

Cisco Application Networking Manager 5.1

PB687237

Cisco® Application Networking Manager (ANM) software is a critical part of the Cisco ACE Application Control Engine product family. For Cisco ACE environments of all sizes, Cisco ANM provides administrators with enhanced visibility and control over the application delivery network while at their desk or on the road. Deploying Cisco ANM alongside Cisco ACE application delivery controllers (ADCs) enables true single-pane management across all Cisco ACE ADCs, and provides administrators with a comprehensive set of tools to provision, monitor, and troubleshoot application networking services. Cisco ANM can be deployed as a software package for Linux-based systems or as a virtual appliance for supported virtualization platforms.

The release of Cisco ANM 5.1 brings a number of important enhancements to Cisco ANM, improving existing functions and adding new features. Deploying or upgrading to Cisco ANM 5.1 gives administrators more flexibility in completing their day-to-day tasks and reduces the time required to complete many common provisioning tasks.

New Features

Application Templates

Cisco Application Control Engine (ACE) devices are at the core of today's application deployments, providing load balancing, application-specific health checks, persistence tracking, application security, application optimization, and more. Configuring all the requisite options for an application can be time consuming, requiring many individual configuration actions, and frequently the use of long configuration guides. Troubleshooting is often required to find any typographic errors that were made in the configuration, and to test all the various configuration elements individually.

Cisco ANM 5.1 introduces application templates (Figure 1), which offers administrators a simpler and more streamlined way to deploy applications. Cisco ANM 5.1 arrives preinstalled with application templates for a number of commonly used, packaged applications. A small sample of the templates includes:

- Microsoft Exchange 2010
- Microsoft SharePoint 2010
- Generic templates for commonly used server types such as Remote Desktop Protocol (RDP), File Transfer Protocol (FTP), Hyper Text Transfer Protocol (HTTP), Hyper Text Transfer Protocol Secure (HTTPS), and Domain Name System (DNS)

Each included template defines the required features for the specified application. When an administrator uses a template, a wizard provides guidance, prompting for only a few required options (virtual IP address, etc.) and providing diagrams and helpful explanations along the way.

Although certain application templates have been validated and created by Cisco for inclusion in Cisco ANM 5.1, administrators are free to create their own application templates. Templates are defined using a standard XML definition, making template creation very straightforward. Cisco Developer Network (<http://developer.cisco.com/web/anm/>) is the central location for posting and sharing new application templates: both those created by Cisco, and those created by Cisco ANM users like you.

Figure 1. Provisioning Using Application Templates

Config > Guided Setup > Application Setup

The **application setup** task helps you configure ACE to perform server load balancing for an application. Once you have specified the basic parameters of your application below, ANM will guide you through the needed steps. Depending on what settings already exist in the selected virtual context, you may not need to make any changes on some of the pages that follow.

If ACE should use HTTPS when communicating with either the clients or the real servers, then the application should be set up as an HTTPS (SSL) application.

Application Type Microsoft Exchange 2010 using template

Please choose the ACE Virtual Context where you want to configure the application:

Virtual Context sci214:test2

Choose the topology that reflects the relationship of the selected ACE virtual context to the real servers in the network ([learn more](#) about why topology selection is important):

Topology One-Armed

In a **one-armed topology**, the ACE virtual context is connected to the real servers via an independent router, and acts as neither a switch nor a router for the real servers. Clients send requests to the virtual IP (VIP) on the ACE. The ACE then uses network address translation (NAT) to send the requests to the real servers. Server responses return through the ACE rather than directly to the original clients. This topology is convenient, since the ACE can be almost anywhere on the network, but its reliance on NAT makes it impractical in some situations.

The diagram illustrates the One-Armed topology. On the left, a 'Client Network' sends a 'Client to ACE Request' with source IP 'a.b.c.d' and destination 'VIP (dst): 172.16.5.10'. This request passes through an 'ACE VLAN' (e.g., 172.16.5.0/16) to a 'Router/Switch'. The Router/Switch then sends an 'ACE to Server Request' with source IP '172.16.5.101' (NAT Pool IP) and destination 'Server IP (dst): 192.168.1.11' to the 'Server VLAN' (e.g., 192.168.1.0/24). The Server VLAN is connected to 'Real Servers'. The diagram also shows the 'ACE Virtual Context' connected to the Router/Switch.

Cisco ANM Mobile App

Starting with Cisco ANM 5.1, Cisco ANM includes support for Cisco ANM Mobile (Figure 2), which is a set of remote management tools available on a number of popular mobile devices. Cisco ANM Mobile can be accessed in a variety of ways:

- A native Cisco ANM Mobile app is available from the App Store for Apple iPhones
- A native Cisco ANM Mobile app is available from the Android market for Android-based smartphones
- A native Cisco ANM Mobile app is available from Cisco AppHQ on Cisco Cius tablets
- A web version of the Cisco ANM Mobile app can be accessed using the web browser on most mobile devices including tablets

Both methods of using Cisco ANM Mobile provide the same features, with the exception of push notifications, which are available only when using either of the native apps.

Cisco ANM Mobile allows administrators to receive push notifications on their mobile devices whenever one of their specified favorite real servers, virtual servers, or other devices goes offline or online. Push notifications allow administrators to be notified of potential application problems immediately, regardless of whether the administrators are at their desks or at the beach.

Using Cisco ANM Mobile, administrators also can view configuration and monitoring information for their list of favorite real servers, virtual servers, devices, and even Cisco Global Site Selector (GSS) answers and rules. Administrators can also perform operational tasks on these elements such as placing a real server in or out of service.

Figure 2. ANM Mobile on Apple iPhone



IPv6 Support

Cisco ANM 5.1 includes full compatibility with IPv6-enabled Cisco ACE devices, including the Cisco ACE30 Module for the Cisco Catalyst® 6500 Series Switches, the Cisco ACE 4710 appliance, and Cisco GSS devices running Cisco ANM 4.1 and later. When configuring these devices, you can configure all features that support IPv6 addresses from within Cisco ANM. Information and monitoring screens have also been updated to include IPv6 information where available.

Web Services API

The Cisco ANM Web Services API has been enhanced in Cisco ANM 5.1 to support the application template feature. This addition allows administrators to create an application template and provision it directly through the use of Web Services API calls and any commonly used orchestration systems. The Web Services API has also been updated provide access to Cisco ACE checkpoints, allowing administrators and orchestration tools to roll back Cisco ACE contexts to any previously saved configuration checkpoints.

Extensive API documentation and help, including sample scripts and discussion forums, can be found at the Cisco Developer Network (<http://developer.cisco.com/web/anm/>).

Upgrade Paths

Cisco ANM 5.1 supports upgrades on the same server from all versions of Cisco ANM 4.x. Customers upgrading from versions prior to Cisco ANM 4.1 must first upgrade to Cisco ANM 4.1 before migrating to Cisco ANM 5.1.

Customers upgrading from Cisco ANM 4.1 versions must follow the instructions provided in the appropriate installation guide:

- http://www.cisco.com/en/US/docs/app_ntwk_services/data_center_app_services/application_networking_manager/5.1/installation/guide/InstallationGuide.html
- http://www.cisco.com/en/US/docs/app_ntwk_services/data_center_app_services/application_networking_manager/5.1/virtual/appliance/guide/VirtualApplianceGuide.html

All existing Cisco ANM customers are eligible to upgrade without charge to Cisco ANM 5.1. All Cisco ANM server licenses (ANM-SERVER-xx-K9) from Cisco ANM 1.1, 1.2, 2.0, 3.0, and 4.1 fulfill the licensing requirements for upgrades. Customers with Cisco ANM 1.2, 2.0, and 3.0 and 4.1 licenses can reuse their current Cisco ANM licenses when upgrading to Cisco ANM 5.1 on the same server platform. Customers wanting to re-host their Cisco ANM on a different server platform or to move to Cisco ANM Virtual Appliance for VMware should contact the Cisco Technical Assistance Center (TAC) or [Global Licensing Operations](#) as usual to ask for a replacement Cisco ANM license PAK to rehost their existing license at the new server and appliance address.

Ordering Information

Cisco ANM 5.1 is offered for order at no charge, though it does still require licensing. The Cisco ANM server software license always must be ordered to receive the license necessary to install the product for production use, and Cisco Software Application Support (SAS) requires a separate purchase. Table 1 lists the Cisco ANM 5.1 licenses available for ordering.

Cisco ANM is available for order through regular Cisco sales and distribution channels worldwide. To place an order, visit the [Cisco Ordering homepage](#). To download software, visit the Cisco Software Center. To receive a 90-day evaluation license for Cisco ANM, visit the Cisco Licensing page at <http://www.cisco.com/go/license> and click the link for Evaluation Software.

The installation files for Cisco ANM Virtual Appliance for VMware and for Cisco ANM Server for Red Hat Enterprise Linux are provided in the same package.

Table 1. Ordering Information

| Description | Part Number |
|--|--------------------|
| Postal Delivered Cisco ANM Server Software | ANM-SERVER-50-K9 |
| Electronically Delivered ANM Server Software | L-ANM-SERVER-50-K9 |

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For More Information

For more information about Cisco ANM, visit <http://www.cisco.com/go/anm> or contact your local account representative.



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