



## Q&A

# CISCO APPLICATION ANALYSIS SOLUTION VERSION 1.0

## GENERAL

**Q.** What is Cisco® Application Analysis Solution?

**A.** Cisco Application Analysis Solution (AAS) is a software application that provides a detailed, quantitative understanding of the complex interactions among applications, servers, and networks to efficiently and cost-effectively deploy and support networked applications. It is a single-user decision support tool used by network and application planning and support organizations to do the following:

- Pinpoint network and application bottlenecks
- Diagnose application performance problems
- Explore proposed “fixes” to existing applications
- Predict application performance under varying configurations and network conditions

**Q.** What types of users will benefit from Cisco AAS?

**A.** Cisco AAS is suitable for any medium-sized or large enterprise that operates an IP network to support critical business applications. Users may include staff from network or infrastructure planning, operations, or application development. Cisco AAS is unique in its ability to characterize application behavior, including its interaction with the underlying IT infrastructure, in a simple, straightforward way. Users are able to clearly understand application dynamics, and the relative impact of a host of variables on application performance.

**Q.** What is a typical workflow when using Cisco AAS?

**A.** A typical workflow comprises the following steps:

- Capture data
- If required, filter the data upon import into Cisco AAS to target specific application flows and time periods (for example, for a single transaction)
- Analyze the data automatically with Cisco AAS: separate the flow into application and network components; determine the relative processing time spent at various layers for a multi-tier application; decode application flows into messages; diagnose bottlenecks
- “Test” various solutions (for example, change TCP windowing, or perform a virtual recode of the application to change message sizes) to assess the impact on end-to-end performance
- View comprehensive reports

**Q.** How is Cisco AAS used to support network or application planning?

**A.** Cisco AAS can be used to support application deployment planning. A simple model of the production network can be inferred by Cisco AAS from the application trace information, including operational characteristics such as delay. The sample application flows can be “scaled” to represent growing transaction volume and wider deployment.

More detailed planning, including detailed network planning, can be accomplished by using data from Cisco AAS in the Cisco Network Planning Solution (NPS). For more information about Cisco NPS, please visit <http://www.cisco.com/en/US/products/ps6363/index.html> or contact your local account representative.

## INSTALLATION AND IMPLEMENTATION

**Q.** Do multiple concurrent users require more than one license?

**A.** Yes. Concurrent users require an equivalent number of Cisco AAS licenses. Alternatively, multiple users may share a single license for Cisco AAS but not concurrently. A License Server allows each user to "check out" a license on an as-needed basis and return it automatically when completed.

**Q.** Does the user require application development expertise to effectively use Cisco AAS?

**A.** No, network planners and engineers are able to use Cisco AAS very effectively to diagnose the source of application response issues ("Is it the network or the system?"), and to support application deployment planning. Cisco AAS embodies the application expertise required to automatically analyze applications and identify recommended solutions.

**Q.** How much time and effort is required to implement Cisco AAS? Are professional services needed for implementation?

**A.** The time and effort required to implement Cisco AAS is small—very little configuration is required. Sample models and tutorials are provided to introduce the user to the GUI, product features, scope of technology and protocol support, etc., thereby accelerating the "learning curve." Additionally, detailed methodology guides are included in the product documentation to walk the user through workflows and approaches for common analyses, such as network capacity planning.

## THE APPLICATION CAPTURE AGENT

**Q.** Does Cisco AAS provide mechanisms to capture application data for analysis?

**A.** Yes, Cisco AAS is provided with Application Capture Agents for a broad scope of target operating environments. Alternatively, data can be captured by the Cisco NAM, or third-party sources.

**Q.** How many instances of the Application Capture Agent can be installed?

**A.** The user may install as many instances of the Application Capture Agent as desired to support application and network management requirements. Some users have incorporated the Agent into their standard desktop and server build to ensure it is readily available to support application performance troubleshooting.

**Q.** Why are there multiple versions of the Application Capture Agent?

**A.** Different versions are specific to different target operating environments. Refer to the Installation Guide to determine the version that supports a specific target OS. Supported environments include:

- Windows 95, Windows 98/ME, Windows NT 4.0, Windows 2000 (32-bit), Windows Server 2003 (32-bit), Windows XP (32-bit)
- Sun Solaris 7, 8, 9
- Linux Kernel 2.2 and 2.4
- HP UX 11.0 (32-bit)
- IBM AIX 4.3.3, 5.x (32-bit)

**Q.** What is the performance impact of the Application Capture Agent on the target platform?

**A.** When not performing a capture, the Agent is completely idle, and consumes no CPU and minimal memory (2 to 5 MB). Typically during a capture, the Agent has a very light footprint in terms of memory (555 to 9 MB) and CPU usage. However, if the Agent is used to record data for an extended period of time at a sustained data transfer rate approaching full high-speed LAN data rates, CPU usage can become more significant (in this case, note that configuring the Agent to only capture the first 90 bytes of each packet will reduce the performance impact).

## INTEGRATION WITH CISCO SOLUTIONS AND THIRD-PARTY SOLUTIONS

**Q.** Does the Cisco AAS integrate with the Cisco Network Analysis Module (NAM)?

**A.** Yes. Data from the Cisco NAM can be exported in .enc format, and then imported into the Cisco AAS for analysis and troubleshooting.

**Q.** How does data capture with the Cisco NAM differ from capturing data using the Application Capture Agent?

**A.** Data capture with the Application Capture Agent is usually targeted to a specific application and collection period (for example, when the target transaction is being executed). The Cisco NAM captures data for all the flows that traverse an interface, and usually on an ongoing basis. This data is filtered upon import into Cisco AAS to isolate the target flows and time period.

**Q.** What other Cisco Systems® solutions does Cisco AAS integrate with?

**A.** Cisco AAS integrates with the Cisco Network Planning Solution (NPS) to enable detailed application and network studies. Application Capture Agent traces from Cisco AAS can be imported into the Cisco NPS to model flows for specific applications, to support application growth and deployment studies, etc. This data can be scaled to represent growth, or used to conduct detailed network QoS studies, etc. For more information about Cisco NPS, please visit <http://www.cisco.com/en/US/products/ps6363/index.html> or contact your local account representative.

**Q.** What third-party application trace input or formats are supported as input to Cisco AAS?

**A.** Cisco AAS supports the following trace file formats:

- Sniffer .cap file format (uncompressed)
- Industry-standard binary .enc file format (uncompressed)
- TCPdump
- windump
- .fdc (FDDI) files, uncompressed

**Q.** Can traces be captured from (IBM) mainframe-based applications for analysis by Cisco AAS?

**A.** Yes. Trace data is collected as IP packets enter or leave TCP/IP. The actual collection occurs within the device drivers of TCP/IP, which capture the data that has just been received from or sent to the network. The selection criteria for choosing packets to trace are specified through the PKTTRACE statement for the TCP/IP address space. The trace is written to a CTrace data set that is subsequently processed with the IPCS Format program to create a .enc or .trc file.

Most IBM mainframe environments are supported:

- CS/390 TCP/IP or z/OS Communication Server TCP/IP
- OS/390 or z/OS

The trace utility is integrated in z/OS Version 1 Release 2. For OS/390, the utility can be downloaded from IBM's Website.

## FOR MORE INFORMATION

For more information about the Cisco Application Analysis Solution, visit <http://www.cisco.com/en/US/products/ps6362/index.html> or contact your local account representative.

**Corporate Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

**European Headquarters**

Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
www-europe.cisco.com  
Tel: 31 0 20 357 1000  
Fax: 31 0 20 357 1100

**Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-7660  
Fax: 408 527-0883

**Asia Pacific Headquarters**

Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on **the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).**

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus  
Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel  
Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal  
Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan  
Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2005 Cisco Systems, Inc. All rights reserved. CCSP, CCVP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, Packet, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StrataView Plus, TeleRouter, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0502R) 205379.M\_ETMG\_KW\_7.05

