Mobile IP Configuration Examples

This chapter provides information for several configuration examples that can be implemented on the system to support Mobile IP (MIP) data services.

Important This chapter does not discuss the configuration of the local context. Information about the local context can be found in Chapter 1 of Command Line Reference. Additionally, when configuring Mobile IP take into account the MIP timing considerations discussed in *Mobile-IP and Proxy-MIP Timer Considerations*.

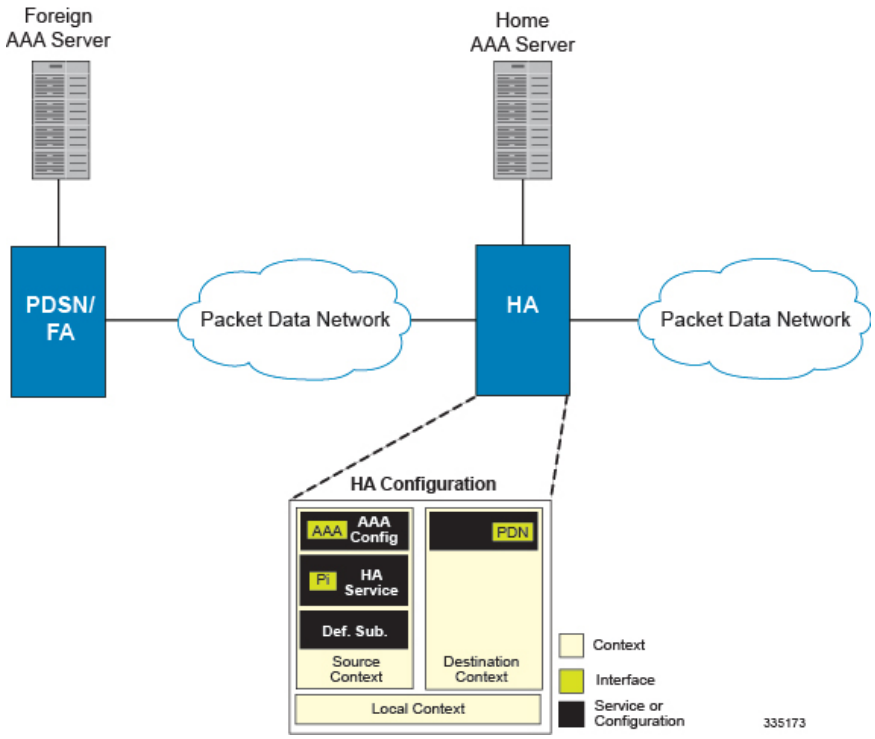
This chapter includes the following examples:

Example 1: Mobile IP Support Using the System as an HA

The system supports both Simple and Mobile IP. For Mobile IP applications, the system can be configured to perform the function of a PDSN/FA and/or a HA. This example describes what is needed for and how the system performs the role of the HA. Example number 1 provides information on using the system to provide PDSN/FA functionality.

The system\'s HA configuration for Mobile IP applications requires that at least two contexts (one source and one destination) be configured as shown in the following figure.

Figure 1: Mobile IP Support Using the system as an HA



The source context will facilitate the HA service(s), the Pi interfaces from the FA, and the AAA interfaces. The source context will also be configured to provide Home AAA functionality for subscriber sessions. The destination context will facilitate the PDN interface(s).

Information Required

Prior to configuring the system as shown in this example, there is a minimum amount of information required. The following sections describe the information required to configure the source and destination contexts.

Source Context Configuration

The following table lists the information that is required to configure the source context.

Table 1: Required Information for Source Context Configuration

Required Information	Description
Source context name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the source context will be recognized by the system. **Important** The name of the source context should be the same as the name of the context in which the FA-context is configured if a separate system is being used to provide PDSN/FA functionality.

Required Information	Description
Pi Interface Configuration	
Pi interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. Pi interfaces are configured in the destination context. If this interface is being used for Interchassis Session Recovery, you must specify a loopback interface type after the interface_name.
IP address and subnet	These will be assigned to the Pi interfaces.Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used. Physical ports are configured within the destination context and are used to bind logical Pi interfaces.
Gateway IP address(es)	Used when configuring static routes from the Pi interfaces to a specific network.
HA service Configuration	
HA service name	This is an identification string between 1 and 63 characters (alpha and/or numeric) by which the HA service will be recognized by the system. Multiple names are needed if multiple HA services will be used. HA services are configured in the destination context.

Required Information	Description
UDP port number for Mobile IP traffic	Specifies the port used by the HA service and the FA for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 434.
Mobile node re-registration requirements	Specifies how the system should handle authentication for mobile node re-registrations.The HA service can be configured as follows: • Always require authentication • Never require authentication. **Important** (the initial registration and de-registration will still be handled normally) • Never look for mn-aaa extension • Not require authentication but will authenticate if mn-aaa extension present

Required Information	Description
FA-to-HA Security Parameter Index Information	**FA IP address:** The HA service allows the creation of a security profile that can be associated with a particular FA. This specifies the IP address of the FA that the HA service will be communicating with. Multiple FA addresses are needed if the HA will be communicating with multiple FAs.
	Index: Specifies the shared SPI between the HA service and a particular FA. The SPI can be configured to any integer value between 256 and 4294967295. Multiple SPIs can be configured if the HA service is to communicate with multiple FAs.
	Secret: Specifies the shared SPI secret between the HA service and the FA. The secret can be between 1 and 127 characters (alpha and/or numeric). An SPI secret is required for each SPI configured.
	Hash-algorithm: Specifies the algorithm used to hash the SPI and SPI secret. The possible algorithms that can be configured are MD5 per RFC 1321 and keyed-MD5 per RFC 2002. The default algorithm is hmac-md5.A hash-algorithm is required for each SPI configured.

Required Information	Description
Mobile Node Security Parameter Index Information	**Index:** Specifies the shared SPI between the HA service and the mobile node(s). The SPI can be configured to any integer value between 256 and 4294967295.Multiple SPIs can be configured if the HA service is to communicate with multiple mobile nodes.
	Secret(s): Specifies the shared SPI secret between the HA service and the mobile node. The secret can be between 1 and 127 characters (alpha and/or numeric).An SPI secret is required for each SPI configured.
	Hash-algorithm: Specifies the algorithm used to hash the SPI and SPI secret. The possible algorithms that can be configured are MD5 per RFC 1321 and keyed-MD5 per RFC 2002. The default algorithm is hmac-md5.A hash-algorithm is required for each SPI configured.
	Replay-protection process: Specifies how protection against replay-attacks is implemented. The possible processes are nonce and timestamp. The default is timestamp with a tolerance of 60 seconds. A replay-protection process is required for each mobile node-to-HA SPI configured.
Maximum registration lifetime	Specifies the longest registration lifetime that the HA service will allow in any Registration Request message from the mobile node. The time is measured in seconds and can be configured to any integer value between 1 and 65534. An infinite registration lifetime can also be configured by disabling the timer. The default is 600.

Required Information	Description
Maximum number of simultaneous bindings	Specifies the maximum number of "care-of" addresses that can simultaneously be bound for the same user as identified by NAI and Home address. The number can be configured to any integer value between 1 and 5. The default is 3.
AAA Interface Configuration	
AAA interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. AAA interfaces will be configured in the source context.
IP address and subnet	These will be assigned to the AAA interface.Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used. Physical ports are configured within the source context and are used to bind logical AAA interfaces.
Gateway IP address	Used when configuring static routes from the AAA interface(s) to a specific network.
Home RADIUS Server Configuration	

Required Information	Description
Home RADIUS Authentication server	IP Address: Specifies the IP address of the home RADIUS authentication server the source context will communicate with to provide subscriber authentication functions. Multiple addresses are needed if multiple RADIUS servers will be configured.Home RADIUS authentication servers are configured within the source context. Multiple servers can be configured and each assigned a priority.
	Shared Secret: The shared secret is a string between 1 and 15 characters (alpha and/or numeric) that specifies the key that is exchanged between the RADIUS authentication server and the source context. A shared secret is needed for each configured RADIUS server.
	UDP Port Number: Specifies the port used by the source context and the home RADIUS authentication server for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 1812.

Required Information	Description
Home RADIUS Accounting server	IP Address: Specifies the IP address of the home RADIUS accounting server that the source context will communicate with to provide subscriber accounting functions. Multiple addresses are needed if multiple RADIUS servers will be configured. Home RADIUS accounting servers are configured within the source context. Multiple servers can be configured and each assigned a priority.
	Shared Secret: The shared secret is a string between 1 and 15 characters (alpha and/or numeric) that specifies the key that is exchanged between the RADIUS accounting server and the source context.A shared secret is needed for each configured RADIUS server.
	UDP Port Number: Specifies the port used by the source context and the home RADIUS Accounting server for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 1813.
RADIUS attribute NAS Identifier	Specifies the name by which the source context will be identified in the Access-Request message(s) it sends to the home RADIUS server. The name must be between 1 and 32 alpha and/or numeric characters and is case sensitive.
RADIUS NAS IP address	Specifies the IP address of the source context\'s AAA interface. A secondary address can be optionally configured.
Default Subscriber Configuration	
"Default" subscriber\'s IP context name	Specifies the name of the egress context on the system that facilitates the PDN ports. **Important** For this configuration, the IP context name should be identical to the name of the destination context.

Destination Context Configuration

Table 2: Required Information for Destination Context Configuration

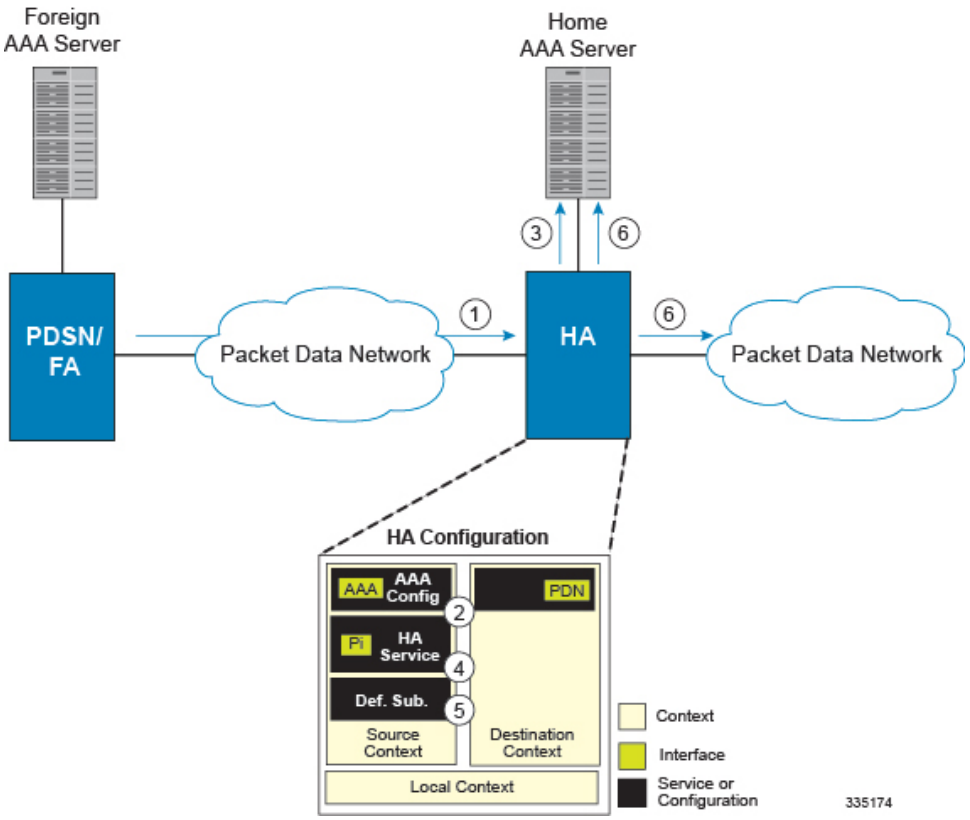
Required Information	Description
Destination context name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the destination context will be recognized by the system. **Important** For this configuration, the destination context name should **not** match the domain name of a specific domain.
PDN Interface Configuration	
PDN interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. PDN interfaces are configured in the destination context.
IP address and subnet	These will be assigned to the PDN interface.Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used. Physical ports are configured within the destination context and are used to bind logical PDN interfaces.
Gateway IP address(es)	Used when configuring static routes from the PDN interface(s) to a specific network.
IP Address Pool Configuration	

Required Information	Description
IP address pool name	Each IP address pool is identified by a name. The pool name can be between 1 and 31 alpha and/or numeric characters and is case sensitive. IP address pools are configured in the destination context(s). Multiple address pools can be configured within a single context.
IP pool addresses	An initial address and a subnet, or a starting address and an ending address, are required for each configured pool. The pool will then consist of every possible address within the subnet , or all addresses from the starting address to the ending address.The pool can be configured as public, private, or static. If this IP pool is being used for Interchassis Session Recovery, it must be a static and srp-activated.

How This Configuration Works

The following figure and the text that follows describe how this configuration with a single source and destination context would be used by the system to process a Mobile IP data call.

Figure 2: Call Processing When Using the system as an HA



1. A subscriber session from the FA is received by the HA service over the Pi interface.
2. The HA service determines which context to use to provide AAA functionality for the session. This process is described in the How the System Selects Contexts section located in the Understanding the System Operation and Configuration chapter of the System Administration Guide.

   For this example, the result of this process is that the HA service determined that AAA functionality should be provided by the Source context.
3. The system then communicates with the Home AAA server specified in the Source context\'s AAA configuration to authenticate the subscriber.
4. Upon successful authentication, the Source context determines which egress context to use for the subscriber session. This process is described in the How the System Selects Contexts section located in the Understanding the System Operation and Configuration chapter of the System Administration Guide.

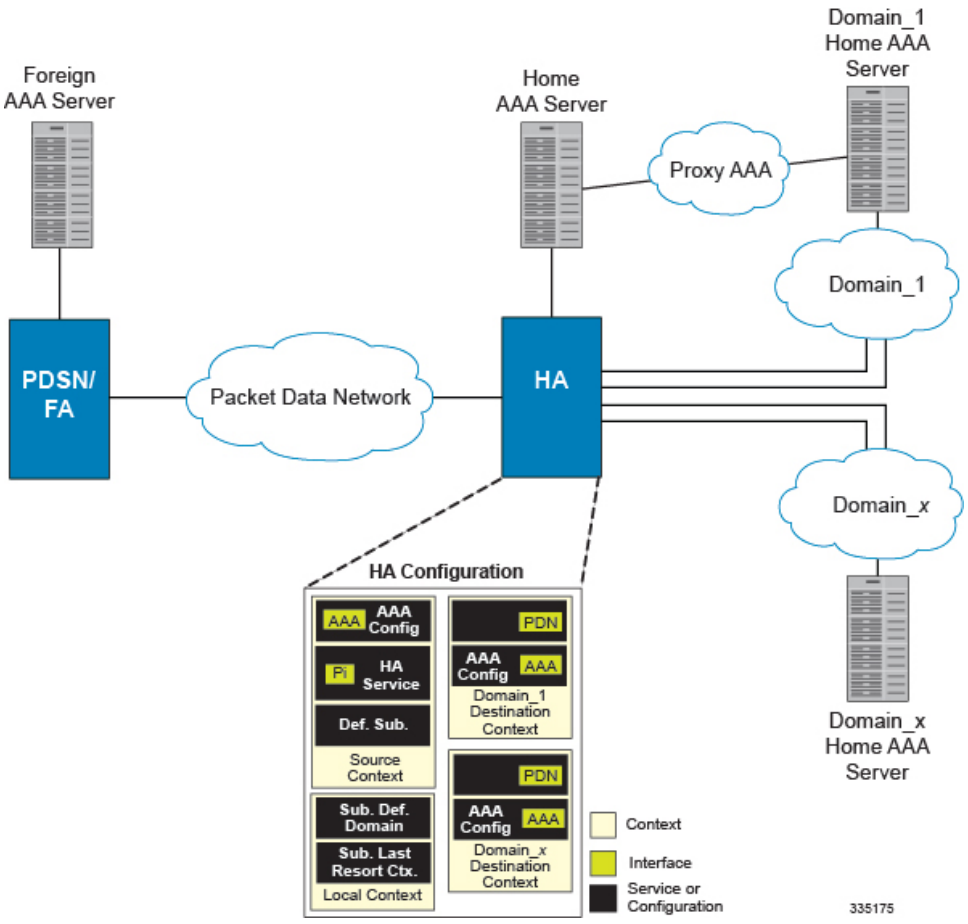
   For this example, the system determines that the egress context is the Destination context based on the configuration of the Default subscriber.
5. An IP address is assigned to the subscriber\'s mobile node from an IP address pool configured in the destination context. This IP address is used for the duration of the session and then be returned to the pool.
6. Data traffic for the subscriber session is then routed through the PDN interface in the Destination context.
7. Accounting messages for the session are sent to the AAA server over the AAA interface.

Example 2: HA Using a Single Source Context and Multiple Outsourced Destination Contexts

The system allows the wireless carrier to easily generate additional revenue by providing the ability to configure separate contexts that can then be leased or outsourced to various enterprises or ISPs, each having a specific domain.

In order to perform the role of an HA and support multiple outsourced domains, the system must be configured with at least one source context and multiple destination contexts as shown in the following figure. The AAA servers could by owned/maintained by either the carrier or the domain. If they are owned by the domain, the carrier will have to receive the AAA information via proxy.

Figure 3: The system as an HA Using a Single Source Context and Multiple Outsourced Destination Contexts



The source context will facilitate the HA service(s), and the Pi interface(s) to the FA(s).The source context will also be configured with AAA interface(s) and to provide Home AAA functionality for subscriber sessions. The destination contexts will each be configured to facilitate PDN interfaces. In addition, because each of the destination contexts can be outsourced to different domains, they will also be configured with AAA interface(s) and to provide AAA functionality for that domain.

In addition to the source and destination contexts, there are additional system-level AAA parameters that must be configured.

Information Required

Prior to configuring the system as shown in this example, there is a minimum amount of information required. The following sections describe the information required to configure the source and destination contexts.

Source Context Configuration

The following table lists the information that is required to configure the source context.

Table 3: Required Information for Source Context Configuration

Required Information	Description
Source context name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the source context will be recognized by the system.
Pi Interface Configuration	
Pi interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. Pi interfaces are configured in the destination context.
IP address and subnet	These will be assigned to the Pi interfaces. Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used. Physical ports are configured within the destination context and are used to bind logical Pi interfaces.

Required Information	Description
Gateway IP address(es)	Used when configuring static routes from the Pi interfaces to a specific network.
HA service Configuration	
HA service name	This is an identification string between 1 and 63 characters (alpha and/or numeric) by which the HA service will be recognized by the system. Multiple names are needed if multiple HA services will be used. HA services are configured in the destination context.
UDP port number for Mobile IP traffic	Specifies the port used by the HA service and the FA for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 434.
Mobile node re-registration requirements	Specifies how the system should handle authentication for mobile node re-registrations. The HA service can be configured as follows: Always require authentication Never require authentication (**NOTE:** the initial registration and de-registration will still be handled normally) Never look for mn-aaa extension Not require authentication but will authenticate if mn-aaa extension present

Required Information	Description
FA-to-HA Security Parameter Index Information	**FA IP address:** The HA service allows the creation of a security profile that can be associated with a particular FA. This specifies the IP address of the FA that the HA service will be communicating with. Multiple FA addresses are needed if the HA will be communicating with multiple FAs.
	Index: Specifies the shared SPI between the HA service and a particular FA. The SPI can be configured to any integer value between 256 and 4294967295. Multiple SPIs can be configured if the HA service is to communicate with multiple FAs.
	Secret: Specifies the shared SPI secret between the HA service and the FA. The secret can be between 1 and 127 characters (alpha and/or numeric). An SPI secret is required for each SPI configured.
	Hash-algorithm: Specifies the algorithm used to hash the SPI and SPI secret. The possible algorithms that can be configured are MD5 per RFC 1321 and keyed-MD5 per RFC 2002. The default algorithm is hmac-md5. A hash-algorithm is required for each SPI configured.

Required Information	Description
Mobile Node Security Parameter Index Information	**Index:** Specifies the shared SPI between the HA service and the mobile node(s). The SPI can be configured to any integer value between 256 and 4294967295. Multiple SPIs can be configured if the HA service is to communicate with multiple mobile nodes.
	Secret(s): Specifies the shared SPI secret between the HA service and the mobile node. The secret can be between 1 and 127 characters (alpha and/or numeric).An SPI secret is required for each SPI configured.
	Hash-algorithm: Specifies the algorithm used to hash the SPI and SPI secret. The possible algorithms that can be configured are MD5 per RFC 1321 and keyed-MD5 per RFC 2002. The default algorithm is hmac-md5.A hash-algorithm is required for each SPI configured.
	Replay-protection process: Specifies how protection against replay-attacks is implemented. The possible processes are nonce and timestamp. The default is timestamp with a tolerance of 60 seconds. A replay-protection process is required for each mobile node-to-HA SPI configured.
Maximum registration lifetime	Specifies the longest registration lifetime that the HA service will allow in any Registration Request message from the mobile node. The time is measured in seconds and can be configured to any integer value between 1 and 65534. An infinite registration lifetime can also be configured by disabling the timer. The default is 600.
Maximum number of simultaneous bindings	Specifies the maximum number of "care-of" addresses that can simultaneously be bound for the same user as identified by NAI and Home address. The number can be configured to any integer value between 1 and 5. The default is 3.
AAA Interface Configuration	

Required Information	Description
AAA interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. AAA interfaces will be configured in the source context.
IP address and subnet	These will be assigned to the AAA interface.Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used. Physical ports are configured within the source context and are used to bind logical AAA interfaces.
Gateway IP address	Used when configuring static routes from the AAA interface(s) to a specific network.
Home RADIUS Server Configuration	

Required Information	Description
Home RADIUS Authentication server	IP Address: Specifies the IP address of the home RADIUS authentication server the source context will communicate with to provide subscriber authentication functions. Multiple addresses are needed if multiple RADIUS servers will be configured. Home RADIUS authentication servers are configured within the source context. Multiple servers can be configured and each assigned a priority.
	Shared Secret: The shared secret is a string between 1 and 15 characters (alpha and/or numeric) that specifies the key that is exchanged between the RADIUS authentication server and the source context. A shared secret is needed for each configured RADIUS server.
	UDP Port Number: Specifies the port used by the source context and the home RADIUS authentication server for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 1812.

Required Information	Description
Home RADIUS Accounting server	IP Address:Specifies the IP address of the home RADIUS accounting server that the source context will communicate with to provide subscriber accounting functions. Multiple addresses are needed if multiple RADIUS servers will be configured. Home RADIUS accounting servers are configured within the source context. Multiple servers can be configured and each assigned a priority.
	Shared Secret: The shared secret is a string between 1 and 15 characters (alpha and/or numeric) that specifies the key that is exchanged between the RADIUS accounting server and the source context. A shared secret is needed for each configured RADIUS server.
	UDP Port Number: Specifies the port used by the source context and the home RADIUS Accounting server for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 1813.
RADIUS attribute NAS Identifier	Specifies the name by which the source context will be identified in the Access-Request message(s) it sends to the home RADIUS server. The name must be between 1 and 32 alpha and/or numeric characters and is case sensitive.
RADIUS NAS IP address	Specifies the IP address of the source context\'s AAA interface. A secondary address can be optionally configured.
Default Subscriber Configuration	
"Default" subscriber\'s IP context name	Specifies the name of the egress context on the system that facilitates the PDN ports. **Important** For this configuration, the IP context name should be identical to the name of the destination context.

Destination Context Configuration

The following table lists the information required to configure the destination context.

Table 4: Required Information for Destination Context Configuration

Required Information	Description
Destination context name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the destination context will be recognized by the system. **Important** For this configuration, the destination context name should **not** match the domain name of a specific domain.
PDN Interface Configuration	
PDN interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. PDN interfaces are configured in the destination context.
IP address and subnet	These will be assigned to the PDN interface. Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used.Physical ports are configured within the destination context and are used to bind logical PDN interfaces.
Gateway IP address(es)	Used when configuring static routes from the PDN interface(s) to a specific network.
IP Address Pool Configuration	

Required Information	Description
IP address pool name	Each IP address pool is identified by a name. The pool name can be between 1 and 31 alpha and/or numeric characters and is case sensitive. IP address pools are configured in the destination context(s). Multiple address pools can be configured within a single context.
IP pool addresses	An initial address and a subnet, or a starting address and an ending address, are required for each configured pool. The pool will then consist of every possible address within the subnet , or all addresses from the starting address to the ending address. The pool can be configured as public, private, or static. If this IP pool is being used for Interchassis Session Recovery, it must be a static and srp-activated.
AAA Interface Configuration	
AAA interface name	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the interface will be recognized by the system. Multiple names are needed if multiple interfaces will be configured. AAA interfaces will be configured in the source context.
IP address and subnet	These will be assigned to the AAA interface.Multiple addresses and/or subnets are needed if multiple interfaces will be configured.
Physical port number	This specifies the physical port to which the interface will be bound. Ports are identified by the chassis slot number where the line card resides in, followed by the number of the physical connector on the line card. For example, port 17/1 identifies connector number 1 on the card in slot 17. A single physical port can facilitate multiple interfaces.

Required Information	Description
Physical port description	This is an identification string between 1 and 79 characters (alpha and/or numeric) by which the physical port will be recognized by the system. Multiple descriptions are needed if multiple ports will be used. Physical ports are configured within the source context and are used to bind logical AAA interfaces.
Gateway IP address	Used when configuring static routes from the AAA interface(s) to a specific network.
RADIUS Server Configuration	
RADIUS Authentication server	IP Address: Specifies the IP address of the RADIUS authentication server the source context will communicate with to provide subscriber authentication functions. Multiple addresses are needed if multiple RADIUS servers will be configured. Home RADIUS authentication servers are configured within the source context. Multiple servers can be configured and each assigned a priority.
	Shared Secret: The shared secret is a string between 1 and 15 characters (alpha and/or numeric) that specifies the key that is exchanged between the RADIUS authentication server and the source context. A shared secret is needed for each configured RADIUS server.
	UDP Port Number: Specifies the port used by the source context and the home RADIUS authentication server for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 1812.

Required Information	Description
RADIUS Accounting server	IP Address:Specifies the IP address of the RADIUS accounting server that the source context will communicate with to provide subscriber accounting functions. Multiple addresses are needed if multiple RADIUS servers will be configured. Home RADIUS accounting servers are configured within the source context. Multiple servers can be configured and each assigned a priority.
	Shared Secret: The shared secret is a string between 1 and 15 characters (alpha and/or numeric) that specifies the key that is exchanged between the RADIUS accounting server and the source context. A shared secret is needed for each configured RADIUS server.
	UDP Port Number: Specifies the port used by the source context and the home RADIUS Accounting server for communications. The UDP port number can be any integer value between 1 and 65535. The default value is 1813.
RADIUS attribute NAS Identifier	Specifies the name by which the source context will be identified in the Access-Request message(s) it sends to the home RADIUS server. The name must be between 1 and 32 alpha and/or numeric characters and is case sensitive.
RADIUS NAS IP address	Specifies the IP address of the source context\'s AAA interface. A secondary address can be optionally configured.

System-Level AAA Configuration

The following table lists the information that is required to configure the system-level AAA parameters.

Table 5: Required Information for System-Level AAA Configuration

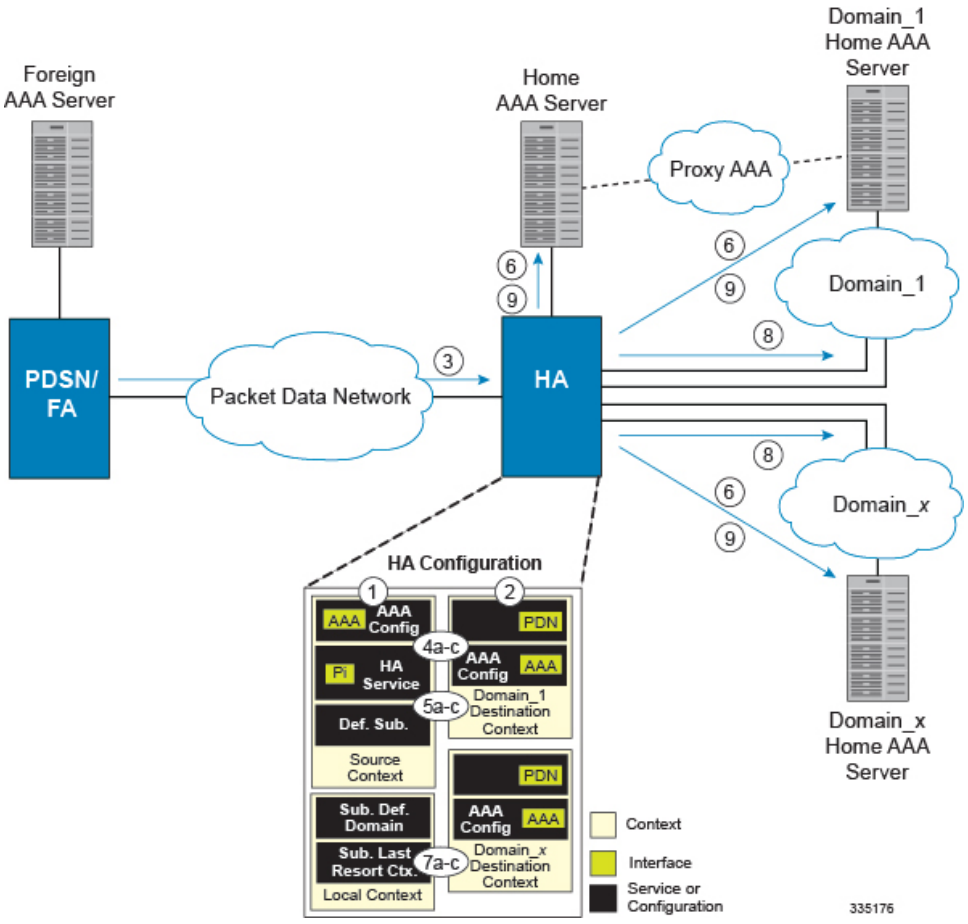
Required Information	Description
Subscriber default domain name	Specifies the name of a context that can provide AAA functions in the event that the domain-part of the username is missing or poorly formed. This parameter will be applied to all subscribers if their domain can not be determined from their username regardless of what domain they are trying to access. **Important** The default domain name can be the same as the source context.
Subscriber Last-resort context	Specifies the name of a context that can provide AAA functions in the event that the domain-part of the username was present but does not match the name of a configured destination context. This parameter will be applied to all subscribers if their specified domain does not match a configured destination context regardless of what domain they are trying to access. **Important** The last-resort context name can be the same as the source context.

Required Information	Description
Subscriber username format	Specifies the format of subscriber usernames as to whether or not the username or domain is specified first and the character that separates them. The possible separator characters are: • @ • % • - • \ • # • / Up to six username formats can be specified. The default is username . **Important** The username string is searched from right to left for the separator character. Therefore, if there is one or more separator characters in the string , only the first one that is recognized is considered the actual separator. For example, if the default username format was used, then for the username string user1@enterprise@isp1, the system resolves to the username user1@enterprise with domain isp1.

How This Configuration Works

The following figure and the text that follows describe how this configuration with a single source and destination context would be used by the system to process a Mobile IP data call.

Figure 4: Call Processing When Using the system as an HA with a Single Source Context and Multiple Outsourced Destination Contexts



1. A subscriber session from the FA is received by the HA service over the Pi interface.
2. The HA service determines which context to use to provide AAA functionality for the session. This process is described in the How the System Selects Contexts section located in the Understanding the System Operation and Configuration chapter of the System Administration Guide.

   For this example, the result of this process is that the HA service determined that AAA functionality should be provided by the Source context.
3. The system then communicates with the Home AAA server specified in the Source context\'s AAA configuration to authenticate the subscriber.
4. Upon successful authentication, the Source context determines which egress context to use for the subscriber session. This process is described in the How the System Selects Contexts section located in the Understanding the System Operation and Configuration chapter of the System Administration Guide.

   For this example, the system determines that the egress context is the Destination context based on the configuration of the Default subscriber.
5. An IP address is assigned to the subscriber\'s mobile node from an IP address pool configured in the destination context. This IP address is used for the duration of the session and then be returned to the pool.
6. Data traffic for the subscriber session is then routed through the PDN interface in the Destination context.

7. Accounting messages for the session are sent to the AAA server over the AAA interface.