

# DistributedDirector Enhancements for Cisco IOS 11.1(28)IA and End-of-Engineering for Cisco IOS 11.1IA Release Train

This product bulletin describes the new features in Cisco IOS<sup>®</sup> 11.1(28)IA, the software for DistributedDirector. It also documents the end-of-engineering for the IOS 11.1IA release train.

- Cisco IOS 11.1IA is based on Cisco IOS 11.1
- Release 11.1IA is for the DistributedDirector product only. It is not a router image and does not provide routing functionality.

## New Features for this Release

The DistributedDirector enhancements for Cisco IOS Release 11.1(28)IA consist of the following three new features for Cisco DistributedDirector:

- Multiple resource records
- Additional syslog messages
- Multiple port testing for server availability

### Enhanced Fault-Tolerance with Multiple Resource Records

Prior to this enhancement, DistributedDirector would return a single Resource Record (RR) in each Domain Name System (DNS) response. This was normally sufficient, but for some applications server fail-over will occur more rapidly when applications are provided IP addresses of multiple servers.

The enhanced fault tolerance with multiple resource records feature enables DistributedDirector to return multiple RR. The number of RRs returned in a single reply is configurable. The default number of RRs returned is one.

### Critical Event Recording with Syslog

The critical event recording with syslog feature enables DistributedDirector to log critical events by way of the industry-standard syslog system. Server state is logged, providing a useful log of when servers are considered up or down. Additionally, the server selection process may be logged. In both cases, the logging priority level is “informational.”

### Enhanced Server Verification with Multiple Port Connect Test

Prior to this enhancement, DistributedDirector could evaluate server status by performing a Transmission Control Protocol (TCP) connect test to a single port. The enhanced server verification with multiple port connect test feature allows multiple connect ports to be specified. If any one of the connect tests fail, the server is considered down.

## Benefits

The new features provided in Cisco IOS Release 11.1(28)IA help make networks using DistributedDirector more robust. These features ensure that applications have more useful information, perform better server verification, and allow administrators to better track DistributedDirector. In particular:

- The enhanced fault tolerance with multiple resource records feature provides better fault-tolerance for clients.
- The critical event recording with syslog feature gives the ability to examine DNS traffic and how servers are chosen.
- The enhanced server verification with multiple port connect test feature allows multiple services such as Hypertext Transfer Protocol (HTTP) and Secure Sockets Layer (SSL) to be checked to determine the availability of a server.

## End-of-Engineering for Cisco IOS 11.1IA Release Train

Cisco IOS 11.1(28)IA is the last release for the 11.1IA release train. The 11.1IA release train is dedicated to the DistributedDirector product and will be followed by a release based on Cisco IOS 12.1T in H2 CY2000.



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