SERVICE DATA SHEET

CISCO SERVICES FOR CISCO NETWORK APPLICATION PERFORMANCE ANALYSIS SOLUTION

The Cisco® Network Application Performance Analysis Solution (NAPAS) enables customers to protect the performance of their mission-critical applications by optimally sizing their network bandwidth. Using proven tools and methodologies you can assess existing network utilization and projected future growth, predict how the network will perform and make recommendations to tune the network to protect mission-critical application performance.

Cisco Services for Cisco NAPAS offer expertise to assist enterprises with getting the most value from these advanced management tools, adopting best practices for IT management, and quickly troubleshooting and solving incidents and events relating to application and network performance.

SERVICE OVERVIEW

Cisco NAPAS offers IT professionals a comprehensive, suite of tools that push traditional application and network management to new levels of visibility and understanding, making possible close collaboration among teams to address projects and problems more efficiently.

What makes the Cisco NAPAS solution so useful to enterprises is that Cisco offers a suite of services that supplement enterprise expertise, enabling local IT staff to achieve the full potential of each Cisco NAPAS tool and re-structure traditional approaches to new projects and problem solving into a larger context that allows enterprises to bridge the management gaps between application and network services.

Our Cisco consulting engineers have years of practical network engineering expertise working on and supporting Cisco customer networks. They have developed expertise in Cisco's Network Analysis and Planning toolsets, networking, protocols and application behavior. This combination of experience and skill enables our consultants to

- Efficiently capture relevant data to determine current network utilization
- Model the existing network infrastructure
- Analyze the affect of growth and failures on the existing network

SERVICES THROUGHOUT THE LIFECYCLE

The network lifecycle is a beginning-to-end view of the continuum of events that take place in the network lifespan. Through a broad portfolio of targeted end-to-end services, Cisco and its partners can help you achieve business goals throughout the six phases of the network lifecycle:

- **Prepare—**Make sound financial decisions by developing a business case that establishes the financial justification for making a technology change
- **Plan—**Assess the existing environment to determine whether it can support the proposed system sufficiently and securely
- **Design—**Design a solution that meets business and technical requirements
- **Implement—**Integrate the new solution without disrupting the network or creating points of vulnerability
- **Operate—**Maintain network health through day-to-day operations
- **Optimize—**Achieve operational excellence by adapting the architecture, operation, and performance of the network to ever-changing business requirements and positioning it to reenter the prepare phase of its lifecycle

Cisco Services for the Cisco NAPAS solution provides services aligned with each tool in multiple phases of the network lifecycle, as shown in Table 1.

Table 1. Alignment of Cisco Services with the Phases of the Lifecycle

Lifecycle Phase	Management Tools	Cisco Services
Plan	Cisco Network Planning Solution Cisco Application Analysis Solution	Cisco Application Performance Tools Deployment Service
Design	Cisco Network Planning Solution	Cisco Application Performance Tools Deployment Service
Implement	CiscoWorks Resource Manager Essentials	Cisco Application Performance Optimization Service
Operate	Cisco Application Analysis Solution CiscoWorks Resource Manager Essentials Cisco Network Analysis Module Cisco Performance Visibility Manager Cisco CNS NetFlow Collection Engine	Cisco Application Performance Troubleshooting Service Cisco Application Performance Benchmarking Service

Cisco Application Performance Troubleshooting Service: Identifying and Analyzing Performance Issues in Your Network

The Cisco Application Performance Troubleshooting Service helps enterprises learn how to use the Cisco Application Analysis Solution tool to solve immediate issues. The service uses analytical methodology and tools to analyze the application. Combining this methodology together with Cisco Consulting engineer's expertise and knowledge of Cisco Networks provides the customer with a detailed analysis and resolution of their unique application performance issues.

The Cisco Network Application Performance Troubleshooting Service examines your application or applications performance issues to help identify an area to focus on for an in-depth analysis. In performing the analysis, Cisco Services engineers collect performance data, identify exception areas, and analyze data captured utilizing proven tools and methodologies.

After analyzing the data collected, the engineers prepare a detailed report, which provides:

- Detailed protocol breakdown of the specific application containing different performance metrics
- A definitive breakdown of your application response times including the impact of network bandwidth, network latency and congestion, network errors, node processing, and application behavior
- A review of the report with your team helps you make informed decisions about how to improve and optimize the performance of your existing application or applications in order to improve the end user experience.

Table 2 shows the Application Performance Troubleshooting Service activities and deliverables.

Table 2. Cisco Application Performance Troubleshooting Service Activities and Deliverables

Activities	Deliverables
Understand and analyze customer application or applications performance problems Build a plan to strategically place application transaction capture agents on the network Validate data capture integrity Analyze the application behavior from the network perspective Presentation and discussion of findings and recommendations with customer team	Detailed report based on the protocol breakdown of the specific application containing various performance metrics Report also contains a specific breakdown of your application response times including impact of network bandwidth, network latency and congestion, network errors, node processing and application behavior.

With the Cisco Application Performance Troubleshooting Service, Cisco experts collaborate with enterprise IT staff to:

- Identify a performance problem for a specific application
- Diagnose applications that are not meeting user expectations
- Analyze possible areas that contribute to performance delay
- Perform end-to-end transaction performance breakdown and analysis
- Enable effective cross-functional problem communication among network, systems and application staff

By effectively reviewing your application profile, collecting performance-related data, and applying Cisco leading practices, the Network Application Performance Troubleshooting service provides you with greater insight into your application issues, helping you to more quickly identify current sources of instability and diminished performance.

This insight helps ensure that your application or applications run at optimal performance by identifying the necessary infrastructure or application tuning required.

With the Cisco Application Performance Troubleshooting Service, you can:

- Operate applications at optimal performance
- Quickly avoid costly performance problems
- Prevent unnecessary and time consuming additional planning cycles
- Improve employee productivity
- Facilitate coordination between network and application management teams

Cisco Application Performance Benchmarking Service: Enabling customers to address network application performance issues prior to deployment

The Cisco Application Performance Benchmarking Service enables customers to identify and address potential network application performance issues before applications are deployed on the network environment. It uses an analytical methodology and tools to understand the production network environment, capture application behavior in a test environment and predict how the application will run on the network. Combining this methodology together with Cisco consulting engineer expertise and knowledge of Cisco networks enables our consultants to identify potential application performance issues before applications are deployed. Results from our analysis can be used to optimize network and/or application performance before the applications are released to users.

The Application Performance Benchmarking Service examines your application(s) behavior and analyzes the application using a model of your network to predict how the application will perform when it is deployed. The documented analysis will provide a profile of the network application, identify any performance risks found during analysis and make recommendations regarding network and application tuning to improve application performance prior to deployment.

In performing the analysis, Cisco Services engineers collect application data, model the existing network environment, and the analyze data using proven tools and methodologies.

After analyzing the data collected, the engineers prepare a detailed report, which provides:

- Detailed protocol breakdown of the specific application containing various performance metrics
- A definitive breakdown of your application response times including the impact of network bandwidth, network latency and congestion, network errors, node processing, and application behavior
- Findings derived from running the application through various model scenarios
- Identification of risks found to network application performance
- Recommendations regarding network and application tuning to enhance application performance

A review of the report with your team helps you make informed decisions about how to optimize the performance of your existing application or applications in order to improve the end user experience.

At the end of this service you will have a comprehensive profile of your specific application and a proven methodology to reuse in the future to conduct your own application validation.

Table 3 shows the Cisco Application Performance Benchmarking Service activities and deliverables:

Table 3. Cisco Application Performance Benchmarking Service Activities and Deliverables

Activities	Deliverables
Review network application test methodology Review application protocol with application team to understand application design and operation, including application usage and growth expectations Insert network modeling tools and application capture agents in customer test environment Model existing network infrastructure (may include capturing statistical data on network usage) Capture application behavior in test environment Model application to predict its behavior on the network infrastructure Presentation and discussion of findings and recommendations with customer team	Document detailing – expected application behavior in given scenarios – identified risks associated with application behavior (either network or application centric), including delay, latency, packet loss, processing – recommendations on how to tune the network to optimize application performance and suggestions as to how to tune the application to take advantage of the network infrastructure

Our Cisco Services consulting engineers will work with your network, application and testing resources to insert application validation best-practices into your existing methodology and use the toolset to capture, profile and model your network application. This methodology will enable the teams to identify application or network optimizations that will mitigate performance risks to the application prior to actual deployment.

With the Cisco Application Performance Benchmarking Service, Cisco experts collaborate with enterprise IT staff to:

- Profile a network application in a test environment or from live network traffic
- Analyze and predict network application performance under different "what-if" scenarios balancing variables such as bandwidth, congestion, and user/component location)
- Analyze and predict scalability of network application and its potential network impact
- Recommend opportunities for application developers and network engineers to tune the application and network to optimize performance

With the Cisco Application Performance Benchmarking Service, you can:

- Predict application performance before it is deployed

- Identify opportunities to optimize an application through parameter tuning
- Identify and mitigate possible network bottlenecks that may impede application rollout
- Enable application and network groups to successfully roll out profiled applications to user community with confidence

Application Performance Optimization Service: Enabling customers to optimally size their network bandwidth and protect their mission-critical applications

Cisco helps enterprises use the Cisco Network Planning Solution tool to evaluate the current network environment and anticipate how growth will affect the existing network environment. Combining a methodical approach to gathering, modeling and analyzing network performance data together with Cisco Consulting engineer's expertise and knowledge of Cisco Networks provides the customer with detailed analysis and recommendations for their unique network environment.

Our Cisco Services consulting engineers will work with your network resources to become familiar with the existing network environment and use the Cisco Network Planning Solution toolset and customer network management systems to accurately model your network infrastructure. This will enable the teams to identify network optimizations that will mitigate performance risks to mission-critical applications due to growth or network component/link failure.

This service provides insight into the current utilization of your existing network infrastructure and how your network infrastructure will react to certain failure scenarios and user/application growth. The organization can then use this information and the associated recommendations to quickly address any immediate issues and put a comprehensive, informed plan in place to deal with future network growth and redundancy requirements.

The Application Performance Optimization Service models your network infrastructure to determine existing network capacity and predict how the network will perform when faced with growth and certain failure scenarios. The documented analysis will detail existing network capacity, identify and prioritize any performance risks found during analysis and make recommendations to mitigate those risks.

In performing the analysis, Cisco services engineers collect network data, model the existing network environment, and analyze the data using proven tools and methodologies. The Cisco Services engineers use this analysis to develop a detailed report of their findings and recommendations.

A review of the report with your team helps you make informed decisions about where there are capacity risks in the existing network infrastructure today, what risks you can expect when faced with growth or failures, and how you can mitigate or eliminate these risks.

At the end of this service you will have a document providing a detailed network capacity evaluation that you can use as a baseline for future planning activities.

Table 4 shows the Cisco Application Performance Optimization Service activities and deliverables:

Table 4. Cisco Application Performance Optimization Service Activities and Deliverables

Activities	Deliverables
Review customer network data collection and reporting capabilities Deploy data collection tools (if deemed necessary) Create a model of the network environment Predict network behavior given data collected and using projections of user/application growth Predict network behavior given device or link failure Deliver document of findings and recommendations Executive presentation	Document detailing – Current network utilization – Predicted network capacity risks based on growth projections – Predicted network risks identified through failure scenario analysis – Prioritized list of identified risks to network availability and performance – Recommendations to remediate/mitigate identified risks

With the Cisco Application Performance Optimization Service, Cisco experts will collaborate with enterprise IT staff to:

- Develop of traffic profiles for specific network segments
- Diagnose bandwidth-capacity issues for links that do not meet user expectations
- Analyze possible capacity issues that contribute to performance delay
- Breakdown and analyze end-to-end capacity bandwidth

With this service you can:

- Scope bandwidth pipes for optimal performance
- Avoid costly emergency bandwidth upgrade issues
- Reduce user complaints due to network congestion
- Improve employee productivity
- Facilitate effective cross-functional communication among the network, systems, and application staff about problems

Application Performance Tools Deployment Service: Enabling Customers To Efficiently Install And Configure Napa Solution Tools

Cisco helps enterprises efficiently deploy the suite of NAPAS tools to ensure that these tools are properly installed in a timely fashion. Combining a methodical approach to assessing the current environment, deploying the tool with basic configuration settings and preparing the customers staff for on-going operations, Cisco engineers help ensure that the Cisco Network Planning Solution delivers the expected features and functionalities.

The service includes setup, configuration, customization, automation, and knowledge transfer. The service includes the following steps:

- Assessments—both technical and operational assessments help enterprises understand their current situation, and identify what their goals are. It includes essential network measurements such as link information, traffic flows, developing a network topology, and gathering current network configurations and event data. The operational assessment identifies the skills and processes that an enterprise IT team already has, and makes recommendations for additional training as required.

- Implementation—including deployment of new hardware and software, migrating customer data, and then testing and documenting everything.

- Production Handoff—includes tuning and optimization of network devices to achieve compliance with detailed service-level agreements (SLAs), then a knowledge transfer step to prepare enterprise IT staff for successful operations and management.

By purchasing this service, enterprises gain the following benefits:

- Assure that the Cisco NPS tool delivers expected features and functions through involvement in all aspects of the Plan, Design, and Implementation activities for its deployment

- Increase system productivity and mitigate the risk of resolving faults by installing the tools as rapidly as possible

- Improve revenue generation through enhancing operation of the services and applications that support it

- Increase staff productivity by enhancing staff skills

- Increase the accuracy, speed, and efficiency of Cisco NPS deployments by providing expertise and methodologies such as project management plans, architecture designs, and implementation plans

SUMMARY

Cisco Systems offers innovative service programs, delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business.

ADDITIONAL SERVICES

In addition to Services developed specifically for NAPAS, technical support is available through the Software Application Support (SAS) and Software Application Support with Upgrades (SASU) programs. Check with your Cisco Account Manager or Service Account Manager for details.

AVAILABILITY AND ORDERING INFORMATION

Cisco Services for NAPAS are available globally. Details might vary by region. Check with your Cisco Account Manager or Service Account Manager for details.

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