMailResource 3 }
javaMailResourceownTroubles  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
        ::= { javaMailResource 4 }

-----
-- jCResource
-----

jCResource OBJECT IDENTIFIER
    ::= { jeus 22 }

jCResourceobjectName  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
        ::= { jCResource 1 }
jCResourceecMInfo OBJECT-TYPE

```

```

SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jCAResource 4 }
jCAResourcetroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jCAResource 5 }
jCAResourceownTroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jCAResource 6 }

-----
-- jCAConnectionFactory
-----

jCAConnectionFactory OBJECT IDENTIFIER
 ::= { jeus 23 }

jCAConnectionFactoryobjectName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jCAConnectionFactory 1 }
jCAConnectionFactorycMInfo OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory

```

```

DESCRIPTION
    " "

 ::= { jCAConnectionFactory 2 }
jCAConnectionFactorymin OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { jCAConnectionFactory 3 }
jCAConnectionFactorymax OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { jCAConnectionFactory 4 }
jCAConnectionFactorymaxWaiter OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { jCAConnectionFactory 5 }
jCAConnectionFactorymaxDisposableCount OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { jCAConnectionFactory 6 }
jCAConnectionFactorywaitTrial OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { jCAConnectionFactory 7 }
jCAConnectionFactorywaitingTime OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

 ::= { jCAConnectionFactory 8 }
jCAConnectionFactorypooledTimeout OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

 ::= { jCAConnectionFactory 9 }
jCAConnectionFactorydissociationtimeout OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

 ::= { jCAConnectionFactory 10 }
jCAConnectionFactoryinvalidationtimeout OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

 ::= { jCAConnectionFactory 11 }
jCAConnectionFactoryskipMatching OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

 ::= { jCAConnectionFactory 13 }
jCAConnectionFactoryuseWrapper OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION

```

```

        " "
        ::= { jCAConnectionFactory 14 }
jCAConnectionFactorytroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jCAConnectionFactory 15 }
jCAConnectionFactoryownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jCAConnectionFactory 16 }

-----
-- jCManagedConnectionFactory
-----

jCManagedConnectionFactory OBJECT IDENTIFIER
    ::= { jeus 24 }

jCManagedConnectionFactoryobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jCManagedConnectionFactory 1 }
jCManagedConnectionFactorytroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jCManagedConnectionFactory 2 }
jCManagedConnectionFactoryownTroubles OBJECT-TYPE

```



```
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
::= { jCManagedConnectionFactory 3 }

-----
-- JDBCResource
-----

JDBCResource OBJECT IDENTIFIER
    ::= { jeus 25 }

JDBCResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { JDBCResource 1 }

JDBCResourcejdbcDataSources OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard object names of JDBC Data Sources that is
related to this JDBC Resource"
    ::= { JDBCResource 2 }

JDBCResourceecPInfo OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { JDBCResource 3 }

JDBCResourcectroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
```

```

        STATUS    mandatory
        DESCRIPTION
            " "

        ::= {   jdbcResource 4   }
jdbcResourceownTroubles OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        " "

        ::= {   jdbcResource 5   }
jdbcResourceconnectionPools-createCount-count    OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "the number of the connected connections in the
        connection pool of each JDBC Data Sources that is related to this
        JDBC Resource"

        ::= {   jdbcResource 101   }
jdbcResourceconnectionPools-closeCount-count    OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "the number of the disconnected connections in the
        connection pool of each JDBC Data Sources that is related to this
        JDBC Resource"

        ::= {   jdbcResource 111   }
jdbcResourceconnectionPools-poolSize-upperBound OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "the max value that is configured to be upper bound of
        the pool size of the connection pool of each JDBC Data Sources
        that is related to this JDBC Resource"

        ::= {   jdbcResource 121   }
jdbcResourceconnectionPools-poolSize-lowerBound OBJECT-TYPE

```

```

SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the min value that is configured to be lower bound of
the pool size of the connection pool of each JDBC Data Sources
that is related to this JDBC Resource"
 ::= {  jDBCResource 122  }
jDBCResourceconnectionPools-poolSize-highWaterMark    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the highest value of the pool size of the connection
pool of each JDBC Data Sources that is related to this JDBC
Resource"
 ::= {  jDBCResource 123  }
jDBCResourceconnectionPools-poolSize-lowWaterMark    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the lowest value of the pool size of the connection pool
of each JDBC Data Sources that is related to this JDBC Resource"
 ::= {  jDBCResource 124  }
jDBCResourceconnectionPools-poolSize-current    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the current value of the pool size of the connection
pool of each JDBC Data Sources that is related to this JDBC
Resource"
 ::= {  jDBCResource 125  }
jDBCResourceconnectionPools-freePoolSize-upperBound    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION

```

"the upper bound of the free connections in the connection pool of each JDBC Data Sources that is related to this JDBC Resource (It is equal to the connectionPools-PoolSize-UpperBound)"

::= { jdbcResource 131 }

jdbcResourceconnectionPools-freePoolSize-lowerBound OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the lower bound of the free connections in the connection pool of each JDBC Data Sources that is related to this JDBC Resource (It is set to be 0)"

::= { jdbcResource 132 }

jdbcResourceconnectionPools-freePoolSize-highWaterMark

OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the highest number of the free connections in the connection pool of each JDBC Data Source that is related to this JDBC Resource"

::= { jdbcResource 133 }

jdbcResourceconnectionPools-freePoolSize-lowWaterMark OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the lowest number of the free connections in the connection pool of each JDBC Data Source that is related to this JDBC Resource"

::= { jdbcResource 134 }

jdbcResourceconnectionPools-freePoolSize-current OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the current number of the free connections in the connection pool of each JDBC Data Source that is related to this JDBC Resource"

::= { jdbcResource 135 }

jdbcResourceconnectionPools-waitingThreadCount-highWaterMark

OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the highest number of the threads, which are waiting to get connections from the connection pool of each JDBC Data Sources that is related to this JDBC Resource"

::= { jdbcResource 141 }

jdbcResourceconnectionPools-waitingThreadCount-lowWaterMark

OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the lowest number of the threads, which are waiting to get connections from the connection pool of each JDBC Data Sources that is related to this JDBC Resource"

::= { jdbcResource 142 }

jdbcResourceconnectionPools-waitingThreadCount-current

OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the current number of the threads, which are waiting to get connections from the connection pool of each JDBC Data Sources that is related to this JDBC Resource"

::= { jdbcResource 143 }

jdbcResourceconnectionPools-waitTime-count OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

```

        "the waiting time to get connection available in
connection pool"
 ::= {   jDBCResource 161   }
jDBCResourceconnectionPools-waitTime-maxTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the maximum waiting time to get connection available in
connection pool"
 ::= {   jDBCResource 162   }
jDBCResourceconnectionPools-waitTime-minTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the minimum waiting time to get connection available in
connection pool"
 ::= {   jDBCResource 163   }
jDBCResourceconnectionPools-waitTime-totalTime    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the total waiting time to get connection available in
connection pool"
 ::= {   jDBCResource 164   }
jDBCResourceconnectionPools-useTime-count         OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the time to use connection"
 ::= {   jDBCResource 171   }
jDBCResourceconnectionPools-useTime-maxTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        "the maximum time to use connection"
 ::= { jDBCResource 172 }
jDBCResourceconnectionPools-useTime-minTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the minimum time to use connection"
 ::= { jDBCResource 173 }
jDBCResourceconnectionPools-useTime-totalTime    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the total time to use connection"
 ::= { jDBCResource 174 }
jDBCResourceconnectionPools-jdbcDataSource      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard object name of JDBC datasource of each
connections in this connection pool"
 ::= { jDBCResource 181 }

-----
-- jDBCDataSource
-----

jDBCDataSource OBJECT IDENTIFIER
 ::= { jeus 26 }

jDBCDataSourceobjectName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
 ::= { jDBCDataSource 1 }

```

```

jDBCDataSourcejdbcDriver      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard object name of the JDBC Driver that is
related to this JDBC Data Source"
    ::= {  jdbcDataSource 2  }
jDBCDataSourceconfig          OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the config information about this JDBC Data Source"
    ::= {  jdbcDataSource 3  }
jDBCDataSourceecPInfo         OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= {  jdbcDataSource 4  }
jDBCDataSourcectroubles       OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= {  jdbcDataSource 6  }
jDBCDataSourceownTroubles     OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= {  jdbcDataSource 7  }
jDBCDataSourcecreateCount-count  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only

```



```

        STATUS mandatory
        DESCRIPTION
            "the number of the connected connections to this JDBC
Data Source"
        ::= { jdbcDataSource 101 }
jdbcDataSourcecloseCount-count      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            "the number of the disconnected connections to this JDBC
Data Source"
        ::= { jdbcDataSource 111 }
jdbcDataSourcepoolSize-upperBound    OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            "the max value that is configured to be upper bound of
the pool size of the connection pool of this JDBC Data Source"
        ::= { jdbcDataSource 121 }
jdbcDataSourcepoolSize-lowerBound    OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            "the min value that is configured to be lower bound of
the pool size of the connection pool of this JDBC Data Source"
        ::= { jdbcDataSource 122 }
jdbcDataSourcepoolSize-highWaterMark OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            "the highest value of the pool size of the connection
pool of this JDBC Data Source"
        ::= { jdbcDataSource 123 }
jdbcDataSourcepoolSize-lowWaterMark OBJECT-TYPE
        SYNTAX DisplayString

```

```

ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the lowest value of the pool size of the connection pool
of this JDBC Data Source"
 ::= {   jdbcDataSource 124   }
jdbcDataSourcepoolSize-current      OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the current value of the pool size of the connection
pool of this JDBC Data Source"
 ::= {   jdbcDataSource 125   }
jdbcDataSourcefreePoolSize-upperBound  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the upper bound of the free connections in the
connection pool of this JDBC Data Source (It is equal to the
poolSize-UpperBound)"
 ::= {   jdbcDataSource 131   }
jdbcDataSourcefreePoolSize-lowerBound  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the lower bound of the free connections in the
connection pool of this JDBC Data Source (It is set to be 0)"
 ::= {   jdbcDataSource 132   }
jdbcDataSourcefreePoolSize-highWaterMark  OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the highest number of the free connections in the
connection pool of this JDBC Data Source"
 ::= {   jdbcDataSource 133   }

```

```
jDBCDataSourcefreePoolSize-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the free connections in the
connection pool of this JDBC Data Source"
    ::= {   jdbcDataSource 134   }
jDBCDataSourcefreePoolSize-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the current number of the free connections in the
connection pool of this JDBC Data Source"
    ::= {   jdbcDataSource 135   }
jDBCDataSourcewaitingThreadCount-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the highest number of the threads, which are waiting to
get connections from the connection pool of this JDBC Data
Source"
    ::= {   jdbcDataSource 141   }
jDBCDataSourcewaitingThreadCount-lowWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the lowest number of the threads, which are waiting to
get connections from the connection pool of this JDBC Data
Source"
    ::= {   jdbcDataSource 142   }
jDBCDataSourcewaitingThreadCount-current    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
```

```

        "the current number of the threads, which are waiting to
get connections from the connection pool of this JDBC Data
Source"
        ::= {   jdbcDataSource 143   }
jdbcDataSourceConnectCount-count   OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "the number of the reconnections to this JDBC Data
Source"
        ::= {   jdbcDataSource 151   }
jdbcDataSourceWaitTime-count   OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "the total number of requests that are waiting to get
connections from the connection pool of this JDBC Data Source"
        ::= {   jdbcDataSource 161   }
jdbcDataSourceWaitTime-maxTime   OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "the longest time for waiting to get connections from the
connection pool of this JDBC Data Source"
        ::= {   jdbcDataSource 162   }
jdbcDataSourceWaitTime-minTime   OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "the shortest time for waiting to get connections from
the connection pool of this JDBC Data Source"
        ::= {   jdbcDataSource 163   }
jdbcDataSourceWaitTime-totalTime   OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only

```

```

STATUS mandatory
DESCRIPTION
    "the total time for waiting to get connections from the
connection pool of this JDBC Data Source"
 ::= { jdbcDataSource 164 }
jdbcDataSourceUseTime-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total number of requests that use connections from
the connection pool of this JDBC Data Source"
 ::= { jdbcDataSource 171 }
jdbcDataSourceUseTime-maxTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the longest time for using connections from the
connection pool of this JDBC Data Source"
 ::= { jdbcDataSource 172 }
jdbcDataSourceUseTime-minTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the shortest time for using connections from the
connection pool of this JDBC Data Source"
 ::= { jdbcDataSource 173 }
jdbcDataSourceUseTime-totalTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total time for using connections from the connection
pool of this JDBC Data Source"
 ::= { jdbcDataSource 174 }

```

```
-- JDBCDriver
-----

JDBCdriver OBJECT IDENTIFIER
    ::= { jeus 27 }

JDBCdriverobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { JDBCdriver 1 }

JDBCdrivertroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { JDBCdriver 2 }

JDBCdriverownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { JDBCdriver 3 }

-----

-- JMSResource
-----

JMSResource OBJECT IDENTIFIER
    ::= { jeus 28 }

JMSResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
```

```

DESCRIPTION
    "JMX-standard MBean object name"
 ::= { jMSResource 1 }
jMSResourceclusterInfo OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the information about the cluster of JMS server"
 ::= { jMSResource 3 }
jMSResourcejMSConnectionFactoryResourceNames OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the list of the names of JMS connection factory
resources that are belong to this JMS Resource"
 ::= { jMSResource 5 }
jMSResourcejMSDestinationResourceNames OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the list of the names of JMS destination resources that
are belong to this JMS Resource"
 ::= { jMSResource 6 }
jMSResourcejMSClientResourceNames OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the list of the names of JMS client resources that are
belong to this JMS Resource"
 ::= { jMSResource 7 }
jMSResourcefreeMemory OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        " "
        ::= { jMSResource 9 }
jMSResourcetotalMemory OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jMSResource 10 }
jMSResourcejMSConnectionFactoryResources OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jMSResource 11 }
jMSResourcetroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jMSResource 12 }
jMSResourceownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jMSResource 13 }
jMSResourceconnections-sessions-messageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the messages that are processed in each
sessions"
        ::= { jMSResource 101 }

```



```
jMSResourceconnections-sessions-pendingMessageCount-count
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the number of the messages that reside in each sessions
without acknowledgement"
        ::= {  jMSResource 111  }
jMSResourceconnections-sessions-expiredMessageCount-count
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the number of the messages that are expired in each
sessions"
        ::= {  jMSResource 121  }
jMSResourceconnections-sessions-messageWaitTime-count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the period of time between when it creates message and
when it delivers message"
    ::= {  jMSResource 131  }
jMSResourceconnections-sessions-messageWaitTime-maxTime
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the maximum period of time between when it creates
message and when it delivers message"
    ::= {  jMSResource 132  }
jMSResourceconnections-sessions-messageWaitTime-minTime
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
```

```

        STATUS    mandatory
        DESCRIPTION
            "the minimum period of time between when it creates
message and when it delivers message"
        ::= {   jMSResource 133   }
jMSResourceconnections-sessions-messageWaitTime-totalTime

        OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the total period of time between when it creates message
and when it delivers message"
        ::= {   jMSResource 134   }
jMSResourceconnections-sessions-durableSubscriptionCount-count

        OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the number of the durable subscribers that are created
in each sessions"
        ::= {   jMSResource 141   }
jMSResourceconnections-sessions-producers-destination OBJECT-TYPE

        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "name of the destination to which each producers send
messages"
        ::= {   jMSResource 151   }
jMSResourceconnections-sessions-producers-messageCount-count

        OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the number of the messages that are processed in each
producers"

```

```

 ::= { jMSResource 161 }
jMSResourceconnections-sessions-producers-pendingMessageCount-
count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the messages that reside in each producers
        without acknowledgement"
 ::= { jMSResource 171 }
jMSResourceconnections-sessions-producers-expiredMessageCount-
count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the messages that are expired in each
        producers"
 ::= { jMSResource 181 }
jMSResourceconnections-sessions-producers-messageWaitTime-count
    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the period of time between when it creates message and
        when it delivers message"
 ::= { jMSResource 191 }
jMSResourceconnections-sessions-producers-messageWaitTime-maxTime
    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the maximum period of time between when it creates
        message and when it delivers message"
 ::= { jMSResource 192 }
jMSResourceconnections-sessions-producers-messageWaitTime-minTime
    OBJECT-TYPE

```

```

SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the minimum period of time between when it creates
message and when it delivers message"
 ::= {   jMSResource 193   }
jMSResourceconnections-sessions-producers-messageWaitTime-
totalTime   OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "the total period of time between when it creates message
and when it delivers message"
 ::= {   jMSResource 194   }
jMSResourceconnections-sessions-consumers-origin           OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "name of the destination that each consumers connect to"
 ::= {   jMSResource 201   }
jMSResourceconnections-sessions-consumers-messageCount-count
    OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "the number of the messages that are processed in each
consumers"
 ::= {   jMSResource 211   }
jMSResourceconnections-sessions-consumers-pendingMessageCount-
count OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION

```

"the number of the messages that reside in each consumers without acknowledgement"

::= { jMSResource 221 }

jMSResourceconnections-sessions-consumers-expiredMessageCount-count OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the number of the messages that are expired in each consumers"

::= { jMSResource 231 }

jMSResourceconnections-sessions-consumers-messageWaitTime-count OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the period of time between when it creates message and when it delivers message"

::= { jMSResource 241 }

jMSResourceconnections-sessions-consumers-messageWaitTime-maxTime OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the maximum period of time between when it creates message and when it delivers message"

::= { jMSResource 242 }

jMSResourceconnections-sessions-consumers-messageWaitTime-minTime OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the minimum period of time between when it creates message and when it delivers message"

::= { jMSResource 243 }

```

jMSResourceconnections-sessions-consumers-messageWaitTime-
totalTime    OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "the total period of time between when it creates message
        and when it delivers message"
    ::=  {  jMSResource 244  }

-----
-- jNDIResource
-----

jNDIResource OBJECT IDENTIFIER
    ::=  {  jeus  29  }

jNDIResourceobjectName OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        " "
    ::=  {  jNDIResource 1  }
jNDIResourcectroubles    OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        " "
    ::=  {  jNDIResource 2  }
jNDIResourceownTroubles OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        " "
    ::=  {  jNDIResource 3  }

```

```

-----
-- jTAResource
-----

jTAResource OBJECT IDENTIFIER
    ::= { jeus 30 }

jTAResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { jTAResource 1 }

jTAResourceaverageExecutionTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "average processing time of the transactions that are
processed on J2EE Server"
    ::= { jTAResource 2 }

jTAResourceactiveTimeout OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""
    ::= { jTAResource 3 }

jTAResourceprepareTimeout OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""
    ::= { jTAResource 4 }

jTAResourcepreparedTimeout OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write

```

```

        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jTAResource 5 }
jTAResourcecommitTimeout      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jTAResource 6 }
jTAResourcerecoveryTimeout    OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jTAResource 7 }
jTAResourceuncompletedTimeout OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jTAResource 8 }
jTAResourceheuristicRollback OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS write-only
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jTAResource 9 }
jTAResourceresolution         OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jTAResource 10 }

```



```

jTAResourcethreadPool    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= {  jTAResource 11  }
jTAResourcetroubles      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= {  jTAResource 12  }
jTAResourceownTroubles   OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= {  jTAResource 13  }
jTAResourceactiveCount-count  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the transactions that are active"
    ::= {  jTAResource 101  }
jTAResourcecommittedCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the transactions that are committed"
    ::= {  jTAResource 111  }
jTAResourcerolledbackCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory

```

```

DESCRIPTION
    "the number of the transactions that are rolledback"
 ::= { jTAResource 121 }
jTAResourcetimeoutCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the transactions that cause time-out"
 ::= { jTAResource 131 }
jTAResourcetimeoutRolledbackCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the transactions that is rolledback by
timeout"
 ::= { jTAResource 141 }
jTAResourceactiveTimeoutCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the transactions that cause active time-
out"
 ::= { jTAResource 151 }
jTAResourceprepareTimeoutCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the transactions that cause time-out for
prepare message"
 ::= { jTAResource 161 }
jTAResourcepreparedTimeoutCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

"the number of the transactions that cause time-out for the global desion message originated from the root coordinator"

::= { jTAResource 171 }

jTAResourcecommitTimeoutCount-count OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the number of the transactions that cause time-out for the root coordinator to receive the response from the sub-coordinator"

::= { jTAResource 181 }

jTAResourceheuristicRolledbackCount-count OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the number of the transactions that cause huristic rolled-back"

::= { jTAResource 191 }

jTAResourceexecutionTime-count OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the number of the requests that execute transactions"

::= { jTAResource 201 }

jTAResourceexecutionTime-maxTime OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

"the longest execution time for all transactions"

::= { jTAResource 202 }

jTAResourceexecutionTime-minTime OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION

```

        "the shortest execution time for all transactions"
 ::= { jTAResource 203 }
jTAResourceexecutionTime-totalTime  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the total execution time for all transactions"
 ::= { jTAResource 204 }

-----
-- uRLResource
-----

uRLResource OBJECT IDENTIFIER
    ::= { jeus 32 }

uRLResourceobjectName  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { uRLResource 1 }
uRLResourceuRLInfo      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { uRLResource 2 }
uRLResourcectroubles     OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { uRLResource 3 }
uRLResourceownTroubles  OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { uRLResource 4 }

-----
-- jMSConnectionResource
-----

jMSConnectionResource OBJECT IDENTIFIER
 ::= { jeus 33 }

jMSConnectionResourceobjectName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard MBean object name"
 ::= { jMSConnectionResource 1 }

jMSConnectionResourcejMSSessionResourceNames OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard object names of the session resource that
is created by this connection"
 ::= { jMSConnectionResource 2 }

jMSConnectionResourcetroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jMSConnectionResource 3 }

jMSConnectionResourceownTroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only

```

```

STATUS  mandatory
DESCRIPTION
    " "

 ::=  {  jMSConnectionResource 4  }
jMSConnectionResourcesessions-messageCount-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that are processed in each
sessions"
 ::=  {  jMSConnectionResource 101  }
jMSConnectionResourcesessions-pendingMessageCount-count
OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that reside in this session
without acknowledgement"
 ::=  {  jMSConnectionResource 111  }
jMSConnectionResourcesessions-expiredMessageCount-count
OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that are expired in each
sessions"
 ::=  {  jMSConnectionResource 121  }
jMSConnectionResourcesessions-messageWaitTime-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the period of time between when it creates message and
when it delivers message"
 ::=  {  jMSConnectionResource 131  }
jMSConnectionResourcesessions-messageWaitTime-maxTime OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the maximum period of time between when it creates
message and when it delivers message"
 ::= { jMSConnectionResource 132 }
jMSConnectionResourcesessions-messageWaitTime-minTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the minimum period of time between when it creates
message and when it delivers message"
 ::= { jMSConnectionResource 133 }
jMSConnectionResourcesessions-messageWaitTime-totalTime
OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total period of time between when it creates message
and when it delivers message"
 ::= { jMSConnectionResource 134 }
jMSConnectionResourcesessions-durableSubscriptionCount-count
OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the durable subscribers that are created
in each sessions"
 ::= { jMSConnectionResource 141 }
jMSConnectionResourcesessions-producers-destination OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

```

        "name of the destination to which each producers send
messages"
        ::= { jMSConnectionResource 151 }
jMSConnectionResourcesessions-producers-messageCount-count
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
                "the number of the messages that are processed in each
producers"
        ::= { jMSConnectionResource 161 }
jMSConnectionResourcesessions-producers-pendingMessageCount-count
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
                "the number of the messages that reside in each producers
without acknowledgement"
        ::= { jMSConnectionResource 171 }
jMSConnectionResourcesessions-producers-expiredMessageCount-count
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
                "the number of the messages that are expired in each
producers"
        ::= { jMSConnectionResource 181 }
jMSConnectionResourcesessions-producers-messageWaitTime-count
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
                "the period of time between when it creates message and
when it delivers message"
        ::= { jMSConnectionResource 191 }

```



```

jMSConnectionResourcesessions-producers-messageWaitTime-maxTime
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the maximum period of time between when it creates
message and when it delivers message"
        ::= {  jMSConnectionResource 192  }
jMSConnectionResourcesessions-producers-messageWaitTime-minTime
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the minimum period of time between when it creates
message and when it delivers message"
        ::= {  jMSConnectionResource 193  }
jMSConnectionResourcesessions-producers-messageWaitTime-totalTime
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            "the total period of time between when it creates message
and when it delivers message"
        ::= {  jMSConnectionResource 194  }
jMSConnectionResourcesessions-consumers-origin OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "name of the destination that each consumers connect to"
    ::= {  jMSConnectionResource 201  }
jMSConnectionResourcesessions-consumers-messageCount-count
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory

```

```

DESCRIPTION
    "the number of the messages that are processed in each
consumers"
 ::= { jMSConnectionResource 211 }
jMSConnectionResourcesessions-consumers-pendingMessageCount-count
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that reside in each consumers
without acknowledgement"
 ::= { jMSConnectionResource 221 }
jMSConnectionResourcesessions-consumers-expiredMessageCount-count
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that are expired in each
consumers"
 ::= { jMSConnectionResource 231 }
jMSConnectionResourcesessions-consumers-messageWaitTime-count
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the period of time between when it creates message and
when it delivers message"
 ::= { jMSConnectionResource 241 }
jMSConnectionResourcesessions-consumers-messageWaitTime-maxTime
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the maximum period of time between when it creates
message and when it delivers message"

```

```

 ::= { jMSConnectionResource 242 }
jMSConnectionResourcesessions-consumers-messageWaitTime-minTime
    OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the minimum period of time between when it creates
message and when it delivers message"
 ::= { jMSConnectionResource 243 }
jMSConnectionResourcesessions-consumers-messageWaitTime-totalTime
    OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the total period of time between when it creates message
and when it delivers message"
 ::= { jMSConnectionResource 244 }
jMSConnectionResourceSessionCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the sessions that are created by this
connection"
 ::= { jMSConnectionResource 251 }
jMSConnectionResourceconnectionConsumerCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
 ::= { jMSConnectionResource 261 }
jMSConnectionResourceconnectionConsumers-origin OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        " "
        ::= { jMSConnectionResource 271 }
jMSConnectionResourceconnectionConsumers-messageCount-count
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            " "

        ::= { jMSConnectionResource 281 }
jMSConnectionResourceconnectionConsumers-pendingMessageCount-
count OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            " "

        ::= { jMSConnectionResource 291 }
jMSConnectionResourceconnectionConsumers-expiredMessageCount-
count OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            " "

        ::= { jMSConnectionResource 301 }
jMSConnectionResourceconnectionConsumers-messageWaitTime-count
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory
        DESCRIPTION
            " "

        ::= { jMSConnectionResource 401 }
jMSConnectionResourceconnectionConsumers-messageWaitTime-maxTime
        OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS  read-only
        STATUS  mandatory

```

```

DESCRIPTION
    " "

 ::= { jMSConnectionResource 402 }
jMSConnectionResourceconnectionConsumers-messageWaitTime-minTime
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { jMSConnectionResource 403 }
jMSConnectionResourceconnectionConsumers-messageWaitTime-
totalTime  OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { jMSConnectionResource 404 }

-----
-- jMSConsumerResource
-----

jMSConsumerResource OBJECT IDENTIFIER
 ::= { jeus 34 }

jMSConsumerResourceobjectName OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "JMX-standard MBean object name"
 ::= { jMSConsumerResource 1 }
jMSConsumerResourcedestination  OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION

```

```

        "the reference of the QueueImpl object to which this
consumer connects"
 ::= { jMSConsumerResource 2 }
jMSConsumerResourcedestinationResourceObjectName      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
        "JMX-standard object name of destination to which this
consumer connects"
 ::= { jMSConsumerResource 3 }
jMSConsumerResourcedurableSubscriberResourceObjectName
        OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
        "JMX-standard object name of durable subscriber to which
this consumer connects"
 ::= { jMSConsumerResource 4 }
jMSConsumerResourcesendTimeAvg      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
        "average time to send messages to this JMS client"
 ::= { jMSConsumerResource 5 }
jMSConsumerResourcetroubles      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
        " "
 ::= { jMSConsumerResource 6 }
jMSConsumerResourceownTroubles      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION

```

```

    ::= { jMSConsumerResource 7 }
jMSConsumerResourceorigin      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "name of the destination that consumer connects to"
    ::= { jMSConsumerResource 101 }
jMSConsumerResourcessageCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the messages that are processed in this
consumer"
    ::= { jMSConsumerResource 111 }
jMSConsumerResourcependingMessageCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the messages that reside in this consumer
without acknowledgement"
    ::= { jMSConsumerResource 121 }
jMSConsumerResourceexpiredMessageCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the messages that are expired in this
consumer"
    ::= { jMSConsumerResource 131 }
jMSConsumerResourcessageWaitTime-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        "the period of time between when it creates message and
when it delivers message"
 ::= { jMSConsumerResource 141 }
jMSConsumerResourcmessageWaitTime-maxTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the maximum period of time between when it creates
message and when it delivers message"
 ::= { jMSConsumerResource 142 }
jMSConsumerResourcmessageWaitTime-minTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the minimum period of time between when it creates
message and when it delivers message"
 ::= { jMSConsumerResource 143 }
jMSConsumerResourcmessageWaitTime-totalTime    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the total period of time between when it creates message
and when it delivers message"
 ::= { jMSConsumerResource 144 }
jMSConsumerResourcesendTime-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the period of time to delivers messages"
 ::= { jMSConsumerResource 151 }
jMSConsumerResourcesendTime-maxTime OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```



```

        "the maximum period of time to delivers messages"
 ::= { jMSConsumerResource 152 }
jMSConsumerResourcesendTime-minTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the minimum period of time to delivers messages"
 ::= { jMSConsumerResource 153 }
jMSConsumerResourcesendTime-totalTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the total period of time to delivers messages"
 ::= { jMSConsumerResource 154 }

-----
-- jMSProducerResource
-----

jMSProducerResource OBJECT IDENTIFIER
    ::= { jeus 35 }

jMSProducerResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
 ::= { jMSProducerResource 1 }
jMSProducerResourcedestinationResourceObjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard object name of destination to which this
consumer connects"
 ::= { jMSProducerResource 3 }

```

```

jMSProducerResourcedurableSubscriberResourceObjectName
    OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS   read-only
        STATUS   mandatory
        DESCRIPTION
            "JMX-standard object name of durable subscriber to which
this consumer connects"
        ::= {  jMSProducerResource 4  }
jMSProducerResourcesendTimeAvg          OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS   read-only
        STATUS   mandatory
        DESCRIPTION
            "average time to send messages to this JMS client"
        ::= {  jMSProducerResource 5  }
jMSProducerResourcedestination          OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS   read-write
        STATUS   mandatory
        DESCRIPTION
            "name of the destination to which this producer sends
messages"
        ::= {  jMSProducerResource 6  }
jMSProducerResourcetroubles             OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS   read-only
        STATUS   mandatory
        DESCRIPTION
            " "
        ::= {  jMSProducerResource 7  }
jMSProducerResourceownTroubles          OBJECT-TYPE
        SYNTAX  DisplayString
        ACCESS   read-only
        STATUS   mandatory
        DESCRIPTION
            " "
        ::= {  jMSProducerResource 8  }
jMSProducerResourcemessageCount-count  OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the messages that are processed in this
producer"
 ::= { jMSProducerResource 111 }
jMSProducerResourcependingMessageCount-count    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the messages that reside in this producer
without acknowledgement"
 ::= { jMSProducerResource 121 }
jMSProducerResourceexpiredMessageCount-count    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the messages that are expired in this
producer"
 ::= { jMSProducerResource 131 }
jMSProducerResourcmessageWaitTime-count    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the period of time between when it creates message and
when it delivers message"
 ::= { jMSProducerResource 141 }
jMSProducerResourcmessageWaitTime-maxTime    OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the maximum period of time between when it creates
message and when it delivers message"
 ::= { jMSProducerResource 142 }

```

```

jMSProducerResourcemessageWaitTime-minTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the minimum period of time between when it creates
message and when it delivers message"
    ::=  {  jMSProducerResource 143  }
jMSProducerResourcemessageWaitTime-totalTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the total period of time between when it creates message
and when it delivers message"
    ::=  {  jMSProducerResource 144  }
jMSProducerResourcesendTime-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the period of time to delivers messages"
    ::=  {  jMSProducerResource 151  }
jMSProducerResourcesendTime-maxTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the maximum period of time to delivers messages"
    ::=  {  jMSProducerResource 152  }
jMSProducerResourcesendTime-minTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the minimum period of time to delivers messages"
    ::=  {  jMSProducerResource 153  }
jMSProducerResourcesendTime-totalTime      OBJECT-TYPE
    SYNTAX  DisplayString

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total period of time to delivers messages"
 ::= { jMSProducerResource 154 }

-----
-- jMSSessionResource
-----

jMSSessionResource OBJECT IDENTIFIER
 ::= { jeus 36 }

jMSSessionResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { jMSSessionResource 1 }

jMSSessionResourcejMSEndPointConsumerNames OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard object names of comsumers that are created
by this session"
    ::= { jMSSessionResource 2 }

jMSSessionResourcectroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        ""
    ::= { jMSSessionResource 3 }

jMSSessionResourceownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory

```

```

DESCRIPTION
    "
 ::= { jMSSessionResource 4 }
jMSSessionResourcemessageCount-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that are processed in this
session"
 ::= { jMSSessionResource 101 }
jMSSessionResourcependingMessageCount-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that resides in this session
without acknowledgement"
 ::= { jMSSessionResource 111 }
jMSSessionResourceexpiredMessageCount-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that are expired in this
session"
 ::= { jMSSessionResource 121 }
jMSSessionResourcemessageWaitTime-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the period of time between when it creates message and
when it delivers message"
 ::= { jMSSessionResource 131 }
jMSSessionResourcemessageWaitTime-maxTime OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory

```

```

DESCRIPTION
    "the maximum period of time between when it creates
message and when it delivers message"
 ::= { jMSSessionResource 132 }
jMSSessionResourcemessageWaitTime-minTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
DESCRIPTION
    "the minimum period of time between when it creates
message and when it delivers message"
 ::= { jMSSessionResource 133 }
jMSSessionResourcemessageWaitTime-totalTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
DESCRIPTION
    "the total period of time between when it creates message
and when it delivers message"
 ::= { jMSSessionResource 134 }
jMSSessionResource durableSubscriptionCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
DESCRIPTION
    "the number of the durable subscribers that are created
in this sessions"
 ::= { jMSSessionResource 141 }
jMSSessionResourceproducers-destination OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
DESCRIPTION
    "name of the destination to which each producers send
messages"
 ::= { jMSSessionResource 151 }
jMSSessionResourceproducers-messageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only

```

```

        STATUS    mandatory
        DESCRIPTION
            "the number of the messages that are processed in this
producer"
        ::= {   jMSSessionResource 161   }
jMSSessionResourceproducers-pendingMessageCount-count OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the number of the messages that reside in each producers
without acknowledgement"
        ::= {   jMSSessionResource 171   }
jMSSessionResourceproducers-expiredMessageCount-count OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the number of the messages that are expired in each
producers"
        ::= {   jMSSessionResource 181   }
jMSSessionResourceproducers-messageWaitTime-count      OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the period of time between when it creates message and
when it delivers message"
        ::= {   jMSSessionResource 191   }
jMSSessionResourceproducers-messageWaitTime-maxTime    OBJECT-TYPE
        SYNTAX    DisplayString
        ACCESS    read-only
        STATUS    mandatory
        DESCRIPTION
            "the maximum period of time between when it creates
message and when it delivers message"
        ::= {   jMSSessionResource 192   }
jMSSessionResourceproducers-messageWaitTime-minTime    OBJECT-TYPE
        SYNTAX    DisplayString

```



```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the minimum period of time between when it creates
message and when it delivers message"
 ::= { jMSSessionResource 193 }
jMSSessionResourceproducers-messageWaitTime-totalTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total period of time between when it creates message
and when it delivers message"
 ::= { jMSSessionResource 194 }
jMSSessionResourceconsumers-origin OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "name of the destination that each consumers connect to"
 ::= { jMSSessionResource 201 }
jMSSessionResourceconsumers-messageCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the messages that are processed in each
consumer"
 ::= { jMSSessionResource 211 }
jMSSessionResourceconsumers-pendingMessageCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the number of the messages that reside in each consumers
without acknowledgement"
 ::= { jMSSessionResource 221 }
jMSSessionResourceconsumers-expiredMessageCount-count OBJECT-TYPE
SYNTAX DisplayString

```

```

ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the number of the messages that are expired in each
consumers"
 ::= {  jMSSessionResource 231  }
jMSSessionResourceconsumers-messageWaitTime-count      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the period of time between when it creates message and
when it delivers message"
 ::= {  jMSSessionResource 241  }
jMSSessionResourceconsumers-messageWaitTime-maxTime    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the maximum period of time between when it creates
message and when it delivers message"
 ::= {  jMSSessionResource 242  }
jMSSessionResourceconsumers-messageWaitTime-minTime    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the minimum period of time between when it creates
message and when it delivers message"
 ::= {  jMSSessionResource 243  }
jMSSessionResourceconsumers-messageWaitTime-totalTime  OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "the total period of time between when it creates message
and when it delivers message"
 ::= {  jMSSessionResource 244  }
jMSSessionResourcesendTime-count      OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the period of time to delivers messages"
 ::= { jMSSessionResource 251 }
jMSSessionResourcesendTime-maxTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the maximum period of time to delivers messages"
 ::= { jMSSessionResource 252 }
jMSSessionResourcesendTime-minTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the minimum period of time to delivers messages"
 ::= { jMSSessionResource 253 }
jMSSessionResourcesendTime-totalTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "the total period of time to delivers messages"
 ::= { jMSSessionResource 254 }
jMSSessionResourcecommitCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jMSSessionResource 261 }
jMSSessionResourcerollbackCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

```

        " "
        ::= { jMSSessionResource 271 }
jMSSessionResourcetransactionCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { jMSSessionResource 281 }

-----
-- eJBEngineMo
-----

eJBEngineMo OBJECT IDENTIFIER
    ::= { jeus 41 }

eJBEngineMoobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { eJBEngineMo 1 }
eJBEngineMoblockThreadCount OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the number of the blocked threads of this EJB Engine"
    ::= { eJBEngineMo 2 }
eJBEngineMostats OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { eJBEngineMo 3 }
eJBEngineMotroubles OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { eJBEngineMo 4 }
eJBEngineMoownTroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { eJBEngineMo 5 }

-----
-- contextGroupMo
-----

contextGroupMo OBJECT IDENTIFIER
 ::= { jeus 51 }

contextGroupMoobjectName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard MBean object name"
 ::= { contextGroupMo 1 }
contextGroupMowebModules OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard object names of the Web Modules that is
    deployed on this Context Group"
 ::= { contextGroupMo 2 }
contextGroupMowebListeners OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only

```

```

        STATUS mandatory
        DESCRIPTION
            "JMX-standard object names of the Listeners that is
registered on this Context Group"
        ::= { contextGroupMo 3 }
contextGroupMosessionContainer      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { contextGroupMo 4 }
contextGroupMosessionTimeout      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { contextGroupMo 5 }
contextGroupMotroubles      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { contextGroupMo 6 }
contextGroupMoownTroubles      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { contextGroupMo 7 }

-----
-- dBConnectionPoolMo
-----

dBConnectionPoolMo OBJECT IDENTIFIER

```

```

::= { jeus 52 }

dbConnectionPoolMoobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { dbConnectionPoolMo 1 }
dbConnectionPoolMoblockDuration OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "the value of the interval which Web Engine considers as
        BLOCK when the db connection of this DB Connection Pool executes
        a SQL query"
    ::= { dbConnectionPoolMo 2 }
dbConnectionPoolModBConnectionPoolInfo-dbConnectionInfo
    OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { dbConnectionPoolMo 3 }
dbConnectionPoolModBConnectionPoolInfo-currentPoolSize
    OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { dbConnectionPoolMo 4 }
dbConnectionPoolModBConnectionPoolInfo-freeConnectionNum
    OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory

```

```

DESCRIPTION
    " "

 ::= { dBConnectionPoolMo 5 }
dBConnectionPoolModBConnectionPoolInfo-activeConnectionNum
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { dBConnectionPoolMo 6 }
dBConnectionPoolModBConnectionPoolInfo-connectionPoolID
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { dBConnectionPoolMo 7 }
dBConnectionPoolModBConnectionPoolInfo-connectionPoolingRule
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { dBConnectionPoolMo 8 }
dBConnectionPoolModBConnectionPoolInfo-connectionUrl  OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { dBConnectionPoolMo 9 }
dBConnectionPoolModBConnectionPoolInfo-driverClassName
    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory

```



```

DESCRIPTION
    " "

 ::= { dBConnectionPoolMo 10 }
dBConnectionPoolModBConnectionPoolInfo-connectionArgs OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { dBConnectionPoolMo 11 }
dBConnectionPoolModBConnectionPoolInfo-initCapacity OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { dBConnectionPoolMo 12 }
dBConnectionPoolModBConnectionPoolInfo-maxCapacity OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { dBConnectionPoolMo 13 }
dBConnectionPoolModBConnectionPoolInfo-incrementRate OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { dBConnectionPoolMo 14 }
dBConnectionPoolModBConnectionPoolInfo-maxIdleTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

 ::= { dBConnectionPoolMo 15 }

```

```

dBConnectionPoolModBConnectionPoolInfo-dynamicIncrement
    OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { dBConnectionPoolMo 17 }
dBConnectionPoolModBConnectionPoolInfo-connectionTimeOut
    OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { dBConnectionPoolMo 18 }
dBConnectionPoolModBConnectionPoolInfo-loginDelay      OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { dBConnectionPoolMo 19 }
dBConnectionPoolModBConnectionPoolInfo-closeDelay      OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { dBConnectionPoolMo 20 }
dBConnectionPoolModBConnectionPoolInfo-closeLongActiveConnection
    OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "
        ::= { dBConnectionPoolMo 21 }
dBConnectionPoolModBConnectionPoolInfo-maxActiveTime  OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { dBConnectionPoolMo 22 }
dBConnectionPoolModBConnectionPoolInfo-maxUseCount OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { dBConnectionPoolMo 23 }
dBConnectionPoolModBConnectionPoolInfo-checkQuery OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

::= { dBConnectionPoolMo 24 }
dBConnectionPoolMomin OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

::= { dBConnectionPoolMo 26 }
dBConnectionPoolMomax OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    " "

::= { dBConnectionPoolMo 28 }
dBConnectionPoolMostep OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION

```

```

        " "

        ::= { dBConnectionPoolMo 30 }
dBConnectionPoolModBConnectionPoolInfo-maxAliveTime    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { dBConnectionPoolMo 31 }
dBConnectionPoolMomaxIdleTime OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { dBConnectionPoolMo 33 }
dBConnectionPoolMomaxAliveTime      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { dBConnectionPoolMo 35 }
dBConnectionPoolModynamicIncrement OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { dBConnectionPoolMo 37 }
dBConnectionPoolMogetConnectionTimeout    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { dBConnectionPoolMo 38 }
dBConnectionPoolMocloseLongActiveConnection    OBJECT-TYPE
    SYNTAX  DisplayString

```

```
ACCESS read-write
STATUS mandatory
DESCRIPTION
    ""
 ::= { dBConnectionPoolMo 39 }
dBConnectionPoolMomaxActiveTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    ""
 ::= { dBConnectionPoolMo 40 }
dBConnectionPoolMomaxUseCount OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
    ""
 ::= { dBConnectionPoolMo 42 }
dBConnectionPoolMotroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""
 ::= { dBConnectionPoolMo 43 }
dBConnectionPoolMoownTroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""
 ::= { dBConnectionPoolMo 44 }
dBConnectionPoolMoactiveThreadCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
```

```

        "the number of the threads that are being used in thread
pool of this DB Connection Pool"
        ::= { dBConnectionPoolMo 101 }
dBConnectionPoolMoblockThreadCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the threads that are blocked in thread
pool of this DB Connection Pool"
        ::= { dBConnectionPoolMo 111 }
dBConnectionPoolMoallThreadCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of all threads that are in thread pool of
this DB Connection Pool"
        ::= { dBConnectionPoolMo 121 }

-----
-- threadPoolMo
-----

threadPoolMo OBJECT IDENTIFIER
    ::= { jeus 53 }

threadPoolMoobjectName OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
        ::= { threadPoolMo 1 }
threadPoolMomin OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION

```

```

    " "
    ::= { threadPoolMo 3 }
threadPoolMomax OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { threadPoolMo 5 }
threadPoolMostep OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { threadPoolMo 7 }
threadPoolMomaxIdleTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { threadPoolMo 9 }
threadPoolMomaxQueue OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { threadPoolMo 11 }
threadPoolMomaxWaitQueue OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { threadPoolMo 13 }
threadPoolMomaxThreadActiveTime OBJECT-TYPE
    SYNTAX DisplayString

```

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    ""

::= { threadPoolMo 14 }
threadPoolMonotifyThreshold OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""

::= { threadPoolMo 15 }
threadPoolMorestartThreshold OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""

::= { threadPoolMo 16 }
threadPoolMotroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        ""

::= { threadPoolMo 17 }
threadPoolMoownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        ""

::= { threadPoolMo 18 }
threadPoolMoactiveThreadCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```



```

        "the number of the threads that are being used in thread
pool of this Thread Pool"
        ::= { threadPoolMo 101 }
threadPoolMoblockThreadCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the threads that are blocked in thread
pool of this Thread Pool"
        ::= { threadPoolMo 111 }
threadPoolMoallThreadCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of all threads that are in thread pool of
this Thread Pool"
        ::= { threadPoolMo 121 }
threadPoolMomaxThreadCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
        ::= { threadPoolMo 131 }
threadPoolMowaitQueueCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
        ::= { threadPoolMo 141 }

-----
-- webEngineMo
-----

webEngineMo OBJECT IDENTIFIER

```

```
 ::= { jeus 54 }

webEngineMoobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { webEngineMo 1 }

webEngineMocontextGroups OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard object names of Context Groups that are
        deployed on this Web Engine"
    ::= { webEngineMo 2 }

webEngineMoconfigInfo OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the contents of the configuration file(WEBMain.xml) of
        this Web Engine"
    ::= { webEngineMo 3 }

webEngineMoserverStatus OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the status of the session server that is configured in
        this Web Engine"
    ::= { webEngineMo 4 }

webEngineModBConnectionPool OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
```

```

        "JMX-standard object names of db connection pools in this
Web Engine"
        ::= { webEngineMo 5 }
webEngineMocontextGroupNames OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { webEngineMo 6 }
webEngineMosessionContainer OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { webEngineMo 7 }
webEngineMowebtConnectionGroup OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { webEngineMo 8 }
webEngineMoconfiguration OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { webEngineMo 9 }
webEngineMocheckThreadPool OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { webEngineMo 11 }
webEngineMocheckClassReload OBJECT-TYPE

```

```

SYNTAX   DisplayString
ACCESS   read-write
STATUS   mandatory
DESCRIPTION
    " "

::= { webEngineMo 13 }
webEngineMocheckSession OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-write
    STATUS   mandatory
    DESCRIPTION
        " "

::= { webEngineMo 15 }
webEngineMocheckDbConnectionPool    OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-write
    STATUS   mandatory
    DESCRIPTION
        " "

::= { webEngineMo 17 }
webEngineMotroubles    OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        " "

::= { webEngineMo 18 }
webEngineMoownTroubles OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        " "

::= { webEngineMo 19 }
webEngineMofreeMemory-count    OBJECT-TYPE
    SYNTAX   DisplayString
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION

```

```

        " "
        ::= { webEngineMo 101 }
webEngineMototalMemory-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { webEngineMo 111 }

-----
-- webListenerMo
-----

webListenerMo OBJECT IDENTIFIER
    ::= { jeus 55 }

webListenerMoobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { webListenerMo 1 }
webListenerMothreadPools OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard object names of the Thread Pools that is
registered on this Web Listener"
    ::= { webListenerMo 2 }
webListenerMotype OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the type of this Web Listener"
    ::= { webListenerMo 3 }

```

```

webListenerMoport OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { webListenerMo 4 }
webListenerMoreadTimeout OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { webListenerMo 6 }
webListenerMoreconnectTimeout OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { webListenerMo 8 }
webListenerMopostdataReadTimeout OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { webListenerMo 10 }
webListenerMotroubles OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

    ::= { webListenerMo 11 }
webListenerMoownTroubles OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory

```

```

DESCRIPTION
    " "

 ::= { webListenerMo 12 }

-----
-- webConnectionGroupMo
-----

webConnectionGroupMo OBJECT IDENTIFIER
 ::= { jeus 56 }

webConnectionGroupMoobjectName      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { webConnectionGroupMo 1 }
webConnectionGroupMotroubles OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { webConnectionGroupMo 2 }
webConnectionGroupMoownTroubles      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { webConnectionGroupMo 3 }
webConnectionGroupMototalConnectionCount-count OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { webConnectionGroupMo 101 }

```

```

webtConnectionGroupMofreeConnectionCount-count  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  webtConnectionGroupMo 111  }
webtConnectionGroupMousedConnectionCount-count  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  webtConnectionGroupMo 121  }

-----
-- jMSClientResource
-----

jMSClientResource OBJECT IDENTIFIER
    ::=  {  jeus 61  }

jMSClientResourceobjectName  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::=  {  jMSClientResource 1  }
jMSClientResourcehostAddress  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "remote address of the socket to which clients are
connected"
    ::=  {  jMSClientResource 2  }
jMSClientResourceport  OBJECT-TYPE
    SYNTAX  DisplayString

```



```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "remote port of the socket to which clients are
connected"
 ::= { jMSClientResource 3 }
jMSClientResourcejMSConnectionResourceNames OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "JMX-standard object names of the connections that are
created by JMS clients"
 ::= { jMSClientResource 4 }
jMSClientResourceNamePartString OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jMSClientResource 6 }
jMSClientResourcetroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jMSClientResource 7 }
jMSClientResourceownTroubles OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { jMSClientResource 8 }
jMSClientResourceconnectionCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory

```

```

        DESCRIPTION
            "the number of the connections that are created by JMS
clients"
        ::= { jMSClientResource 101 }

-----

-- jMSQueueConnectionFactoryResource
-----

jMSQueueConnectionFactoryResource OBJECT IDENTIFIER
    ::= { jeus 62 }

jMSQueueConnectionFactoryResourceobjectName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { jMSQueueConnectionFactoryResource 1 }
jMSQueueConnectionFactoryResourcecname      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueConnectionFactoryResource 3 }
jMSQueueConnectionFactoryResourcetroubles OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueConnectionFactoryResource 4 }
jMSQueueConnectionFactoryResourceownTroubles      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

```

```

 ::= { jMSQueueConnectionFactoryResource 5 }

-----
-- jMSQueueDestinationResource
-----

jMSQueueDestinationResource OBJECT IDENTIFIER
 ::= { jeus 63 }

jMSQueueDestinationResourceobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::= { jMSQueueDestinationResource 1 }
jMSQueueDestinationResourcecname OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the name of this JMS Destination"
    ::= { jMSQueueDestinationResource 2 }
jMSQueueDestinationResourceeexportName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the JNDI export name of this JMS Destination"
    ::= { jMSQueueDestinationResource 3 }
jMSQueueDestinationResourcetype OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the type of this JMS Destination"
    ::= { jMSQueueDestinationResource 4 }
jMSQueueDestinationResourcedestination OBJECT-TYPE
    SYNTAX DisplayString

```

```

ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "the reference of the DestinationImpl object, which has
destination information"
 ::= {   jMSQueueDestinationResource 8   }
jMSQueueDestinationResourcejMSConsumerResourceNames    OBJECT-TYPE
SYNTAX   SEQUENCE OF DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    "names of JMS clients that belong to JMS Destination"
 ::= {   jMSQueueDestinationResource 9   }
jMSQueueDestinationResourceremainingMessages    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    " "
 ::= {   jMSQueueDestinationResource 10   }
jMSQueueDestinationResourcetroubles    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    " "
 ::= {   jMSQueueDestinationResource 11   }
jMSQueueDestinationResourceownTroubles    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
    " "
 ::= {   jMSQueueDestinationResource 12   }
jMSQueueDestinationResourcemessageCount-count    OBJECT-TYPE
SYNTAX   DisplayString
ACCESS   read-only
STATUS   mandatory
DESCRIPTION

```

```

    " "
    ::= { jMSQueueDestinationResource 101 }
jMSQueueDestinationResourcependingMessageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueDestinationResource 111 }
jMSQueueDestinationResourceexpiredMessageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueDestinationResource 121 }
jMSQueueDestinationResourcessageWaitTime-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueDestinationResource 122 }
jMSQueueDestinationResourcessageWaitTime-maxTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueDestinationResource 123 }
jMSQueueDestinationResourcessageWaitTime-minTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSQueueDestinationResource 124 }
jMSQueueDestinationResourcessageWaitTime-totalTime OBJECT-TYPE
    SYNTAX DisplayString

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { jMSQueueDestinationResource 125 }
jMSQueueDestinationResourcesendTime-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { jMSQueueDestinationResource 131 }
jMSQueueDestinationResourcesendTime-maxTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { jMSQueueDestinationResource 132 }
jMSQueueDestinationResourcesendTime-minTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { jMSQueueDestinationResource 133 }
jMSQueueDestinationResourcesendTime-totalTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    ""

 ::= { jMSQueueDestinationResource 134 }

-----
-- jMSDurableSubscriberResource
-----

jMSDurableSubscriberResource OBJECT IDENTIFIER

```

```

 ::= { jeus 64 }

jMSDurableSubscriberResourceobjectName    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
 ::= { jMSDurableSubscriberResource 1 }
jMSDurableSubscriberResourcecname    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the name of JMS Durable Subscriber"
 ::= { jMSDurableSubscriberResource 2 }
jMSDurableSubscriberResourceclientID    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the client ID of JMS Durable Subscriber"
 ::= { jMSDurableSubscriberResource 3 }
jMSDurableSubscriberResourceremainingMessages    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the number of the messages which are alive in durable
subscriber"
 ::= { jMSDurableSubscriberResource 5 }
jMSDurableSubscriberResourceselector    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "selector value which is configured in durable
subscriber"
 ::= { jMSDurableSubscriberResource 6 }

```

```

jMSDurableSubscriberResourcejMSConsumerResourceName    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  jMSDurableSubscriberResource 7  }
jMSDurableSubscriberResourceetroubles                    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  jMSDurableSubscriberResource 8  }
jMSDurableSubscriberResourceownTroubles                  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  jMSDurableSubscriberResource 9  }

-----
-- jMSTopicConnectionFactoryResource
-----

jMSTopicConnectionFactoryResource OBJECT IDENTIFIER
    ::=  { jeus 65 }

jMSTopicConnectionFactoryResourceobjectName            OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard MBean object name"
    ::=  {  jMSTopicConnectionFactoryResource 1  }
jMSTopicConnectionFactoryResourcecname                  OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only

```



```

        STATUS mandatory
        DESCRIPTION
            " "

        ::= { jMSTopicConnectionFactoryResource 3 }
jMSTopicConnectionFactoryResource Troubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

        ::= { jMSTopicConnectionFactoryResource 4 }
jMSTopicConnectionFactoryResource Own Troubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

        ::= { jMSTopicConnectionFactoryResource 5 }

-----
-- jMSTopicDestinationResource
-----

jMSTopicDestinationResource OBJECT IDENTIFIER
    ::= { jeus 66 }

jMSTopicDestinationResource Object Name OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"

        ::= { jMSTopicDestinationResource 1 }
jMSTopicDestinationResource Name OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "the name of this JMS Destination"

```

```

 ::= { jMSTopicDestinationResource 2 }
jMSTopicDestinationResourceexportName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the JNDI export name of this JMS Destination"
 ::= { jMSTopicDestinationResource 3 }
jMSTopicDestinationResourcetype            OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the type of this JMS Destination"
 ::= { jMSTopicDestinationResource 4 }
jMSTopicDestinationResourcejMSDurableSubscriberResourceNames
    OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the names of JMS Durable Subscribers that belong to JMS
Destination"
 ::= { jMSTopicDestinationResource 6 }
jMSTopicDestinationResourcedestination      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the reference of the DestinationImpl object, which has
destination information"
 ::= { jMSTopicDestinationResource 8 }
jMSTopicDestinationResourcejMSConsumerResourceNames  OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "names of JMS clients that belong to JMS Destination"
 ::= { jMSTopicDestinationResource 9 }

```

```

jMSTopicDestinationResource troubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSTopicDestinationResource 10 }
jMSTopicDestinationResource ownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSTopicDestinationResource 11 }
jMSTopicDestinationResource messageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSTopicDestinationResource 101 }
jMSTopicDestinationResource pendingMessageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSTopicDestinationResource 111 }
jMSTopicDestinationResource expiredMessageCount-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSTopicDestinationResource 121 }
jMSTopicDestinationResource messageWaitTime-count OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory

```

```

DESCRIPTION
    " "

 ::= {  jMSTopicDestinationResource 122  }
jMSTopicDestinationResourcemessageWaitTime-maxTime      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= {  jMSTopicDestinationResource 123  }
jMSTopicDestinationResourcemessageWaitTime-minTime      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= {  jMSTopicDestinationResource 124  }
jMSTopicDestinationResourcemessageWaitTime-totalTime    OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= {  jMSTopicDestinationResource 125  }
jMSTopicDestinationResourcesendTime-count OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= {  jMSTopicDestinationResource 131  }
jMSTopicDestinationResourcesendTime-maxTime      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= {  jMSTopicDestinationResource 132  }
jMSTopicDestinationResourcesendTime-minTime      OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
::= { jMSTopicDestinationResource 133 }
jMSTopicDestinationResourcesendTime-totalTime OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
::= { jMSTopicDestinationResource 134 }

-----
-- threadPool
-----

threadPool OBJECT IDENTIFIER
::= { jeus 71 }

threadPoolobjectName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
::= { threadPool 1 }
threadPoolthreadOperationInfo OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
::= { threadPool 2 }
threadPoolmax OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory

```

```

        DESCRIPTION
            " "

        ::= { threadPool 4 }
threadPoolperiod OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " "

        ::= { threadPool 6 }
threadPooltroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

        ::= { threadPool 7 }
threadPoolownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

        ::= { threadPool 8 }

-----
-- jEUSManager
-----

jEUSManager OBJECT IDENTIFIER
    ::= { jeus 77 }

jEUSManagerobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "JMX-standard MBean object name"

    ::= { jEUSManager 1 }

```

```
jEUSManagerserverVersion      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the version of JEUS that is being used"
    ::= { jEUSManager 2 }
jEUSManagerserverVendor OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "the J2EE platform vendor of this JEUS Manager"
    ::= { jEUSManager 3 }
jEUSManagerjavaVMs            OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "JMX-standard object names of the JVMs on which JEUS
Manager is running"
    ::= { jEUSManager 4 }
jEUSManagerjeusServices OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { jEUSManager 5 }
jEUSManagerj2eeServers OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { jEUSManager 6 }
jEUSManagernodesFromDescriptor OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
```

```

STATUS mandatory
DESCRIPTION
    " "

 ::= { jEUSManager 9 }
jEUSManageraliveNodeNames      OBJECT-TYPE
SYNTAX SEQUENCE OF DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

 ::= { jEUSManager 10 }
jEUSManagerjeusHome           OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

 ::= { jEUSManager 11 }
jEUSManagerpID                OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

 ::= { jEUSManager 12 }
jEUSManagertroubles           OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

 ::= { jEUSManager 13 }
jEUSManagerownTroubles        OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "

 ::= { jEUSManager 14 }

```



```
jEUSManagerj2eeServerNames    OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  jEUSManager 15  }

-----
-- webServerInfo
-----

webServerInfo OBJECT IDENTIFIER
    ::=  {  jeus 81  }

webServerInfoobjectName OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  webServerInfo 1  }

webServerInfonodeInfo    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  webServerInfo 2  }

webServerInfosvrAllInfo OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::=  {  webServerInfo 3  }

webServerInfotroubles    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
```

```

    STATUS mandatory
    DESCRIPTION
        " "

    ::= { webServerInfo 4 }
webServerInfoownTroubles      OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { webServerInfo 5 }
webServerInfosvrCount-count   OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { webServerInfo 101 }
webServerInfoexecCount-count  OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { webServerInfo 111 }
webServerInfoavgTime-count    OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { webServerInfo 121 }
webServerInfoavgTime-maxTime  OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

    ::= { webServerInfo 122 }

```

```
webServerInfoavgTime-minTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { webServerInfo 123 }
webServerInfoavgTime-totalTime OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { webServerInfo 124 }

-----
-- externalWebtDataSource
-----

externalWebtDataSource OBJECT IDENTIFIER
    ::= { jeus 92 }

externalWebtDataSourceObjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 1 }
externalWebtDataSourceetype OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 2 }
externalWebtDataSourceport OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
```

```

        STATUS mandatory
        DESCRIPTION
            " "

        ::= { externalWebtDataSource 3 }
externalWebtDataSourcewebtProperties      OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { externalWebtDataSource 4 }
externalWebtDataSourceexportName          OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { externalWebtDataSource 5 }
externalWebtDataSourcehostAddr            OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { externalWebtDataSource 6 }
externalWebtDataSourcelevel              OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { externalWebtDataSource 8 }
externalWebtDataSourcecetroubles         OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            " "

        ::= { externalWebtDataSource 9 }

```

```
externalWebtDataSourceownTroubles    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 10 }
externalWebtDataSourcecreateCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 101 }
externalWebtDataSourcecloseCount-count    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 111 }
externalWebtDataSourcepoolSize-upperBound OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 121 }
externalWebtDataSourcepoolSize-lowerBound OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { externalWebtDataSource 122 }
externalWebtDataSourcepoolSize-highWaterMark    OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
```

```

DESCRIPTION
    " "

 ::= { externalWebtDataSource 123 }
externalWebtDataSourcepoolSize-lowWaterMark      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { externalWebtDataSource 124 }
externalWebtDataSourcepoolSize-current      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { externalWebtDataSource 125 }
externalWebtDataSourcefreePoolSize-upperBound      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { externalWebtDataSource 131 }
externalWebtDataSourcefreePoolSize-lowerBound      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { externalWebtDataSource 132 }
externalWebtDataSourcefreePoolSize-highWaterMark      OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    " "

 ::= { externalWebtDataSource 133 }
externalWebtDataSourcefreePoolSize-lowWaterMark      OBJECT-TYPE

```

```

SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { externalWebtDataSource 134 }
externalWebtDataSourcefreePoolSize-current OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { externalWebtDataSource 135 }
externalWebtDataSourcewaitingThreadCount-highWaterMark
OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { externalWebtDataSource 141 }
externalWebtDataSourcewaitingThreadCount-lowWaterMark OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { externalWebtDataSource 142 }
externalWebtDataSourcewaitingThreadCount-current OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
 ::= { externalWebtDataSource 143 }
externalWebtDataSourcecereConnectCount-count OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory

```

```

        DESCRIPTION
            " "

        ::= { externalWebtDataSource 151 }
externalWebtDataSourceetotalConnectionCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { externalWebtDataSource 161 }
externalWebtDataSourceefreeConnectionCount-count OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { externalWebtDataSource 171 }
externalWebtDataSourceactiveConnectionCount-count      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { externalWebtDataSource 181 }

-----
-- subjectMo
-----

subjectMo OBJECT IDENTIFIER
    ::= { jeus 101 }

subjectMoobjectName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

        ::= { subjectMo 1 }

```



```
subjectMosubjectNames OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { subjectMo 2 }
subjectMotroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { subjectMo 3 }
subjectMoownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { subjectMo 4 }

-----
-- securityDomainMo
-----

securityDomainMo OBJECT IDENTIFIER
    ::= { jeus 102 }

securityDomainMoobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { securityDomainMo 1 }
securityDomainModomainName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
```

```

STATUS mandatory
DESCRIPTION
    " "

::= { securityDomainMo 2 }
securityDomainMopolicys OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { securityDomainMo 3 }
securityDomainMosubjects OBJECT-TYPE
    SYNTAX SEQUENCE OF DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { securityDomainMo 4 }
securityDomainMotroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { securityDomainMo 5 }
securityDomainMoownTroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { securityDomainMo 6 }
securityDomainModescription OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

::= { securityDomainMo 7 }

```

```
-----  
-- policyMo  
-----  
  
policyMo OBJECT IDENTIFIER  
    ::= { jeus 103 }  
  
policyMoobjectName      OBJECT-TYPE  
    SYNTAX  DisplayString  
    ACCESS  read-only  
    STATUS  mandatory  
    DESCRIPTION  
        "  
        ::= { policyMo 1 }  
policyMopolicyIds OBJECT-TYPE  
    SYNTAX  DisplayString  
    ACCESS  read-only  
    STATUS  mandatory  
    DESCRIPTION  
        "  
        ::= { policyMo 2 }  
policyMotroubles OBJECT-TYPE  
    SYNTAX  DisplayString  
    ACCESS  read-only  
    STATUS  mandatory  
    DESCRIPTION  
        "  
        ::= { policyMo 3 }  
policyMoownTroubles OBJECT-TYPE  
    SYNTAX  DisplayString  
    ACCESS  read-only  
    STATUS  mandatory  
    DESCRIPTION  
        "  
        ::= { policyMo 4 }  
  
-----  
-- securityMo
```

```

-----

securityMo OBJECT IDENTIFIER
    ::= { jeus 104 }

securityMoobjectName      OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { securityMo 1 }
securityMocurrentDomain OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { securityMo 2 }
securityMosecurityDomains      OBJECT-TYPE
    SYNTAX  SEQUENCE OF DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { securityMo 3 }
securityMotroubles            OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "
    ::= { securityMo 4 }
securityMoownTroubles        OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        " "

```

```
 ::= { securityMo 5 }

-----
-- jMSEngineMo
-----

jMSEngineMo OBJECT IDENTIFIER
 ::= { jeus 105 }

jMSEngineMojMSResource OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSEngineMo 1 }
jMSEngineMoengineName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSEngineMo 2 }
jMSEngineMoobjectName OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSEngineMo 3 }
jMSEngineMotroubles OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
    ::= { jMSEngineMo 4 }
jMSEngineMoownTroubles OBJECT-TYPE
    SYNTAX DisplayString
```

```
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    ""
 ::= {  jMSEngineMo 5  }
```

```
END
```

B JEUSMain.xml 의 XML 환경 설정 레퍼런스

B.1 소개

본 부록의 레퍼런스는 JEUS 의 주 설정 파일인 JEUSMain.xml 중에서 JMX 관련 태그에 대해서 설명하고 있다. 이 파일의 xsd 파일은 “JEUS_HOME\config\xsds” 디렉토리의 “jeus-main.xsd” 파일이다

본 레퍼런스는 3 부분으로 나뉘어져 있다

1. **XML Schema/XML 트리:** XML 설정 파일의 모든 태그 리스트를 정리했다. 각 노드의 형식은 다음과 같다.
 - a. 태그 레퍼런스로 빨리 찾아보기 위해서 각 태그마다 인덱스 번호(예: (11))를 붙여놓았다. 태그 레퍼런스 에서는 이 번호 순서로 설명한다.
 - b. XML Schema 에서 정의한 XML 태그명을 **<tag name>** 형식으로 표시한다.
 - c. XML Schema 에서 정의한 Cardinality 를 표시한다. “?” = 0 개나 1 개의 element, “+” = 1 개 이상의 element, “*” = 0 개 이상의 element, (기호가 없음) = 정확히 1 개의 element.
 - d. 몇몇 태그에는 “P” 문자를 붙여 놓았는데, 해당 태그는 성능에 관계되는 태그라는 것을 뜻한다. 이 태그는 설정을 튜닝할 때 사용된다.
2. **태그 레퍼런스:** 트리에 있는 각 XML 태그를 설명한다. 이런 테이블은 다음 하위-항목들을 포함하고 있다.
 - a. **Description:** 태그에 대한 간단한 설명
 - b. **Value Description:** 입력하는 값과 타입
 - c. **Value Type:** 값의 데이터 타입. 예) String

- d. **Default Value:** 해당 XML 을 사용하지 않았을 때 기본적으로 사용되는 값
- e. **Defined values:** 이미 정해져 있는 값
- f. **Example:** 해당 XML 태그에 대한 예
- g. **Performance Recommendation:** 성능 향상을 위해서 추천하는 값
- h. **Child Elements:** 자신의 태그 안에 사용하는 태그

3. 샘플 XML 파일: “JEUSMain.xml”에 대한 완전한 예제

B.2 XML Schema/XML Tree

```
(226) <snmp-adaptor>?
    (227) <snmp-adaptor-port>
    (228) <snmp-version>? P
    (229) <snmp-max-packet-size>? P
    (230) <snmp-security>? P
    (231) <trap-demon>*
        (232) <ip-address>
        (233) <port>
    (234) <pooling>?
        (235) <min>? P
        (236) <max>? P
    (237) <period>? P
```

B.3 Element Reference

```
(226) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-
adaptor>
```

Description JMX 의 adapter 중 하나인 SNMP adapter 를 설정한다.

Child Elements

```
(227)snmp-adaptor-port
(228)snmp-version?
(229)snmp-max-packet-size?
(230)snmp-security?
(231)trap-demon*
(234)pooling?
```

```
(227) <snmp-adaptor-port>
(228) <snmp-version>?
(229) <snmp-max-packet-size>?
(230) <snmp-security>?
(231) <trap-demon>*
(234) <pooling>?
```


adaptor> <snmp-adaptor-port>

Description SNMP 어댑터의 리스너 포트

Value Type snmp-adaptor-portType

(228) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-adaptor> <snmp-version>

Description SNMP 버전을 지정하며 1, 2 또는 3 을 지정할 수 있다

Value Type snmp-versionType

Default Value 3

Defined Value 1

2

3

(229) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-adaptor> <snmp-max-packet-size>

Description SNMP 패킷에 대한 최대값을 설정하며 최소 256 바이트부터 설정할 수 있다.

Value Type snmp-max-packet-sizeType

Default Value 4096

(230) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-adaptor> <snmp-security>

Description 보안을 적용시킬 것 인지를 설정한다. 보안은 SNMP 버전 3 에서만 지정이 가능 하다.

Value Type boolean

Default Value false

(231) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-adaptor> <trap-demon>

Description 장애 상황 발생시 TRAP 메시지를 보낼 서버를 설정한다. 여러 개 설정이 가능하며 설정된 모든 ip, address 로 메시지를 보낸다.

Child Elements (232)ip-address
(233)port

(232) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-adaptor> <trap-demon> <ip-address>

Description Demon 의 IP address

Value Description a valid IP address

Value Type token

Example <host-name>111.111.111.1</host-name>

```
(233) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-
adaptor> <trap-demon> <port>
```

Description Demon 의 port

Value Description a port number

Value Type int

Example <port>8888</port>

```
(234) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-
adaptor> <pooling>
```

Description SNMP Server 에서 요청을 처리하는 쓰레드로 구성되어 있다. 아래 element 는 이 쓰레드를 관리하는 pool 을 설정한다.

Child Elements (235)min?
(236)max?
(237)period?

```
(235) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-
adaptor> <pooling> <min>
```

Description pooling 되는 객체의 최소값을 지정한다.

Value Type nonNegativeIntType

Value Type Description 0 이상의 int type 이다. 즉, int 범위에서 0 이상의 값들을 포함한다.

Default Value 2

```
(236) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-
adaptor> <pooling> <max>
```

Description pooling 되는 객체의 최대값을 지정한다.

Value Type nonNegativeIntType

Value Type Description 0 이상의 int type 이다. 즉, int 범위에서 0 이상의 값들을 포함한다.

Default Value 30

```
(237) <jeus-system> <node> <engine-container> <jmx-manager> <snmp-
adaptor> <pooling> <period>
```

Description pooling 되는 객체를 정리하는 시간을 지정한다.

Value Type long

Default Value 3600000

Performance Recommendation 이 값이 클수록 정리하는 주기가 길어져 server 운영에는 부하가 적게 가해지나 그만큼 메모리가 누수될 수 있으므로 적당한 값으로 지정한다.

색 인

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