



# Identity-Based Networking Services Overview

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Identity-Based Networking Services provides a policy and identity-based framework in which edge devices can deliver flexible and scalable services to subscribers. This module provides information about what Identity-Based Networking Services is and its features and benefits.

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## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

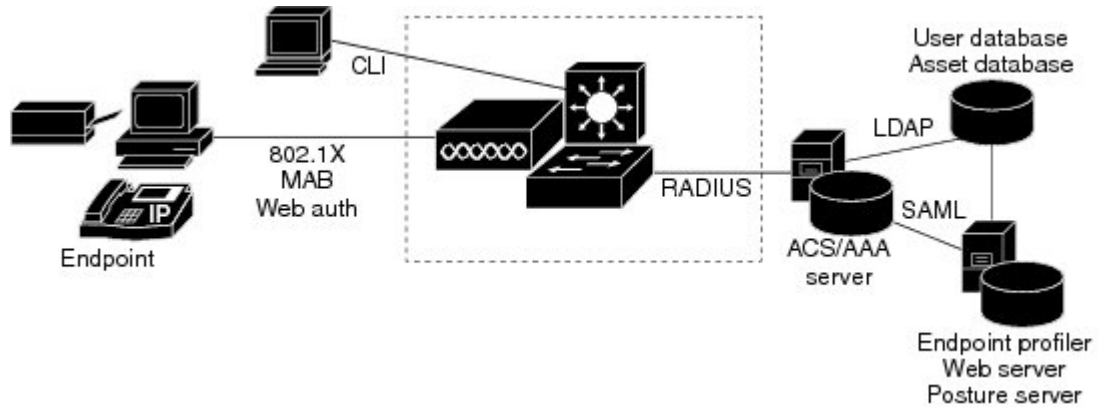
## Information About Identity-Based Networking Services

### Understanding Identity-Based Networking Services

Identity-Based Networking Services provides an identity-based approach to access management and subscriber management. It offers a consistent way to configure features across technologies, a command interface that allows easy deployment and customization of features, and a robust policy control engine with the ability to apply policies defined locally or received from an external server to enforce policy in the network.

The figure below illustrates a typical deployment of Identity-Based Networking Services in a physically distributed enterprise with a campus, branch offices, and remote workers.

**Figure 1: Sample Deployment**



## Features in Identity-Based Networking Services

Identity-Based Networking Services includes the following features:

- Cisco common classification policy language (C3PL)-based identity configuration
- Concurrent authentication methods on a single session, including IEEE 802.1x (dot1x), MAC authentication bypass (MAB), and web authentication
- Downloadable identity service templates
- Extended RADIUS change of authorization (CoA) support for querying, reauthenticating, and terminating a session, port shutdown and port bounce, and activating and deactivating an identity service template.
- Local authentication using Lightweight Directory Access Protocol (LDAP)
- Locally defined identity control policies
- Locally defined identity service templates
- Per-user inactivity handling across methods
- Web authentication support of common session ID
- Web authentication support of IPv6

## Benefits of Identity-Based Networking Services

Identity-based solutions are essential for delivering access control for disparate groups such as employees, contractors, and partners while maintaining low operating expenses. Identity-Based Networking Services provides a consistent approach to operational management through a policy and identity-based infrastructure leading to faster deployment of new features and easier management of switches.

Identity-Based Networking Services provides the following benefits:

- An identity-based framework for session management.
- A robust policy control engine to apply policies defined locally or received from an external AAA server.
- Faster deployment and customization of features across access technologies.
- A simpler and consistent way to configure features across access methods, platforms, and application domains.

## Web Authentication Support for Common Session ID

Identity-Based Networking Services allows a single session identifier to be used for web authentication sessions in addition to all 802.1X and MAB authenticated sessions for a client. This session ID is used for all reporting purposes such as show commands, MIBs, and RADIUS messages and allows users to distinguish messages for one session from messages for other sessions. This common session ID is used consistently across all authentication methods and features applied to a session.

## Web Authentication Support of IPv6

Identity-Based Networking Services introduces IPv6 support for web authentication. IPv6 is supported for web authentication only when Identity-Based Networking Services is explicitly configured. This means that you must permanently convert your configuration to the Cisco common classification policy language (C3PL) display mode by specifically configuring a Identity-Based Networking Services command such as the **policy-map type control subscriber** command.

## Additional References

### Related Documents

| Related Topic                                                           | Document Title                                                                 |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Cisco IOS commands                                                      | <a href="#">Cisco IOS Master Command List, All Releases</a>                    |
| Identity-Based Networking Services commands                             | <a href="#">Cisco IOS Identity-Based Networking Services Command Reference</a> |
| Address Resolution Protocol (ARP) commands                              | <a href="#">Cisco IOS IP Addressing Services Command Reference</a>             |
| ARP configuration tasks                                                 | IP Addressing - ARP Configuration Guide                                        |
| Authentication, authorization, and accounting (AAA) configuration tasks | Authentication Authorization and Accounting Configuration Guide                |
| AAA commands                                                            | Cisco IOS Security Command Reference                                           |

**Standards and RFCs**

| Standard/RFC | Title                                      |
|--------------|--------------------------------------------|
| RFC 5176     | Dynamic Authorization Extensions to RADIUS |

**Technical Assistance**

| Description                                                                                                                                                                                                                                                                                                                                                                           | Link                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password. | <a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a> |

## Feature Information for Identity-Based Networking Services Overview

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/cisco/web/featurenavigator>. An account on Cisco.com is not required.

**Table 1: Feature Information for Identity-Based Networking Services Overview**

| Feature Name                                    | Releases                                                 | Feature Information                                                                                                                     |
|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Web Authentication Support of Common Session ID | Cisco IOS XE Release 3.2SE<br>Cisco IOS XE Release 3.3SE | Allows a single session identifier to be used for all web authentication sessions in addition to 802.1X and MAB authenticated sessions. |