

Solana Brings Affordable Real-time Analysis for Optimizing Network Performance

Highlights

Vendor name: Solana Networks

Product name: FalconView, SmartHawk

Product function: Network analysis and optimization leveraging route analytics

Operating systems: Windows, Linux, Solaris

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Pricing information:

Based on network size

Availability: Now available

Executive Introduction

While the IT management industry is evolving towards technology innovation in a number of areas, affordable, real-time, cohesive management of the networked infrastructure is hard to find. When the need to do this as it maps to application services over the network is added, this capability is rare indeed in the present market. Most solutions are either too siloed, or too cumbersome and expensive, or both.

Solana Networks, with its SmartHawk and FalconView products, has succeeded in developing an effective, real-time troubleshooting capability targeting IP traffic flows over the infrastructure. Solana's products participate in real time, and can scale well to mid-tier and larger networks, providing troubleshooting capabilities involving routing failures, as well as "first-point-of-awareness" insights into performance issues with IP applications as they traverse the network. In doing this, Solana leverages route analytic technology, which allows its solutions to participate in the routed infrastructure with

accurate, real-time awareness of the actual, routed path of IP traffic flows. Solana's strategy also incorporates QoS (Quality of Service) awareness and Layer 2 discovery which can provide a foundation for advanced diagnostics and inventory management. Finally, Solana can also enable "what-if" analysis of persistent problems with insights into optimization and traffic planning using actual rather than simulated data.

Industry Requirements

As business services become ever more IT and network dependent, there is a growing need to provide effective management capabilities to accurately monitor complex and dynamic networks. The trends driving these requirements are highly visible today, and will only become more significant in the future. These include:

- The increasing alignment of business services with IT services for both interacting with new markets, new customers and new partners, and as a foundation for internal business process productivity.
- The need to reach new markets that are geographically dispersed and often global in scope.
- Businesses increasingly depend on supporting a population of workers that are not "on campus" but dispersed in remote offices, or home offices, or traveling. Some industry estimates put the number as high as 80% for employees who work in remote locations in North American businesses today.
- This need to work across geographic sprawl is accelerated by the need to work with partners and contractors that are similarly not "on campus."
- Converged IP services such as VoIP (Voice over Internet Protocol) and IPTV (Internet Protocol Television), as well as ultimately Web Services and Service Oriented Architectures, will demand a more network-aware approach to managing application services overall, while putting stress on network performance due to more complex peer-to-peer and machine-to-machine interaction.

If IT management solutions are to succeed in addressing these and other issues, they will have to provide cohesive visibility across the network, with sensitivity to IP application traffic,

rather than being limited to siloed, component-centric views. In fact, the only hope for addressing these complexities is a “flow-based” insight that can provide context to where and when problems may occur as applications traverse the network in real time.

It should also be pointed out that these requirements touch virtually all businesses – not just large enterprises and service providers, but mid-tier and even smaller enterprises, ISPs, ASPs and MSPs. The reason for this is simple economics. Markets don’t give breaks to smaller businesses when it comes to service performance and service competitiveness. Mid-tier and smaller businesses must, from an IT perspective, deliver the same quality of service as their larger counterparts to consumers, customers, and employees, or expect to suffer unfortunate consequences. Moreover, they must be able to do this with management solutions that honor their requirements for cost-effectiveness, adaptability and low overhead.

Current Technology Limitations

Unfortunately, while there has been and continues to be an enormous amount of innovation in the IT management marketplace, in general product offerings have not been able to keep pace with these accelerating demands. Most platforms remain costly, complex and administratively burdensome, while at the same time not providing the kind of cohesive, integrated visibility needed to address these issues.

Large, complex platforms still provide fragmented views. Many solutions similarly depend on a hodgepodge of data gathering techniques, from polling to agents and probes, many of which do not reflect current technology advances and very few of which provide true real-time awareness. Finally, many of the more exciting advances in management technology require sophisticated and expensive administrative overhead, and are priced well beyond the mid-tier pocketbook.

An Introduction to Solana Networks

Solana Networks, founded in 2003, is a new entrant to the IT management marketplace based in Ottawa, Canada. Solana leverages an innovative technology called “route analytics” in its two products, SmartHawk and FalconView, and goes beyond route analytics in providing detailed insight into QoS classifications and Layer 2 discovery. Solana’s offerings are priced effectively for small and mid-tier enterprises and ISPs, while offering the scalability needed to support growing businesses. The combination of cohesiveness, real-time awareness, and end-to-end visibility make SmartHawk and FalconView a

unique and compelling set of offerings for businesses seeking to take control over network-dependent services.

Route Analytics

Solana leverages a technological foundation in route analytics to provide accurate, dynamic and real-time monitoring of the performance of networked services. Route analytics provides Layer 3 awareness by participating in the network much as it were another routing device “listening” to the routing protocol without the delays and overhead of polling. The advantages of this approach in monitoring the health of networked services are dramatic. They include:

- True real-time awareness of routed application flows as they are actively traversing the network so that problems of any kind relevant to service delivery can be seen and analyzed quickly.
- An in-depth ability to resolve specific routing issues, such as interface flaps, imbalanced network exits, router adjacency loss, and router configuration errors, among others. This can be all the more critical since EMA estimates that more than 60% of network performance issues are due to misconfigurations.
- The ability to provide “what/if” analysis to help resolve persistent problems, or to examine performance tradeoffs when router or switch configurations change.

As such, route analytics can provide not only significant diagnostic value in and of itself, but provide an excellent first point of awareness for assessing any problem involving IP service performance across the network. This includes a first alert for what might be a network problem, or conversely, a problem with the design or performance of the application software.

SmartHawk and FalconView

FalconView is Solana’s solution directly targeted at SMBs (Small-Medium Businesses), with support for up to 50 routers. SmartHawk is scalable to mid-tier and large enterprises. Both solutions offer quick installation and discovery and are packaged as an easily installed network appliance. In one instance, according to Solana, SmartHawk discovered a network supporting 250 nodes and 20 areas in less than 5 minutes. Price points for both solutions are similarly attractive for mid-tier pocketbooks, at \$6,750 to \$35,000.

A closer look at FalconView and SmartHawk’s functional versatility – includes:

- The capabilities characterized above as extensions of route analytics
- Existing support for Open Shortest Path First (OSPF), IS-IS, soon to be released support for Border Gateway Protocol (BGP)
- Support for MPLS environments in mid 2006 (SmartHawk)
- The ability to monitor QoS settings as they're impacting service delivery across the infrastructure
- Link utilization (color coding of link usage) and bandwidth tracking
- Vendor agnostic capabilities (Cisco, Nortel, Extreme, Juniper, Redback, Foundry, etc.)
- Layer 2 discovery to support correlated analysis of routing issues with physical topologies (soon to be released)
- Proven support for VoIP monitoring and management

Partnerships and Ecosystem

Solana's portfolio is fundamentally complementary to most existing management investments such as HP OpenView or Ciscoworks. For instance, it is a good "first point of awareness" to support more traditional component-centric event management systems, or component-centric performance management capabilities. And while it is most often used by network engineers and traffic management professionals, Solana can also provide a foundation for better collaboration and dialog across multiple IT teams with direct support for Operations and even application developers and planners seeking to understand how a new service will perform based on existing routing patterns.

Service providers have used Solana solutions to monitor the health of their infrastructures in support of specific customer services, including enabling VoIP and IPTV. And both FalconView and SmartHawk are also well suited for resellers and VARs (Value-Added Resellers) seeking an effective, low-overhead investment to support broader management services or infrastructure sales.

EMA's Perspective

Solana is a new company and is just becoming visible in the marketplace. As such, it is premature to declare victory for Solana, even given its high levels of innovation; just as it is also premature to fault current limitations in product features—such as lack of support for BGP—which Solana will rapidly address. Overall, EMA is bullish about Solana's potential to bring real value to a marketplace much in need of solutions like FalconView and SmartHawk.

Solana's FalconView offering is a good bet for mid-tier enterprises and smaller organizations looking to exploit a highly affordable advanced technology for holistic, real-time management across the networked infrastructure. Solana's SmartHawk offering is suitable for mid-tier and larger enterprises running OSPF or IS-IS, and soon BGP and MPLS (Multi-Protocol Label Switching) environments as well. EMA especially likes the combination of affordability; deployability and adaptability with solidly advanced functionality that answers many critical IT needs.

EMA believes that Solana is technologically well positioned to excel in the IT management market and is positive about the expectations of continued high-levels of innovation from Solana. Solana's challenges will be in "come-to-market" requirements, such as building a broader array of channel partnerships, and in the basic but demanding requirement to create a memorable and visible brand and product position that can rise above the din of a confused and complex marketplace.

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