

## Overview of Dynamic Service Activator

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Dynamic Service Activator enables business partners or their subscribers to dynamically activate services or run scripts on an SRC owner's SAE through the SAE's CORBA remote interface.

For managing services, Dynamic Service Activator supports a fixed set of methods and uses the SAE access interface module to access the SAE core API. For invoking scripts, Dynamic Service Activator uses the remote Java scripts interface module. These scripts can perform any function offered by the SAE's core Java APIs.

For access control, Dynamic Service Activator requires the Juniper Networks database to be running on the same host.

The SRC owner is responsible for:

- Deciding how to control clients' access to methods and scripts. You can allow clients to access all methods and scripts in the directory or restrict clients' access to specific methods and scripts.
- Configuring Dynamic Service Activator . If you restrict clients' access to specific methods and scripts, this task involves configuring a set of access controls between a client and each method or script that the client can use.
- Creating Java scripts that Dynamic Service Activator will invoke on an SAE (see the SAE CORBA Remote API documentation on the Juniper Networks Web site at <http://www.juniper.net/techpubs/software/management/src/api-index.html>).

The business partner is responsible for:

- Creating the gateway clients that communicate with the gateway.
- Optionally, providing a way for subscribers to activate services; for example, through a portal.

## Dynamic Service Activator Operation

The following steps explain how Dynamic Service Activator interacts with other components to enable the gateway client to execute a method or script on a particular SAE. Figure 1 on page 3 illustrates the processes.

1. The gateway client sends a SOAP message to the Web application server through HTTP.

The request includes:

- Name of the method or script that the gateway client wants to activate.
- Arguments that the gateway client wants to pass to the method or script.
- Type-value arguments that the gateway client passes to the method or script for one of the following:
  - Subscriber's DN
  - Name with which the subscriber logs in

- Name of the interface and name of the virtual router to which the subscriber connects
  - SNMP index of the interface and name of the virtual router to which the subscriber connects
  - Subscriber's IP address, name of the managed interface, and name of the virtual router to which the subscriber connects
  - Subscriber's primary username
2. The Web application server authenticates the gateway client's identity.
  3. The Web application passes the SOAP request to Dynamic Service Activator.
  4. Dynamic Service Activator checks that:
    - a. The Web application server has authenticated the gateway client and refused any requests from an unauthenticated gateway client.
    - b. The gateway client is allowed to access the specified method or script.
    - c. The arguments supplied by the gateway client satisfy any restrictions specified in the Dynamic Service Activator configuration that apply to the gateway client for the requested method or script.
  5. If the gateway client satisfies these requirements, Dynamic Service Activator passes an argument, such as a subscriber's IP address specified in the Dynamic Service Activator configuration, to the network information collector (NIC).
  6. The NIC uses the argument to determine the SAE on which Dynamic Service Activator should execute the method or script.
  7. Dynamic Service Activator passes the name of the method or script and the associated arguments to the SAE through CORBA.
  8. The SAE executes the method or script and returns the expected output or SOAP fault codes through CORBA to Dynamic Service Activator.

The expected output from the method or script depends on the values that the method or script is programmed to return. Some methods and scripts return no values; others may return a short indicator of the success or failure of the operation, an HTML page, or a complex data structure in a format the gateway client understands.

9. Dynamic Service Activator returns an output from the method or script to the gateway client through a SOAP response.

**Figure 1: Dynamic Service Activator Operation**



