

PRODUCT SHEET:
CA Spectrum

CA Spectrum® r9.2.1

agility
made possible™



The Service Assurance solution from CA Technologies helps enterprises, government agencies, and service providers assure their business services by avoiding the risk and cost of business service interruptions. The Service Assurance solution is delivered in three focus areas: CA Infrastructure Management, CA Application Performance Management and CA Service Operations Management. CA Spectrum® is a foundational component of the CA Infrastructure Management portfolio that, along with other performance and traffic analysis products, focuses on properly managing converged and dynamic IT infrastructures. CA Spectrum (formerly CA Spectrum Infrastructure Manager) integrates service-centric and change-aware infrastructure management, fault isolation and root cause analysis into a single tool to provide better service at a lower cost.

Overview

Your enterprise, service provider business or government agency depends on your infrastructure. Downtime and performance problems can have an immediate and increasingly severe impact on productivity, revenue and profitability. CA Technologies understands that today's IT organizations are responsible for delivering key services, and that fault management in today's infrastructures means assuring both the health and availability of these services.

At the core of the CA Spectrum service-aware infrastructure management is functionality to discover, model, monitor, and manage relationships between the service delivery infrastructure and the business services it supports. By understanding the relationships between assets, configurations, and events that affect a service, CA Spectrum is designed to pinpoint which incidents have the greatest impact and which should get the highest priority for remediation.

CA Spectrum software automates fault management across multi-vendor and multi-technology infrastructures, tailoring information views and management capabilities to meet the needs of a broad range of technical and non-technical users. Fault management is enhanced by out-of-the-box root cause analytics, configurable alerts, intuitive dashboards and troubleshooting tools that business managers can use to manage today's ubiquitous virtualization technologies and emerging cloud services, into the full value proposition that is CA Spectrum.

Business value

Many IT organizations share three common challenges—how to quickly gauge the impact of issues on users and customers, how to avoid time-consuming, labor-intensive incident resolution, and how to avoid the significantly large percentage of issues caused by incorrect configuration changes.

CA Spectrum is designed to address these challenges. CA Spectrum delivers best-in-class infrastructure management across diverse, multi-technology networks, physical and virtual systems and cloud services to help assure the availability of your critical business applications.

The ability of CA Spectrum to tightly integrate with your existing investments in CA Technologies, such as CA Application Performance Management, CA Service Operations Insight and CA Service Desk, as well as integrating with your third-party or custom IT management tools increases its business value through visibility across your entire infrastructure, resulting in simplified management and a lower Total Cost of Ownership.

Features

What's new in CA Spectrum r9.2.1

CA Spectrum has established its value as a fault and availability manager with its patented root cause and AutoDiscovery technology, as well as with its strength in service modeling and change-aware configuration management.

The release of CA Spectrum r9.2 Service Pack 1 (r9.2.1) continues to enhance CA Spectrum value with several new features:

Virtualization management and next generation data center updates

- New virtualization management support for Microsoft Hyper-V and IBM LPARS platforms that offers consistent user experience in multi-vendor virtual environments including VMware, Sun Solaris Zones, IBM LPARS and Microsoft Hyper-V
- Enhanced remote monitoring support of VMware environments
- Enhanced CA Spectrum Virtual Host Manager (VHM) discovery and modeling capabilities
- New, out-of-the-box virtualization event reporting
- Additional support for the Cisco Unified Computing System (UCS)

- New discovery, modeling and monitoring of Cisco UCS Service Profiles that let you monitor your Cisco UCS environments from a logical perspective with the ability to automatically track resource shifts and determine fault impacts to Service Profiles
- New automatic association of VMware ESX Host to Cisco UCS blades for enhanced visualization and increased manageability in the data center
- Extensive monitoring and visualization across the entire Cisco Data Center and back into the network infrastructure
- Leveraging CA Spectrum root cause analysis and event correlation capabilities to help Operators quickly pinpoint root cause

CA Spectrum/CA NetQoS Performance Center (NPC): Integration for best-in-class performance reporting and fault management technologies

- Unified fault and performance statistics so that from an alert within CA Spectrum you can drill down into the CA NPC dashboard to look at real time updates and historical trending for any monitored element
- IP Routing Manager (IPRM) enhancements for improved visualization of layer 3 topology and managed paths
 - Support for managing paths going over an MPLS provider cloud
 - Visibility into OSPF/Routing Costs on topology links and path hops
 - Improved IPRM topology readability for very large networks

PolicyManager user interface redesign

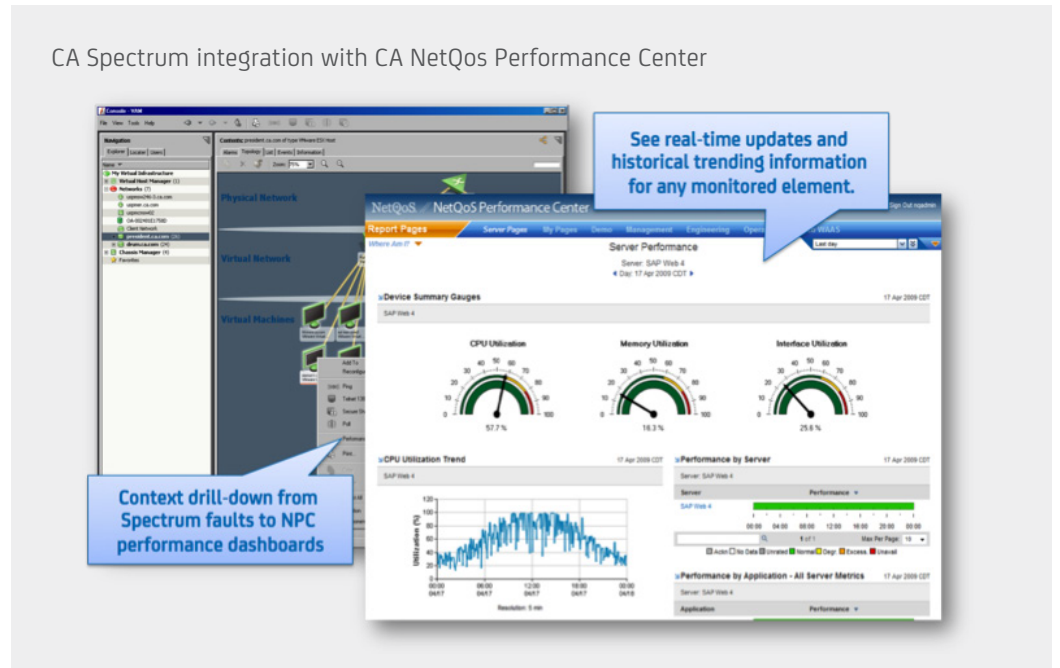
- Use CA Spectrum OneClick® to create and manage CA Spectrum policies without the need for XML expertise.
- Full support to edit and manage legacy XML-based policies
- Easy access to key policy, rule and setting configurations

CA Spectrum Network Configuration Manager (NCM)

- Monitor configuration change details, such as interface or ACL change, with the ability to monitor multiple lines within a host configuration file
- NCM policy enforcement on comparison of text blocks within host configuration files for greater control and visibility into how configuration changes impact your overall infrastructure availability

Figure 1

The integration enables CA NetQoS Performance Center to send incident and threshold events to CA Spectrum for event management and CA Spectrum can then drill down into any element monitored by CA NetQoS Performance Center to view real time status and historical performance.



Core features

- **Service-aware infrastructure management:** At the core of CA Spectrum infrastructure management is functionality to model, monitor and manage relationships between the infrastructure, services and the users of those services, across physical, virtualized and cloud environments. By understanding the relationships between assets, configurations and events that affect a service, CA Spectrum is able to pinpoint the root cause of service problems for faster resolution.

The CA Spectrum service dashboard provides role-appropriate information to service owners, call center operators and customers, allowing them to view information relevant to their specific needs.

- Service-aware infrastructure management and service impact analysis
- Tight integration with other CA Technologies and third-party network management system tools for a full service view

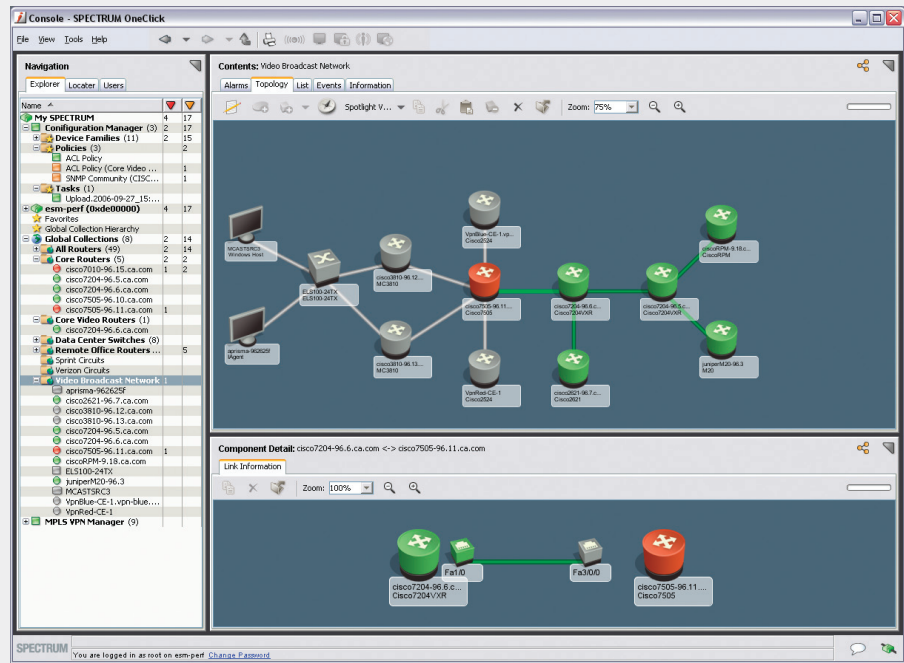
- **Fault isolation and root cause analysis:** Fault management is a fundamental capability of CA Spectrum. CA Spectrum discovers the infrastructure, maps the relationships, detects and correlates events to suppress unnecessary alarms, automates root cause and impact analysis, and manages IP service technologies. The CA Spectrum software's patented AutoDiscovery technology is a compelling example of cost-saving automation capabilities. Patented root cause analysis can pinpoint specific faults down to the individual port or circuit or other at-fault component. CA Spectrum presents clear and actionable information through its unique graphical user interface, the CA Spectrum OneClick operations console.
 - Real time network and systems device discovery and relationship mapping
 - Automated event correlation and root cause analysis
- **Change-aware infrastructure management:** The benefits of configuration and change management are significant; with up to 80% of network problems attributable to poor configuration and change management you can eliminate much of costly downtime and troubleshooting effort.

CA Spectrum extends your view of the infrastructure to network change and configuration management. CA Spectrum eases the complexity of managing change to network device configurations giving you tools to capture, monitor, track and remediate configuration changes to thousands of network devices from virtually any vendor. Integration of fault management and network configuration management enables correlation of outages to configuration change activity and it can also provide a configuration audit trail of any selected network device.

Figure 2

CA Spectrum deduces the root cause of the problem and visually pinpoints single impacting device (in red), as well as other impacted devices (in gray).

CA Spectrum topology map—a clear visual of faults and impact

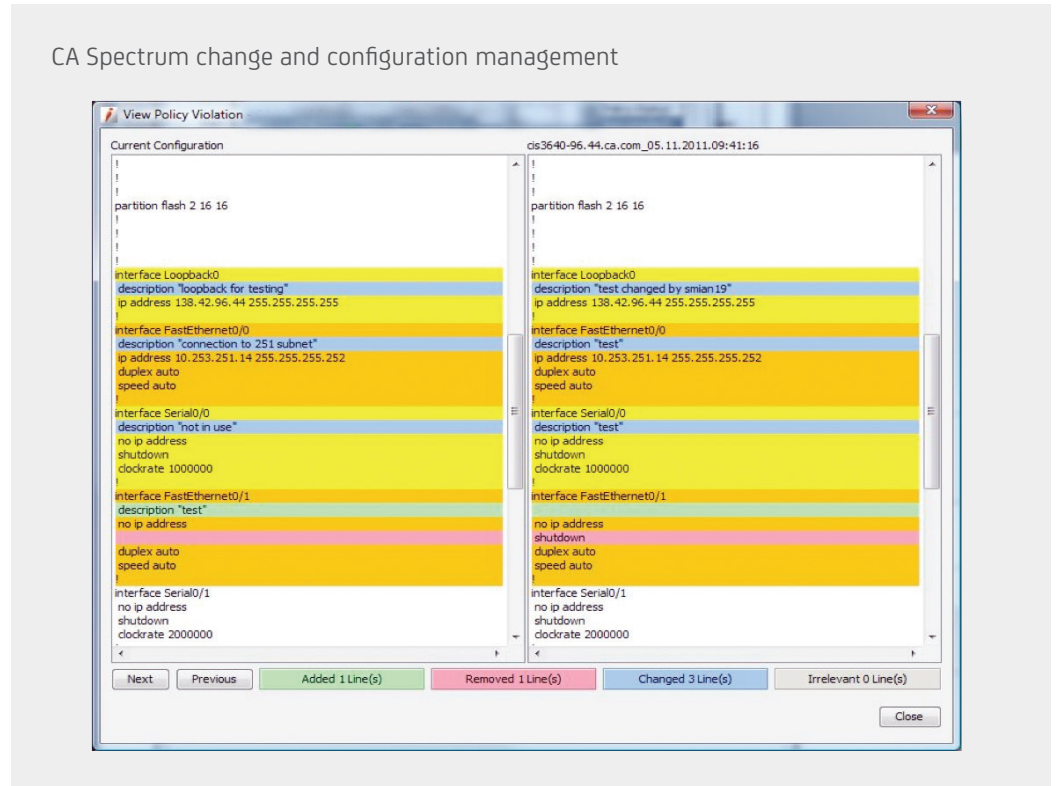


- CA Spectrum change-awareness is tightly integrated with its root cause and service impact analysis and offers change approval control, scheduling for change automation and reporting with details on the who, what and when of configuration changes. It is integrated with CA Service Desk Manager so that changes can be approved before being implemented and supports out-of-the-box Cisco IOS firmware uploads. It also includes the ability to identify a reference configuration and track drift and deviations to maintain compliance, with alarm on violations if required.

CA Spectrum lets you compare any two configurations whether on the same device past and present or on different devices, giving you more choices when doing comparisons.

Figure 3

CA Spectrum change-aware infrastructure management lets you compare details within the configuration file for differences that can represent configuration issues.



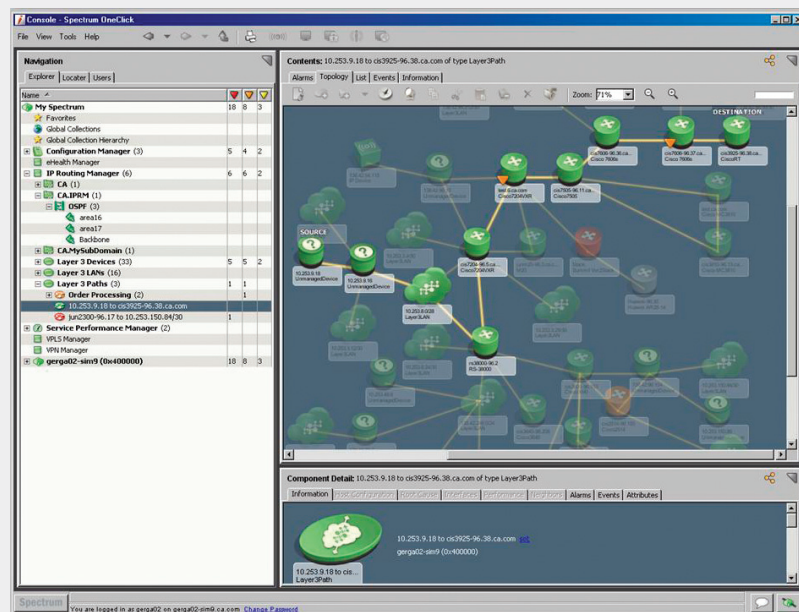
- IP connectivity monitoring:** CA Spectrum's IP Connectivity Monitoring consists of several capabilities that allow for the monitoring and management of various logical IP services that overlay your IP network. MPLS monitoring is delivered by the Enterprise VPN Manager for the customer edge (CE), MPLS-VPN Manager and the VPLS Manager for the provider edge (PE) and MPLS Transport Manager for the traffic-engineered provider core (P). Multicast Manager and QoS Manager offer visibility into these IP logical service domains. The CA Spectrum IP Routing Manager enables detailed visibility at layer 3 and path management; most recently changes have been made to the CA Spectrum IP Routing Manager to enhance Layer 3 path management, simplifying the process to identify root cause.
- Layer 3 Path Management with CA Spectrum IP Routing Manager (CA Spectrum IPRM):** Layer 3 networking issues can be some of the most difficult problems to identify and resolve, particularly against the stringent service-level objectives that most organizations have for network and application availability and performance. CA Spectrum provides the ability to understand the actual path that data traverses between user configurable endpoints. This information provides a real-world view of your network and application traffic as it traverses the network in near real time providing key information into non-optimal or misconfigured layer 3 routes. These capabilities are provided in partnership with Packet Design, the leading route analytics technology provider.

- IPRM is integrated with Packet Design’s Route Explorer (REX) appliance which passively monitors the various layer 3 protocol announcements within your network directly from its peered neighbors. As a passive peer, it monitors network-wide routing protocols and creates an accurate real time model of the layer 3 OSPF topology. In addition to the OSPF topology view, the IPRM solution provides access to additional layer 3 protocol alerts and changes including Prefix State Changes, BGP peering information, flapping events, etc. IPRM also maintains a historical database of the layer 3 routing changes and events within the network that is accessible within Spectrum OneClick to understand how a path has changed over time or for real time path change comparison. CA Spectrum IP Routing Manager is fully integrated with the CA Spectrum OneClick user interface.
- CA Spectrum IPRM provides the ability to create monitored paths between user configurable endpoints within the layer 3 infrastructure providing critical real time access to data paths. The hops within the path can also be modeled within Spectrum to provide key access to layer 2 topology information to assist in rapid root cause analysis. For example, a layer 3 path change may have been introduced by a layer 2 connectivity issue within the path caused by an operStatus change of an interface. This change may not have resulted in an unreachable destination but rather degraded path performance. This kind of issue could not have easily been identified without the layer 3 IPRM path change and history technology in conjunction with the layer 2 CA Spectrum fault isolation technology.

Figure 4

CA Spectrum IP routing manager monitors, models and retains Layer 3 path topology for all applications and provides a clear visual of the path with CA Spectrum OneClick.

CA Spectrum IP routing manager



- **Fault isolation and root cause analysis extended in today's converged data center and emerging cloud environments:** As virtualization becomes more widespread, you need increased application level visibility into virtualized environments and increased ability to isolate faults and pinpoint root cause. Sun Solaris Zones, IBM LPARs, Microsoft Hyper-V, and VMware environments and their associated virtual machines (VM) are discovered and modeled for seamless integration with your physical environment and for an accurate topology of your full infrastructure. A consistent operator experience is maintained across the variety of virtual platforms for simplified management. CA Spectrum OneClick views are supported throughout. By providing centralized event and fault management across physical and virtualized environments, you gain the visibility to confidently deploy production applications in virtualized environments. This can result in greater ROI and operational visibility.
CA Spectrum also supports the Cisco Unified Computing System, discovering and modeling UCS Service Profiles, the UCS chassis, blades and fabric interconnect switches and creates a topology of the UCS environment which allows the user to monitor both the logical association of UCS Service profiles and also visualize the underlying hardware components of the UCS system. CA Spectrum OneClick operations console allows rapid drill-down and locator searches and CA Spectrum fully applies its root cause analysis and alarm correlation to the UCS environment.
- **Easy and customizable report generation through the Spectrum Report Manager:** CA Spectrum provides user-friendly tools that can help enable you to build your own reports and extract data for greater reporting flexibility via comprehensive access to CA Spectrum data. These self-service tools offer easy drag-and-drop report authoring, custom selection of data objects, custom formatting (e.g., layout, chart selection, branding), ad hoc data exploration, and analysis, content sharing, and access to polled “custom attributes.”

Delivery approach

CA Technologies unites professional, support, and education service elements under a single umbrella, providing your entire IT organization a seamless and fluid customer experience.

- CA Professional Services gives you insight and control over technology and deployment efforts to reduce risk and accelerate time-to-value.
- CA Education Services transfers information and insight to help maximize the value of your CA technology.
- CA Support Services helps ensure your continuous success with trusted expert help and robust self-service tools.

Benefits

As a foundational component of Infrastructure Management solutions from CA Technologies, CA Spectrum can help you:

- Demonstrate value to the business by prioritizing incident remediation resources against the most important business service issues
- Improve the time it takes to find and fix problems by as much as 50% through informed and automated event correlation and root cause analysis technology across physical, virtualized and cloud environment
- Diminish the impact of unintended errors to network configurations, which have been shown to cause as much as 80% of all infrastructure issues
- Incorporate new technologies, such as virtualization and cloud services, and integrate their management fully within you existing infrastructure management to maintain end-to-end continuity.

The CA Technologies advantage

CA Spectrum delivers a more effective way to manage your entire service-delivery infrastructure, and it integrates with your existing investments in CA Technologies, third-party, or custom management tools.

For additional information, visit CA Technologies at ca.com/spectrum.

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