

# Chapter 22

## Summary of MSDP Configuration Statements

The following sections explain each of the MSDP configuration statements. The statements are organized alphabetically.

### disable

<b>Syntax</b>	disable;
<b>Hierarchy Level</b>	[edit protocols msdp], [edit protocols msdp group <i>group-name</i> ], [edit protocols msdp group <i>group-name</i> peer <i>address</i> ], [edit protocols msdp peer <i>address</i> ]
<b>Description</b>	Explicitly disable MSDP.
<b>Usage Guidelines</b>	See “Disable MSDP” on page 198.
<b>Required Privilege Level</b>	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

### export

<b>Syntax</b>	export [ <i>policy-names</i> ];
<b>Hierarchy Level</b>	[edit protocols msdp], [edit protocols msdp group <i>group-name</i> ], [edit protocols msdp group <i>group-name</i> peer <i>address</i> ], [edit protocols msdp peer <i>address</i> ]
<b>Description</b>	Apply one or more policies to routes being exported from the routing table into MSDP.
<b>Options</b>	<i>policy-names</i> —Name of one or more policies.
<b>Usage Guidelines</b>	See “Configure MSDP Routing Policy” on page 195.
<b>Required Privilege Level</b>	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.
<b>See Also</b>	import on page 203

## group

```

Syntax  group group-name {
            disable;
            export [ policy-names ];
            import [ policy-names ];
            local-address address;
            mode <(mesh-group|standard)>;
            traceoptions {
                file name <replace> <size size> <files number> <no-stamp>
                    <(world-readable | no-world-readable)>;
                flag flag <flag-modifier> <disable>;
            }
            peer address; {
                disable;
                export [ policy-names ];
                import [ policy-names ];
                local-address address;
                traceoptions {
                    file name <replace> <size size> <files number> <no-stamp>
                        <(world-readable | no-world-readable)>;
                    flag flag <flag-modifier> <disable>;
                }
            }
        }

```

**Hierarchy Level** [edit protocols msdp]

**Description** Define an MSDP peer group. MSDP peers within groups share common traceoptions, if present and not overridden for an individual peer with the peer statement. To configure multiple MSDP groups, include multiple group statements.

By default, the group's options are identical to the global MSDP options. To override the global options, include group-specific options within the group statement.

The group must contain at least one peer.

**Options** *group-name*—Name of the MSDP group.

The remaining statements are explained separately.

**Usage Guidelines** See "Configure MSDP Groups" on page 193.

**Required Privilege Level** routing—To view this statement in the configuration.  
routing-control—To add this statement to the configuration.

## import

<b>Syntax</b>	import [ <i>policy-names</i> ];
<b>Hierarchy Level</b>	[edit protocols msdp], [edit protocols msdp group <i>group-name</i> ], [edit protocols msdp group <i>group-name</i> peer <i>address</i> ], [edit protocols msdp peer <i>address</i> ]
<b>Description</b>	Apply one or more policies to routes being imported into the routing table from MSDP.
<b>Options</b>	<i>policy-names</i> —Name of one or more policies.
<b>Usage Guidelines</b>	See “Configure MSDP Routing Policy” on page 195.
<b>Required Privilege Level</b>	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.
<b>See Also</b>	export on page 201

## local-address

<b>Syntax</b>	local-address <i>address</i> ;
<b>Hierarchy Level</b>	[edit protocols msdp], [edit protocols msdp group <i>group-name</i> ], [edit protocols msdp group <i>group-name</i> peer <i>address</i> ], [edit protocols msdp peer <i>address</i> ]
<b>Description</b>	Configure the local end of an MSDP session. You must configure at least one peer for MSDP to function. When configuring a peer, you must include this statement. This address is used to accept incoming connections to the peer and to establish connections to the remote peer.
<b>Options</b>	<i>address</i> —IP address of the local end of the connection.
<b>Usage Guidelines</b>	See “Minimum MSDP Configuration” on page 192.
<b>Required Privilege Level</b>	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

## mode

<b>Syntax</b>	mode <(mesh-group   standard)>;
<b>Hierarchy Level</b>	[edit protocols msdp group <i>group-name</i> ]
<b>Description</b>	Configure groups of peers in a full mesh topology to limit excessive flooding of source-active messages to neighboring peers. The default flooding mode is standard.
<b>Default</b>	If you do not include this statement, default flooding is applied.
<b>Options</b>	mesh-group—(Optional) Group of peers that are mesh group members.  standard—Use standard MSDP source-active flooding rules. <b>Default:</b> standard
<b>Usage Guidelines</b>	See “Configure MSDP Mesh Groups” on page 194.
<b>Required Privilege Level</b>	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

## msdp

```

Syntax  msdp {
    disable;
    rib-group group-name;
    export [ policy-names ];
    import [ policy-names ];
    local-address address;
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
            <(world-readable | no-world-readable)>;
        flag flag <flag-modifier> <disable>;
    }
    peer address {
        disable;
        export [ policy-names ];
        import [ policy-names ];
        local-address address;
        traceoptions {
            file name <replace> <size size> <files number> <no-stamp>
                <(world-readable | no-world-readable)>;
            flag flag <flag-modifier> <disable>;
        }
    }
    group group-name {
        disable;
        export [ policy-names ];
        import [ policy-names ];
        local-address address;
        mode<(mesh-group | standard)>;
        traceoptions {
            file name <replace> <size size> <files number> <no-stamp>
                <(world-readable | no-world-readable)>;
            flag flag <flag-modifier> <disable>;
        }
        peer address; {
            disable;
            export [ policy-names ];
            import [ policy-names ];
            local-address address;
            traceoptions {
                file name <replace> <size size> <files number> <no-stamp>
                    <(world-readable | no-world-readable)>;
                flag flag <flag-modifier> <disable>;
            }
        }
    }
}

```

**Hierarchy Level** [edit protocols]

**Description** Enable MSDP on the router. You must also configure at least one peer for MSDP to function.

**Default** MSDP is disabled on the router.

**Options** The statements are explained separately.

**Usage Guidelines** See “Enable MSDP” on page 193.

**Required Privilege Level** routing—To view this statement in the configuration.  
routing-control—To add this statement to the configuration.

## peer

**Syntax** `peer address {  
    disable;  
    export [ policy-names ];  
    import [ policy-names ];  
    local-address address;  
    traceoptions {  
        file name <replace> <size size> <files number> <no-stamp>  
            <(world-readable | no-world-readable)>;  
        flag flag <flag-modifier> <disable>;  
    }  
}`

**Hierarchy Level** [edit protocols msdp],  
[edit protocols msdp group *group-name*]

**Description** Define an MSDP peering relationship. An MSDP router must know which routers are its peers. You define the peer relationships explicitly by configuring the neighboring routers that are the MSDP peers of the local router. After peer relationships are established, the MSDP peers exchange messages to advertise active multicast sources. To configure multiple MSDP peers, include multiple peer statements.

By default, the peer’s options are identical to the global or group-level MSDP options. To override the global or group-level options, include peer-specific options within the peer statement.

At least one peer must be configured for MSDP to function. You must configure *address* and *local-address*.

**Options** *address*—Name of the MSDP peer.

The remaining statements are explained separately.

**Usage Guidelines** See “Configure MSDP Peers” on page 193.

**Required Privilege Level** routing—To view this statement in the configuration.  
routing-control—To add this statement to the configuration.

## rib-group

<b>Syntax</b>	<code>rib-group <i>group-name</i>;</code>
<b>Hierarchy Level</b>	[edit protocols msdp]
<b>Description</b>	Associate a routing table group with MSDP.
<b>Options</b>	<i>group-name</i> —Name of the routing table group. The name must be one that you defined with the rib-groups statement at the [edit routing-options] hierarchy level.
<b>Usage Guidelines</b>	See “Enable MSDP” on page 193.
<b>Required Privilege Level</b>	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

## traceoptions

**Syntax** traceoptions {  
     file *name* <replace> <size *size*> <files *number*> <no-stamp>  
         <(world-readable | no-world-readable)>;  
     flag *flag* <*flag-modifier*> <disable>;  
 }

**Hierarchy Level** [edit protocols msdp],  
 [edit protocols msdp group *group-name*],  
 [edit protocols msdp group *group-name* peer *address*],  
 [edit protocols msdp peer *address*]

**Description** Configure MSDP tracing options.

To specify more than one tracing operation, include multiple flag statements.

**Default** The default MSDP trace options are those inherited from the routing protocol's traceoptions statement included at the [edit routing-options] hierarchy level.

**Options** disable—(Optional) Disable the tracing operation. You can use this option to disable a single operation when you have defined a broad group of tracing operations, such as all.

file *name*—Name of the file to receive the output of the tracing operation. Enclose the name within quotation marks. All files are placed in the directory /var/log. We recommend that you place tracing output in the msdp-log file.

files *number*—(Optional) Maximum number of trace files. When a trace file named *trace-file* reaches its maximum size, it is renamed *trace-file.0*, then *trace-file.1*, and so on, until the maximum number of trace files is reached. Then the oldest trace file is overwritten.

If you specify a maximum number of files, you also must specify a maximum file size with the size option.

**Range:** 2 through 1000 files

**Default:** 2 files

flag *flag*—Tracing operation to perform. To specify more than one tracing operation, include multiple flag statements.

**MSDP Tracing Flags**

keepalive—Keepalive messages

packets—All MSDP packets

route—MSDP changes to the routing table

source-active—Source-active packets

source-active-request—Source-active request packets

source-active-response—Source-active response packets

**Global Tracing Flags**

all—All tracing operations

general—A combination of the normal and route trace operations

normal—All normal operations

**Default:** If you do not specify this option, only unusual or abnormal operations are traced.

policy—Policy operations and actions

route—Routing table changes

state—State transitions

task—Interface transactions and processing

timer—Timer usage

*flag-modifier*—(Optional) Modifier for the tracing flag. You can specify one or more of these modifiers:

detail—Detailed trace information

receive—Packets being received

send—Packets being transmitted

no-stamp—(Optional) Do not place timestamp information at the beginning of each line in the trace file.

**Default:** If you omit this option, timestamp information is placed at the beginning of each line of the tracing output.

no-world-readable—(Optional) Disallow any user to read the log file.

replace—(Optional) Replace an existing trace file if there is one.

**Default:** If you do not include this option, tracing output is appended to an existing trace file.

size *size*—(Optional) Maximum size of each trace file, in kilobytes (KB), megabytes (MB), or gigabytes (GB). When a trace file named *trace-file* reaches this size, it is renamed *trace-file.0*. When the *trace-file* again reaches its maximum size, *trace-file.0* is renamed *trace-file.1* and *trace-file* is renamed *trace-file.0*. This renaming scheme continues until the maximum number of trace files is reached. Then, the oldest trace file is overwritten.

If you specify a maximum file size, you must also specify a maximum number of trace files with the *files* option.

**Syntax:** *xk* to specify KB, *xm* to specify MB, or *xg* to specify GB

**Range:** 10 KB through the maximum file size supported on your system

**Default:** 1 MB

world-readable—(Optional) Allow any user to read the log file.

**Usage Guidelines** See “Trace MSDP Protocol Traffic” on page 198.

**Required Privilege Level** routing and trace—To view this statement in the configuration.  
 routing-control and trace-control—To add this statement to the configuration.