AdventNet MSP Solutions
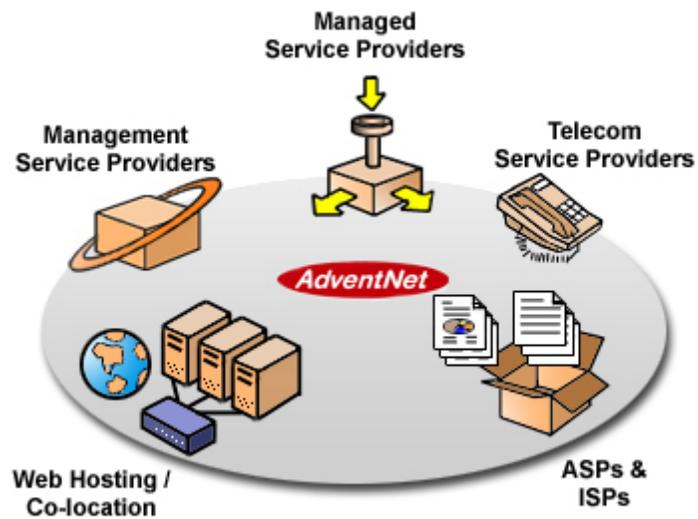
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Executive Summary

AdventNet's solution for Management Service Providers (MSP) envisages a software infrastructure for delivering the services offered by the MSPs. This paper explores the needs of this new market, and describes how the AdventNet solution meets the needs of this market.

The MSP market is characterized by rapid service evolution, and creation of new management services customized to satisfy customer demands. A scalable, distributed, extensible and a rapid evolutionary solution is required to enable the growth of this service.

AdventNet provides the next generation software infrastructure and management service capabilities needed by MSPs. AdventNet's solution places due emphasis on ease-of-use for the service customer, and empowers the MSP to rapidly deliver custom service extensions without heavy investment in proprietary software infrastructure. Our Solutions enable the management services over the Internet so that the customer upon signing up for the service can start using them immediately in real time.

1. Introduction

The enterprise management software solutions available today have not met customer expectations. Customers see these solutions as not delivering enough value, and being too expensive and resource-intensive to setup, install, and maintain. These inadequacies and the coming-of-age of the Application Service Provider (ASP) phenomenon have fuelled the rise and growth of the Management Service Provider (MSP) market. This market has considerable potential due to the many technical, business and market drivers that drive the ASP model of delivering applications to customers.

The needs of the MSP market are considerably different from traditional enterprise management software products. Some of the factors affecting the delivery of a good solution in the MSP market segment are,

- the need to service a large number of customers efficiently
- management products are not equipped to address the growth of MSP services as they cannot scale or be distributed
- the existing solutions are not cost-effective enough. To meet the needs of the MSP market, they require expensive VPN networks to setup the service, an avoidable cost burden.

A new solution, architected with these requirements in mind, is needed to fulfill the potential of the MSP market. AdventNet's distributed platform for building an MSP service over the Internet can be extended and customized for specific needs. This platform enables new and more efficient ways of building and extending an MSP service offering.

The AdventNet Solution is designed to fully address the MSP market needs by leveraging the software platform and capabilities to offer value-added MSP services to customers. In this paper, we describe the architecture and capabilities of this product as it pertains to MSP customers.

The rest of this document is organized as follows. In Section 2, we look at the requirements of the MSP market. In Section 3, we describe the functionality of the AdventNet Solution for the MSP market. Section 4 describes the architecture of the platform, and Section 5 the Management Capabilities. In Section 6, we list some MSP customer benefits to using this product. We conclude with a summary of the key points of this paper.

2. MSP Platform Requirements

A nascent market significantly revolutionized by the Internet and recent technology advancements, is the Application Service Provider (ASP) marketplace. This new wave prognosticates an increasing influence on the way software is delivered to customers. The technical, business, and market drivers for this shift are widely recognized. These include the shortage of skilled IT labor, complexity of technology, pay-as-you-go, low capital requirements, easier inter-working, etc.

An emerging marketplace within the broader ASP market is the Management Service Provider (MSP) market. For this subset of the ASP market as well, the potential is well recognized. Some of the visible limitations for the MSP market are,

- Applications, Network, and Systems Management are rarely seen as core competencies by most enterprises, large or small. Most of these enterprises would be very likely to outsource this function if it made business sense.
- Furthermore, existing management solutions are widely felt by customers to be unsatisfactory, expensive, hard to install, and hard to maintain. The ASP model is therefore expected to win over many customers in the management services arena.
- These management products are simply not architected for this new application and cannot be retrofitted to work with the new services.

The promise of this new market has given rise to a number of new companies serving the management services marketplace. Management application hosting is not the only service offered, and the MSP companies are offering many value-added services in addition to application rental. However, in practically all cases, the management application technology used and offered by these new companies is a key enabler of their service, and needs to evolve and change quickly to keep up with this nascent evolving market.

Let's first look at the platform requirements of these new services, for any service provider serving a market with huge potential, scalability is a primary concern. First, the systems must be able to scale to handle the thousands, or possibly even millions, of customers the MSP is hoping to sign up. Second, the systems must support a large number of customers at reasonable cost, i.e. price to performance should not break the bank. Additionally, the ability to add hardware as the service grows, rather than all at once, makes a huge difference in capital costs and risk for the service provider.

For the new management services offered by MSPs, new architectures for delivering the service to customers are needed. For example, many MSPs are able to offer extranet monitoring readily, while Intranet monitoring for customers is not offered, or requires extensive consultation and setup delays. Legacy products serving the traditional markets cannot support the architectural changes needed for offering these new services quickly. Enabling rapid activation of management services requires a new approach.

Another important requirement for MSP services is the segmentation of customer data. The customer data needs to be properly handled by the management servers, for security, customer views, handling conflicting data, etc. Legacy products are not designed to support the gathering and proper storage and handling of this customer specific data. MSP services need a consistent and careful new approach to handling customer segmentation.

Any observer of the MSP market will realize that the services being offered are only a small subset of the services to come. This new model enables a lot of new services and capabilities that have not been considered yet. This essentially means that only fast evolving implementations can keep up with the growth of the applications and technology. Therefore there is a critical need for solutions where rapid change and evolution is designed-in.

In order to support rapid evolution, as well as rapid new service delivery, it is necessary to have an extensible solution, i.e. one that can be extended by MSPs. This solution should allow MSPs to rapidly add new capabilities themselves, to serve specific customers or customer segments they wish to target. It is necessary to make the development of these new services and extensions as simple as possible, to empower the broadest set of service development personnel. This will allow for powerful growth of the services based on this solution.

Given that the set of capabilities will grow rapidly, making the setup and provisioning of these services easy and dynamic is very important. To support this function, the need is for a solution where portability and multi-platform support is available. Enabling new services easily requires the ability to add these services dynamically, in an automated way. The same requirement applies to the upgrade of services with new functionality and fixes. Therefore, automation of upgrades and new services is needed for a successful evolving service.

To support all the above requirements, and many emerging new requirements, existing management products are quite inadequate. A new approach is needed, with a different architectural approach that is designed to address the MSP needs. Some MSPs would consider building their own software platforms, but will soon feel the pressure to focus on the management

services and integration, rather than the management application software infrastructure. The most successful MSPs will combine the benefits of a widely used management infrastructure designed for their needs, with the domain expertise and value-added services most desired by their customers.

In the next section, we look at new infrastructure products supporting MSPs, i.e. Management Services Delivery Platforms. We will see how these new products enable the revolution in management services by providing a whole new way of delivering value to customers. We will describe the new technologies that are making this possible, and how these capabilities will evolve and grow.

3. AdventNet Management Services Provider Solution

The AdventNet Management Services Provider Solution enables rapid deployment of management services, and enables:

- New kinds of management services
- New ways of activating and upgrading management services
- And new ways of marketing and selling management services over the Internet

One of the key drivers for ASP customers, and MSP customers too, is reducing the deployment intervals. A major issue with most existing management solutions is the time and effort needed to install, setup and use. Not to mention the expertise needed for these tasks. With the AdventNet Solution for MSPs, the new management services will be immediately available to customers over the Internet. The customer can start using the service within minutes of signing up for the service.

The AdventNet Solution for MSPs will change the economics of offering management services to customers. The architecture will allow offering the service at a fraction of the cost of offering the service using existing management products. This will be a key driver for customers shifting from existing enterprise software solutions to this new model of management services.

The architecture of the new solution will enable all kinds of new value-added services from MSPs. For example, the network configuration and performance data is available to the experts at the MSP site, and can be interpreted and analyzed when desired by the customer at significant value.

The new model enables new revenue sources for MSPs, with greater efficiency than previously feasible.

A critical aspect of the AdventNet Solution for MSPs is that it is designed for rapid evolution. The strength of this new model of delivering management to customers is that it enables new capabilities and upgrades with minimal effort, and will result in an acceleration of the addition of new features and capabilities. The service platform evolution will soon outstrip the ability of legacy platforms to keep up with the many changes and enhancements.

In addition, the AdventNet Solution for MSPs will enable quick custom extensions by the MSP whereby new management capabilities are added for specific needs. The ability to dynamically add new capabilities and services will permit dynamic service provisioning. Flexible customer configuration of the service is another benefit of the new platform.

AdventNet Solution for MSPs serves as a Management Services Delivery Platform. In the next section, we will look at the architecture of AdventNet Solution for MSPs.

4. Architecture

The architecture for AdventNet's Solution for Management Service Providers (Management Services Delivery Platform™) is illustrated below. It is a distributed platform consisting of multiple components, including:

- Relational Database
- Web NMS MSP Server
- Web NMS Front End Servers
- Report Server
- Software Probes

The first four of these components would run at the MSP site. All of these components could be on distributed systems. One or more front-end servers can be added as needed to scale the number of simultaneous users accessing the system.

The software probes reside on customer site and support multiple platforms. These software probes do many of the management tasks, including network discovery, monitoring, etc.
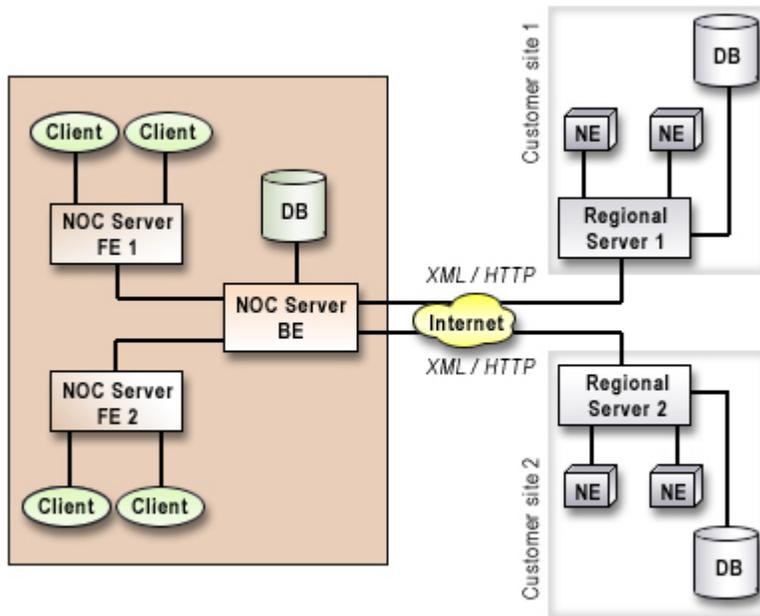
The first step is the service activation, where the customer signs up for the management service. This step would be done via the portal at the MSP site over the Internet. The customer would then download the probe to his site, and install and run the probe on his computer inside his firewall. The multi-platform support allows the customer to use the platform of his choice to run the software probes.

As part of sign-up, the customer configures the service capabilities desired for his service. The customer can specify a little or a lot of the service details, based on his knowledge level. The probe will discover and monitor the resources as specified by the customer. The probe uses HTTP to communicate with the server at the MSP site. All the management data required is sent to the server, including events and performance data. The data passes through any firewalls configured at the site where the probe is used.

The server components serve as the management portal for the Customer, from where the Customer can access all available information on the managed resources. The Customer can reconfigure and setup the probe using the portal functions. The server portal also provides reports using the Report Server for scheduled and on-demand reporting.

All the uploaded data is saved in a relational database, from which many kinds of applications and reports can be derived. The server includes a web server and tools including Servlets, Java Server Pages, Report Generation, etc., that enable rapid development of new applications.

The above architecture enables offering these management services over the Internet, for Intranet and Extranet management, with no need for a VPN or other dedicated access. This reduces the cost and complexity of implementing management solutions for MSPs.

5. Management Capabilities

The following are some of the many management capabilities of the AdventNet's Solution for MSPs.

Service-level Management: The AdventNet's Solution for MSPs includes management of services, which consist of a configurable set of resources. This allows managing services instead of individual resources.

Application Management: The application management capabilities include Web server management, FTP servers, mail (SMTP, POP3, IMAP4), DHCP, DNS, Printers, and Databases.

Network Management: The network management capabilities include IP and SNMP nodes and devices, i.e. routers, switches, printers, as well as other systems and devices supporting SNMP management.

Availability: The availability of services and resources is monitored and managed.

Alarms: The alarms based on faults and performance thresholds are monitored and managed by the AdventNet Web NMS MSP Edition.

Performance: The response time measurements and other performance information is monitored and managed.

Reports: The scheduled and on-demand reporting on all managed resources and services is supported.

In addition to the above services, many new services will rapidly become available with the new platform. These include Security Management, Policy-based configuration management, RMON based performance management, Unix and NT server management, Application Server management, etc.

6. Customer Benefits

AdventNet's Solution for MSPs provides many benefits to end customers as well as MSP service providers. Some of the important product benefits for end customers are summarized below.

Service Install: AdventNet's Solution for MSPs will result in the customer being able to use management services within minutes of initiating the request for the service.

Higher value, Pay-as-you-go: AdventNet's Solution for MSPs gives end customers a better value and the benefits of the pay-as-you go ASP approach.

Service Configuration: Customers can readily reconfigure their services by simply configuring the service through the portal.

Universal Access: Due to the portal approach to management, customers can get access to their management information from anywhere.

Ease-of-use: AdventNet's Solution for MSPs enables management services that are a snap to sign-up for and use, versus the huge startup and use costs of existing products.

Easy Upgrades: With the new model of service delivery, and the platform features, upgrades are automatically available to customer who can avoid time consuming upgrades.

Minimal Risk: Customers can try the service quickly, as well as activate and deactivate services readily. This minimizes the risk for the customer in making new choices.

New Capabilities: Due to the automatic upgrades, customers automatically get all the new features and capabilities added on an ongoing basis.

7. Summary

We are seeing a revolutionary change in the applications, network and systems management marketplace, where the Internet and new technologies are changing the way management applications and services are delivered to customers. These new services will be offered by management service providers, who will benefit from new Management Services Delivery Platforms. AdventNet's Solution for MSPs is the first such platform.

AdventNet's Solution for MSPs and the new MSP model address many common problems with network management today, including application setup delays and lack of expertise for managing these systems. It reduces the cost of such solutions, as well as the complexity of using management applications. It integrates many kinds of applications and permits easy extensibility for new kinds of management applications.

AdventNet's Solution for MSPs is a valuable Management Services Delivery Platform for enabling management services rapidly, easily, and in a cost-effective way. MSPs can more easily offer value-added services and domain expertise of highest value to customers.