

CiscoWorks LAN Management Solution V 4.0 Rocks!

Cisco's announcement of the latest version of the CiscoWorks LAN Management Solution (LMS), their integrated suite of management functions, has plenty of good news for network managers as the changes focus on functions 'near and dear' to any over-loaded network operations manager or administrator. Specifically, it is focused on simplifying the configuration, administration, monitoring and troubleshooting of Cisco® networks.

CiscoWorks has been around for over a decade, marking it as mature product, but one that hasn't been viewed as a particular standout in what has become an increasingly competitive market. CiscoWorks was seen as an adequate, but not overly dynamic nor particularly user-friendly solution. Cisco set out to change that perception.



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Closely tied to Cisco's enterprise vision of the Borderless Network, this new release provides network staff a more accessible and flexible tool to identify and pro-actively manage all network assets and connections. Cisco set itself the simultaneous goals of simplifying the end-to-end management of the borderless network, decreasing operational costs and increasing overall network availability and performance.

Product Overview

First a short word about Cisco's view of the borderless network. Cisco quite rightly notes the blurring of the border between the personal and business persona of business professionals. From being tied to an office or workspace, for many - the workplace has become a highly mobile and moving environment. Mobile staff must have ubiquitous access to not just their e-mail, but also a wide range of applications, tools and enterprise data to do their jobs. Refusing to be tied to a single tool, they make use of Smartphones of all sorts, pads, laptop, netbooks....whatever tool or technology that allows them to do their job better.

Pundits, vendors, Telecom carriers and service providers all forecast an explosion in mobile devices. We cannot forecast with certainty what will be the configuration of the hottest mobile device, but there is no doubt that it will add to the burgeoning load on existing networks, while further complicating the tasks of protecting, securing, updating and accessing the data, services and applications. Cisco sees its role as one of providing the products and services needed to make the network:

1. Personal and Pervasive – through borderless end-point/user services to improve mobility, enrich the workplace experience and enhance video services;
2. Open and Controlled – delivered by means of borderless policy administration, management and smart services;

3. Agile and Efficient – with new and improved network devices.

To deliver on these commitments, Cisco is expanding its Borderless Network architecture and introducing CiscoWorks LAN Management Solution (LMS) 4.0. Enhancement details about Smart Net Total Care for proactive, comprehensive management of installed network and SBA Enterprise, which is a prescriptive design guide for up to 10,000 endpoints, round out the announcement.

LAN Management Solution 4.0

Our attention and interest has been drawn to the enhancements and improvements that appear in CiscoWorks LMS 4.0. The borderless network environment is more demanding and dynamic and as such, it requires enhanced discovery, monitoring, analytics and remediation capabilities from its management solutions. The goal is to avoid problems, when possible, through automated, intelligent change management, which understands the impact of changes before their implementation. Best practices and compliance needs mean the what, who, when and why are tracked and recorded for all changes. If pro-active problem identification and resolution fail, resulting in a service failure or performance problem, enhanced analytics will help speed problem resolution. All of this functionality has to be accessible through a user-friendly installation and operational interface. This is the task of LMS 4.0.

This new version of CiscoWorks LMS comes to market with improvements in usability, troubleshooting and configuration management. Built using Web 2.0 Internet-based standards, LMS allows network operators to manage a borderless network through a browser-based interface that can be accessed anytime from anywhere within the network. It is designed to manage the complete life-cycle of the end-to-end network. Services start with discovery and extend through management, monitoring, troubleshooting, remediation and optimization of network operations and devices. LMS supports over 500 Cisco device families and includes a commitment for day-one device support for all new Cisco platforms.

LMS 4.0 takes a task-based approach to simplify the deployment of Cisco value-added services and technologies. This includes integrated functionality supporting the deployment of Cisco technologies for EnergyWise management, Virtual Routing and Forwarding, CISF and identity management. Special support functions include management of platform specific technologies, such as Virtual Switching Services, Auto Smart Ports, Service Ready Engine (SRE) and Data Center Services Node (DSN). Simplified setup and operations are available for troubleshooting aids, including Embedded Event Manager, Generic Online Diagnostics and Smart Call Home.

With this release, Cisco is introducing LMS Work Centers (see Figure 1 below). The Work Centers provide extensible framework that allows for large-scale lifecycle management of existing and emerging Cisco technologies and solutions. These will highlight key technologies

(e.g. Identity, Smart Install, etc.), as well as make their adoption easier. It provides a way to centrally organize management tasks and aids e.g. a repository for instructional configuration workflows, as well as readiness assessment and remediation aids, etc.

Work Center	Configuration	Monitoring & Reporting
EnergyWise	Large-scale switch configuration Manage EW domains and policies	Power consumption, Cost savings, policy compliance, alarms & events
Identity	Large-scale Identity deployment Day-N configuration changes	ACS integration: Auth success failure trends, user info, login stats
Smart Install	Centrally manage Smart Install Directors Manage client switch configuration and sw images	Smart Install-specific LMS job management
Auto Smartports	Large-scale ASP deployment and day-N configuration changes Event/trigger management MAC-based group configuration	Auto Smartports-specific LMS job management

Figure 1: Cisco LMS Work Centers

Courtesy Cisco Systems, Inc.

PNA Perspective

We think that the Borderless Network architecture enhancements provide some significant advantages for Cisco over its competition. The explosion of the market of mobile apps and devices makes Cisco's extensions there, and in the areas of security, application performance and multi-media services, very impressive. The management of mobile devices themselves, as well as the supporting infrastructure and the continuing explosive growth of applications on and services for these devices, threaten to become a management nightmare.

Dealing with this nightmare will depend upon comprehensive, coordinated, end-to-end management by enterprise IT and communications staffs, as well that of service providers and carriers. Cisco doesn't explicitly call out the problem, but it is evident in their architectural approach and in the sub-context of their solutions, that they are well aware that it exists and will have to be addressed. These products move them toward that goal.

To a degree that has only been a far-off dream in the past, infrastructure service and management solution providers are now more focused in their efforts to provide products whose installation, operation and use is more automated, integrated and user-friendly than ever before. Increasingly, infrastructure and management solution providers are taking steps

to assure that the complexity that accompanies emerging technologies is hidden behind accessible interfaces and installation procedures.

The Final Word

The economic down-turn combined with the resulting cuts in budget and pressures to eliminate staff is changing IT management opinion and behavior. Once leery of built-in automation and intelligence in management tools, the market is now placing a premium on built-in automation and intelligent management solutions. The preferred management solutions today will include out-of-the-box Best Practice processes, management templates and context-driven, user friendly interfaces that improve productivity and accelerate the learning curve of operations staff. The fact that automation and simplification of operations and maintenance tasks frees up the more experienced staff to focus on tasks that drive revenue and increase customer satisfaction makes these new solutions more compelling.

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Rich has over 30 years' experience in systems product management working closely with Fortune 50 companies in developing product direction and strategies at a global level. Previously Ptak held positions as senior vice president at Hurwitz Group and D.H. Brown Associates. Earlier in his career he held engineering and marketing management positions with Western Electric's Electronic Switch Manufacturing Division and Digital Equipment Corporation. He is frequently quoted in major business and trade press. Ptak holds a master's in business administration from the University of Chicago and a master of science in engineering from Kansas State University.